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Disease Control Priorities, 3rd Edition

CANCER

Volume 3: Cancer



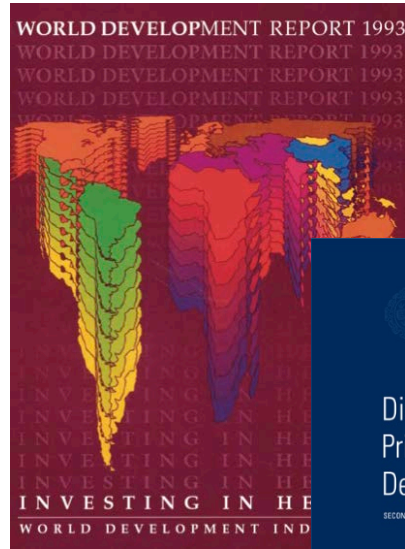
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Disease Control Priorities History

- 1993 World Development Report
- *Disease Control Priorities in Developing Countries, Second Edition 2006 (DCP2)*
- *Disease Control Priorities, 3rd Edition 2015-2016 (DCP3)*





Disease Control Priorities, 3rd Edition

DCP3 Volume Topics

1. Essential Surgery - 2015
2. Reproductive, Maternal, Newborn and Child Health -2016
3. Cancer - 2015
4. Mental, Neurological, and Substance Use Disorders - 2015
5. Cardiovascular, Respiratory, Renal and Endocrine Disorders - 2016
6. HIV/AIDS, STIs, Tuberculosis and Malaria - 2016
7. Injury Prevention and Environmental Health - 2016
8. Child and Adolescent Development - 2016
9. Disease Control Priorities: Improving Health & Reducing Poverty - 2016

