### 3.7. Nurses

Nurses are usually the most numerous health profession, greatly outnumbering physicians in most OECD countries. Nurses play a critical role in providing health care not only in traditional settings such as hospitals and long-term care institutions but increasingly in primary care (especially in offering care to the chronically ill) and in home care settings.

However, there are concerns in many countries about shortages of nurses, and these concerns may well intensify in the future as the demand for nurses continues to increase and the ageing of the "baby boom" generation precipitates a wave of retirements among nurses. These concerns have prompted actions in many countries to increase the training of new nurses combined with efforts to increase the retention of nurses in the profession (OECD, 2008a).

On average across OECD countries, there were 8.4 nurses per 1 000 population in 2009 (Figure 3.7.1). The number of nurses per capita was highest in several Nordic countries, with 14 to 15 nurses per 1 000 population. The number is also high in Switzerland and Belgium, although the data for Belgium relate to all nurses who are licensed to practice, resulting in an overestimation. The number of nurses per capita in OECD countries was lowest in Chile (although the number is underestimated, because it only takes into account nurses working in the public sector), as well as in Turkey, Mexico and Greece. The number of nurses per capita was also low compared with the OECD average in major emerging economies, such as India, Brazil, Indonesia and China, where there were fewer than 1.5 nurses per 1 000 population in 2009, although numbers have been growing quite rapidly in Brazil and China in recent years (Figure 3.7.1).

The number of nurses per capita increased in almost all OECD countries over the past decade, at an average rate of 1.8% per year between 2000 and 2009. Chile saw the largest increase among OECD countries, with an increase of 12% per year, although the number of nurses per capita remains very low. The number of nurses per capita also increased rapidly in Portugal and Korea. In Israel, the number of nurses per capita declined between 2000 and 2009. It also declined in the Slovak Republic, although the recent increase in the number of new nursing graduates may lead to an increase in the coming years. In Australia and the Netherlands, the number of nurses per capita declined between 2000 and 2007, but has risen since then.

In 2009, the nurse-to-doctor ratio ranged from five nurses per doctor in Ireland to less than one nurse per doctor in Chile, Greece and Turkey (Figure 3.7.2). The number of nurses per doctor is also relatively low in Italy, Mexico, Israel, Portugal and Spain. The average across OECD countries is just below three nurses per doctor, with most

countries reporting between two to four nurses per doctor. In Greece and Italy, there is evidence of an over-supply of doctors and under-supply of nurses, resulting in an inefficient allocation of resources (OECD, 2009a; Chaloff, 2008).

In response to shortages of doctors and to ensure proper access to care, some countries have developed more advanced roles for nurses. Evaluations of nurse practitioners from the United States, Canada and the United Kingdom show that advanced practice nurses can improve access to services and reduce waiting times, while delivering the same quality of care as doctors for a range of patients, including those with minor illnesses and those requiring routine follow-up. Most evaluations find a high patient satisfaction rate, while the impact on cost is either cost-reducing or cost-neutral. The implementation of new advanced nursing roles may require changes to legislation and regulation to remove any barrier to extensions in their scope of practice (Delamaire and Lafortune, 2010).

## Definition and comparability

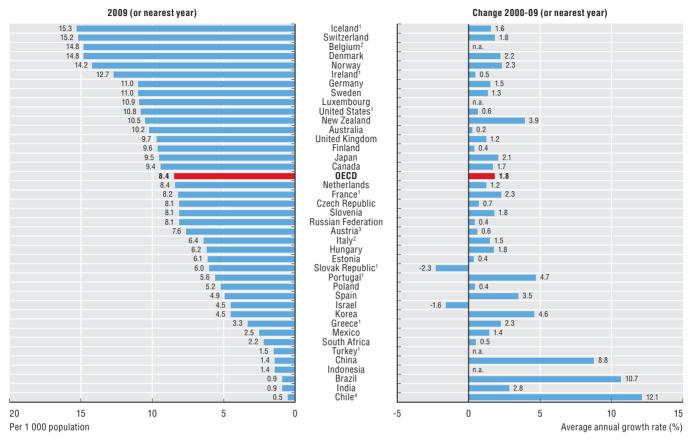
The number of nurses includes those employed in public and private settings, including the self-employed. In most countries, they refer specifically to nurses providing services directly to patients ("practising") while other countries also include those working as managers, educators or researchers.

In those countries where there are different levels of nurses, the data include both "professional nurses" who have a higher level of education and perform higher level tasks and "associate professional nurses" who have a lower level of education but are nonetheless recognised and registered as nurses.

Midwives, as well as nursing aids who are not recognised as nurses, are normally excluded. However, about half of OECD countries include midwives because they are considered as specialist nurses. Austria reports only nurses working in hospitals, resulting in an under-estimation. Chile reports only nurses working in the public sector. Data for Germany does not include about 250 000 nurses (representing an additional 30% of nurses) who have three years of education and are providing services for the elderly.

Information on data for Israel: http://dx.doi.org/10.1787/888932315602.

#### 3.7.1 Practising nurses per 1 000 population, 2009 and change between 2000 and 2009

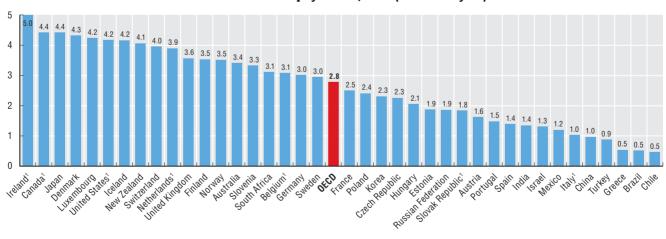


- 1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc.
- 2. Data refer to all nurses who are licensed to practice.
- 3. Austria reports only nurses employed in hospitals.
- 4. Chile includes only nurses working in the public sector.

Source: OECD Health Data 2011; WHO-Europe for the Russian Federation and national sources for other non-OECD countries.

StatLink http://dx.doi.org/10.1787/888932524279

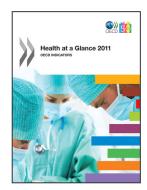
#### 3.7.2 Ratio of nurses to physicians, 2009 (or nearest year)



1. For those countries which have not provided data for practising nurses and/or practising physicians, the numbers relate to the same concept ("professionally active" or "licensed to practice") for both nurses and physicians, for the sake of consistency.

Source: OECD Health Data 2011; WHO-Europe for the Russian Federation and national sources for other non-OECD countries.

StatLink http://dx.doi.org/10.1787/888932524298



# From: Health at a Glance 2011 OECD Indicators

# Access the complete publication at:

https://doi.org/10.1787/health\_glance-2011-en

# Please cite this chapter as:

OECD (2011), "Nurses", in Health at a Glance 2011: OECD Indicators, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/health\_glance-2011-26-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

