Medical Workforce Planning in Europe

Overview and 2022 Preliminary Survey Results

SEPTEMBER 2022
MEDICAL WORKFORCE
COMMITTEE 2022 — MWF PLANNING

MEDICAL WORKFORCE COMMITTEE
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Executive Summary

This document aims at providing an overview of the situation of Medical Workforce Planning (MWFP) in Europe and at shedding light to the main challenges this matter might pose on Junior Doctors. It will be a starting point of the work which the European Junior Doctors (EJD) will undertake during the upcoming years since the General Assembly and the Executive Committee have decided that this topic will be one of the strategic priorities for the current term.

Europe is transitioning from a period of surplus of doctors from the 1980-2000 in which many countries suffered from medical unemployment to a period of scarcity. An ageing population, the increasing incidence of chronic diseases and consumer-based trends in healthcare are factors which are increasing demand in healthcare to a higher rate than population growth. We are also observing paradigm shifts in the composition of the workforce in terms of gender (51,5% of the medical workforce is currently female) and the consolidation of the free mobility of physicians in EU-countries. The first part of the document will be dedicated to summarizing the existing evidence on the state of the medical workforce, the relevant sources of information and the existing initiatives.

Junior Doctor's perspectives have not been properly considered when it comes to MWFP; consequently, the second part of the document will lay out the work which our organization has conducted in the past and we will present the general trends which have been analyzed from the results of the preliminary survey conducted on spring 2022.

General Trends

1. Shortage of Doctors
2. Work Overload of JDs Undergoing PGT Programmes
3. Bottlenecks in Transitions of Medical Training
4. Urban / Rural Imbalances of Workforce Shortages
5. Lack of General Practitioners / Family Doctors
6. Insufficient data and Inadequate Planning
7. Braindrain / Emigration
8. Lack of National Graduates
9. Doctors Abandoning the Workforce

1. Overview of MWFP in Europe in the 21st Century

In 2020 there were 1,75 million practicing physicians in EU-27 countries, a figure which has been rising since the 1990s when there were roughly 1,3 million doctors in the continent. This figure rose during the 2013-2020 period at a lower rate than in previous years due to the challenges posed by the 2008 economic crisis. This increase cannot be solely explained by the growth of the European population but also because of the increase in healthcare demand because of an aging population and consumer-based trends in healthcare.[1]

Greece is the country with the highest number of practicing physicians per capita among the EU Member States 619,5/100.000 inhabitants followed by Portugal (548) and Austria (538). Luxembourg and Poland show the lowest per capita ratios in Europe with 298 and 238 respectively.[2]

Most of the doctors who work at the EU are specialists in contrast to Generalist Medical practitioners which account to one third of the total amount (around 500.000). In terms of gender 51,5% of the workforce is female, a figure which has been increasing steadily during the past decades.[1]

During the 1980-2000 period many European countries suffered from medical unemployment due to a surplus of doctors and for the position of being recipients of qualified migratory flows. [3] This problem led to the organization of national and European initiatives which addressed Health Workforce Planning as a central issue in the political agenda. The European Commission has funded several initiatives during the last two decades with the aim of analyzing the situation regarding MWFP and to create methodologies and recommendations which could be implemented by member states. Notwithstanding, the EU

