

EURES

EURES Report on Labour Shortages and Surpluses
2025

Analysis of generalist medical practitioners

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Executive summary

- This occupational fiche on generalist medical practitioners (International Standard Classification of Occupations 2211) (also known as general practitioners (GPs)) accompanies the 2025 European employment services (EURES) report on labour shortages and surpluses, and synthesises evidence on the causes of labour market imbalances affecting GPs across EURES countries.
- Data from most EURES countries indicate that, while the overall number of doctors per capita has increased over the past two decades, the proportion of GPs among all doctors has decreased in many countries, indicating a decline in the attractiveness of general medicine as a medical career choice. In 2025, 19 countries in the EURES area reported shortages of GPs.
- The GP workforce is ageing rapidly across EURES countries. In 2024, Italy, Czechia and Austria had the oldest GP workforces, with 59 %, 57 % and 53 % of their professionals, respectively, aged 50 and above. Data from 2024 reveal a balanced gender distribution in general practice, with most EURES countries reporting a share of female GPs of 50 % or higher.
- Most of the GP workforce was born in the EU and most GPs work in their country of birth. The highest proportions of mobile and migrant GPs are reported in Switzerland, Sweden, Germany, Spain and Norway. Some countries rely on foreign-trained doctors, who constitute a consistent portion of their GP workforce. Notably, Luxembourg and Cyprus rely heavily on overseas recruitment, with 100 % and 94 %, respectively, of their physicians being trained abroad.
- The number of physician graduates (either GPs or specialists) per 100 000 inhabitants increased in almost all EURES countries between 2014 and 2023. However, graduate output is rather uneven across EURES countries. In 2023, Malta, Bulgaria and Romania reported the highest rates of physician graduates: between 25 and 35 per 100 000 population. In contrast, Estonia, Norway and France had the lowest rates: around 10 per 100 000 inhabitants. Furthermore, the rapid digitalisation of healthcare systems is transforming primary care delivery, creating demand for new skills among GPs, such as digital literacy, remote care delivery, data management and patient engagement through technology.
- A significant share of GPs work more than 41 hours per week (29.2 %, compared with 13.8 % across all occupations). Exposure to extended working hours is associated with higher rates of anxiety and depression. A significant share of the GP workforce report high stress and time pressure: 82 % of GPs report experiencing stress at work, versus 61 % in other occupations. Moreover, a significant percentage of GPs report difficulties in achieving work–life balance: 63 % of GPs reported that work prevents them from spending time with their family.
- Some EURES countries have introduced emergency and structural measures to address acute GP shortages and facilitate labour market entry. These include financial incentives to attract new GPs; temporary employment arrangements for medical students, retirees and administrative staff; and the introduction of university-level GP training programmes.
- Evidence shows that GP shortages can be mitigated through expanding skills mix models that demonstrably reduce GP workload; increasing training capacity where this leads to measurable workforce growth; using targeted financial and organisational incentives that successfully improve recruitment in underserved areas; and strengthening postgraduate support and flexible training pathways that enhance the attractiveness and accessibility of general practice.

1. Introduction

This occupational fiche provides an overview of the labour market imbalances affecting generalist medical practitioners (also known as general practitioners (GPs)) in European employment services (EURES) countries, focusing on the determinants and drivers of these imbalances. It accompanies the 2025 EURES report on labour shortages and surpluses, which includes a dedicated analysis of the health and care sector. The fiche covers generalist medical practitioners as defined under International Standard Classification of Occupations 2211.

An overview of the occupation's employment size and demographic characteristics is provided in Chapter 2. The drivers of labour market imbalances in this occupation were analysed in relation to the following topics:

- demand for generalist medical practitioners (Chapter 3),
- labour migration and mobility (Chapter 4),
- skills and qualification gaps (Chapter 5),
- working conditions and occupation attractiveness (Chapter 6),
- recruitment practices and retention trends (Chapter 7),
- measures to tackle labour market imbalances (Chapter 8).

This occupational fiche draws on a comprehensive review of the peer-reviewed and grey literature published between 2019 and 2025 across the 31 EURES countries, alongside secondary descriptive data and microdata or special data extractions. Each chapter presents EURES-level findings and, wherever possible, highlights sectoral and country-specific differences.

This fiche also includes key points from a stakeholder focus group. This focus group brought together four participants, each representing a key stakeholder group of the GP occupation. The stakeholders included two social partners and two representatives from education, training and research institutions ⁽¹⁾. Insights from this focus group are presented in boxes throughout the fiche. Given the limited scope of this exercise, the consultation insights presented reflect the comments made during this specific focus group and should not be interpreted as representing the views of all stakeholders relevant to this occupation.

(1) Invitations were extended to representatives of health and care providers and professionals; however, participation could not be secured.

2. Overview of the occupation

Occupation definition and scope

GPs play a pivotal role in the healthcare system, serving as the initial point of contact for patients in primary care and acting as gatekeepers of specialist and hospital care. Their role in primary care is central to ensuring the continuity, coordination and cost-effectiveness of health systems. Beyond primary care, GPs play a vital role in long-term care, particularly in managing chronic conditions and coordinating services across multiple providers. Moreover, they contribute significantly to preventive health efforts and help optimise healthcare resource utilisation by reducing unnecessary specialist consultations, diagnostic procedures and emergency department visits.

Based on this definition, the scope of GPs' activity encompasses several health and care employment settings, namely:

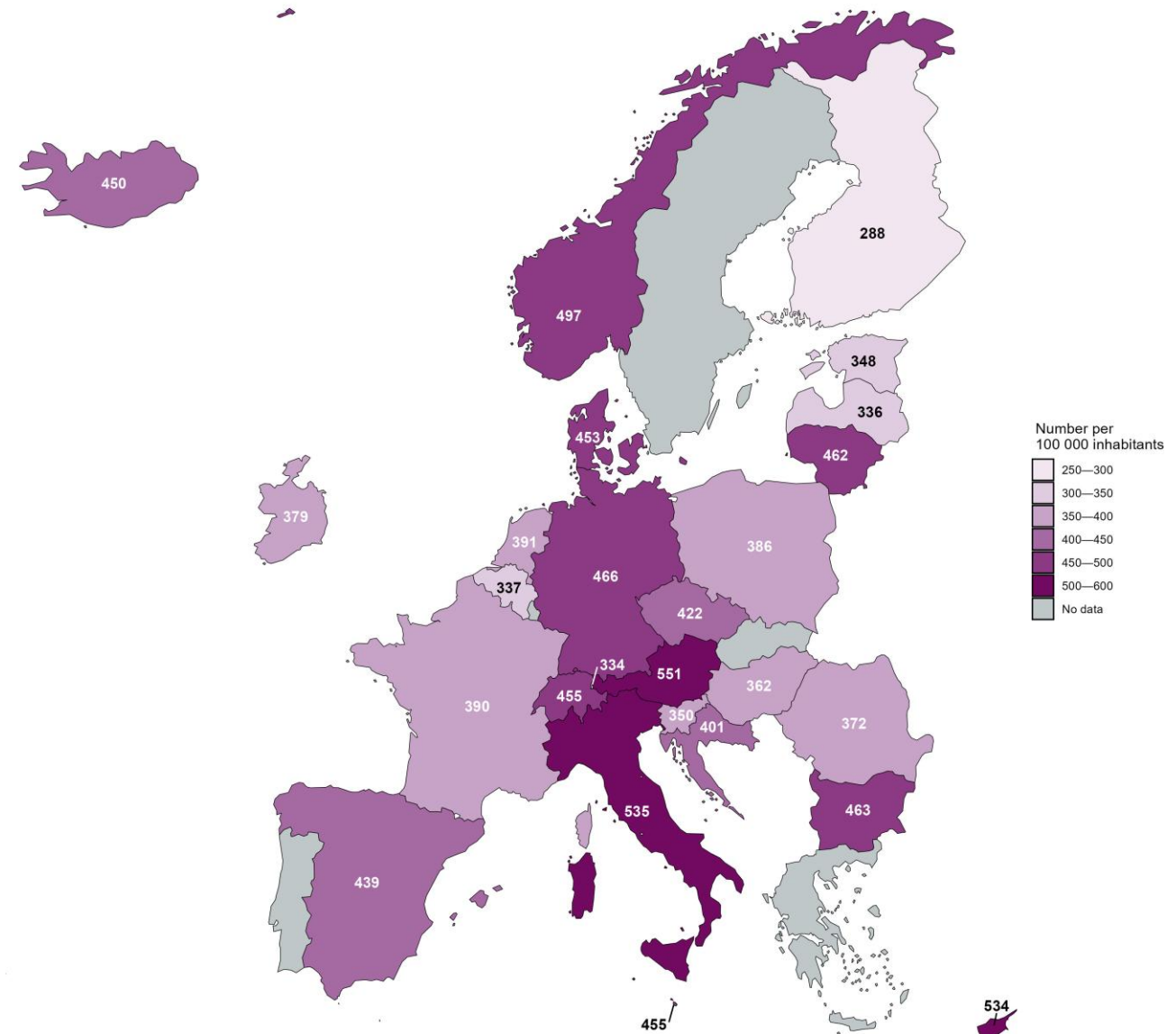
- primary care, where GPs serve as the first point of contact, providing comprehensive, continuous and coordinated healthcare across a wide range of patient needs;
- residential and home care, where GPs provide medical oversight and contribute to care planning for elderly or chronically ill patients;
- hospital care, where GPs may support specialists in coordinating continuity of care, particularly in local or community hospitals, or by managing the follow-up of patients with chronic conditions;

Size of the occupation as an employment category

GPs make up a substantial part of the medical workforce in EURES countries. As of 2022, the EU had approximately 481 000 physicians working as generalist medical practitioners. In 2022, approximately 27 % of practising physicians in the EU were generalist medical practitioners (Eurostat, 2025).

However, the size of the GP workforce varies notably across countries. As shown in Figure 1, the density of physicians in 2023 (whether GPs or specialist medical practitioners) was as high as 500–600 per 100 000 inhabitants in countries such as Cyprus (534 per 100 000 inhabitants), Italy (535) and Austria (551). In contrast, Belgium, Finland, Latvia and Estonia had just 250–350 physicians per 100 000 inhabitants (288 and 337 physicians, respectively, per 100 000 inhabitants). Bulgaria, Denmark, Germany, Lithuania, Malta, Norway, and Switzerland also show high shares of practising physicians compared with the EURES average, all falling within the range of 450–500 physicians per 100 000 inhabitants.

Figure 1: Number of physicians (generalist or specialist medical practitioners) per 100 000 inhabitants by country, EURES, 2023



Source: Eurostat dataset (hlth_rs_prs2) (15 July 2025).

