

Medical respiratory specialists

Introduction



Key points

- Multidisciplinary teams (comprising many different healthcare professionals) are increasingly important for the care of patients with various respiratory diseases.
- Respiratory staffing and training are affected by wealth and productivity of a country, history of medical development, societal influence of medicine and political priorities.
- The number of respiratory physicians per 100 000 population varies 10-fold between different European countries.
- Paediatric respiratory medicine is a recognised specialty in only a minority of countries.

In a changing world, the modern respiratory physician has had to adapt to new pressures and responsibilities. Two decades ago, the average respiratory physician was almost entirely self-sufficient and carried out his practice relying solely on his own experience and competence. He treated patients with tuberculosis (TB), pneumonia, airway disease, bronchiectasis, pulmonary embolism, interstitial disease and cystic fibrosis (CF) without the need to refer patients to other physicians or specialist units. He would refer patients with lung cancer for radiotherapy or thoracic surgery, but he performed all his own bronchoscopy and pleural procedures, and administered chemotherapy sparingly on his own. He would confer with thoracic surgeons and radiotherapists when the need arose. Occasionally, he would telephone a bacteriologist or pathologist and he would refer to the intensive care unit only in exceptional circumstances.

Since then, a radical change has taken place. Today's respiratory physician is just as likely to be female as male. There are new clinical challenges, such as sleep breathing disorders, infections in the immunocompromised host, drug-resistant TB, adult CF, complex bronchoscopic techniques and noninvasive ventilation. It is widely accepted that no single respiratory physician can be expected to be competent in all these diverse areas. As a consequence, there has been a great increase in overall numbers of respiratory physicians; most physicians now have areas of special interest; and subspecialisation has increased technical staffing

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levels in respiratory departments, most of which now have well-equipped pulmonary function laboratories able to carry out spirometry, plethysmography, single-breath diffusing capacity and exercise testing.

The concept of the multidisciplinary team (MDT) has emerged. Initially, these were limited to the care of lung cancer patients and included respiratory physicians, oncologists, radiotherapists, radiologists, pathologists, palliative care physicians and thoracic surgeons. The MDT meets weekly and usually discusses all lung cancer patients, not just those who are being considered for active management. This development is now seen as essential for patient care, but is also recognised as being an invaluable teaching and learning experience. There are now other MDTs dedicated to the treatment of TB, asthma, chronic obstructive pulmonary disease (COPD), interstitial lung disease and sleep breathing disorders.

Although physicians still predominate in MDTs, many other healthcare professionals are now involved. Previously, respiratory nurses' activities were restricted to contact tracing in TB, but now they play a major role in asthma, COPD, lung cancer and CF. In some countries, much of the clinical care of patients with airway disease has devolved to nurses, both in hospitals and in the community. In defined areas, nurses now prescribe, usually on the basis of an agreed protocol. Patients with lung cancer are regularly supported and counselled by specialist nurses who may also have a role in expediting management. In sleep disorders and neuromuscular disease, pulmonary function technicians and physiologists are wholly integrated into the MDT and are often responsible for supervising domiciliary (home) ventilation.

Throughout Europe, respiratory physicians have led the way in implementing these profound changes in the profession. However, the pace of change has varied greatly across Europe. Manpower levels and academic and training infrastructure in any medical specialty result from many interacting variables. These include the wealth and productivity of the nation, its history and traditions of medical development, the societal influence of the medical profession and the priority of medicine in the political spectrum.

In addition, the increasing complexity of medical care brings unexpected pressures on manpower within individual medical specialties. This is clearly evident in respiratory medicine. TB referrals may be made to infectious diseases departments; pneumonia in the elderly to geriatric departments; lung cancer to oncologists; asthma to allergologists; and patients with sleep breathing disorders to otolaryngologists or

neurologists. Respiratory physicians believe justifiably that they best serve the interests of these patients and need to defend the role of their speciality in these areas.

It is therefore important to monitor trends in respiratory staffing levels. The data incorporated in this chapter were obtained from the responses to a questionnaire that was sent to members of the Forum of European Respiratory Societies (FERS) and European Respiratory Society (ERS) national delegates. The response rate was 68%, with the majority of nonresponders from eastern Europe.

