

3. HEALTH WORKFORCE

3.3. Medical graduates

Maintaining or increasing the number of doctors requires either investment in training new doctors or recruiting trained physicians from abroad (see Indicator 3.4 “Foreign-trained physicians”). If it takes about ten years to train a doctor, any current shortages can be met only by recruiting qualified doctors from abroad, unless there are unemployed doctors at home. Conversely, any surpluses or sudden fall in demand may mean that new graduates, in particular, struggle to find vacant posts at home.

Virtually all OECD countries exercise some form of control over medical school intakes, often in the form of a *numerus clausus*. Such control is motivated by different factors including: i) confining medical entry to the most able applicants; ii) the desire to control the total number of doctors for cost-containment reasons (because greater supply induces greater demand); and iii) the cost of training itself (in all countries, including the United States, a significant part of medical education costs are publicly funded, so expansion of the number of medical students involves significant public expenditure). A *numerus clausus* is a policy instrument which countries have used by changing the cap at different times (OECD, 2008e).

Denmark, Austria and Ireland had, in 2007, the highest number of medical graduates per 100 000 population. These countries also tend to have more relaxed policies concerning medical student intakes. On the other hand, the graduation rates were the lowest in France, Japan, Canada and the United States. The average across OECD countries was close to ten new medical graduates per 100 000 population (Figure 3.3.1).

Measured in proportion to the stock of physicians (i.e. a measure of the replacement rate), the number of new medical graduates in 2007 was also the highest in Denmark, Austria and Ireland, along with Korea (which still has a relatively low number of doctors per capita). It was the lowest in France, Belgium and Switzerland. The average across OECD countries was 33 medical graduates per 1 000 practising doctors (Figure 3.3.2).

In several countries (e.g. Canada, Denmark and the United Kingdom), the number of medical graduates has started to rise strongly since 2000, following stable or declining graduation numbers in the preceding fifteen years, reflecting deliberate changes in policies to train more doctors (Figure 3.3.3). In Japan, the number of medical graduates has remained more or less unchanged over the past two decades. In Italy, France and Germany, there was a marked decline in the number of medical graduates between the

mid-1980s and the mid-1990s, after which it either continued to fall but at a slower rate in the case of France and Germany (with a sign of a possible trend reversal in Germany in 2007) or to generally stabilised in the case of Italy.

In France, the *numerus clausus* was set at a high level (above 8 000 students) when it was first introduced in 1971, but it declined sharply in the late 1970s and 1980s to reach a low of 3 500 in 1992. It then rose to 7 100 by 2007, and consultations are underway to further increase it by 2012. However, given the time it takes to train new doctors, this recent increase in medical school intakes is not expected to be sufficient to maintain the number of doctors per capita in France in the coming years, as most doctors are now over 50 years old and expected to retire over the next decade (Cash and Ulmann, 2008).

In Japan, which has one of the lowest physician densities in the OECD area, doctor shortages have been discussed for some years and attributed to limits on the number of medical students (Ebihara, 2007). An Advisory Committee to the Japanese Ministry of Health, Labour and Welfare recently recommended an increase in the country's capacity to train new doctors by 50%, with the aim of increasing the number of doctors per capita from two per 1 000 population to the OECD average of three per 1 000. The intake of medical students has been increased since 2008, but it will take a long time to reach such a target.

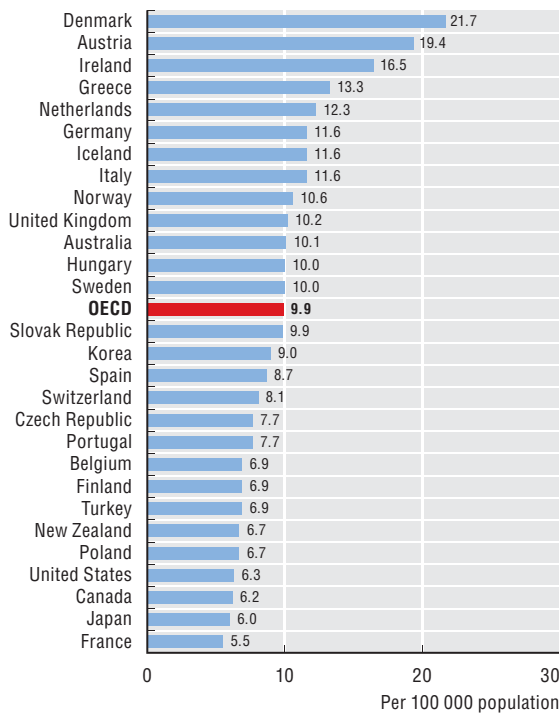
Definition and deviations

Medical graduates are defined as the number of students who have graduated from medical schools or similar institutions in a given year. Dental, public health and epidemiology graduates are excluded.