Countries reporting labour shortages and surpluses

As displayed in Table 1, 19 EURES countries reported shortages of GPs in 2025. Despite their central role in healthcare systems, GPs face growing pressures that threaten the sustainability of primary care. Many countries are experiencing a slow-burning crisis marked by long waiting times, physician shortages, unfilled vacancies and increased pressure on emergency services. This trend may reflect a decline in the attractiveness of general medicine as a medical career choice (OECD et al., 2024).

Table 1: Countries reporting labour market imbalances for generalist medical practitioners, 2025

	Countries
Labour shortage	19 countries (Austria, Belgium, Bulgaria, Cyprus, Czechia, Estonia, Finland, Germany, Greece, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden)
Labour surplus	—

NB: NCOs from Iceland, Liechtenstein and Switzerland have not provided data on imbalances.

Source: Data submitted by EURES national coordination offices.

While the overall number of doctors per capita has increased over the past two decades, the proportion of GPs among all doctors has decreased in many countries. For instance, in France, the overall number of healthcare professionals has grown over the past decade, despite the number of GPs per capita steadily declining since 2021. According to future workforce projections, this downward trend is expected to continue until at least 2028 (Or et al., 2023). In a similar way, despite a relatively high number of doctors per capita in Denmark, over 100 000 patients do not have a designated GP, and 1.8 million people live in areas with GP shortages (Okkels Birk et al., 2024). Cyprus has a relatively low proportion of GPs compared with specialists, contributing to an imbalanced and physician-centred healthcare system. As of 2019, only 842 out of 3 768 registered doctors (22.3 %) were GPs, while the majority were specialists in various fields.

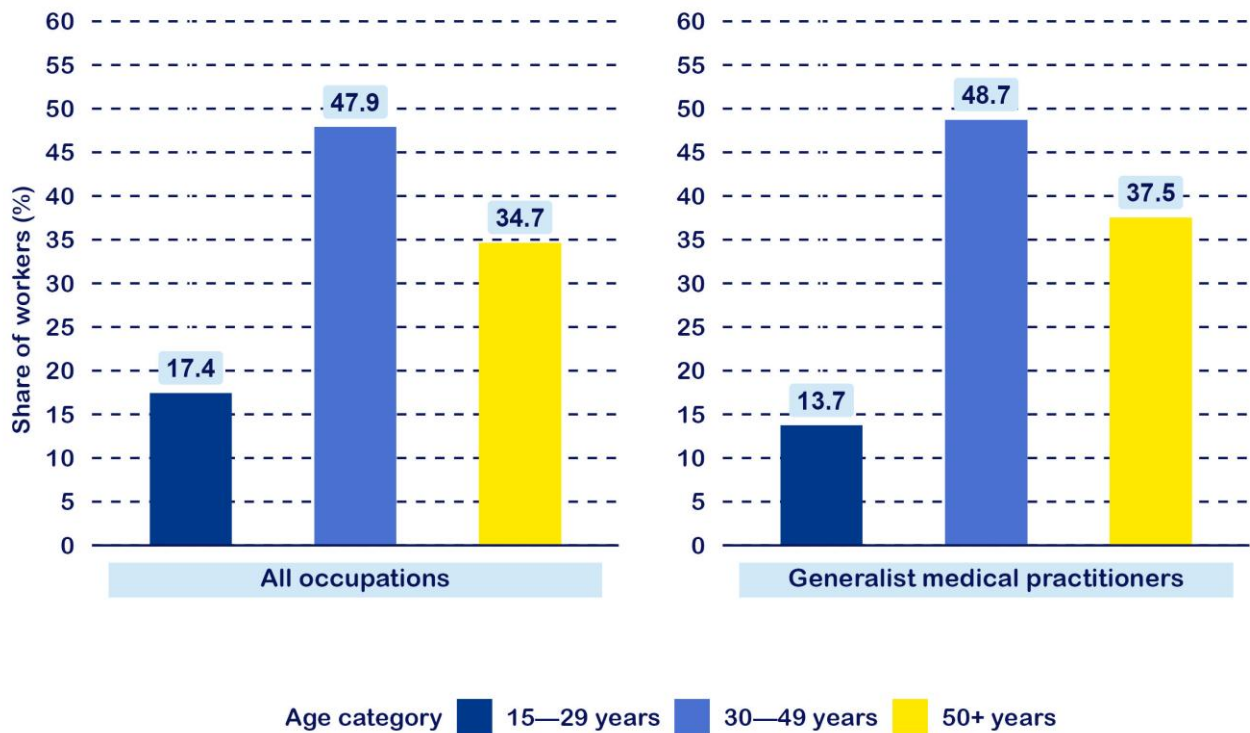
Similarly, in Sweden, the proportion of people with a regular primary care doctor remains relatively low compared with other EU Member States and European Economic Area countries (Janlöv et al., 2023). In Luxembourg, only 36 % of residents had at least one contact with a GP in 2019, a rate lower than neighbouring countries like Belgium (41 %) and France (40 %) (Rausch et al., 2024). Italy also faces challenges, with many regions unable to maintain the recommended limit of 1 500 patients per GP, indicating a shortage in the primary care workforce (Dalla Valle et al., 2024).

In other countries, the number of GPs has remained static over time. In Spain, the number of primary healthcare professionals remained rather stable between 2014 and 2022, with the number of GPs ranging between 76 and 78 per 100 000 people assigned to GP (Bernal-Delgado et al., 2024).

Occupation's demographics

The GP workforce is ageing at a fast rate across several EURES countries, as the share of GPs over 29 is higher than the average for all occupations. Figure 2 shows that almost half of GPs (48.7 %) are aged between 30 and 49 and more than one third (37.5 %) are older than 50, exceeding the shares of occupations across all economic sectors by 0.8 and 2.6 percentage points, respectively.

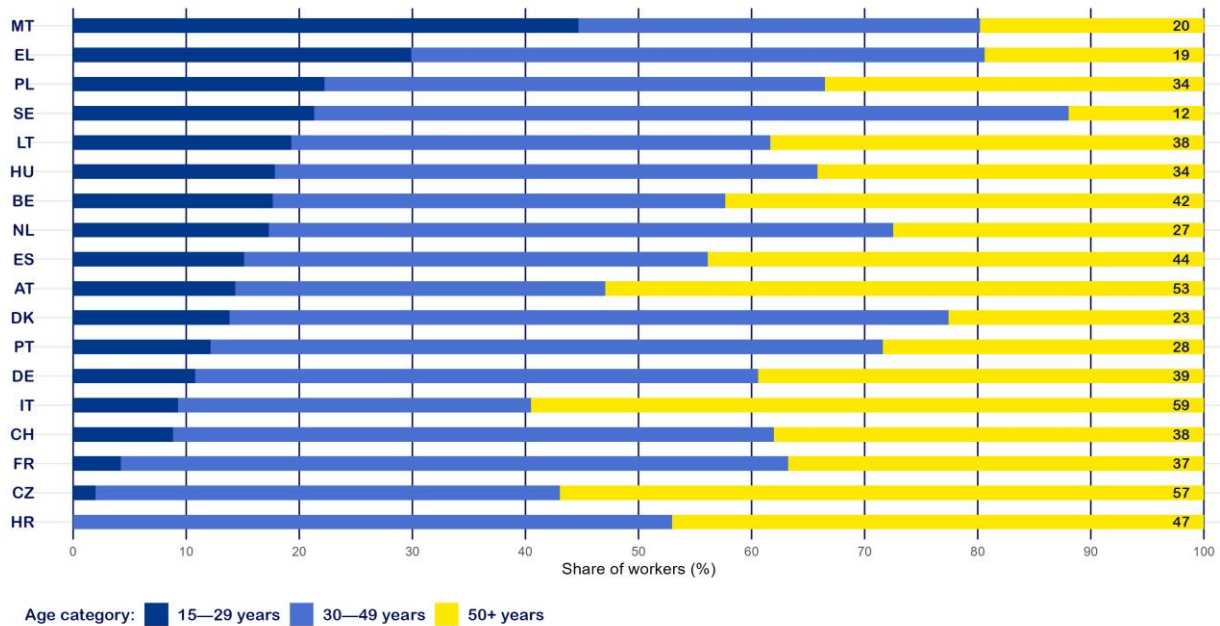
Figure 2: Generalist medical practitioners by age category, EURES, 2024



Source: EU Labour Force Survey special data extraction.

Figure 3 shows notable differences in the age distribution of GPs across countries in 2024. Italy, Czechia and Austria have relatively older GP workforces, with over half of their professionals aged 50 and above. The following countries report consistent but slightly lower shares of GPs aged 50 and older (ranging between 47 % and 37 %): Croatia, Spain, Belgium, Germany, Switzerland, Lithuania, and France. In contrast, Sweden, Greece and Malta have some of the youngest GP workforces, with 80 % or more of their professionals under the age of 50.

Figure 3: Generalist medical practitioners by age category and country, EURES, 2024



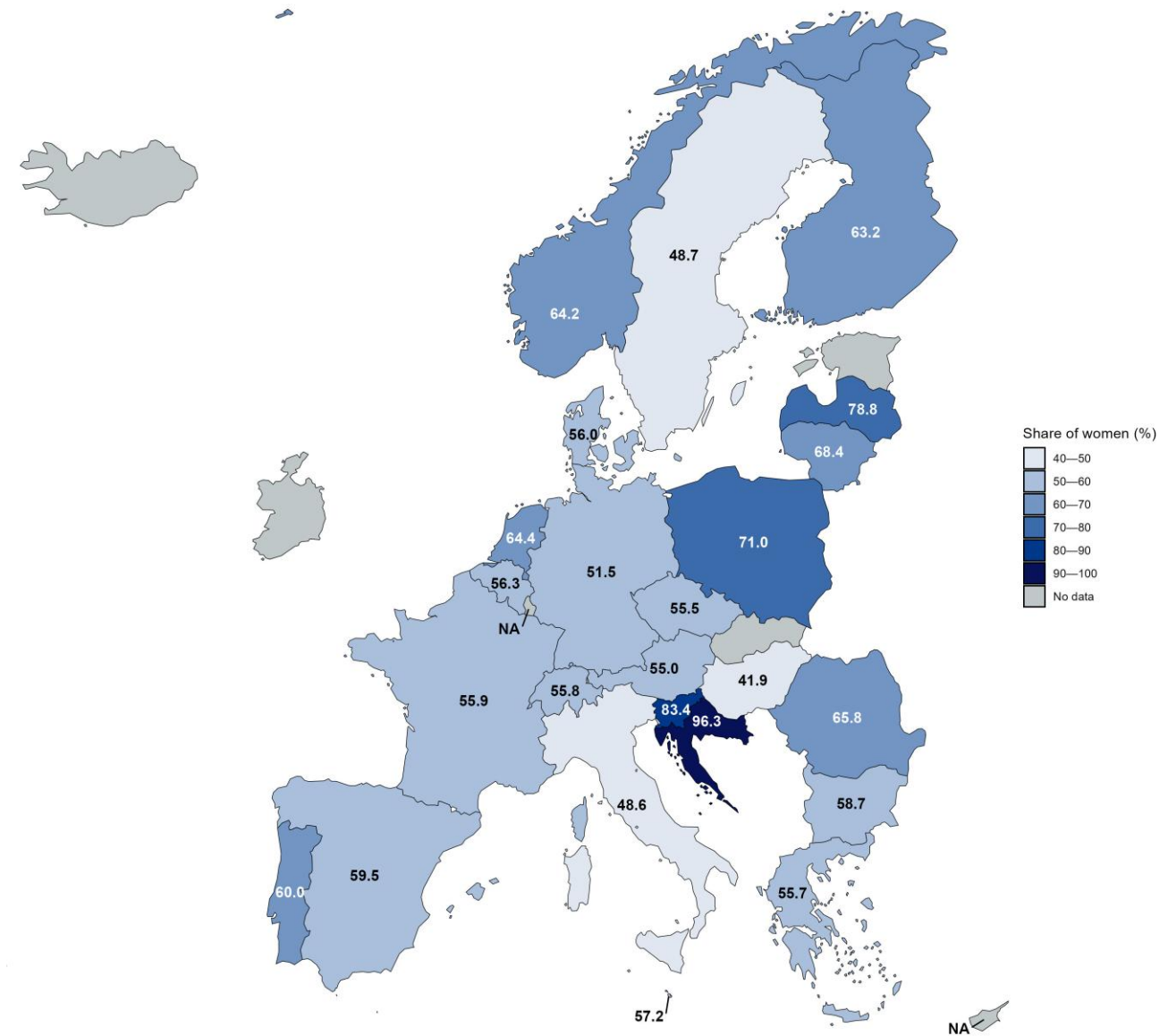
NB: Only for countries with available data.