Figure 1 shows the numbers of adult respiratory physicians in European countries per 100 000 people (mean 4.4 per 100 000). The range is large, with Macedonia having 1.16 respiratory physicians and Greece 10.56 per 100 000. A contributory reason for this may be that Greece has few general practitioners and patients consult specialists for complaints that would be dealt with by primary care doctors in other countries. The same pattern is evident in cardiology: in a 2007 survey carried out by the Union of European Medical Specialists (UEMS), there were 22.6 cardiologists per 100 000 people in Greece compared to the European mean of 6.9. A further reason for the large difference in numbers of respiratory physicians is the previously mentioned increase in some European countries of other groups of health professionals who now perform duties that were previously

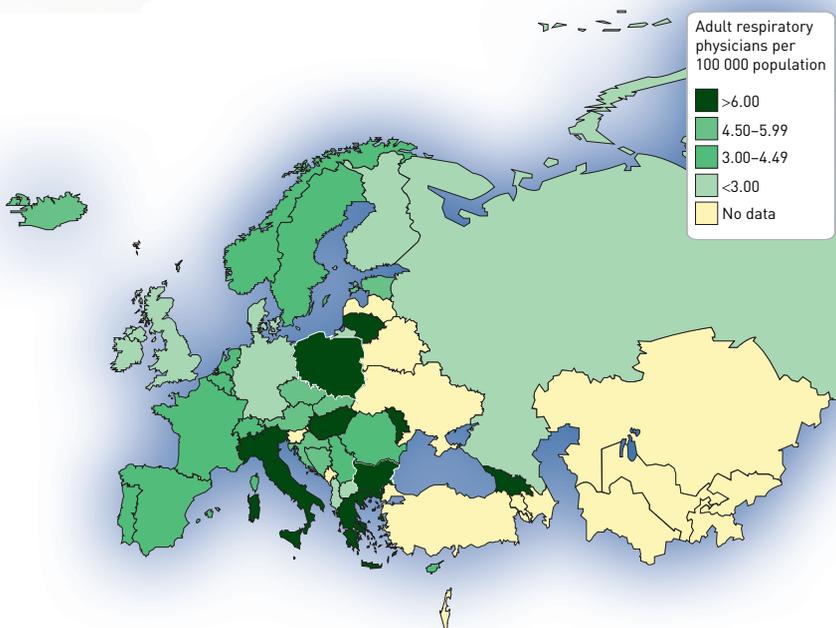


Figure 1 – Adult respiratory physicians per 100 000 people.

the exclusive preserve of doctors. In addition, as also discussed above, other specialists may treat patients with respiratory diseases.

The data in the first edition of the White Book are not directly comparable with these new data because the definitions of some of the categories were slightly different; for example, in some countries, retired respiratory physicians were previously included. Therefore, the apparent reductions in numbers of physicians in Italy, Slovakia and Finland are misleading and do not indicate a real decrease. However, in Hungary, the number of respiratory physicians has fallen. This is attributed to poor recruitment and emigration of doctors to western Europe.

Respiratory physicians comprise 1.48% of all doctors (figure 2), but the mean for Albania, Macedonia, Poland and Bosnia is 2.75%, which may reflect the challenge of TB and multidrug-resistant (MDR)-TB in eastern Europe.

The numbers of trainees and adult respiratory physicians per 100 000 people are shown in figure 3. Greece has the highest number of trainees: 2.2, compared to the average of 0.69 per 100 000. There is no obvious correlation between the number of adult respiratory physicians and trainees but calculation of the ratio of adult physicians to trainees shows marked differences (figure 4). The mean ratio is 8.3 but the range is large, from 34.3 for Georgia to 1.4 for Ireland. Many of the countries with the higher ratios, often from eastern Europe, have large numbers of TB doctors who are classified as respiratory physicians but are not thought to require replacement by fully trained physicians. Italy appears to have a high physician/trainee ratio, but the trainee number is an estimate and may not be accurate.