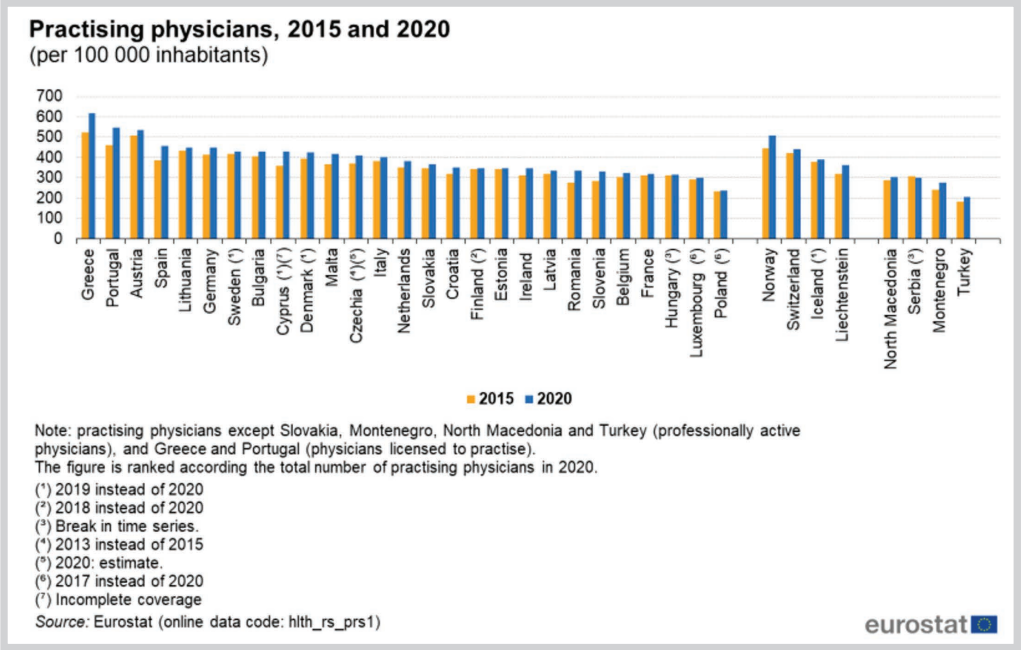

Figure 1. **Practicing physicians in Europe. Eurostat 2022**

Joint Action Health Workforce Planning and Forecasting final report [4] estimated that by the year 2020 15% of demand for healthcare across the EU will not be covered by the available workforce and the estimated shortage of physicians would be of up to 230.000. Traditional planning methodologies relied on an input/output model which consisted in determining the gross number of doctors which entered and exited the workforce. Countries did not possess monitoring systems and the regulation was mostly based on *numerus clausus*, the increase or decrease of the number of graduates. These methods did not factor in the increase in demand and resource availability and only considered population growth. The consequences of these policies were already mentioned: mostly imbalances in the workforce (surplus and deficit cycles).

During the first decade of the 21st century new MWFP models in the European context were developed by different actors in the health sector: the European Union, the World Health Organization, and the OECD. These models are focused on the development of **monitoring systems** which can produce robust and timely data, **analysis**, and operational planning as well as **strategic planning** based on sustainable collaboration between countries. The EU Commission launched a series of projects during the second decade which aimed at fostering national initiatives and coordinating the efforts at the continent:

- Joint Action Health Workforce Planning and Forecasting 2013-16 JAHWF [4]
- Support for the hEalth workforce Planning and forecasting Expert Network 2017-18 SEPEN [5,6]
- Health Workforce Projects Cluster (2021-)

OASES Promoting Evidence-based reforms on medical deserts.

AHEAD Action for health and equity addressing medical deserts

ROUTE HWF A Roadmap OUT of medical deserts into supportive Health Workforce initiatives and policies (ROUTE-HWF)

METEOR Mental Health: a focus on retention of healthcare workers

TASHI Empowering EU health policies on Task Shifting.

New trends have emerged in relation to the workforce. Shortages in the workforce are not evenly distributed through different nations, regions, and specialties. This is particularly important in the urban/rural distribution of professionals; areas which present with a chronic lack of physicians have been conceptualized as medical deserts. Another important issue which has been paid increasing attention is the retention of the workforce in terms of the working conditions and the impact these may have

on doctors' psychosocial wellbeing. We are facing staggering rates of burnout and other mental health issues which are inextricably linked with working conditions.[7]

Mobility between EU-Member States has been consolidated in recent years. However, there are certain initiatives to promote self-sufficient systems which educate an adequate number of health professionals to meet future needs. The WHO has developed ethical recruitment policies in the Global Code of Practice on the International Recruitment of Health Personnel.[8]

2. European Junior Doctor's work in MWFP

European Junior Doctor's (EJD) formerly known as the Permanent Working Group (PWG) of European Junior Doctors was very active in the field of MWFP during the 1980s and 1990s. During those decades there was little information available on this subject and there were no European and few governmental initiatives which addressed health workforce planning. The PWG organized a *medical manpower* conference in 1982 in Maastricht which brought together the most relevant stakeholders in the field to discuss future challenges. In the early 90s several studies were commissioned by the organization to elucidate the magnitude of the problem deriving from the absence of planification. The main findings were:

2.1. Medical Manpower in Europe by the year 2000: from surplus to deficit? 1991

The first study [3] conducted by the EJD/PWG offers a comprehensive picture of the state of the medical workforce at the beginning of the 1990s. In the 1960s and 70s the number of physicians in Europe grew exponentially to meet the populational demands derived from post Second World War population growth (baby boom). According to the study, in 1991 there were 1.05 million active physicians, 40-60.000 of whom were unemployed. Those unemployed doctors were unevenly distributed across Western Europe: 60% of those were in Italy, 23% in Germany, 9% in Spain, 2,9% in Austria and 2,6% in the Netherlands.

