Lung cancer is the most commonly diagnosed cancer among men in the Asia-Pacific region, and the second most common cancer among women, after breast cancer. In 2018, 1.2 million people were diagnosed with lung cancer and it was the commonest cause of death from cancer (slightly over 1 million deaths) in the region (IARC, 2020[22]). The main risk factors for lung cancer include tobacco smoking and environmental factors (such as air pollution). Other factors include passive smoking, occupational or residential exposure to radon, arsenic, asbestos, beryllium, cadmium, coal and coke fumes, silica or nickel, and a family history of lung cancer.

In 2018, the average incidence rate of lung cancer for men and women was higher in high income countries than in other countries. Incidence rate of lung cancer was high at over 40 per 100 000 men in China; Japan; Korea, DPR; the Republic of Korea and Singapore, and higher than 20 per 100 000 women in Australia; Brunei Darussalam; China; Korea, DPR and New Zealand. Incidence rates were lowest in Fiji and India at below eight per 100 000 men and in Pakistan and Sri Lanka at three per 100 000 women (Figure 7.10).

Current incidence rates reflect patterns of tobacco use two or three decades earlier (see indicator "Tobacco" in Chapter 4). Following the different historical trends in smoking between males and females, the incidence rate of lung cancer has been higher among men than among women in the Asia-Pacific region. Based on the time-series data available for a limited number of countries, after a declining trend of male smoking rates, the incidence rate of lung cancer for men fell in countries and territories such as Australia; New Zealand; Hong Kong, China; and the Philippines over the past few decades. For women, however, new cases of lung cancer increased in countries including Australia, India, Japan and New Zealand where female smoking had increased (IARC, 2020[21]).

Compared to other cancers such as breast and colorectal cancers (see indicators "Incidence, survival and mortality for breast cancer" and "Incidence, survival and mortality for colorectal cancer"), lung cancer continues to be associated with very poor survival. Even in high-income Asia-Pacific countries and territories, for patients diagnosed with lung cancer during 2010-14, the cumulative probability to survive their cancer for at least five years was on average 22%.

Nonetheless, there is wide international variation in five-year survival from lung cancer, and this suggests differences in timely diagnosis and access to high-quality care between Asia-Pacific countries and territories. Age-standardised five-year net survival for lung cancer patients diagnosed during 2010-14 was highest in Japan (32.9%), followed by Korea (25.1%) but lowest in India (3.7%) (Figure 7.11). Mass screening for lung cancer is not common, but in Japan, an annual chest X-ray is recommended for people aged 40 and over, and sputum cytology is also recommended for smokers aged 50 and over who have smoked more than 600 cigarettes over their lifetime, possibly leading to earlier detection (OECD, 2019[29]). Various drugs have been approved and covered by public payers for lung cancer treatment in Asia-Pacific countries and territories, but the availability varies between countries. Comparable data are available only for Japan and Korea: the availability of new lung cancer drugs appears slightly better in Japan than in Korea (OECD, 2020[30]).

Age-standardised five-year net survival has increased in most countries and territories in the Asia-Pacific region, suggesting that access and quality of care have improved for lung cancer patients. Between 2000-04 and 2010-14, the largest progress in net survival for lung cancer was seen in Korea and Singapore.

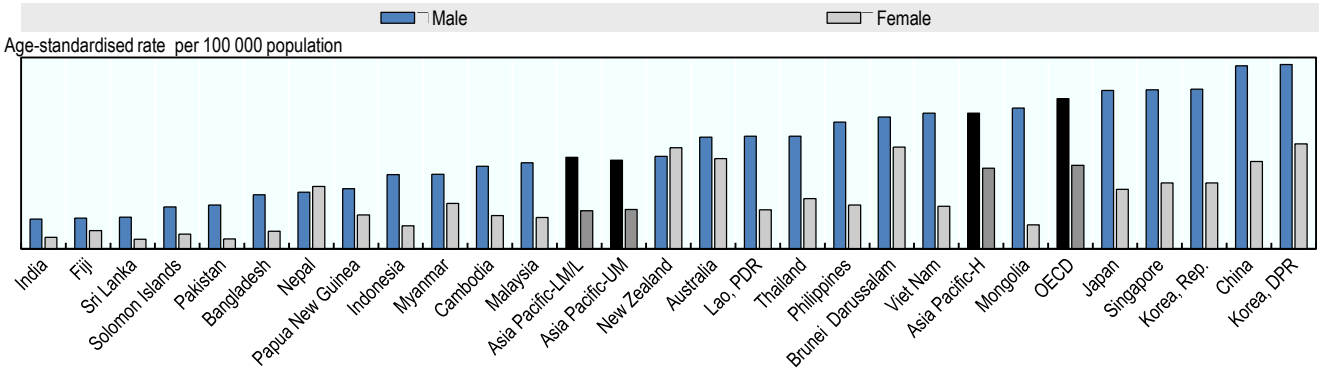
In 2018, age-standardised mortality rates from lung cancer varied eight-fold between Asia-Pacific countries and territories. The mortality rate was high at over 30 per 100 000 population in China and Korea, DPR but low at less than seven per 100 000 population in Fiji, India, Pakistan and Sri Lanka (Figure 7.12). As seen in incidence rates, mortality rates were higher in high-income countries.