Figure 5 shows the number of paediatric respiratory physicians. Many countries do not recognise paediatric respiratory medicine as a separate specialty and children are cared for by adult physicians, paediatricians or allergologists. The data for trainees in relation to paediatric respiratory physicians are also shown. It would seem that Albania is planning to advance the specialty since it has only two trained paediatric respiratory physicians but has 19 in training.

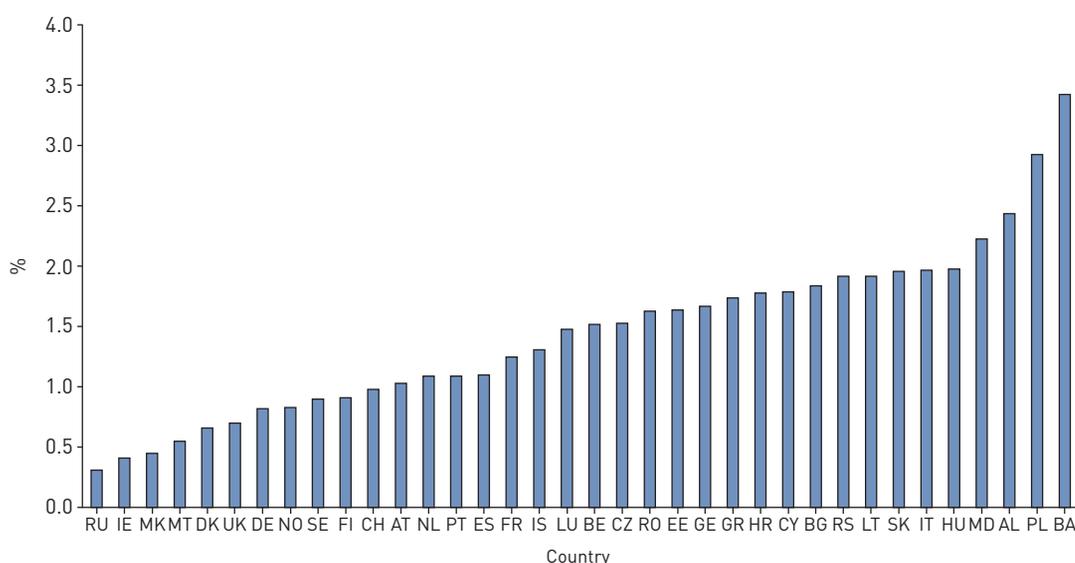


Figure 2 – Adult respiratory physicians as a percentage of all doctors.