Source: EU Labour Force Survey special data extraction.

In Italy, projections estimate that over 2 200 GPs will retire annually over the next five years, with some regions facing retirement rates exceeding 70 % of their current workforce. In France, a policy change allowing retired physicians to continue practising while receiving their pensions has contributed to an increasingly older workforce composition. By 2020, retired doctors accounted for 9 % of all physicians with regular activity (Or et al., 2023). Without adequate replacement strategies focused on training and retention, these trends will lead to severe shortages and disruptions in primary care (Bryndová et al., 2023; Dalla Valle et al., 2024).

Data from 2024 (Figure 4) reveal a balanced gender distribution in general practice, with most EURES countries reporting a share of female GPs of 50 % or higher. Among the countries with available data, Hungary, Italy and Sweden report the lowest shares of women among GPs, ranging between 40 % and 50 %. In contrast, the highest shares are observed in Croatia (96.3 %) and Slovenia (83.4 %).

Figure 4: Share of women among generalist medical practitioners by country, EURES, 2024



Source: EU Labour Force Survey special data extraction.

The gender composition of healthcare professionals has shifted notably in recent years, reflecting progress towards gender parity in clinical roles. In Spain, the proportion of female physicians increased from 52.6 % in 2015 to 57.6 % in 2021, remaining above the European average of 52 %. In primary care in Spain, female representation reached 62 % in 2020 (Bernal-Delgado et al., 2024). Luxembourg also saw a rise in female GPs from 33 % to 41 % between 2007 and 2017 (Rausch et al., 2024).

Despite the growing presence of women in clinical roles, gender disparities persist in leadership across healthcare systems. In Spain, women are under-represented in senior roles within healthcare management, professional bodies, academia and research. For instance, during the 2020/2021 academic year, only 26 % of department heads at medical universities were women (Bernal-Delgado et al., 2024).

3. Demand for generalist medical practitioners

Impact of demographic trends

Across EURES countries, rising life expectancy has led to a growing proportion of older adults, who typically require more frequent and complex medical care. This demographic shift places increasing pressure on GPs, who serve as the first point of contact in the healthcare system. In Italy, for example, regions with a higher share of elderly residents also report significantly higher workloads for GPs (Dalla Valle et al., 2024).

As the population lives longer, the prevalence of chronic conditions and age-related health needs grows, placing additional pressure on GPs who are the first point of contact in the health care system. This trend is a major driver of increasing healthcare demand, as demonstrated by countries like Italy, where multi-morbidity accounted for nearly 89 % of home care assistance in 2021 (Dalla Valle et al., 2024).

Impact of seasonal peaks and health system pressure

Over the past two decades, many European countries have reduced hospital bed capacity as part of broader health system reforms aiming to deinstitutionalise some healthcare services and to shift nursing care responsibilities to municipalities. This trend is evident in Denmark, where the number of beds per 100 000 inhabitants dropped from 420 to 252 between 2002 and 2021 (Okkels Birk et al., 2024). Cyprus has also seen a gradual decline in both the public and private sectors: in 2021, the country had 312 acute hospital beds per 100 000 people, well below the EU average of 483 per 100 000 inhabitants (Theodorou et al., 2024). The decline in hospital bed capacity is accompanied by a decrease in the average length of hospital stays.

When hospital beds are limited and in-hospital stays are shorter, primary care providers must absorb the overflow, and their scope of responsibility expands. However, pressure in primary care also increases, particularly during seasonal peaks occurring in the winter months. This pressure is even more acute when proportional increases in primary care resources or GP staffing do not occur. Furthermore, the reduced availability of acute care beds then places additional responsibility on GPs, who must manage post-discharge care and ongoing patient monitoring outside hospital settings.

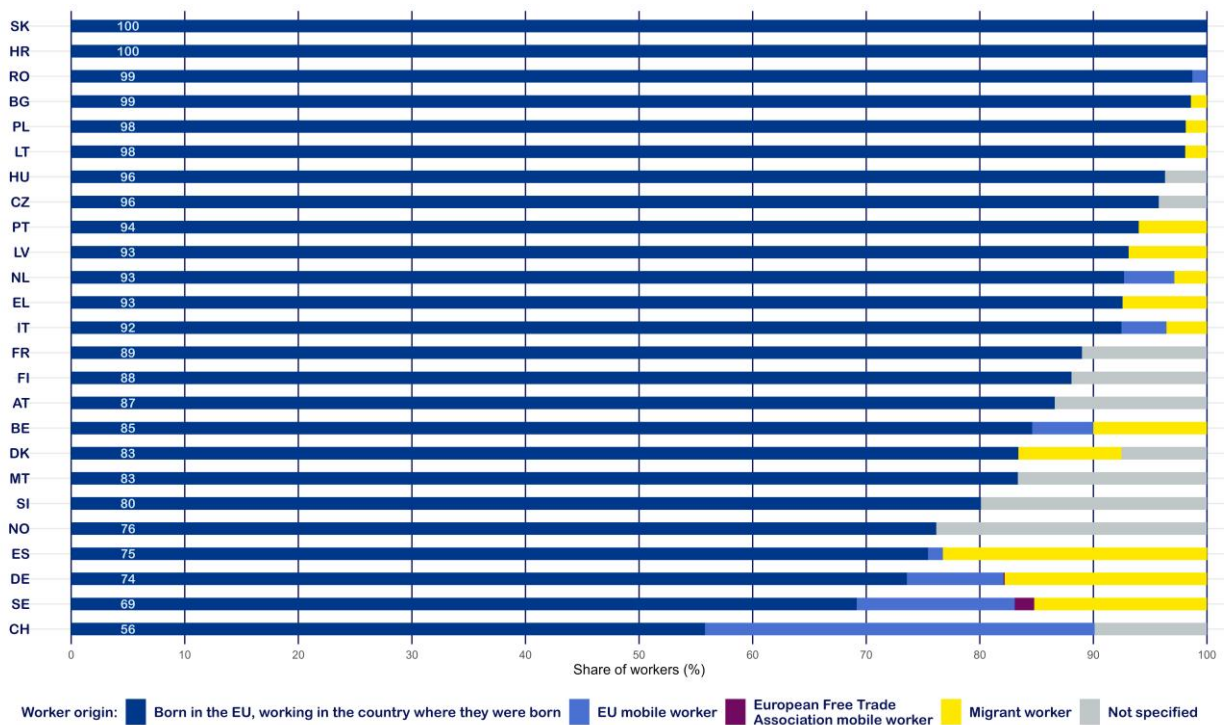
Temporary agency staff are often employed to manage peaks in demand, such as during the winter months or holiday seasons. In Sweden, temporary workers and agency staff are particularly common in rural areas, where shortages in the GP workforce are more pronounced. However, a high dependency on temporary staff may have adverse effects on patients, including reduced quality of care and a lack of continuity in healthcare services. In some countries, such as Sweden, regions are working on reducing their dependency on agency staff to cut costs and increase continuity (Janlöv et al., 2023). These practices must also comply with the EU Temporary Agency Work Directive (European Parliament and Council of the European Union, 2008), which sets minimum standards for the working conditions of agency workers to ensure fair treatment and equal rights to permanent staff.

4. Labour migration and mobility

Patterns in intra-EU migration and migration from non-EURES countries

Labour migration and mobility within the EU and from third countries are important factors shaping the composition of the GP workforce in EURES countries. As shown in Figure 5, the vast majority of countries have a GP workforce made up of those born in the EU and working in their country of birth, while Switzerland, Sweden, Germany and Spain have the highest proportions of mobile (intra-EU/EURES) and migrant GPs.

Figure 5: Country of origin of generalist medical practitioners, EURES, 2024



NB: Only for countries with available data.

Source: EU Labour Force Survey special data extraction.

Some EURES countries are net importers of GPs, using international recruitment to address domestic workforce shortages. For instance, Spain ranks among the top destinations for foreign-trained doctors, with Germany also ranking high. In Spain, prior to the COVID-19 pandemic, inflows peaked at over 6 000 new arrivals in 2019, primarily non-specialist physicians from Latin America. Although numbers dipped during COVID-19, they rebounded in 2021, with over 4 000 new entrants (Bernal-Delgado et al., 2024).

Similarly, in Luxembourg, the limited domestic medical training capacity has led to a strong reliance on foreign-trained general GPs. In 2017, the GP workforce was composed of 68 % Luxembourgish nationals, followed by 14 % French, 7 % Belgian, and 6 % German. Additionally, while 75 % of doctors resided in Luxembourg, a significant portion (25 %) lived in neighbouring countries, highlighting the significance of cross-border migration for the country’s medical workforce (Rausch et al., 2024).