One of the main findings of the study was that medical unemployment seemed like a temporary phenomenon in some countries and did not represent a future general trend given that after the 60s and 70s the number of graduates had dropped. What is more, the study forecasted that, at the end of the century, there would be a near balance between supply and demand in many countries of Western Europe due to the retirement of the baby-boom graduates and some countries could be even faced with a shortage of doctors if no actions were taken. Another interesting insight was that the situation of a country did not seem to be related to a country's healthcare system. Lastly, heavy unemployment did not promote greater migration.

2.2. Towards a balance between supply and demand by the year 2000. 1991

The aim of the study [9] was to analyze the data provided by the different member organization to find out the number of physicians in Western European countries, its demographics (age, sex, possible retirement age) as well as their status (employed/unemployed). Once analyzed, a forecasting model

is proposed to theorize the demand and supply of doctors in five to ten years' time. The model considers the average active years and retirement age of physicians, mortality rates, emigration and dropout rates alongside said demographical analysis and considers the different scenarios of healthcare system demand growth (2%, 2,5%, 3%).
It offers an interesting demographical analysis of the workforce during the 1990s and a projection of how it might change during the decade. The main conclusion is that unemployment is unevenly distributed in different countries due to the absence of planification and that correcting these deviations in the short term was virtually impossible due to the amount of time a doctor's training take. It also forecasts that due to the reduction of graduates by the end of the decade a balance between supply and demand will be met. It proposes 3 scenarios of medical workforce growth rate and recommends a 2,5% growth-rate to balance supply and demand by the end of the century. Lastly, due to differences between countries even if the European trend is towards balance, it states the recommendation that it needs to be addressed bearing in mind the particularities of every country and comprehensive plans need to be drafted both at the national and European levels.

2.3. The prognosis holds true: same trend as five years ago. 1996

Five years later, the organization commissioned a report [10] which presents an analysis and update of the model proposed in 1991. It seems like the model was effective in predicting: (1) the decline in the growth of medical workforce (2) the aging of the MWF (3) that the trend of oversupply of doctors would tend towards equilibrium by the end of the decade. Many countries which were faced with medical unemployment were expected to reduce it and many countries could even face a shortage in the MWF.

2.4. Results of Questionnaire: migration of doctors from Eastern Europe. 1994

Migration of doctors within Europe emerges as an area of enquiry after the fall of the USSR, and, in 1992, a survey [11] and a study of migration of physicians from Eastern Europe is commissioned. Results were published two years later and show that less than 1% of the active workforce in Western European countries originated from Easter European countries. They were unevenly distributed within Western European countries, mainly in Germany and there did not seem to be an increase in the study period.

2.5. The 2000-2020 period

Interest in MWF planning seems to have decreased in the 2000-2020 period. In the year 2000 (PWG 2000/039) another survey was commissioned with the aim of updating the studies of the 90s. There were many issues with data collection since many countries did not respond to the survey and others were not able to fill all data.
After this project the EJD was invited to collaborate in several different projects spearheaded by the European Commission. The first initiative was the Joint Action Health Workforce Planning (JAHWF 2013-2016) in which the EJD was invited to participate in several work packages within the project. In 2015, a European conference of the project took place in Rome (Conference on Improving Planning Methodologies and Data across

Europe) and several stakeholders' forums (Madrid 2015) took place annually. In 2018, the EJD was invited to take part in the EU commissions continuation of the JAHWF named SEPEN, which stood for "Support for the health workforce planning and forecasting expert network". It was launched with the aim of implementing and activating a health workforce planning and forecasting expert network with aims aiming to identify and solve real-life problems in workforce planning processes. In 2018-2019 there were several seminars organized within the project, but the EJD was not able to attend. In 2020 the seminars and meeting of the SEPEN network were cancelled due to COVID.