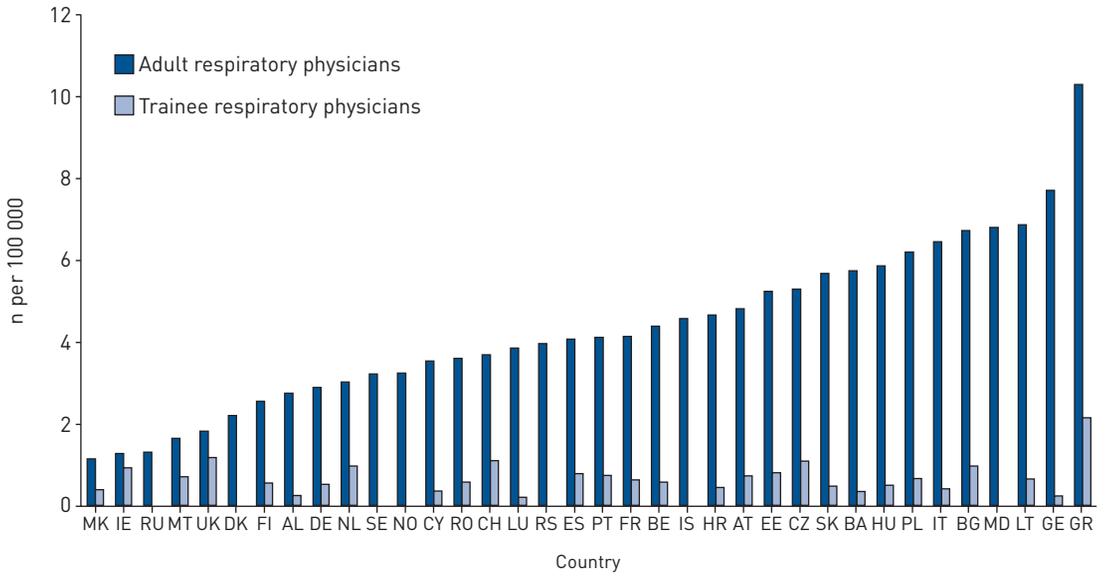


Figure 3 – Adult respiratory physicians and trainees per 100 000 people.

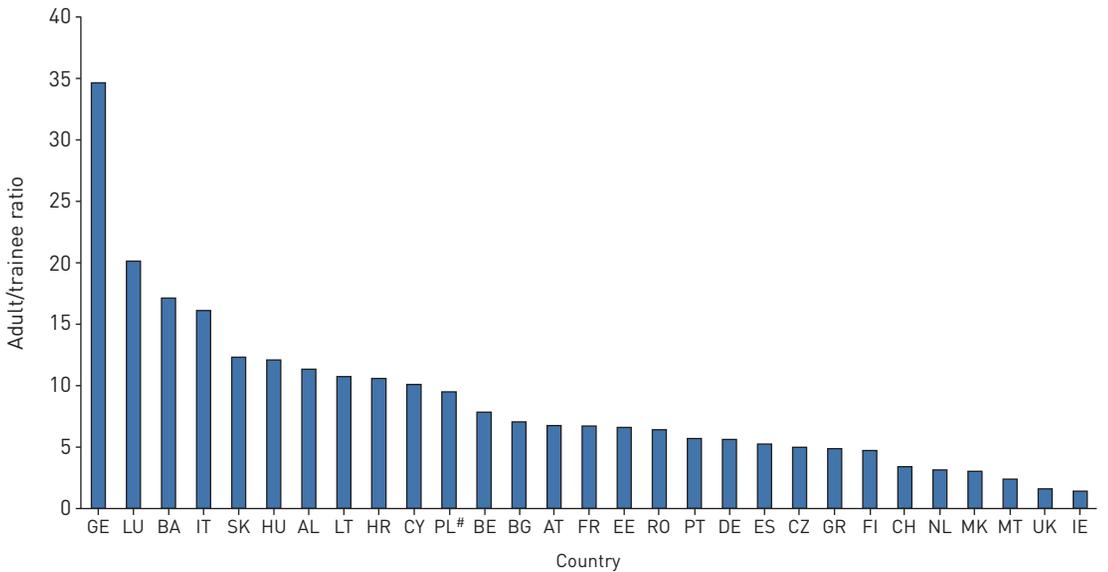


Figure 4 – Ratio of adult respiratory physicians to trainees. #: adult and paediatric combined.

Data on medical schools, university departments and respiratory professors are shown in figure 6. Only five countries, all in western Europe (Spain, UK, France, Italy and Germany), have more than 30 medical schools. The number of medical schools usually corresponds with the number of university departments, although Germany is a notable exception with fewer than half of medical schools associated with an academic department of respiratory medicine. In that country, respiratory medical training is often carried out independently of a medical faculty, as noted in the first edition of the White Book. Indeed