Box 1: Stakeholder consultation: key drivers of labour mobility

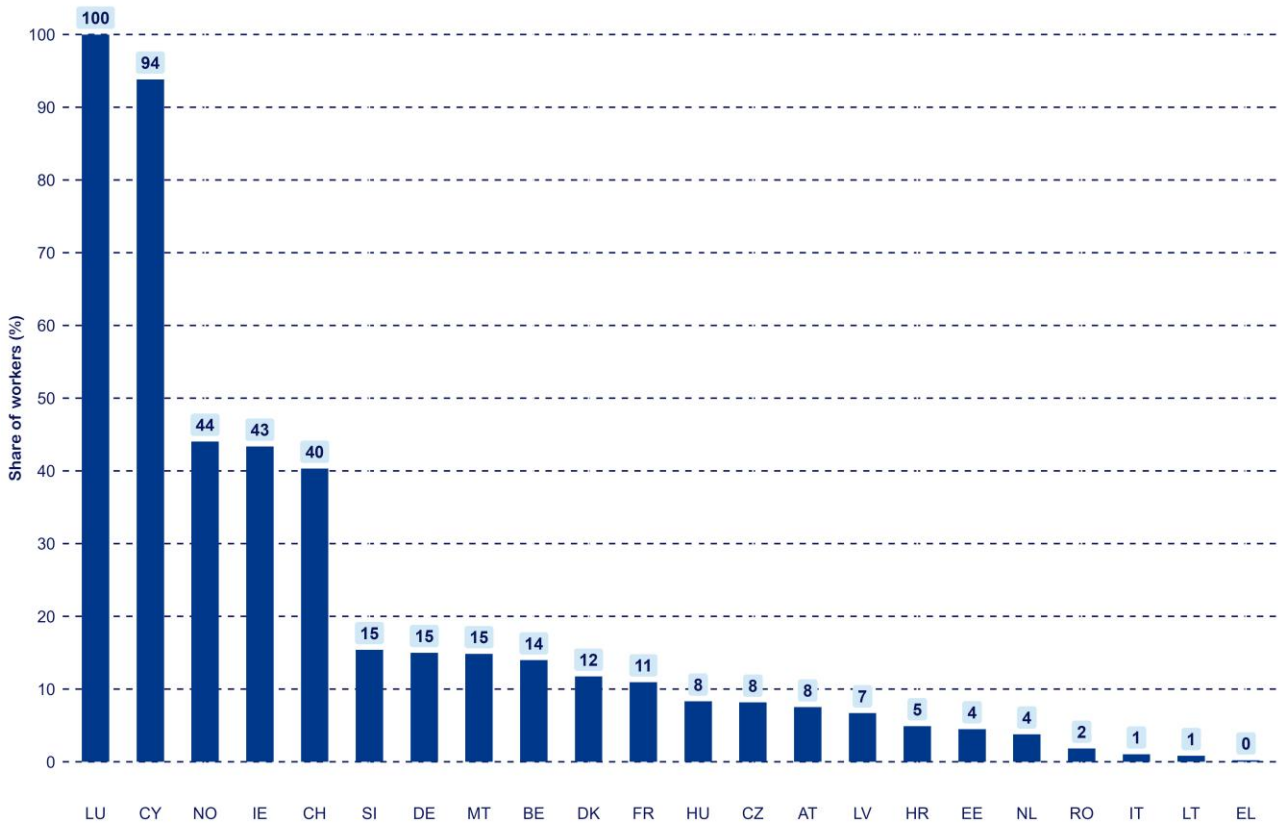
Two stakeholders highlighted that labour mobility among GPs is driven by several underlying factors, including economic conditions, lifestyle preferences and opportunities for professional development. They emphasised that the possibility of engaging in scientific work and research makes the profession more varied and attractive and can influence career decisions.

They also pointed out that job flexibility plays a critical role. In southern Europe, healthcare systems are generally more rigid, with GPs employed by the government, limiting autonomy. In contrast, northern European systems offer greater flexibility, allowing GPs to set their working hours and dedicate time to research or academic activities. Stakeholders also noted that prospects for professional growth remain a key motivator of mobility across regions.

Working conditions are often mentioned as one of the reasons EURES countries struggle to retain or attract GPs. Estonia, for example, faces an outward migration flow of GPs to Finland, where salaries and working conditions are more favourable and language compatibility makes the move fairly easy. Furthermore, young doctors without residency training can work as GPs in Finland, while Estonia requires the completion of a family medicine residency. This regulatory gap contributes to the 'brain drain' of newly trained physicians in Estonia (Kasekamp et al., 2023). In the aftermath of the economic crisis, the number of Spanish physicians requesting the 'certificate of good standing' to work in other Member States nearly doubled between 2012 and 2019 (Bernal-Delgado et al., 2024). In Cyprus, the majority of health professionals, including GPs, are Cypriot citizens who completed their medical education abroad. However, while some foreign-trained doctors return to Cyprus, a significant number choose to stay and work in countries like Germany, Greece, the United Kingdom, and the United States (Theodorou et al., 2024).

As displayed in Figure 6, there are important differences between countries concerning the number of foreign-trained doctors. Notably, Luxembourg and Cyprus rely heavily on overseas recruitment, with 100 % and 94 %, respectively, of their physicians being foreign-trained physicians. While in Norway, Ireland and Switzerland around 40 % of doctors receive their medical training abroad, most other countries report a foreign-trained medical workforce of between 1 % and 15 %.

Figure 6: Share of foreign-trained physicians (generalist or specialist medical practitioners) by country, EURES, 2023



NB: Only for countries with available data.

Source: Eurostat dataset (hlth_rs_wkmg2) (15 July 2025).

Box 2: Stakeholder consultation: challenges in moving across countries

In a focus group, some stakeholders (three) emphasised that moving between countries as a GP depends on the level of medical education in both the country of origin and that of destination. Language was identified as a critical driver: similarities between languages can ease migration and integration, making migration across regions with language similarities, such as Scandinavia, more common.

Stakeholders also noted that intergovernmental programmes and foreign recruitment strategies are increasingly used to address GP shortages. The impact of international university exchanges was also highlighted by one stakeholder. Universities increasingly participate in international exchange programmes, such as Erasmus+, which facilitate student mobility and contribute to higher migration rates among healthcare professionals.

National mobility trends and distribution of general practitioners within countries

Geographical inequalities in the distribution of GPs persist in many countries, leading to underserved areas and reduced access to primary care. In recent decades, attention from policymakers and researchers has increasingly focused on attracting and retaining GPs to address national and regional shortages. Nevertheless, many areas across Europe are underserved. These areas are often referred to as 'medical deserts' due to their limited access to primary care practitioners and GPs.

Rural and remote areas often face greater difficulties in attracting and retaining GPs. In Estonia, although the country has a structured system of designated service areas and practice lists to ensure equitable access, rural areas still face acute shortages. Outside of major cities like Tallinn and Tartu, few doctors are willing to work. As a result, 8 % of patients are served by temporary substitutes, compromising the continuity of care (Kasekamp et al., 2023). In France, 6 % of the population lives in areas with an insufficient GP supply, as GPs are concentrated in affluent urban areas. For example, in the Île-de-France region, GP density is 2.5 times higher in Paris than in the Seine-et-Marne area (Or et al., 2023). Similarly, in Denmark, 1.8 million Danes live in medically underserved areas with too few GPs. These areas are mostly rural or disadvantaged urban zones. Shortages in rural areas imply longer travel distances and longer waiting times for treatment (Okkels Birk et al., 2024).

Unrestricted freedom of settlement, which allows GPs to choose where they practise, is another driver of geographical disparities. In countries like Luxembourg, where GPs enjoy freedom of settlement, density varies significantly across regions. In 2017, it ranged from just 0.19 GPs per 1 000 inhabitants in Vianden to 1.14 per 100 000 inhabitants in Redange. Areas with hospitals tend to have higher concentrations of GPs (Rausch et al., 2024).

As a result of the lower attractiveness of rural areas, these regions experience disproportionately higher vacancy rates for GPs, often resulting in a reliance on temporary or agency staff. In Sweden, for instance, higher vacancy rates for primary care in rural areas have led to a greater dependence on temporary workers, which can negatively affect patient care by reducing continuity and lowering overall quality of care (Janlöv et al., 2023). In Estonia, a beginner's allowance was introduced to incentivise young medical professionals, including GPs, to work in underserved regions. Despite these efforts, staffing shortages remain a key barrier to sustainable and equitable primary care delivery across the country (Kasekamp et al., 2023).

Studies have identified several factors that influence physicians' willingness to work in underserved rural areas, such as having a rural background or exposure to rural settings during medical training. However, many physicians remain reluctant to work in these areas due to perceived challenges like professional and social isolation, heavy workloads, limited career opportunities for partners and lower income. These factors contribute to lower job satisfaction and reduce the attractiveness of the profession in rural areas (Bes et al., 2022).

5. Skills and qualification gaps

Fragmentation in training standards

Training standards for GPs across EURES countries are governed by the Bologna Process (European ministers of education, 1999) and Directive 2005/36/EC (European Parliament et al., 2005), which established minimum training standards for GPs training in the EU. The minimum training required to qualify as a GP includes basic medical education lasting at least 6 years, or 5 500 hours of theoretical and practical instruction, provided by a recognised university or equivalent institution.

Nonetheless, some differences persist across countries, as some have additional training standards to ensure comprehensive preparation. For instance, Estonia requires the completion of a four-year residency programme in addition to the six years of medical study (Kasekamp et al., 2023). In Denmark, medical graduates begin their career as GPs with specialist training, starting with a 12-month introductory phase. Those pursuing general practice continue with four or five years of structured training across various clinical settings, ensuring comprehensive preparation for their role (Okkels Birk et al., 2024). Meanwhile, Cyprus offers a structured six-year undergraduate programme, but its postgraduate training relies heavily on bilateral agreements, particularly with Greece. Selection for residency is competitive and conducted through national exams in Greek (Theodorou et al., 2024).

Box 3: Stakeholder consultation: educational requirements and training standards

Two stakeholders emphasised that Directive 2005/36/EC includes educational requirements, focusing on the distinction between hospital-based and university-based training. While efforts are under way to standardise training requirements, decisions on training content remain country specific. Introducing obligatory educational training standards could be considered, but uniformity is challenging due to contextual differences across countries. Furthermore, the stakeholders consulted stated a preference for focusing on the competencies acquired during training, rather than the duration of training. During the focus group, it was mentioned by two stakeholders that the goal should be to harmonise GP training across Europe based on these competencies rather than training duration and that developing a European curriculum outlining essential skills for doctors is crucial.

They also pointed out that, despite EU directives aiming to simplify cross-border mobility, practical challenges remain. A major barrier is that general practice is not yet formally recognised as a medical specialty across Europe, although this process is under way. Furthermore, barriers to job market access persist; for example, in some countries, foreign-trained doctors are required to complete an internship before entering the job market. The presence of fragmented language requirements was also highlighted, although most countries now demand very high language proficiency, which is essential for safe practice.

