OVERVIEW OF GEOGRAPHIC DIVERSITY

The diversity in cancer profiles in different world areas signifies that both regional cooperation and local, evidence-based interventions are needed in the fight against cancer.

There are striking geographic differences in the incidence and mortality of different cancer types in different world regions. This global diversity reflects both the presence of local risk factors for specific cancers, and the extent to which effective cancer control measures have been implemented. Much of the observed variation in recorded incidence rates of different cancer types in different registry populations can be ascribed to lifestyle and environmental factors. FIGURE 16.1 Such marked international variability supports the critical role of cancer prevention as a means to reduce the future cancer burden. Although specific causes remain unknown for many cancers, where measured, about two-fifths of cancers diagnosed today are potentially avoidable. Prevention measures include eliminating exposure to known lifestyle and environmental risk factors, including tobacco and alcohol, dietary factors, excess body weight, and UV radiation, and increasing resistance to infection by vaccination. However, the proportion of cancer cases avoidable-overall and for specific risk factors-substantially varies by region. For example, infection accounts for 30-50% of all cases in sub-Saharan Africa, whereas this proportion is only 3-5% in Europe and North America.

The most frequently diagnosed cancers and leading causes of cancer death at the national level reflect the major risk factors in the population

FIGURE 16.1

Relative and absolute global variations in incidence rates of registry populations included in CI5 Volume XI (circa 2008-12); rates shown are those within the 10th and 90th percentiles in males



and the average prognosis of the major cancers observed. MAP 16.1, 16.2 Certain cancers dominate the global landscape, particularly in women: female breast cancer is the most frequent cancer in fourfifths of the world's nations, with cervical cancer ranking most frequent in the majority of remaining countries, particularly in sub-Saharan Africa. The mortality profile among women is slightly more heterogeneous, with lung cancer also a leading

cause of death. Among men, there is considerable international diversity in the leading cancer types, with around 10 different cancers as the most commonly diagnosed cancer or leading cause of cancer death. Prostate, lung, and liver cancer are major cancers in men, although other cancers dominate in some regions (lip and oral cavity in South Asia and Kaposi sarcoma in Eastern Africa). Nevertheless, lung cancer is the leading cause of cancer death among men in over half of the world's countries.

Cancer varies between different populations and every type is rare in some part of the world. Many specific causes are now known (to explain these differences), but a large proportion of global variation for common cancers remains unexplained.

— Prof. Julian Peto, Nature, 2001

Considering both sexes together, either female cervical cancer is the most commonly diagnosed

Site-specific cancer incidence rates between geographic areas.



The most common cancer cases and deaths in women in 185 countries in 2018

Breast

Cervix



MAP 16.2 The most common											
cancer cases and deaths in men in 185 countries in	Prostate	Lung	Liver	Colorectum	Stomach	Lip, oral cavity	Leukemia	Kaposi sarcoma	Non-Hodgkin lymphoma	Esophagus	No data
2018											



While prostate cancer is the most commonly diagnosed cancer among men in 106 countries worldwide, lung cancer dominates as the leading cause of cancer death in 93 countries.

elative magnitude is the rate in the 90th percentile divided by the rate in the 10th percenti

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Lung	Liver	Thyroid	Colorectum	Stomach	No data

WOMEN

frequently diagnosed cancers and leading causes of cancer death in many countries in women. Lung cancer is also a leading cause of cancer death in many countries.

MEN