

## 3. HEALTH WORKFORCE

### 3.12. Pharmacists

Pharmacists assist people in obtaining medication and ensuring that these are used in a safe and proper fashion. In most countries, they have completed studies in pharmacy at university level and have completed an examination administered by the regulatory authority to obtain a license to practice.

In most OECD countries, there are between 60 and 100 pharmacists per 100 000 population. Japan, France and Belgium have the highest number of pharmacists per capita, with rates above 115 per 100 000 population (Figure 3.12.1). This high rate is associated with a high number of community pharmacies (Figure 3.12.3). On the other hand, the number of pharmacists per capita is the lowest in Denmark and the Netherlands, which is also related to the fact that these two countries have among the lowest number of community pharmacies per capita. The relatively low number of community pharmacies in the Netherlands may be explained partly by the fact that patients can also purchase their prescription drugs directly from some doctors who are dispensing medications (Vogler et al., 2008).

Between 1990 and 2007, the number of pharmacists per capita has increased in nearly all OECD countries, with the exception of Denmark and Belgium, although it remains high in Belgium. It increased most rapidly in Spain, Japan, Ireland, Portugal and Hungary (Figure 3.12.2).

In Japan, the strong increase in the number of pharmacists can be attributed to a large extent to the government's efforts to separate more clearly drug prescribing by doctors from drug dispensing by pharmacists (the so-called *Bungyo* system). Traditionally, the vast majority of prescription drugs in Japan were dispensed directly by doctors. However, in recent years, the Japanese government has taken a number of steps to encourage the separation of drug prescribing from dispensing. In 1997, the Medical Service Law was amended to recognise the role of pharmacists as health professionals. The Medical Service Law was amended in 2006 and recognised community pharmacies as facilities providing health goods and services. Following these amendments, the percentage of prescriptions dispensed by pharmacists rose from 26% of all prescriptions in 1997 to 57% in 2007,

while the number of community pharmacies increased from 42 412 to 52 539 (Japanese Pharmaceutical Association, 2008).

Most pharmacists work in community pharmacies. For instance, in Canada, 75% of all practising pharmacists work in community pharmacies, while 15% to 20% work in hospitals and other health care facilities, and the remaining 5% to 10% work in the industrial sector and other settings (CIHI, 2008b). In Japan, 50% of pharmacists worked in community pharmacies in 2006, up from one-third in 1990 (Japanese Pharmaceutical Association, 2008).

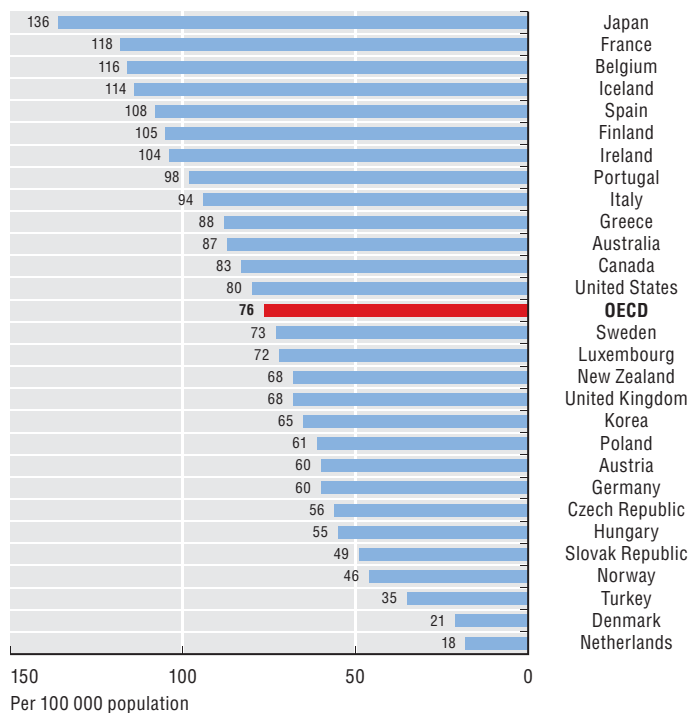
#### Definition and deviations

Practising pharmacists are defined as the number of pharmacists who are licensed to practice and provide direct services to clients/patients. They can be either salaried or self-employed, and work in community pharmacies, hospitals and other settings. Assistant pharmacists and other employees of pharmacies are normally excluded.

