## **Doctors and nurses**

Access to high-quality health services critically depends on the size, skill-mix, competency, geographic distribution and productivity of the health workforce. Health workers are the cornerstone of health care systems.

The number of doctors per 1 000 population varies widely across Asia-Pacific countries and territories, but it is generally lower than the OECD average (Figure 5.1). Across lower-middle- and low-income Asia-Pacific countries and territories, there are 1.1 doctors 1 000 population, whereas a higher number of doctors – 1.6 per 1 000 population – is reported in upper-middle-income countries and territories. Mongolia, Australia and DPRK have the highest number of doctors per capita, with 3.9, 3.8, and 3.7 doctors per 1 000 population, respectively; slightly higher than the OECD average of 3.6. In contrast, Papua New Guinea, Cambodia, and the Solomon Islands, have the lowest number of physicians at or below 1 per 5 000 population.

The foundation for a strong and effective health workforce, able to respond to the 21st century priorities, requires matching effectively the supply and skills of health workers to population needs, now and in the future (WHO, 2016<sub>[1]</sub>). To this aim, the specialisation-mix and distribution of doctors may be improved in Asia-Pacific. In Japan, for example, the number of medical facilities with surgical and paediatric departments is on decline, while shortages of doctors in emergency departments, obstetrics and gynaecology, internal medicine and anaesthesia have been identified (Sakamoto, Rahman and Nomura, 2018<sub>[2]</sub>). Furthermore, an uneven geographical distribution of health workers is a serious concern. The majority of health workers tend to be concentrated in urban areas, leaving a shortage of health workers in remote and rural areas that results in poor availability of health services particularly for vulnerable populations (Liu and Zhu, 2018<sub>[3]</sub>).

There is a large variation also in the number of nurses across countries and territories in Asia-Pacific (Figure 5.2). The number of nurses is highest in high-income countries such as Australia, Japan and New Zealand, with more than 10 nurses per 1 000 population. The supply is much lower in several low-income countries and territories, including Papua New Guinea, Pakistan and Bangladesh, where there is 1 nurse or less per 2000 population. On average, less than two nurses per 1 000 population work in lower-middle and low-income Asia-Pacific countries. Furthermore, nurses are not well distributed geographically within countries and territories such as Indonesia and the Philippines (Dayrit et al., 2018<sub>[4]</sub>; Harimurti, Prawira and Hort, 2017<sub>[5]</sub>), and several other countries and territories in the region face the same issue (WHO, 2020<sub>[6]</sub>).

In some countries and territories, national human resources for health planning needs to take account of migration trends in order to secure the necessary number of health professionals domestically. For example, around 69 000 Indian-trained physicians worked in the United States, United Kingdom, Canada and Australia in 2017, and nearly 56 000 Indian-trained nurses work in the same four countries (Walton-Roberts and Rajan, 2020<sub>[7]</sub>), despite a domestic density of half of the Asia-Pacific average for doctors and less than half for nurses. On the other hand, the Philippines is also the biggest supplier of nurses and a major exporter of doctors (Dayrit et al., 2018<sub>[4]</sub>), but the density of these health professionals is at about the Asia-Pacific average.

As seen in OECD countries, nurses outnumber doctors, and there are 1.7 and 2.1 nurses per doctor in lower-middle-, low-income-, and upper-middle-income Asia-Pacific countries, respectively (Figure 5.3). However, there are some exceptions. Due to very few numbers of doctors, the Solomon Islands have 11 nurses per doctor. On the other hand, doctors outnumber nurses in Pakistan and Bangladesh, whereas the same number of nurses and doctors is reported in Myanmar and Mongolia.

Countries and territories in Asia-Pacific need to respond to the changing demand for health services and hence the health professional skill-mix in the context of rapidly ageing populations (see indicator "Ageing" in Chapter 3). The WHO global strategic directions (WHO, 2016[1]) provide the framework for strengthening health workforce services to help countries and territories achieve universal health coverage. In addition, target 3.C of the Sustainable Development Goals calls for "substantially increase the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States".

OECD countries, already experiencing population ageing, have developed formal systems to care for people with limitations on activities of daily living, and long-term care workers, typically nurses and personal carers, provide care and/or assistance to these people at home or in institutions (Muir, 2017<sub>[8]</sub>).

### **Definition and comparability**

Doctors include generalist medical doctors (including family and primary care doctors) and specialist medical doctors.

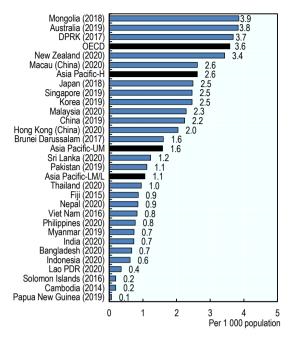
For Asia-Pacific non-OECD countries and territories, "Nurses" refers to the number of nursing personnel, including professional nurses, auxiliary nurses, enrolled nurses and related occupations such as dental nurses and primary care nurses. For OECD countries, "Nurses" refers to practising nurses that provide services directly to patients. This number includes professional nurses, associate professional nurses and foreign nurses licensed to practice and actively practising in the country.

Data are based on head counts.

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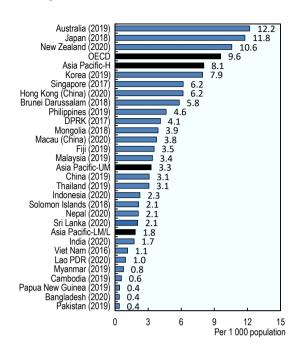
Figure 5.1. Doctors per 1 000 population, latest year available



Note: Denominator for Hong Kong (China) is based on mid-year population; for Macau (China) on end of year population. Source: OECD Health Statistics 2022; WHO GHO, 2022; National Data Sources (see Annex A).

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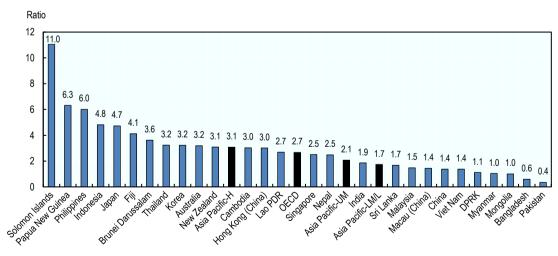
Figure 5.2. Nurses per 1 000 population, latest year available



Note: Denominator for Hong Kong (China) is based on mid-year population; for Macau (China) on end of year population. Source: OECD Health Statistics 2022; WHO GHO, 2022; National Data Sources (see Annex A).

StatLink https://stat.link/c7vszw

Figure 5.3. Ratio of nurses to doctors, latest year available



Note: Denominator for Hong Kong (China) is based on mid-year population; for Macau (China) on end of year population. Source: OECD Health Statistics 2022; WHO GHO, 2022; National Data Sources (see Annex A).

StatLink https://stat.link/y3etcn



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