Recognition of qualifications and related barriers

GPs are among the occupations subject to automatic recognition across Member States / European Economic Area countries under Directive 2005/36/EC (European Parliament et al., 2005). The harmonised minimum training requirements ensure that a GP trained in one Member State can practise in another without needing to requalify or undergo extensive additional training. In practice, however, the recognition process is often slow and bureaucratic. The European Court of Auditors found in 2024 that the recognition system is 'essential but inconsistently applied' (European Court of Auditors, 2024).

Under Directive 2005/36/EC, 'doctors (medical practitioners)' benefit from automatic recognition across Member States when minimum training standards are met. However, language checks may be carried out as part of the recognition process or as a subsequent requirement.

Language skills are necessary to ensure appropriate access to care and patient satisfaction and to avoid patient safety risks (miscommunication, medication errors, missed symptoms). At the same time, the directive provides that language checks must be proportionate to the language skills that are necessary for the role (European Parliament et al., 2005). Yet, in practice, Member States vary in how and when they assess language skills (e.g. timing of tests, level expected, whether recognition is withheld pending formal certification), producing delays and additional costs (European Court of Auditors, 2024).

As a result, language acts as an important pull factor determining the destination of foreign-trained doctors. For example, Romania is a significant exporter of medical graduates to France thanks to the availability of French-language medical programmes (Or et al., 2023). Similarly, the mobility of Danish doctors is largely limited to the Nordic region due to language compatibility. Between 2019 and 2024, around 2 100 foreign-trained doctors were working in Denmark (Okkels Birk et al., 2024).

GPs from non-EU countries seeking to work in a Member State must have their foreign qualifications evaluated under the host country's national regime, which often involves considering the comparability of training, curricula, clinical hours and licensing exams. If there are substantial differences, applicants may be required to undertake compensation measures (e.g. additional coursework, supervised practice or exams). In such cases, third-country-national GPs can face significant registration and immigration impediments and variable criteria for diploma recognition, often dealing with issues such as complex administrative procedures and cultural or professional adaptation challenges (Allegri et al., 2025).

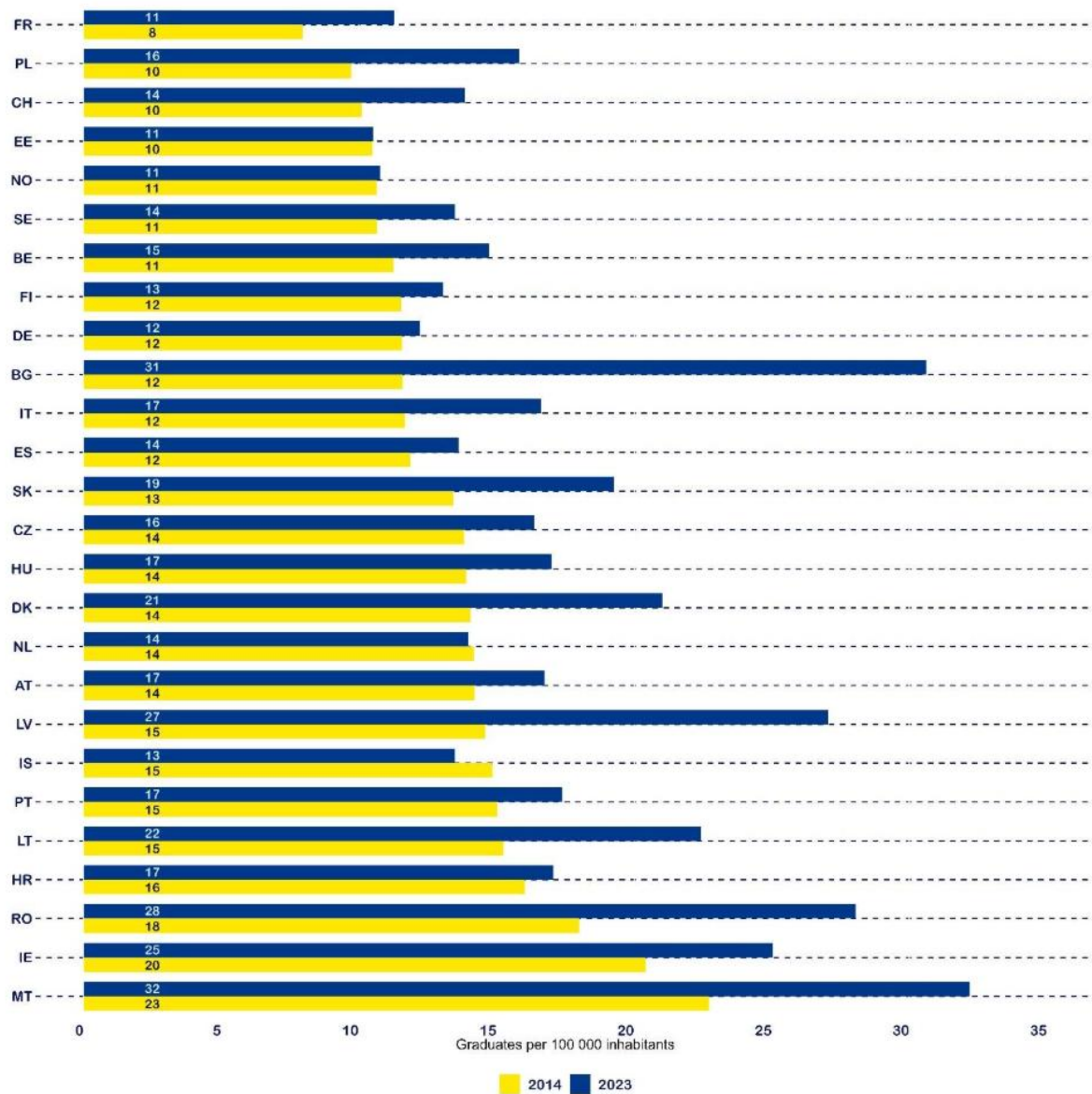
Role of healthcare workforce planning

In countries where responsibility for the implementation of healthcare programmes is devolved to the regional level, the absence of centralised planning has resulted in the uneven distribution of healthcare resources, including GPs. Recruitment is especially challenging in rural areas, where fewer physicians enter specialist training, exacerbating geographical inequalities in access to primary care. For instance, in Sweden, the regions have a high level of responsibility when it comes to planning physical and human resources. The lack of national planning may cause unwanted variations across the country and inefficiencies, such as through an inadequate supply of GPs (Janlöv et al., 2023).

Suitability of medical education systems to meet job market needs

As shown in Figure 7, the number of physician graduates (either GPs or specialists) per 100 000 inhabitants increased in almost all EURES countries between 2014 and 2023. Graduate output is rather uneven across EURES countries. In 2023, Malta, Bulgaria and Romania reported the highest rates of physician graduates: between 25 and 35 per 100 000 people. In contrast, Estonia, Norway and France had the lowest rates: around 10 per 100 000 inhabitants.

Figure 7: Number of physician graduates (generalist or specialist medical practitioners) per 100 000 inhabitants by country, EURES, 2014 and 2023



NB: Only for countries with available data.

Source: Eurostat dataset (hlth_rs_grd2) (15 July 2025).

The expansion of training programmes is a key strategy used by several countries to strengthen the GP workforce and improve access to care. In France, a reform was introduced through the 2023 Health Insurance Financing Law, which extended GP medical training from three to four years. The additional year must be completed in an ambulatory care setting, preferably in a medically underserved area, with the aim of improving territorial access to care. Although proposals have been made to mandate a three-year service period in underserved areas for newly graduated physicians, these have faced strong opposition from the medical community (Or et al., 2023). In Czechia, medical training capacity has also been expanded. First-year medical school admissions increased by approximately 20 % between 2019 and 2020, supported by a CZK 6.8 billion investment (2019–2029). This initiative is designed to enlarge the future pool of GPs and address anticipated workforce shortages (Bryndová et al., 2023).

Similarly, Denmark has significantly expanded medical education capacity to address future demand for physicians, including GPs. Over the past two decades, admissions to Denmark's four medical schools have nearly doubled, reaching 1 395 spots per year. In 2019, Denmark produced 18.9 medical graduates per 100 000 inhabitants – well above the Organisation for Economic Co-operation and Development average of 13.2, and higher than in Norway or Sweden. This expansion aims to ensure a sufficient supply of doctors, including GPs, to meet long-term healthcare needs (Okkels Birk et al., 2024).

Demand for new skills

The rapid digitalisation of healthcare systems is transforming primary care, creating demand for new skills among GPs, such as digital literacy, remote care delivery, data management and patient engagement through technology.

The rise of digital consultations is changing the nature of primary care delivery. In Sweden, digital contacts in primary care surged from around 20 000 in 2016 to over 2.3 million in 2020, representing 7 % of all primary care visits. Younger populations and urban residents are particularly engaged in digital consultations (Janlöv et al., 2023). In Denmark, digital consultations have become a standard feature in general practice. Between 2011 and 2020, email consultations nearly tripled, accompanied by a decline in phone and in-person visits. Video consultations, introduced during the pandemic, are now offered by the majority of practices, with full coverage mandated by 2025. These trends require GPs to adapt to new modes of patient interaction, including mastering the use of video platforms, asynchronous communication and digital triage (Okkels Birk et al., 2024).

In Estonia, the integration of tele-consultations into the list of reimbursable healthcare services since July 2020 has significant implications for the role and responsibilities of GPs in Estonia. The availability of tele-consultations facilitates remote collaboration between GPs and specialists, enabling timely expert advice without the need for patient travel or in-person visits. This can enhance the efficiency of patient management, especially for those in remote areas or with mobility limitations. The shift towards tele-consultations and expanded patient autonomy may influence the workload of GPs by potentially decreasing face-to-face consultations while increasing responsibilities related to remote care coordination and multidisciplinary communication (Kasekamp et al., 2023).

The integration of electronic health systems has also become more common. Denmark exemplifies a highly digitalised health system, where electronic medical records and digital communication tools are fully integrated across primary and secondary care. Under the MedCom initiative, GPs routinely exchange clinical messages, manage prescriptions and access diagnostic results electronically. This seamless connectivity demands strong IT competencies from GPs, who must navigate complex digital workflows while ensuring data accuracy, privacy and interoperability (Okkels Birk et al., 2024).

Public engagement with digital health platforms is also shaping the skills requirements for GPs. In Denmark, tools like Sundhed.dk, MinSundhed and Min læge allow patients to view medical records, book appointments, renew prescriptions and consult with their GP online. These platforms are widely used across age groups, including older adults, reflecting a growing expectation of digital accessibility and transparency. The introduction of these platforms implies that GPs are now also responsible for digital communication, patient education and tech-enabled self-management. This shift calls for competencies in digital empathy, user-friendly communication and the ability to guide patients through online health tools (Okkels Birk et al., 2024).