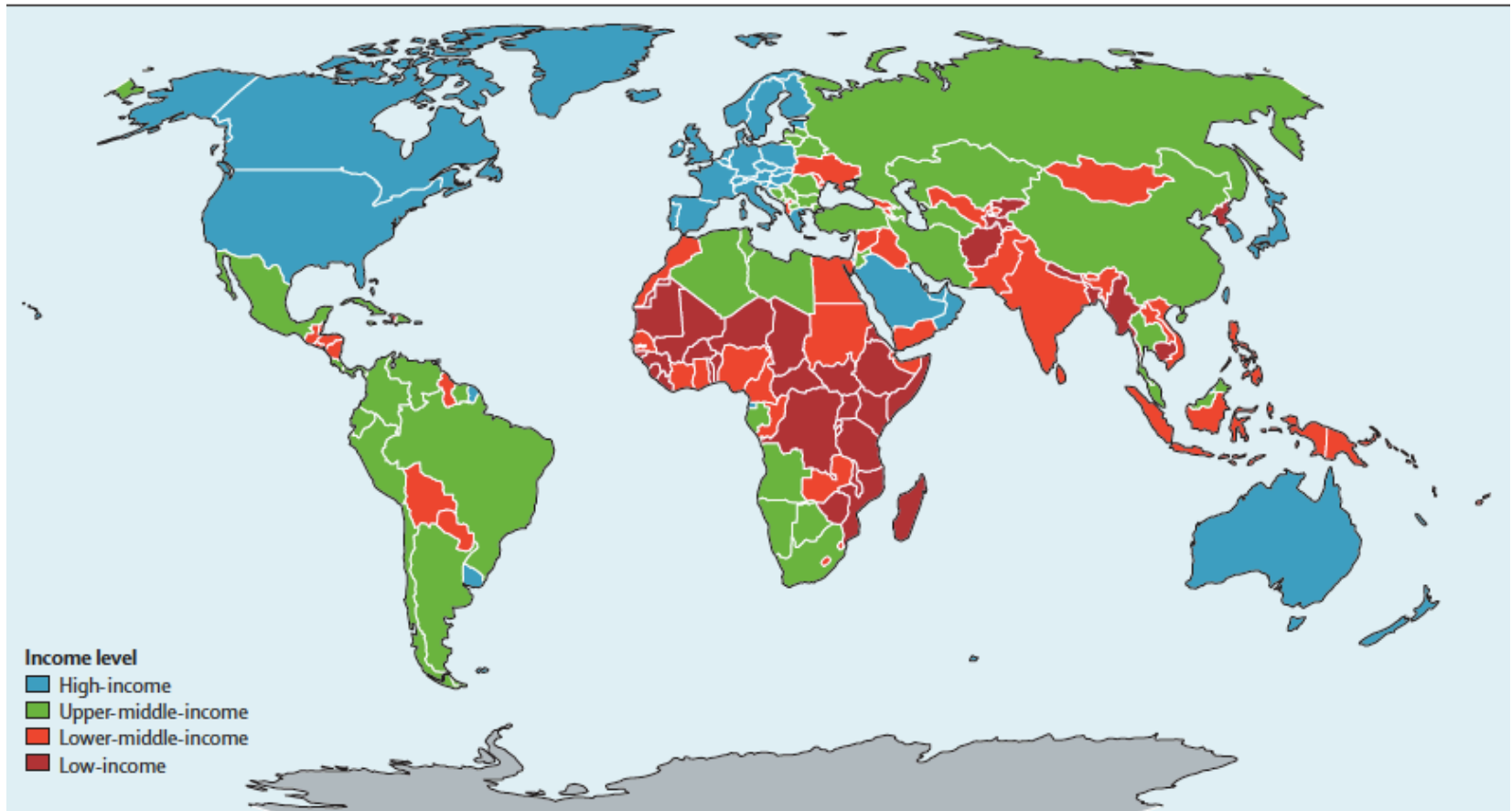
Multiple Volumes, Common Elements



DCP3 Overall

- Summarize and synthesize evidence of the effectiveness and comparative evaluation of global health interventions.
- Strengthen the capacity of evidence based priority-setting in global health.
- Introduce new methods for assessing the equity and financial protection considerations of health and policy.

World Bank country income groupings, 2013



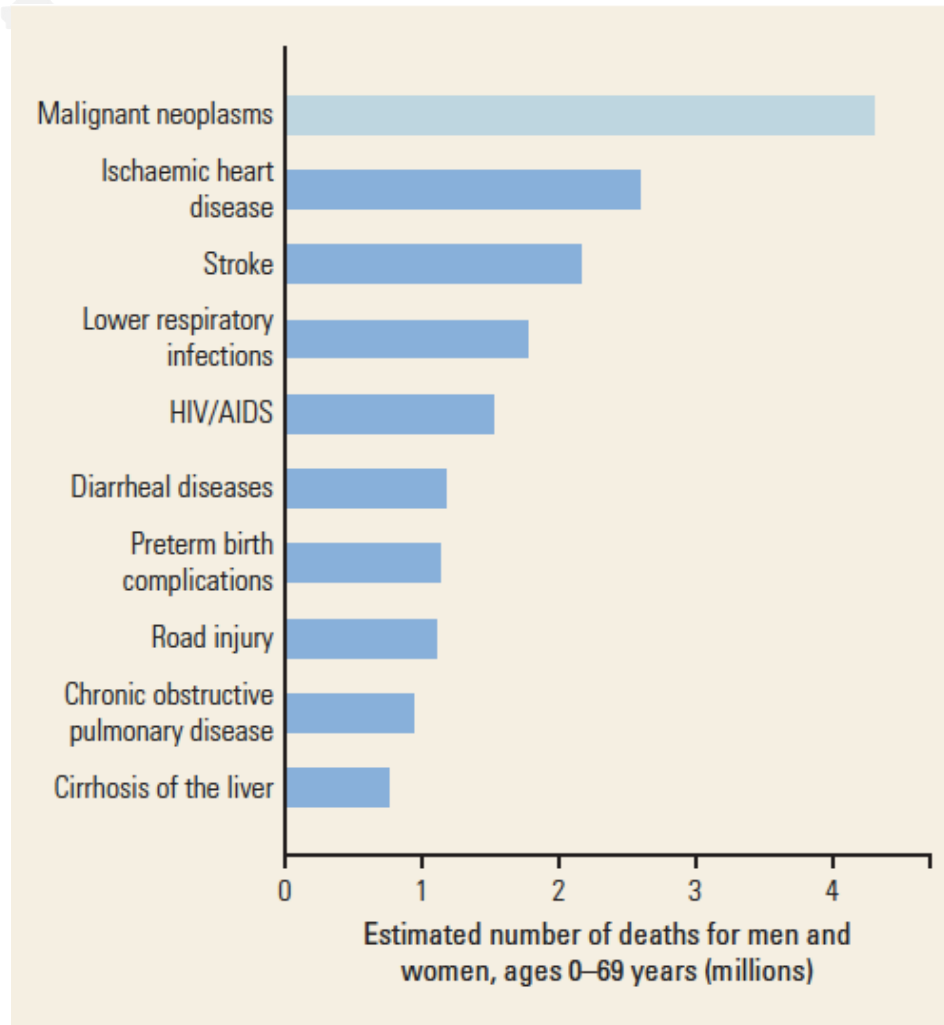
Cancer burden

Cancer already major cause of death in LMICs, and will continue to increase as a percentage of deaths, driven by population ageing and greater decreases in mortality from other causes.

