THE ECONOMIC BURDEN OF CANCER

The economic burden of cancer is substantial in all countries and reflects health care spending as well as lost productivity due to morbidity and premature death from cancer. As cancer treatment costs increase, prevention and early detection efforts become more cost-effective, and potentially cost-saving.

The economic burden of lost productivity due to morbidity and premature death from cancer is nearly 60% of the total economic burden associated with cancer in European Union countries.

Cancer results in economic burden for patients, healthcare systems, and countries due to healthcare spending, and productivity losses from morbidity and premature mortality. Economic analyses can inform resource allocation decisions and investments in cancer control programs, including prevention, early detection, treatment, survivorship, and end-of-life care.

The global economic burden of cancer is unknown, although data are available in some countries. In the US in 2017, estimated cancer healthcare spending was US$161.2 billion; productivity loss from morbidity, US$30.3 billion; and premature mortality, US$150.7 billion. The economic burden of cancer in the US is approximately 1.8% of gross domestic product (GDP). In the European Union, healthcare spending was €57.3 billion, and productivity losses due to morbidity and premature death were €10.6 billion and €47.9 billion, respectively. With informal care costs of €26.1 billion, total burden rose to €141.8 billion, 1.07% of GDP. FIGURE 35.1

Productivity losses due to premature deaths vary in transitioning countries. FIGURE 35.2

Cancer treatment costs are increasing worldwide, making prevention and screening efforts more cost-effective and sometimes cost-saving. For example, when more expensive chemotherapies were considered in comparisons of colorectal cancer screening to no screening, treatment savings from preventing advanced cancer and death more than doubled in the US. Vaccination against human papillomavirus infection, which is responsible for most cervical cancers, in 73 countries supported by Gavi, the Vaccine Alliance, could avert nearly $5.6 billion in treatment costs and productivity losses between 2001–2020. Smoking is a strong risk factor for lung and other cancers. The cost of smoking globally is nearly $2.05 trillion annually, almost 2% of the world's economic output. FIGURE 35.3 Most of this cost is productivity losses from premature death.

FIGURE 35.1

*Total costs of cancer in billions of Euro including cancer care and productivity losses in 2009, select European countries**

The cost of cancer varies widely in European Union countries, reflecting differences in population size, age distribution, healthcare delivery systems, employment patterns and wages, and cancer incidence and mortality rates.