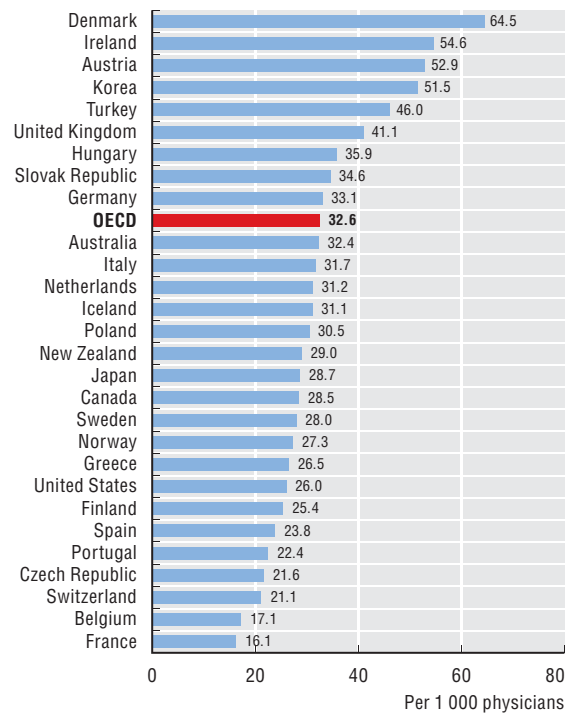
The Czech Republic and the United Kingdom exclude foreign graduates, while other countries include them (foreign graduates account for about 30% of all medical graduates in the Czech Republic). In Denmark, the data refer to the number of new doctors receiving an authorization to practice.

In Luxembourg, the university does not provide medical training, so all doctors are foreign-trained, most of them in Belgium, France and Germany.

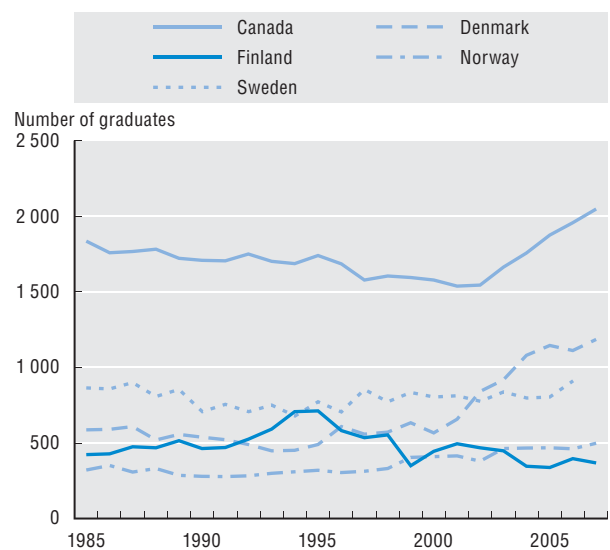
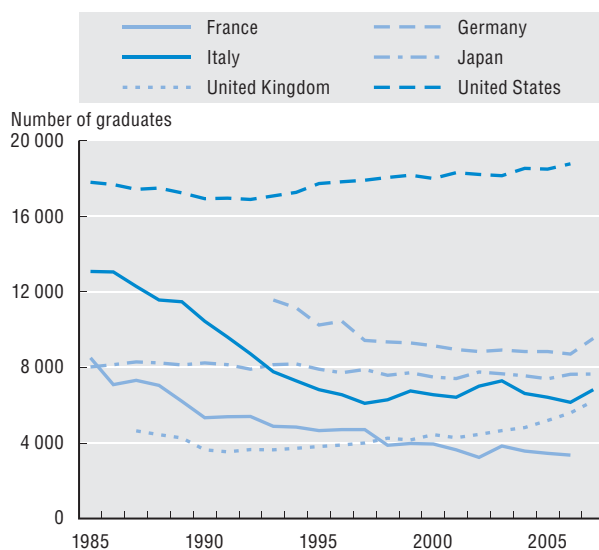
3.3.1 Medical graduates per 100 000 population, 2007 (or latest year available)



3.3.2 Medical graduates per 1 000 practising physicians, 2007 (or latest year available)



3.3.3 Absolute number of medical graduates, selected OECD countries, 1985 to 2007



Source: OECD Health Data 2009.

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