Box 4: Stakeholder consultation: new skills stemming from digitalisation

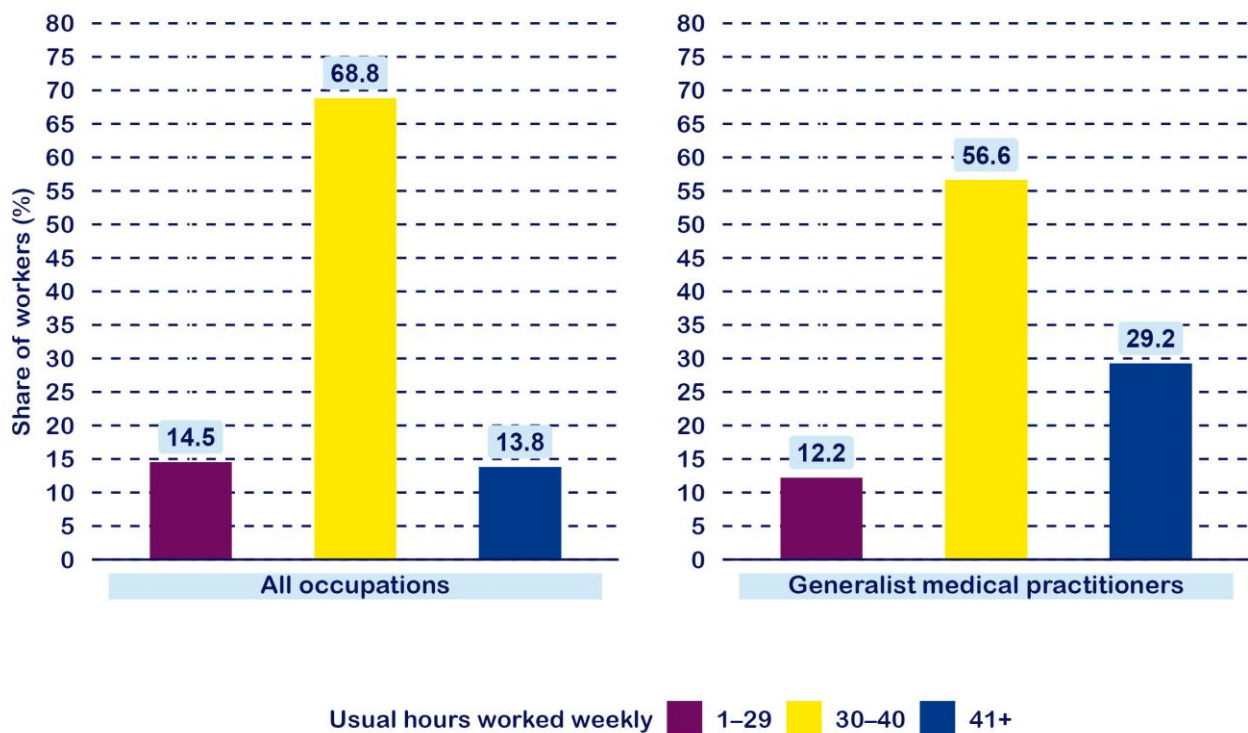
According to one stakeholder, the increasing use of AI and applied statistics is transforming healthcare. COVID-19 accelerated the adoption of digital consultations (online or by phone), which have now become common practice. At the same time, patient expectations are rising due to media influence and greater access to information, including from AI-driven tools. This trend requires GPs to adapt to new technologies and successfully manage patients who are more informed than ever.

6. Working conditions and occupation attractiveness

Working hours and patterns

Figure 8 shows weekly working hour patterns among GPs. While the share of GPs working 30–40 hours is lower than that of occupations in all sectors overall, the share of GPs working over 41 hours per week is consistently higher: 29.2 % for GPs versus 13.8 % for all occupations.

Figure 8: Usual weekly hours worked by generalist medical practitioners, EURES, 2024



NB: For readability purposes, not all categories are displayed on the graph and the shares may not add up to 100 %.

Source: EU Labour Force Survey special data extractions.

The workload of GPs is closely linked to elevated levels of stress and time pressure (Hoffmann et al., 2015). In many EURES countries, it is one of the main drivers behind GP shortages, contributing significantly to physicians' declining interest in pursuing or continuing careers in general practice, or their preference for part-time working arrangements (Janlöv et al., 2023). GPs are expected to manage a broad spectrum of clinical responsibilities alongside a substantial volume of administrative tasks. For example, GPs in Sweden report spending a significant portion of their time on administrative duties, which detracts from patient care and exacerbates work-related stress (Janlöv et al., 2023).

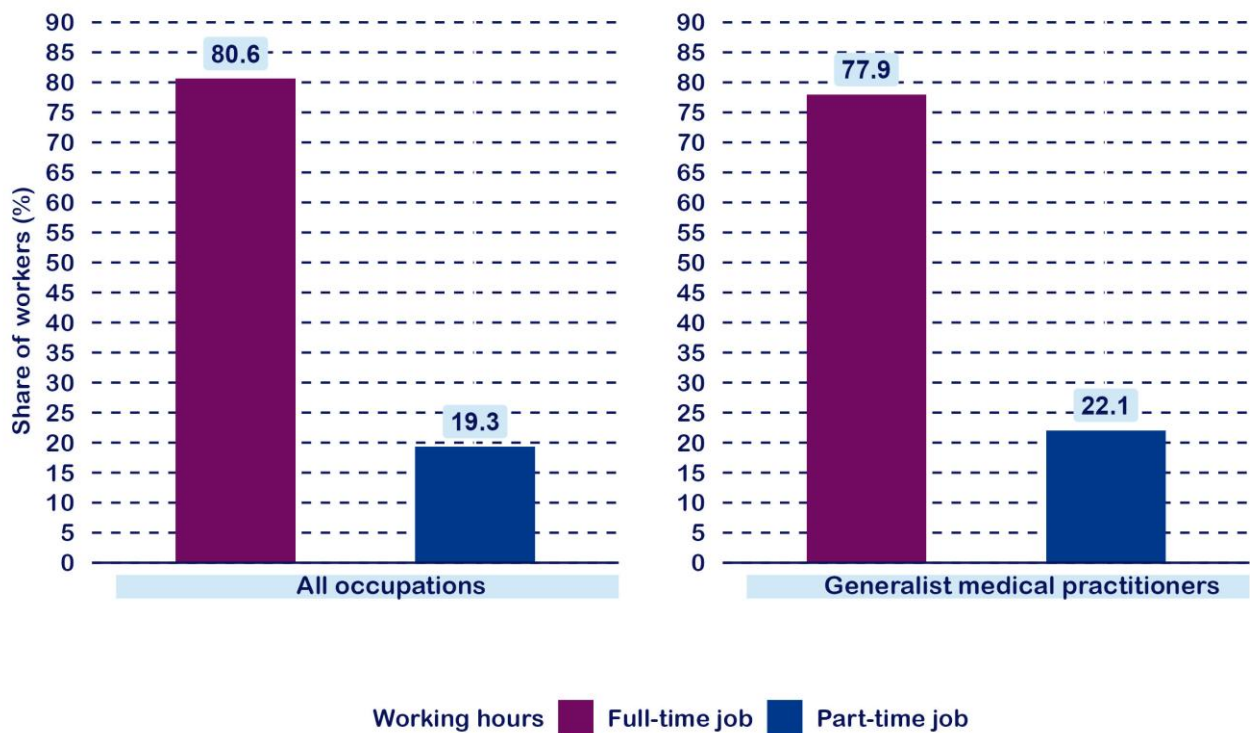
Box 5: Stakeholder consultation: working conditions

Two stakeholders noted that general practice is sometimes perceived as a bureaucratic and stressful profession. While patient consultations remain a core responsibility of GPs, the proportion of time spent on direct patient care is declining as administrative obligations continue to grow. For this reason, primary care is seen as offering limited diversity in activities.

Three stakeholders highlighted that new generations prefer a different work culture, prioritising flexibility, work–life balance and diversified career paths. This emerging approach tends to involve a lower patient load per GP and to put more emphasis on dedicating more time to patients. By dedicating more time to patients, doctor can foster empathy and also provide emotional support, strengthening the doctor–patient relationship and improving overall care quality.

Regarding working hours, GPs, similar to most occupations, are primarily employed in full-time roles, with 77.9 % working full-time compared with 80.6 % across all occupations (Figure 9). However, GPs reported a slightly higher proportion of part-time positions, at 22.1 % in 2024 versus the 19.3 % average across all economic sectors.

Figure 9: Share of part-time positions among generalist medical practitioners, EURES, 2024