3. Preliminary MWFP Survey

3.1. Aims and objectives

The aim of the survey is to explore the main MFWP challenges different countries suffer from, and the perception which different EJD member organizations have on them, focusing on commonalities and differences. Another objective was to understand the needs of different JD's national organizations and gather information about the relevant sources of information.

3.2. Methodology

We used an open question survey comprising three questions:

1. Could you explain in your organization's view what are the main challenges regarding MWFP in your country?

2. Which kind of information would be useful / would you like to have regarding this topic?

3. Are there any relevant documents / reports which you think would be of interest? If so, could you provide the document or the link to it.

The survey answers were analyzed to figure out the main trends which different countries expressed in their open answers with emphasis in those answers which could be clustered in different groups or general trends. Firstly, commonalities were laid out and in the end the differences which existed between countries were also analyzed.

3.3. Results

13 countries out of the 22 members of our organization answered the survey.

Participants
Czech Republic
Denmark
Estonia
Finland
Germany
Greece
Italy
Portugal
Slovenia
Spain
Sweden
The Netherlands
UK

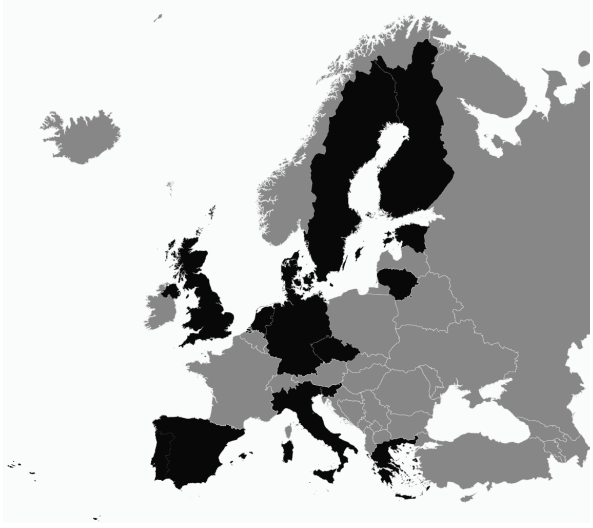

Figure 2. **Participants**

3.4. General Trends

Shortage of doctors

All countries (CZ, DK, ES, FIN, GER, GR, IT, NL, PT, SLO, SPA, SWE, UK) reported a shortage of doctors, particularly specialists. In the last two decades all the respondents have reported an increase in the overall number of doctors and an increase in healthcare demand.

- *Another main challenge in MWFP is the level of vacant posts across the NHS. NHS has also long carried a stubbornly high number of unfilled vacancies; a problem that far predates the pandemic.*

  UNITED KINGDOM

- *The deficit of doctors will continue worsening until 2027, where the cohorts resulting from the increase in graduates and PGT will start entering the market. From 2027 until 2035 the deficit will be reduced, and a small surplus / equilibrium is expected.*

  SPAIN

- *In Germany we experience a shortage of doctors in all sectors. According to surveys by the German Hospital Institute (DKI), 76 per cent of hospitals can hardly find doctors to fill vacant positions.*

  GERMANY

- *In Finland there is a relative shortage of doctors. The overall number of doctors has increased and keeps increasing but they are divided unevenly between primary and specialist care, as well as public and private services.*

  FINLAND

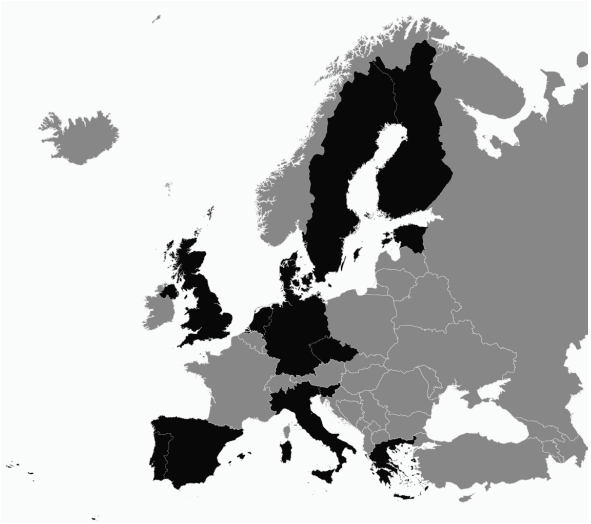

Figure 3. **Shortage of doctors**

Work overload of JDs undergoing PGT programs

8 countries (CZ, ES, GR, IT, PT, SLO, SPA, UK) expressed that the lack of specialists and MWFP issues lead to a work overload of JDs undergoing PGT programs which resulted in increased working hours above the limit of the European Working Time Directive (48h per week) in terms of regular working hours and on-call shifts.