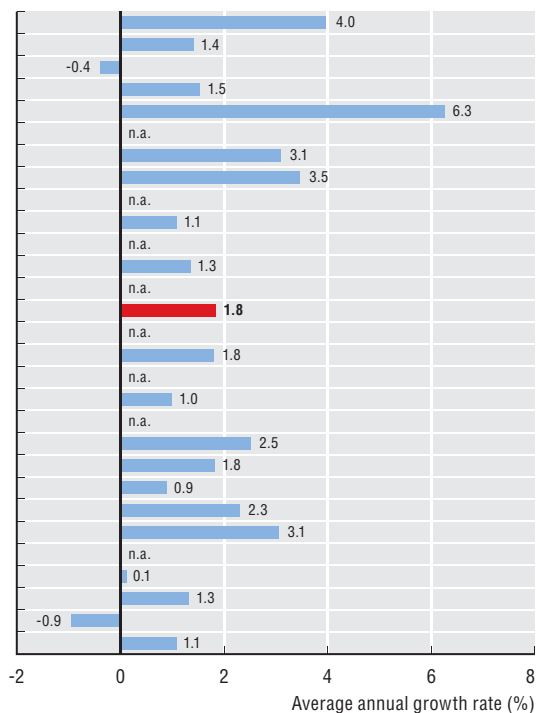
The data from the Netherlands exclude pharmacists working in hospitals/clinics (resulting in a slight under-estimation). The data for Luxembourg exclude pharmacists paid by hospitals, but include employees in pharmacies and pharmacists working in administration.

In Ireland, the data include all people on the register of the Pharmaceutical Society of Ireland, possibly including some pharmacists who are not in activity. In addition, the figures include assistant pharmacists, pharmaceutical assistants, and doctors who are dispensing medications (approximately 140 in 2007), resulting in an over-estimation compared with the data provided by other countries. Assistant pharmacists are also included in Iceland.

3.12.1 Pharmacists per 100 000 population, 2007 (or latest year available)

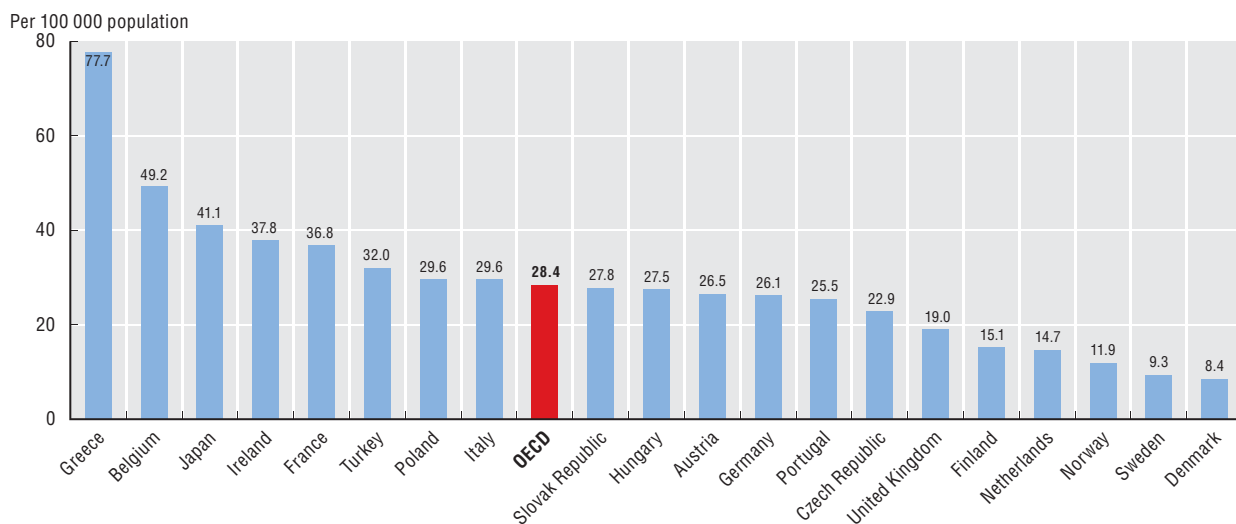


3.12.2 Change in the number of pharmacists per 100 000 population, 1990-2007 (or nearest year)



Source: OECD Health Data 2009.

3.12.3 Pharmacies and other dispensaries of prescribed drugs per 100 000 population, selected OECD countries, 2007



Source: Vogler et al. (2008) and Japanese Pharmaceutical Association (2008).

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