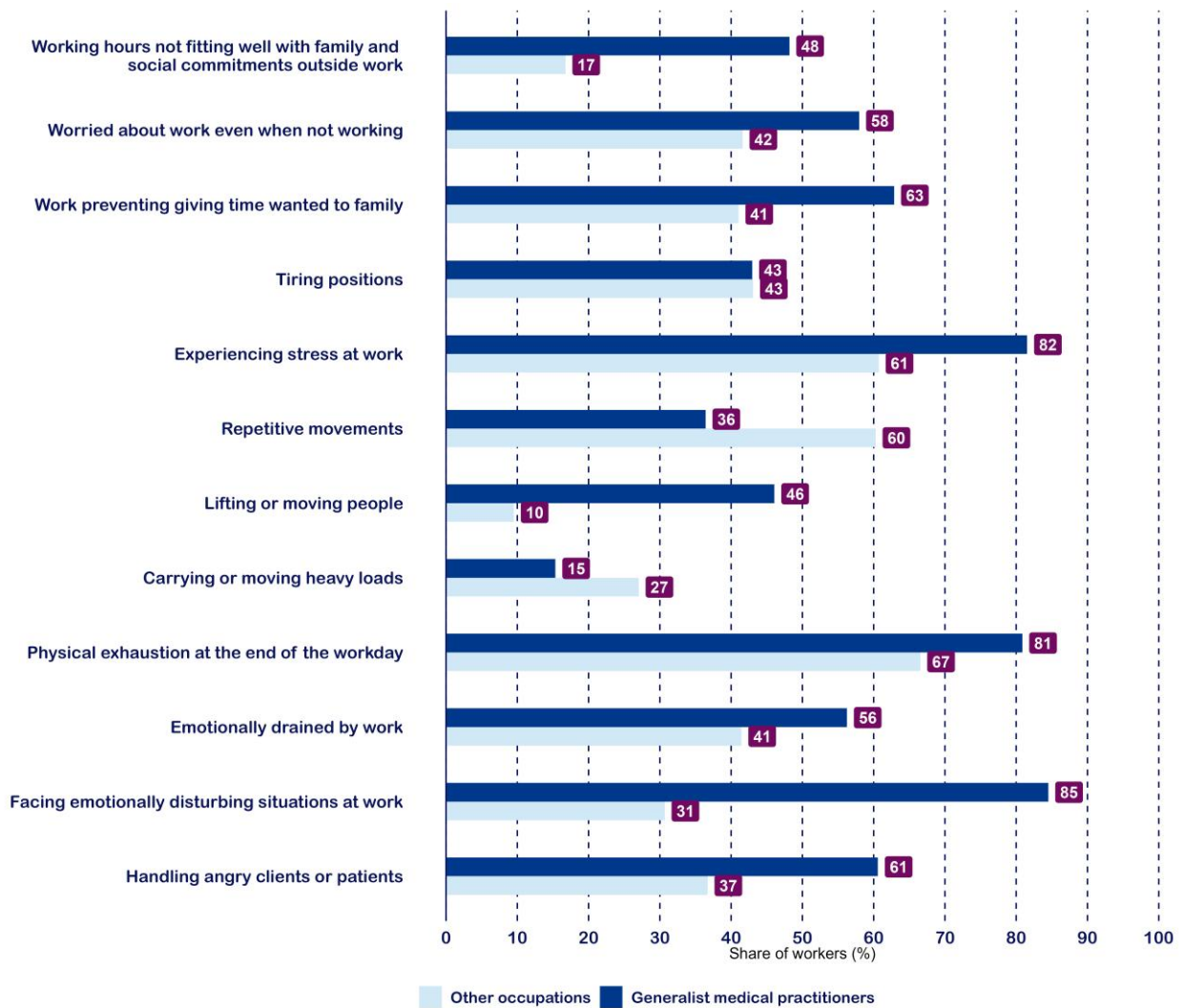


NB: For readability purposes, not all categories are displayed on the graph and the shares may not add up to 100 %.

Source: EU Labour Force Survey special data extractions.

Figure 10 shows the proportions of GPs and those in all other occupations reporting experiencing certain situations regarding their working conditions.

Figure 10: Working conditions for generalist medical practitioners and all other occupations, EURES, 2024



NB: Figure shows combined share for workers reporting facing the listed situations always, often, or sometimes.

Source: European Working Conditions Survey, 2024.

Findings from the Mental Health of Nurses and Doctors Survey conducted in the EU, Iceland and Norway emphasise that violence against health workers remains alarmingly high across countries and care settings: around 70 % of doctors and nurses report frequent exposure to angry patients or relatives in their workplace; 1 in 3 have experienced bullying or violent threats and more than 10 % report incidents of physical violence or sexual harassment. Exposure to workplace violence is strongly linked to mental health issues, including depression and anxiety (WHO Regional Office for Europe, 2025).

The design of primary care centres and the structure of collaboration models also play a role in contributing to GPs' stress levels. Working in a solo practice can be challenging for GPs, as this model often leads to professional isolation and a heavier administrative burden, which can contribute to stress and burnout. Without the support of a team, GPs must manage both clinical and business responsibilities alone, making it harder to maintain work–life balance and increasing the risk of emotional exhaustion.

To address the limitations of solo practice and improve care delivery, multidisciplinary group practices are becoming increasingly common. These models allow GPs to collaborate with other health professionals, enhancing care coordination, reducing professional isolation and helping manage the workload burden more effectively. For instance, France actively promoted multidisciplinary group practices in which GPs work alongside other health professionals, such as nurses and physiotherapists. These professionals are typically self-employed and compensated through fee-for-service arrangements, which do not inherently incentivise teamwork. By 2022, 69 % of GPs were working in group settings, up from 54 % in 2010. Despite this growth, most group practices involve GPs sharing office space rather than engaging in multidisciplinary collaboration, with only 40 % of GPs being part of multidisciplinary teams (Or et al., 2023).

Estonia has also taken steps to address the growing pressures in primary care by expanding team-based models. Workload burden remains a significant concern, with patient lists ideally capped between 1 600 and 2 000 per GP, yet many physicians have stopped accepting new patients due to rising demand. To support GPs, every practitioner works with at least one nurse, whose role has been broadened to include managing chronic diseases, writing sick leave letters and prescribing certain medications following additional training. This collaborative approach not only helps distribute clinical responsibilities but also enhances service accessibility and the continuity of care (Kasekamp et al., 2023).

Box 6: Stakeholder consultation: shift from solo to group practices

Three stakeholders referred to a common trend in primary care where general practices are increasingly switching from solo to group organisational models. They highlighted how the latter model of general practice organisation facilitates substitutions during absences, resource sharing and stronger professional support. The participants also stressed the importance of multidisciplinary teams, including psychologists, nurses and other specialists, seeing them as essential for improving patient care and fostering professional development, although they noted that their adoption varies across countries.

Career prospects

Career prospects for GPs across EURES countries are shaped by diverse remuneration models, employment structures and practice settings. While income levels are generally competitive with those of specialists, differences in autonomy, payment mechanisms and working conditions influence the attractiveness and sustainability of general practice as a career path.

In many EURES countries, GPs earn salaries comparable to those of hospital specialists, helping to maintain the appeal of general practice. In Sweden, for instance, there are no significant salary differences between GPs working in primary care and specialist physicians working in hospitals (Janlöv et al., 2023). In Spain, GPs are salaried employees within the national health system. Their pay includes a basic salary, on-call payments and a capitation-based component (10–15 % of total salary), which varies by region and reflects patient demographics and GP performance (Bernal-Delgado et al., 2024).

In Luxembourg, GPs are typically self-employed and compensated through a fee-for-service model, with rates determined by national fee schedules. In addition to standard fee-for-service payments, GPs receive separate payments from the state budget for on-call duties in hospitals or residential care homes and receive an additional lump sum per patient for managing individuals with long-term conditions who are registered under the 'referring physician' system. In France, GPs in ambulatory care are also predominantly self-employed and paid through the fee-for-service model. They contract with the Statutory Health Insurance Fund, and most (93 %) adhere to nationally regulated fees. Collective agreements negotiated every five years define fee structures and social protections, offering stability and predictability (Or et al., 2023).

Some countries have adopted blended payment models to balance income stability with performance incentives. In Denmark, GPs operate private practices (mostly in group settings) and are paid through a nationally negotiated blended model. About one third of their income comes from capitation (per registered patient), while two thirds is activity-based. This structure promotes both continuity and productivity, with minimal reliance on patient-paid services.

GPs are still responsible for their own practice expenses, including premises and staff, which adds a layer of entrepreneurial responsibility (Okkels Birk et al., 2024). In Estonia, GPs lead practices structured as joint-stock companies or private enterprises. Their income is derived from a mix of age-adjusted capitation, allowances (e.g. for remote locations or staffing), fee-for-service payments and a quality bonus system. The system rewards performance in prevention, chronic disease management and screening, with bonuses of up to 41 % of capitation payments. E-consultations and overtime work are also reimbursed, although administrative burdens may limit uptake (Kasekamp et al., 2023).

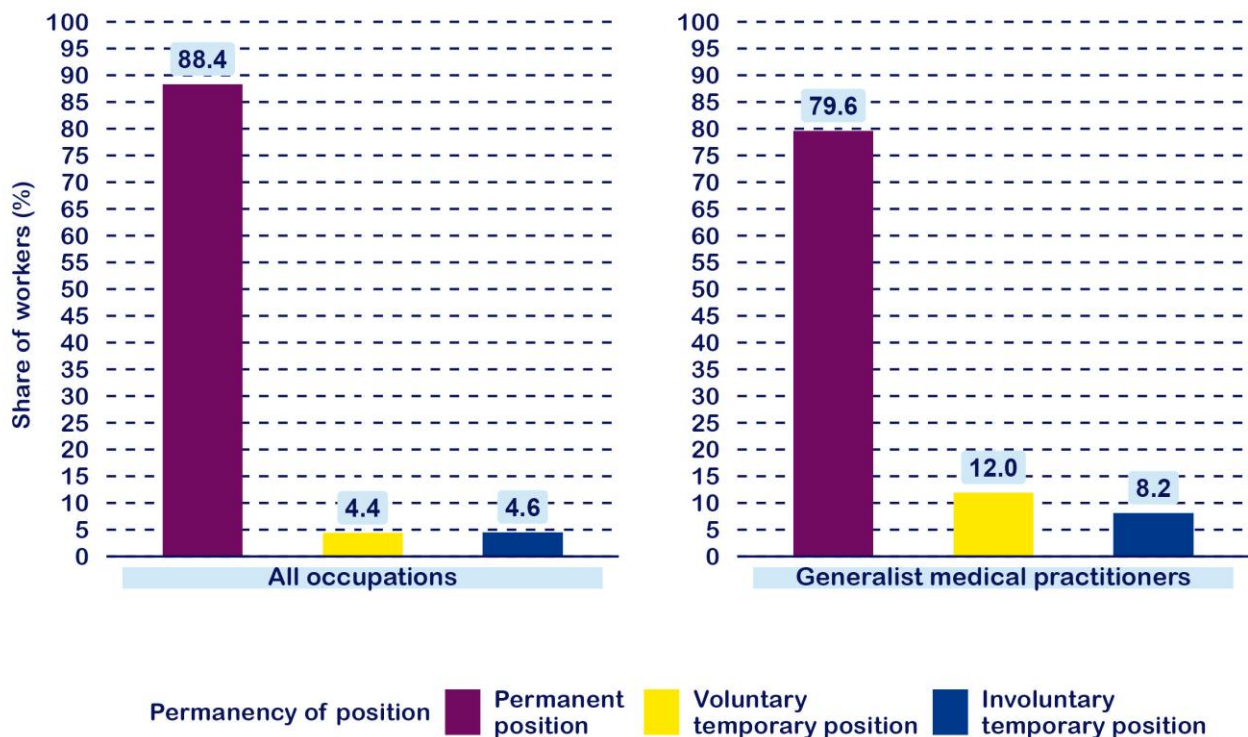
Some countries, such as Estonia, Denmark and Portugal report difficulty filling GP positions, especially in the public sector. For instance, in Sweden in 2021, around 6 % of publicly employed physicians left their positions, dropping to 4 % when excluding those aged 60 and above. Additionally, 2 % changed workplaces within the public sector that year. Many of those leaving public employment are likely to transition into privately operated, yet publicly funded, healthcare services (Janlöv et al., 2023). Similarly, Portugal has unfilled primary care vacancies in the National Health Service, with many GPs opting for private sector employment due to its better conditions (Russo et al., 2023).

7. Recruitment practices and retention trends

Employment forms and contracts

Permanent contracts are the dominant form of employment among GPs, applying to nearly 80 % of the GP workforce, remaining slightly below the average for all occupations (Figure 11). Voluntary and involuntary temporary employment among GPs is relatively uncommon, accounting for approximately 12 % and 8 % of positions, respectively. Although such temporary roles are less prevalent than permanent roles within the GP workforce overall, their incidence is higher than for all occupational groups, ranging from two (for involuntary temporary positions) to three times (for voluntary temporary positions) the average.