- *Junior doctors are used to covering up the gaps caused by the lack of doctors and a dysfunctional system.*

  SLOVENIA

- *However, while they may be considered students on paper, in practice University Hospitals delegate the vast majority of their services to Junior Doctors. The hypocrisy behind this system has become even more evident during the Pandemic, as essential services such as primary care became severely understaffed, and the parliament suddenly allowed residents to work extra hours as full-fledged specialists in those services in need, but only if no "real" specialist could be found to cover the vacancy.*

  ITALY

Figure 4. **Workload of JDs and PGT programs**

- *It has been challenging to retain medical doctors in the public hospitals, due to deteriorating working conditions, leading to excess workload being carried by junior doctors in training. This in turn, aggravates retention of doctors and creates a self-reinforcing cycle.*

  PORTUGAL
- *The backlog and pandemic have created an environment of chronic stress, and excessive workloads have been normalized by continuously requiring overstretched staff to fill gaps that should not exist. The physical and emotional toll includes rising prevalence of stress, fatigue and burnout. Addressing and mitigating this issue is a major workforce planning challenge.*

  UNITED KINGDOM
- *Foundation Year after graduation (6 months training in regional hospitals & 6 months rural service) will be approved into law resulting in a total transform of obligatory rural service for every junior doctor.*

  GREECE

Bottlenecks in transitions of medical training

8 countries (DK, FIN, GR, IT, NL, PT, SPA, SWE) communicated problems in the transitions between different parts of the training continuum, ie. Access from graduate to postgraduate training, or access from foundation years to specialization. These problems resulted in significant number of doctors not being able to work or loosing time which they could spend working in contexts where doctors are needed.

- *The amount of internship positions is too low. The amount of foundation program positions is not enough. This slows down the road to become a specialist physician.*

  SWEDEN
- *The main challenge in The Netherlands is the mismatch between the amount of medical students getting into medical school and the amount of junior doctors (not in training). We do have around 6000 junior doctors unemployed or working outside of the medical field.*

  THE NETHERLANDS
- Today there is a “first-come-first-served” process, which only depends on the date of graduation from medical school/date of application submission by the candidate. This creates long waiting lists for certain specialties/training hospitals, while other, less “wanted” posts remain vacant for years. Perhaps a more just system should be put in place, with an assessment of candidates either by a national exam and/or personal interview by the PGT programs’ supervisors.

  GREECE

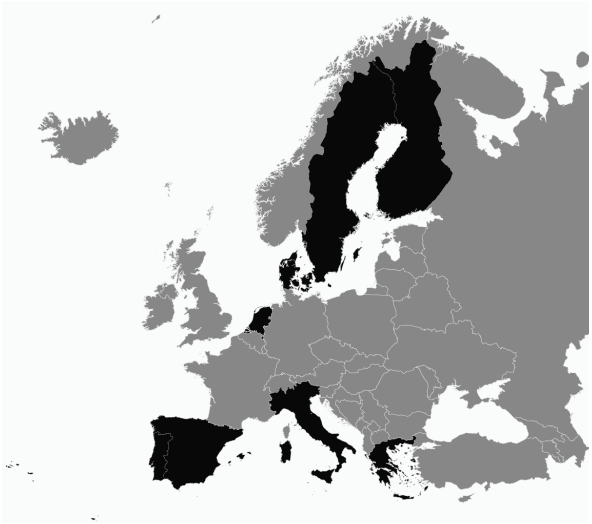

Figure 5. **Bottlenecks in transitions of medical training**

- *From 2008 to 2013, the average number of graduated doctors was met by a similar number of post-graduate training spots, allowing a fluid access to PGT. In the following years this ratio started to decrease, and by 2020 the equivalence was less than 65% (23,756 graduate doctors competed for 14,455 specialty spots).*

ITALY

Urban / Rural imbalance of workforce shortages

9 countries (CZ, DK, ES, FIN, GER, GR, PT, SPA, UK) communicated an imbalance in the workforce shortages between densely populated and rural areas. A concept which is also labeled as medical deserts.