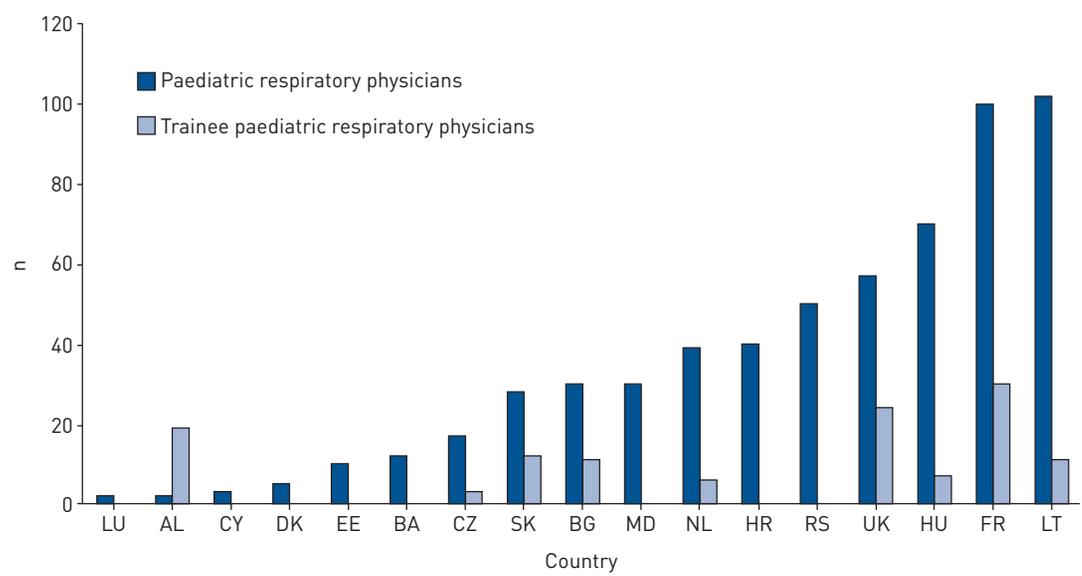


Figure 5 – Paediatric respiratory physicians and trainees.

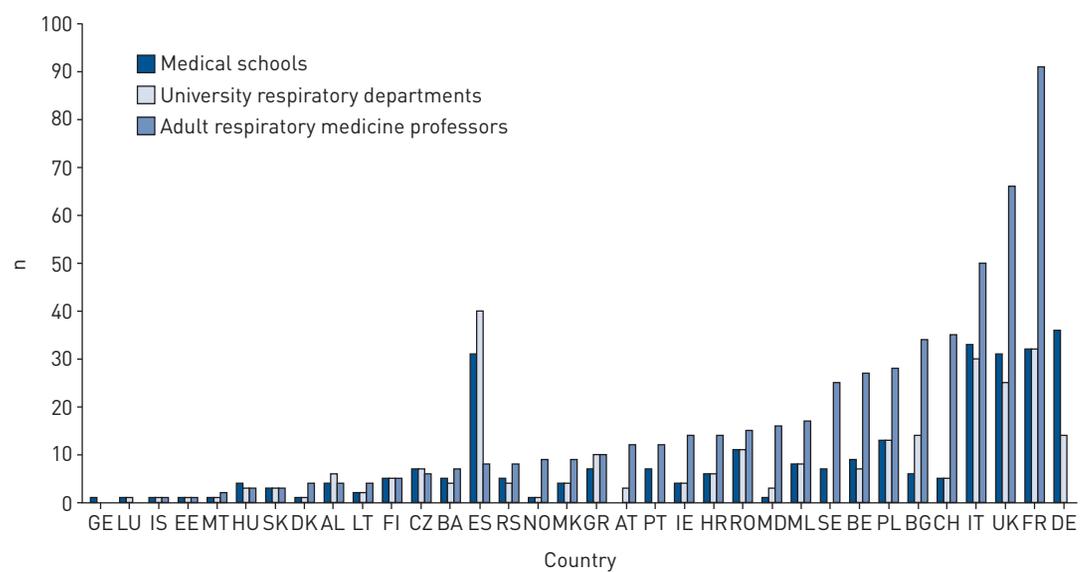


Figure 6 – Numbers of medical schools, university respiratory departments and adult respiratory medicine professors.

in many European countries, including those with university departments of respiratory medicine, a large part of respiratory specialist training is carried out in non-university units. Europe is clearly following the US pattern of appointing personal or titular professors who are not heads of departments. France has almost three times as many professors as university departments of respiratory medicine.

In summary, although these data do not allow direct comparison with those in the first edition, they do illustrate interesting differences among the countries of Europe in relation to the organisation of respiratory medicine. In particular, it may be helpful to the health authorities and universities of the less well-developed countries to appreciate how their situation compares with more developed countries.