LUNG CANCER

Lung cancer remains the most commonly diagnosed cancer and the leading cause of cancer death worldwide because of inadequate tobacco control policies.

Globally, there were an estimated 2.1 million lung cancer cases and 1.8 million deaths in 2018. Incidence and mortality rates vary 20-fold between regions. **FIGURE 11.1** The variation is similarly large across countries. The highest incidence rates among men are in Europe, particularly in Eastern European countries such as Hungary (77 cases per 100,000 male population) as well as Western Asia (particularly in the former Soviet Union) and in certain countries in Asia such as Turkey and China. MAP 11.1 Among women, lung cancer incidence rates are highest in Hungary (38 cases per 100,000 female population), followed by other European countries, Northern America, Australia, and New Zealand. In general, the geographic patterns of lung cancer mortality are quite similar to those of incidence due to the relatively poor prognosis of the disease after diagnosis.

Historically, lung cancer mortality rates have been higher among males than females due to an earlier uptake of smoking in large numbers. **FIGURE 11.2** More recently, reports have noted a convergence in incidence and mortality rates between young men and women in Europe, North America, and Australia, due to a larger decrease in rates in men and a substantial rise (or slower decline) in women who acquired the smoking habit later than men. FIGURE 11.3 In Asia, Latin America, and Africa, however, the lung cancer burden among men still largely exceeds that of women at all ages. **FIGURE 11.4** In the last few decades, mortality rates among men in these regions have started to

decline, however, with rates among women often remaining low.

In most parts of the world, tobacco use is the main cause of lung cancer, although other causes can be particularly important in selected countries. FIGURE 11.5 Other established risk factors include secondhand smoke, air pollution, radon, and several occupational agents (see 08, Environmental Pollutants and Occupational Exposures). However, reducing tobacco smoking alone could prevent the majority of lung cancers. Screening for detection of the disease at an earlier stage for long-term heavy current and former smokers is available, but wide dissemination of the procedure is unlikely in the short term, even in high-income countries, because of the need for a more advanced and coordinated healthcare system.

Smoking and lung cancer mortality rate trends

in men and women, United States



Age-standardized rate (world) per 100,000

Japan

S. Africa

Brazil

Male

Female

2010

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The tobacco epidemic is characterized by an increase in uptake of smoking followed by an increase in lung cancer



FIGURE 11.1

FIGURE 11.3

FIGURE 11.2



MAP 11.1

Lung cancer

incidence by sex, 4.6 or less 4.7-12.6 26.4-40.3 age-standardized rate (world) per 100,000, 2018 MALE FEMALE FIGURE 11.5 Lung cancers related to tobacco smoking and air pollution in China and France Air pollution Tobacco smoking 14% 70% 81% Although tobacco remains the most important risk factor for lung cancer, other factors such as air pollution are France significant in some countries. China CANCERATLAS.CANCER.ORG

No data

Tobacco smoking causes about two-thirds of all lung cancer deaths worldwide.

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Since the United States Surgeon General's Report on Smoking and Health in 1964, smoking prevalence among adults in the United States has decreased by half.