- *However there are many challenges such as medical deserts and working conditions which need to be addressed because there are a lot of inequalities between rural and urban areas and different autonomous regions. Especially those in the south of Spain and peripheral areas such as Canary Islands, Balearic Islands, and in the autonomous cities of Ceuta and Melilla.*

SPAIN

- *The distribution of medical training posts and indeed doctors across the country presents another major challenge for medical workforce planning. Across England, the location of significant numbers of specialty training investment / posts is based on historical arrangements and is not equitably reflective of current or future patient need.*

UNITED KINGDOM

- *In Denmark the lack of specialist especially in rural parts of the country may compromise the quality of patient care as well as PGT.*

DENMARK

- *Regional deficit of family doctors and certain specialists.*

ESTONIA

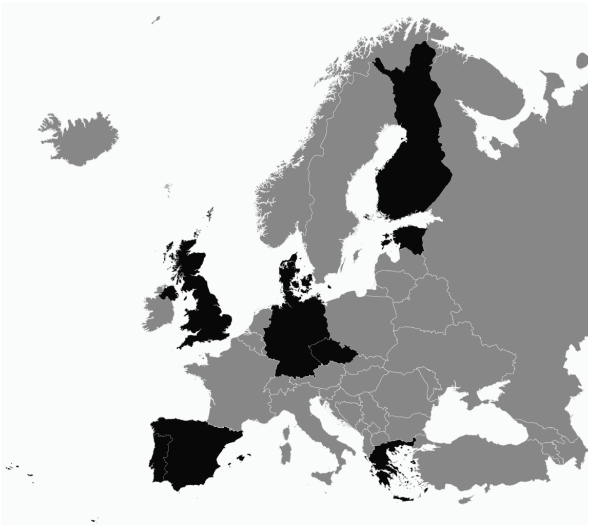

Figure 6. **Urban / Rural imbalance of workforce shortages**

Lack of General Practitioners / Family Doctors

6 countries (DK, ES, FIN, SPA, SWE, UK) reported a lack of general practitioners or family doctors in their workforce compared to hospital care doctors.

- *Undersized primary health care. There are not enough primary health care physicians to take care of the elderly population.*

  SWEDEN

- *The lack of general practitioners means that a large portion of the population doesn't have a regular GP. A new health proposed by the government and supported by a broad majority of the parties in parliament seeks to deal with the lack of GP's.*

  DENMARK

- *Hence, it seems rather evident that specialist care has received substantially more workforce resources compared to primary care. This has led to chronic lack of service in primary care.*

  FINLAND

- *There is a lack of trained family doctors which according to the most recent estimate in 2022 affects over 10% of the Portuguese population. This results in greater difficulty in accessing primary care appointments, as well as specialist referrals within the public system, which are usually performed by general practitioners. We believe this is one of the reasons for increased affluence to the hospital emergency room, which is often the easier way to access health care at the expense of draining hospital human resources to emergency shifts and increasing backlog in hospital elective care.*

  PORTUGAL

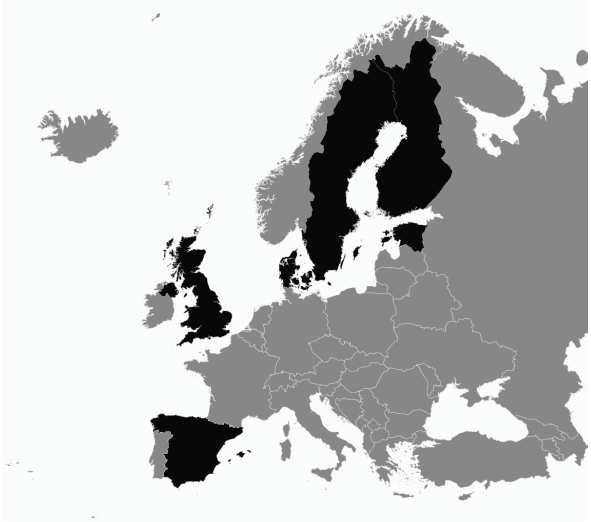

Figure 7. **Lack of General Practitioners / Family Doctors**

Insufficient data / Inadequate planning

8 countries (CZ, DK, ES, FIN, GER, GR, PT, SPA, UK) mentioned that the lack of data and inadequate planning were among the major concerns for their organization. Another important aspect is that some organizations mentioned that doctor's voices were not taken into account in the MWFP systems of their countries.