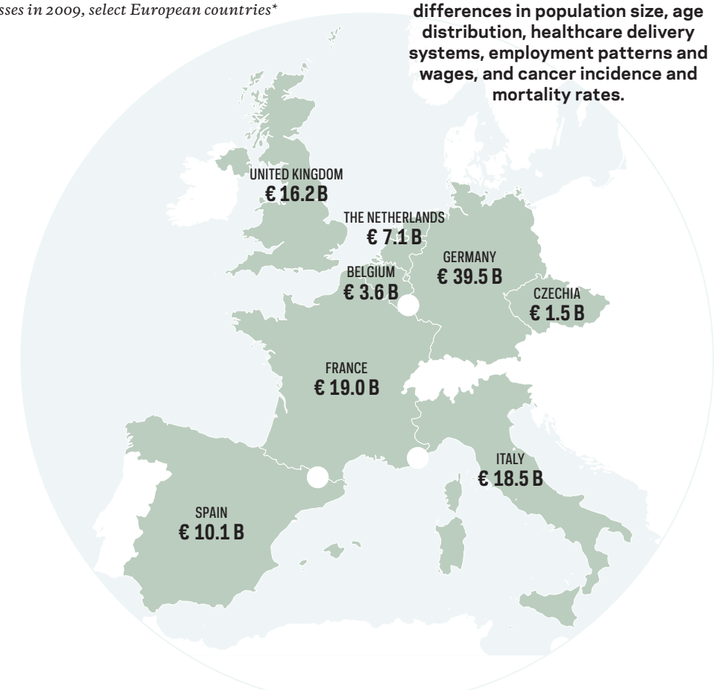
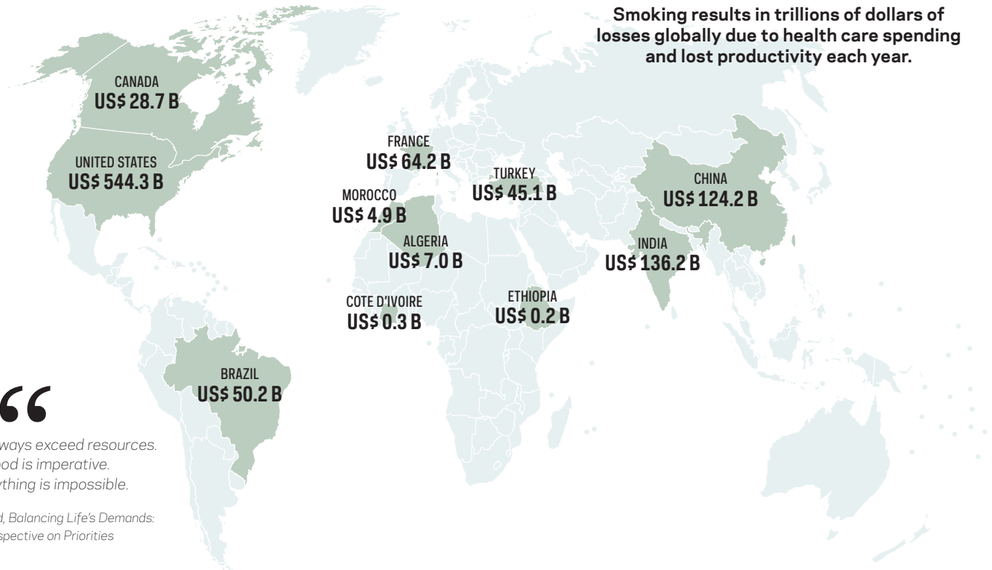


FIGURE 35.3 *Economic cost of smoking-attributable diseases annually (healthcare spending and productivity losses)**

Smoking results in trillions of dollars of losses globally due to health care spending and lost productivity each year.

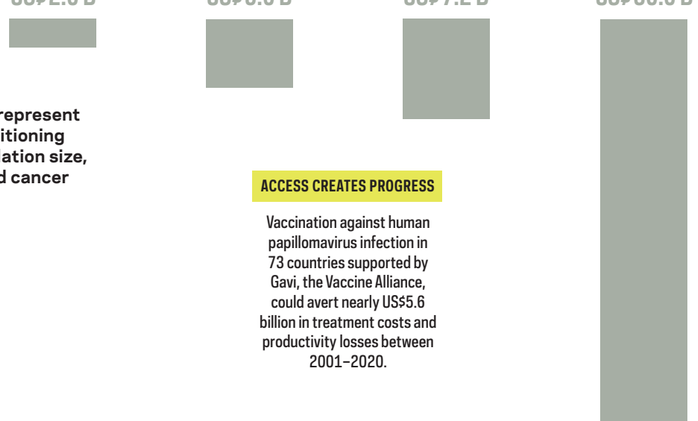


Requests will always exceed resources.
Doing good is imperative.
Doing everything is impossible.

— J. Grant Howard, Balancing Life's Demands: A New Perspective on Priorities

FIGURE 35.2 *Productivity losses due to premature deaths from cancer in transitioning economies**

	SOUTH AFRICA	BRAZIL	INDIA	CHINA
COST PER CANCER DEATH	US$108,320	US$57,186	US$21,096	US$61,594
TOTAL COST AS % OF GROSS DOMESTIC PRODUCT	0.49%	0.21%	0.36%	0.34%
TOTAL PRODUCTIVITY LOSS	US$2.0 B	US$5.0 B	US$7.2 B	US$30.0 B



Productivity losses due to cancer represent a large economic burden in transitioning economies. Variation reflects population size, employment patterns, wages, and cancer mortality rates.

ACCESS CREATES PROGRESS

Vaccination against human papillomavirus infection in 73 countries supported by Gavi, the Vaccine Alliance, could avert nearly US$5.6 billion in treatment costs and productivity losses between 2001–2020.

*For details on inflation adjustment, see Sources and Methods, page 124.

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