In general, trends in age-standardised mortality rates for lung cancer follow corresponding trends in the incidence rates with a time lag, because net survival has remained uniformly poor in all countries. Given current difficulties in treating lung cancer effectively, countries need to focus on primary prevention of lung cancer, principally through tobacco control, in order to reduce mortality rates. This is a long-term strategy, because of the long latency between starting to smoke and the highest lung cancer risks, but it is particularly critical in the Asia-Pacific region, where the prevalence of tobacco smoking is generally high.

Definition and comparability

See the indicator "Incidence, survival and mortality for breast cancer" for incidence data and the definition of net survival. See the indicator "Mortality from cancer" in Chapter 3 for the definition of cancer mortality rates. Incidence and mortality rates from lung cancer are based on ICD-10 codes C33-C34 (trachea, bronchus, and lung). Survival estimates for lung cancer are based on the International Classification of Diseases for Oncology (ICD-O-3 C34.0–C34.3 and C34.8–C34.9).

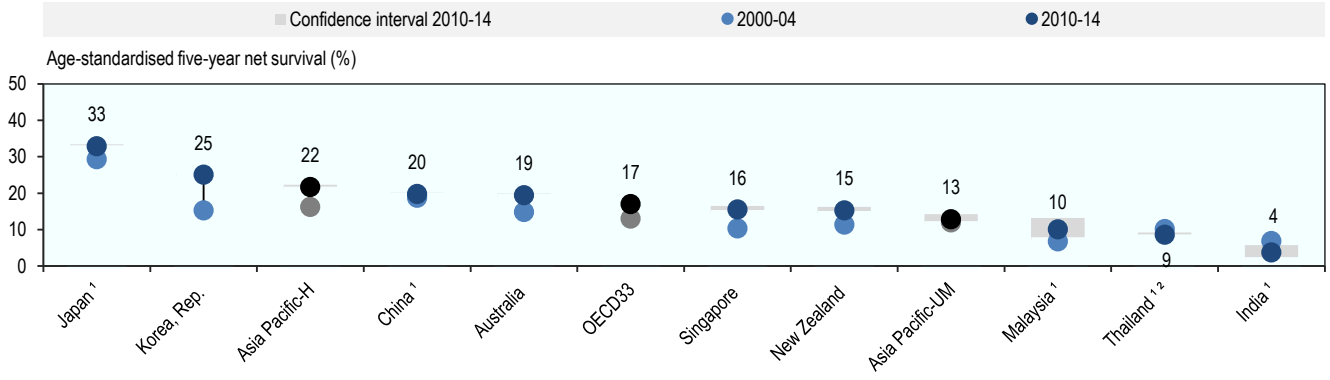
Figure 7.10. **Lung cancer incidence, by sex, 2018**



Source: IARC Global Cancer Observatory 2020.

StatLink https://stat.link/gc07yo

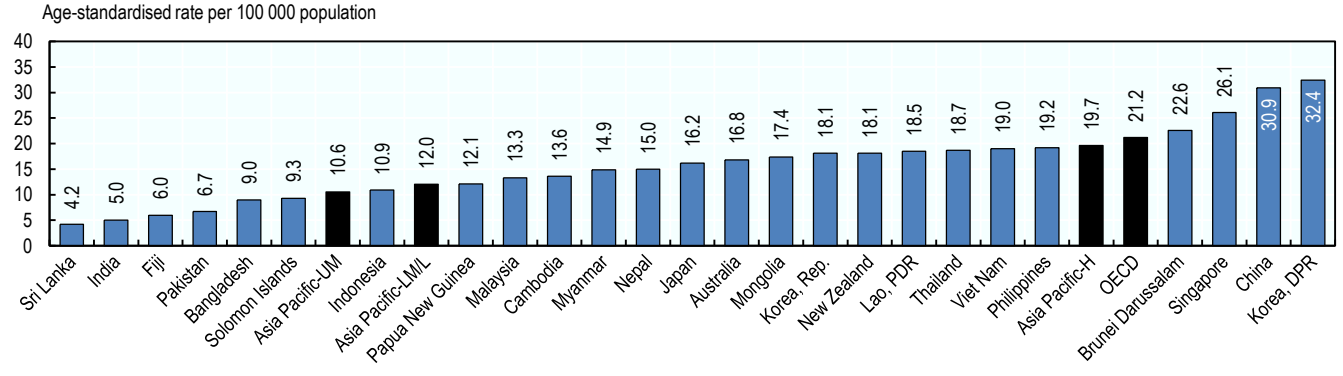
Figure 7.11. **Lung cancer five-year net survival, patients diagnosed during 2000-04 and 2010-14**



Note: For all countries, 95% confidence intervals for 2010-14 are represented by grey areas. For Malaysia, the estimate in light blue is for 2005-09. 1. Data represent coverage of less than 100% of the national population. 2. The estimate for 2000-04 is less reliable. See Allemani et al. (2018) for more information.
Source: CONCORD programme, London School of Hygiene and Tropical Medicine.

StatLink https://stat.link/joxq41

Figure 7.12. **Lung cancer mortality, 2018**



Source: IARC Global Cancer Observatory 2020.

StatLink https://stat.link/t4ogn1

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