- *Absence of a comprehensive national healthcare needs' map (how many specialists for every specialty/region).*

  GREECE

- *Instead, the government has been successfully promoting the recruitment of doctors with foreign qualifications for the last 10 years. The Marburger Bund welcomes foreign-trained physicians as they make a valuable contribution to the health care of the population. However, we insist that Germany must meet the increasing needs of its aging population now and in future by training a sufficient number of doctors itself.*

  GERMANY

- *Another major issue in Italy is that Junior Doctors are not currently capable of reviewing or assisting the correct future planning of healthcare systems, or of advocating for their PGT rights. By law, a number of Junior Doctor representatives should participate in a committee (the "National Observatory") that oversees and controls residency programs throughout the Country.*

  ITALY

- *The BMA and a coalition of more than 100 organizations supported the Lords' workforce amendment to the Health & Care Bill, championed by Jeremy Hunt in the Commons and Baroness Cumberlege in the Lords. The amendment would have required the Secretary of State for Health and Social Care to publish independent assessments of current and future workforce numbers every two or three years, consistent with Office of Budget Responsibility projections. We believe these assessments are necessary to inform strategic decisions about the funding, workforce planning, regional distribution, and skill mix needed to meet demand.*

  UNITED KINGDOM

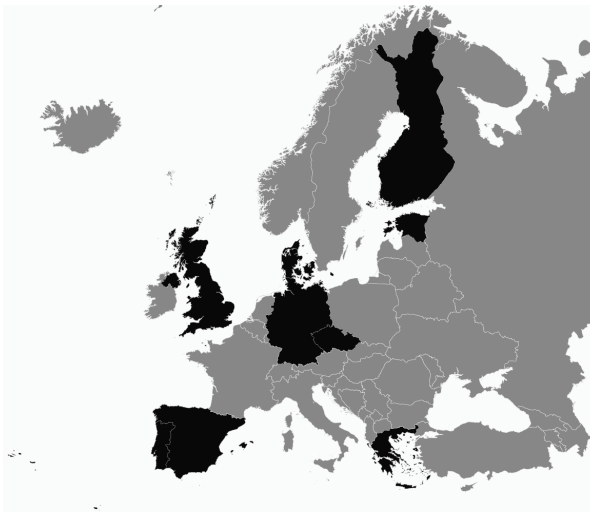

Figure 8. **Insufficient data / Inadequate planning**

Brain Drain / Emigration

4 countries (CZ, ES, GR, SLO) report emigration of doctors and brain drain as a problem to their workforce needs.

- *Emigration of doctors – many young doctors decide to move to Scandinavian countries (especially Finland) after graduation instead of enrolling to the PGT training in Estonia.*

  ESTONIA

- *Brain drain of doctors (residents and specialists).*

  GREECE

- *To slow down the emigration of doctors.*

  CZECH REPUBLIC

- *The fact is that more and more doctors are leaving the country in search of better work conditions.*

  SLOVENIA

Figure 9. **Brain Drain / Emigration**

Lack of national graduates

3 countries reported a lack of national graduates (FIN, GER, UK).

- For many years, the Marburger Bund has been campaigning for an increase in medical study places. Unfortunately, the legislator has not yet sufficiently met our justified demands due to financial reasons.

  GERMANY

- *The BMA has called for the expansion of medical school places by up to 11,000 medical graduates per annum on average over the next three years (£2.7bn per year by 2024/25). There is no doubt that this level of expansion is needed however such an increase in medical school places will require expansion of all parts of the doctor training pipeline from university capacity and infrastructure to hospital training resources, to the number medical academics, observation spaces, and teaching facilities across the entire system.*

  UNITED KINGDOM

- One reason for this may be the great down-regulation of medical education during the 1990s recession in Finland when there was unemployment among doctors. At that time the intake for medical schools was only 350 students yearly compared to around 750 students per year during 1970-80s. The intake was brought back to the 750 students per year level again in 2015. In addition to some 750 students starting their studies yearly in Finland, there are around 1000 Finnish medical students studying abroad mainly in the Baltics and Sweden. Thus, the number of Finnish doctors is constantly increasing even though there is a great retirement wave on-going.