Figure 11: Share of temporary positions among generalist medical practitioners, EURES, 2023



NB: For readability purposes, not all categories are displayed on the graph and the shares may not add up to 100 %.

Source: EU Labour Force Survey special data extractions.

Across EURES countries, there is a wide range of employment forms and contract models for GPs. These models reflect the diversity of national healthcare systems and have significant implications for workforce stability, service delivery and patient access.

The organisation and payment structures for GPs vary considerably across countries. In Germany and France, GPs typically operate as self-employed professionals, with remuneration based on a fee-for-service or per-consultation model. As previously mentioned, this arrangement offers autonomy and flexibility but may also result in income variability and administrative burden.

In Italy, GPs are also self-employed but follow a list-based model, receiving payment on a per capita basis dependent on the number of registered patients. This system encourages the continuity of care but can limit patient access, as GPs may restrict weekly availability based on list size and workload. In contrast, Spain employs GPs as civil servants within the public health system. They work in multi-professional teams located in multifunctional facilities, with fixed salaries and standardised employment conditions. This model promotes integration and stability, although it may offer less individual flexibility than self-employment (Garattini et al., 2023).

In Sweden, most physicians are employed by publicly funded providers. However, in countries such as Denmark, the Netherlands and Norway, various forms of self-employment are common (Janlöv et al., 2023). In Austria, GPs are also organised using various practice models, including single practices, group practices and primary care centres, each with distinct characteristics and service patterns. Single practices are more likely to serve older populations and prescribe medications for chronic conditions, while group practices and primary care centres employ more staff, offer broader services and provide online appointment booking (Zelko et al., 2024).

Estonia presents a hybrid model where GPs operate under mandatory contracts with the Estonian Health Insurance Fund. All licensed GPs with an approved practice list are guaranteed a contract, with funding primarily based on capitation rather than service volumes. While the Estonian Health Insurance Fund controls the allocation of practice lists, partly limiting flexibility in practice location, it ensures equitable access and consistent terms across providers. Since 2017, physicians have had the option to form group practices, which offer enhanced funding in exchange for expanded services and extended hours. These practices allow physicians to retain separate legal entities, supporting financial predictability and collaborative care delivery, although they also introduce additional responsibilities (Kasekamp et al., 2023).

8. Measures to tackle labour market imbalances

Skills mix and role substitution

In response to increasing workloads and time pressure, some countries have adopted collaborative models where GPs share responsibilities with other healthcare professionals. Over time, certain tasks traditionally performed by GPs have gradually shifted to nurses, administrative staff or other support roles, helping to ease the burden and improve efficiency in patient care. In 2019, France introduced the role of 'medical assistant' to support GPs in managing administrative duties and coordinating care. These assistants can come from both medical and non-medical backgrounds and are financially supported by the statutory health insurance fund. By 2022, over 3 100 medical assistant contracts had been signed, with 80 % of them linked to GPs.

Similarly, in Denmark, GPs are encouraged to employ more supporting personnel so that they can concentrate on tasks that only medical doctors are authorised to perform. GPs working independently often employ secretaries and other supporting personnel, such as nurses or laboratory technicians, who are paid fixed salaries in accordance with agreements between employers' associations and the relevant trade unions (Okkels Birk et al., 2024).

Support measures for labour market entry

Some EURES countries have implemented emergency and structural measures to increase the labour market entry of and address acute shortages of GPs. For instance, in 2023 the Danish government implemented a substantial emergency package worth DKK 2 billion to mitigate waiting times and GP workforce shortages. This initiative included financial incentives to encourage the labour market entry of GPs, while enabling temporary employment arrangements for medical students, retirees and administrative staff. Alongside these efforts, the Danish government introduced measures to accelerate the authorisation process for foreign-trained health professionals, thereby expanding the eligible workforce and easing entry barriers faced by internationally educated individuals.

A key focus of the emergency package implemented in Denmark was addressing GP shortages through the establishment of a ministerial working group. The Lægedækningsudvalget is a ministerial working group involving health authorities and professional bodies, formed to develop targeted measures to expand GP capacity. These measures included increasing the number of trained GPs, redistributing residency placements, offering more flexible practice models and introducing financial and recruitment incentives to attract and retain practitioners (Okkels Birk et al., 2024).

Some countries report positive trends in terms of expanding their GP workforces. In Luxembourg, the number of GPs increased significantly (by 44 %) between 2007 and 2017. This rise was attributed to the introduction of a GP training programme at the University of Luxembourg in 2008. In 2018, GPs represented 30 % of all physicians in the country, which was notably higher than the EU average of 21 % (Rausch et al., 2024).

Ireland has increased the number of general practice training places by 70 % over the past six years in response to forecasts that one quarter of the GP workforce will retire within the next decade. Additionally, future policy planning is increasingly focused on understanding the career motivations and aspirations of GP trainees, recognising that their perspectives are essential for designing effective recruitment and retention strategies. These measures reflect a broader European trend towards proactive workforce planning, combining capacity expansion with targeted efforts to make general practice a more attractive and sustainable career path (Egan et al., 2025).

In other countries, support measures have been implemented to address geographical disparities in the distribution of GPs. In Czechia, for instance, regional authorities have implemented a range of incentive-based strategies, including recruitment bonuses and direct funding for outpatient facilities. Additionally, scholarships are offered to medical students who commit to practising in underserved regions. These policies are designed to rebalance GP availability across the country and ensure equitable access to primary care services, particularly in rural or less-developed areas (Bryndová et al., 2023). In France, financial incentives have been introduced to encourage GPs to work in underserved areas, although with limited success. However, multidisciplinary group practices have shown promise, particularly in attracting younger GPs to rural and disadvantaged urban communities (Or et al., 2023). In Estonia, geographical access to GPs is organised through designated service areas and practice lists, which ensure that the population is evenly distributed across primary healthcare providers. This system forms the foundation of equitable access to primary care, enabling residents to register with a nearby GP and receive continuous care (Kasekamp et al., 2023).

Strategies to improve the attractiveness of the occupation

Training a GP requires a long educational pathway. Given this time investment, workforce planning must be forward-looking and based on national and regional population trends. Additionally, it is crucial to identify and address factors that discourage new graduates from choosing this career path and to implement strategies that enhance the profession's appeal, such as improving working conditions, career development opportunities and professional recognition (Dalla Valle et al., 2024).

Targeted postgraduate support is a key measure to strengthen the pipeline of future GPs and address workforce shortages. Czechia provides a concrete example of this approach through its government-funded postgraduate residency programme (*rezidenční místa*), financed by the Ministry of Health. This covers both training costs and partial salaries for medical residents, making the pathway to general practice more accessible and financially viable. In 2018, 415 physicians benefited from the programme, followed by 310 in 2019 (Bryndová et al., 2023).

The introduction of training and guidelines for GPs to collaborate more effectively with informal carers can be seen as a measure to address GP shortages by improving the attractiveness of the profession. By enhancing care coordination, reducing workload through shared responsibilities and fostering more rewarding professional relationships, such initiatives can improve job satisfaction and retention. While not a direct solution, this approach contributes to making the GP role more sustainable and appealing within a broader workforce strategy (OECD, 2020).

Healthcare workforce planning plays a critical role in ensuring the attractiveness of the occupation. It involves the strategic allocation, training and coordination of health professionals to ensure equitable access, service integration and system sustainability.

Some EURES countries have adopted diverse approaches to planning, shaped by governance structures, demographic pressures and changing health priorities. Some countries have adopted national strategies to strengthen workforce planning and anticipate future needs. For instance, in Czechia, the Ministry of Health has launched a comprehensive health 2030 plan, featuring 11 strategies aiming to strengthen health system staffing across the board. Specific goals include establishing a national monitoring system for workforce needs and bolstering the skills of non-physician health workers (Bryndová et al., 2023). Similarly, Estonia has implemented a proactive model of workforce planning. The Ministry of Social Affairs, in collaboration with the University of Tartu and other stakeholders, manages medical training quotas and oversees strategic workforce development. Additionally, financial incentives for periodic re-accreditation are embedded in Estonia's pay-for-performance system, reinforcing quality and retention (Kasekamp et al., 2023).

Unregulated access to healthcare providers can complicate workforce planning. In Luxembourg, for instance, the principle of free choice in selecting healthcare providers presents challenges for coordinating and planning primary care services. This unregulated demand particularly affects GPs, raising concerns about whether the current workforce can meet patient needs and whether GPs are equitably distributed across the country. To address these issues, the government has introduced initiatives such as the electronic health record system (*dossier de soins partagé*) to improve care coordination (Rausch et al., 2024).

In countries with decentralised health systems, workforce planning is often managed at the regional or municipal level, requiring strong coordination between local and national authorities. Denmark exemplifies this model. Since 1976, regional practice planning has guided the geographical allocation of GPs to ensure population coverage and prevent shortages. Regions negotiate payment models and incentives with professional associations, while national-level agreements set budgetary limits and influence capacity planning (Okkels Birk et al., 2024).

Box 7: Stakeholder consultation: measures to boost recruitment and attractiveness

According to two stakeholders, across Europe, many municipalities offer attractive packages to recruit GPs, particularly in rural areas. These incentives often include increased salaries, tax reductions, housing support and other benefits aiming to make relocation and practice more attractive.

Some stakeholders stated that countries where scientific activity in general practice is well developed give GPs more opportunities to be involved in research and training. This not only enhances professional skills but also allows GPs to diversify their roles with intellectually stimulating activities beyond clinical work, improving their professional well-being and motivation.

Two stakeholders mentioned the importance of role models and early exposure to the GP occupation. During GP education and training, early exposure to general practice and the influence of role models play a crucial role in demonstrating the rewarding nature of the profession. This can help young doctors make informed training decisions and help them shape their career choices.

Retention strategies across the career cycle

Retention measures aim to keep GPs engaged throughout their careers, from entry into the profession up to retirement. EURES countries report different strategies aiming to improve domestic retention and reduce reliance on foreign-trained professionals. For example, Cyprus has established three medical schools in recent years, aiming to reduce the number of students studying medicine abroad and improve domestic retention (Theodorou et al., 2024). In Estonia, since 2015, the Ministry of Social Affairs has supported programmes to reintegrate inactive or unregistered health professionals, including doctors, into the workforce through a simplified re-registration process (Kasekamp et al., 2023).

Increasing flexibility and financial support in medical training is another approach used to attract and retain future GPs, as seen in Estonia. In Estonia, residency training is funded by the state, with salaries reimbursed by the Estonian Health Insurance Fund. Since 2020, residency programmes have allowed more flexibility, including part-time completion. Residents hold fixed contracts with teaching hospitals or primary healthcare providers and rotate through various departments to gain diverse clinical experience (Kasekamp et al., 2023).

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