  FINLAND

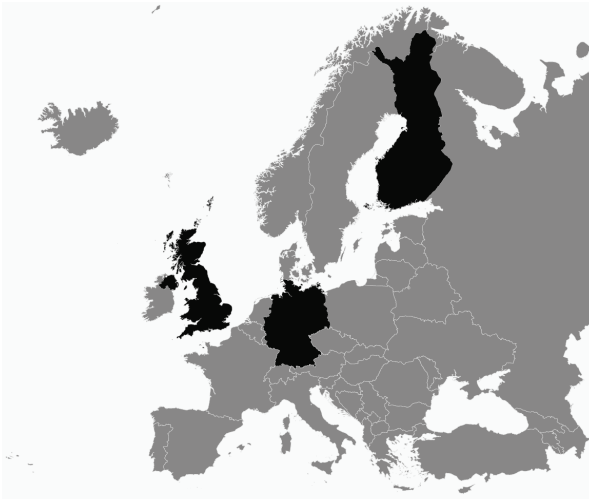

Figure 10. **Lack of national graduates**

Doctors abandoning the workforce: the great resignation?

2 countries (SLO, UK) mention that an emerging issue is that doctors are leaving the workforce and resigning from practice because of the problems regarding MWFP. Further research needs to be done is the area to understand the complexity of the phenomenon and the extent to which it might be affecting different European countries.

- *The fact is that more and more doctors are leaving either the country or the profession in search of better work conditions. It is also seen that a burned-out doctor who works in an unhealthy environment is useless, and this drives a happy junior doctor to lose the spark and the enthusiasm.*

  SLOVENIA

- *A recent BMA survey (Nov 2021) found that over 6 in 10 doctors were suffering from stress and work-related anxiety. In our September survey, 1 in 5 BMA members told us they planned to leave the NHS altogether, and more than 2 in 5 planning to retire early.*

  UNITED KINGDOM

Figure 11. **Doctors abandoning the workforce: the great resignation?**

3.5. Information

Below you can find the information which the respondents claimed was of interest to their national member organizations.

- *Good practices of other countries regarding possible solutions for the above-mentioned MWFP problems.*
- *Proposals for a fair? process for "matching" candidates to available PGT programs.*
- *Any successful examples of "gatekeeping" practices for tertiary care, that don't negatively affect universal healthcare and access to healthcare for the population.*
- *How to combat brain drain of residents/ specialists*
- *What are the base working hours per week of a trainee? Does it include time for study/education?*
- *How many hours per week a trainee dedicates to work, and how many hours do they dedicate to study/education?*
- *Does a trainee work overtime? How many hours per week/year? Is there a maximum legislated? And are they paid for it?*
- *What are the salaries of trainees and senior doctors, and what is the medium salary in their country?*
- *What is the main work done by a doctor with no specialty (public sector and/or private sector)?*
- *What are the strategies the governments have made to improve working conditions?*
- *We would like to have information about different planning systems, the way in which they consider the perspective of JDs and medical organizations and different measures which have proven effective to retain doctors and improve their conditions.*
- *An overview of how other countries have dealt with the need of specialists in rural area (especially GPs / family medicine specialists).*
- *An overview of how other countries decide how many PGT spots to open for a specialty.*
- *MWFP should take into consideration different aspects such as demographic developments (population as a whole and active physicians), numbers of doctors in full-time equivalents, demands of the population for high-quality patient-oriented care, medical advancements, effects of digitalization, the need for a better reconciliation of work and private life of doctors, desire of part-time work during certain periods of life.*
- *We would be happy if we can present the results of our survey at the spring meeting. We are looking forward to the discussion about similar issues in other countries and their strategies to surpass them.*
- *In Europe, how many countries know what number of doctors in training they have?*
- *What is needed for hospital bed (in terms of hospital staff) to be called a hospital bed in the European countries?*
- *We would like to hear some solutions (if possible) for the problem of bottlenecks in the different stages of the training of doctors.*

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