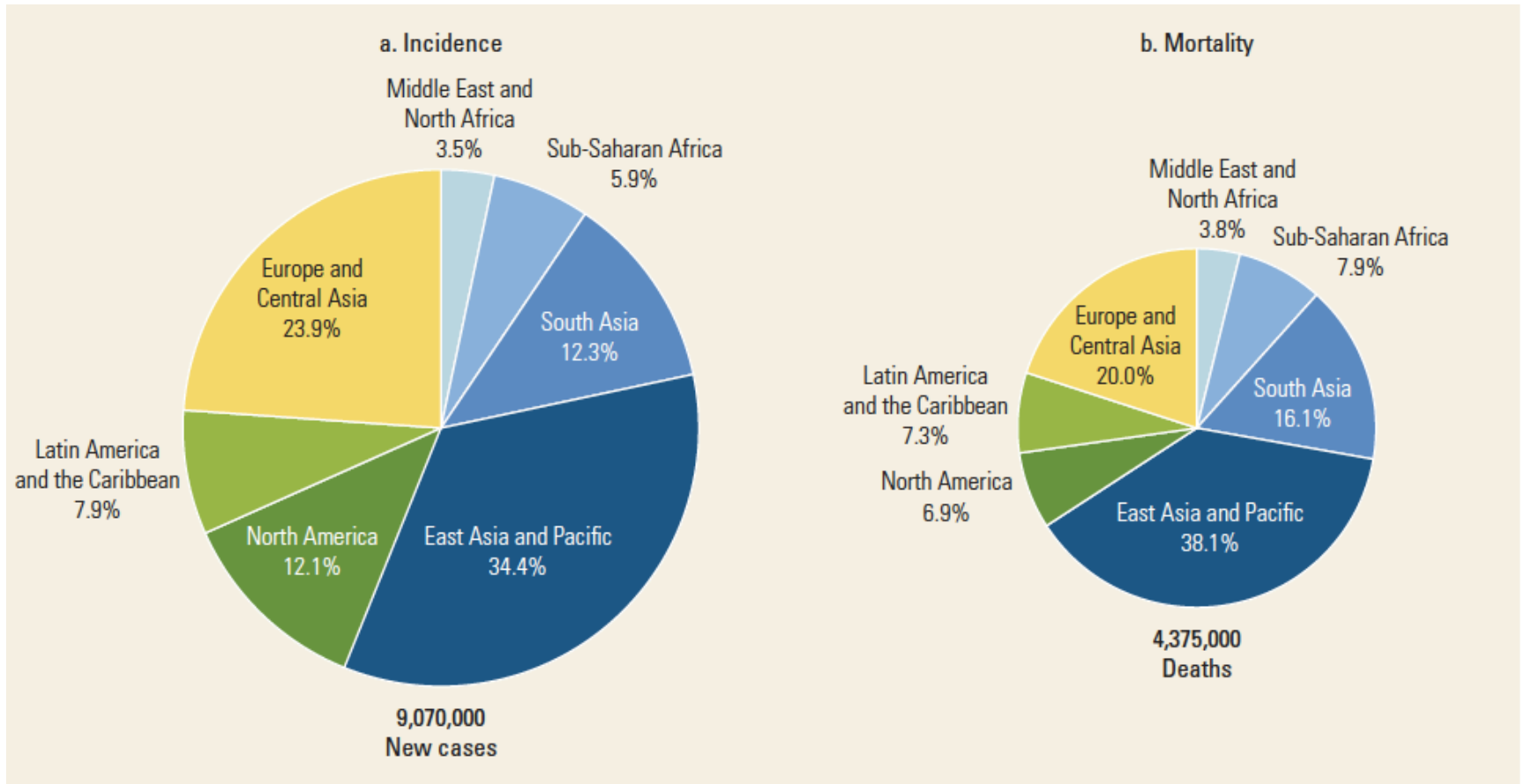
2012 Global Cancer Deaths:

- 8 million worldwide
 - 4.4 million in people <70
 - 3.1 million in middle-income countries
 - 0.3 million in low-income countries

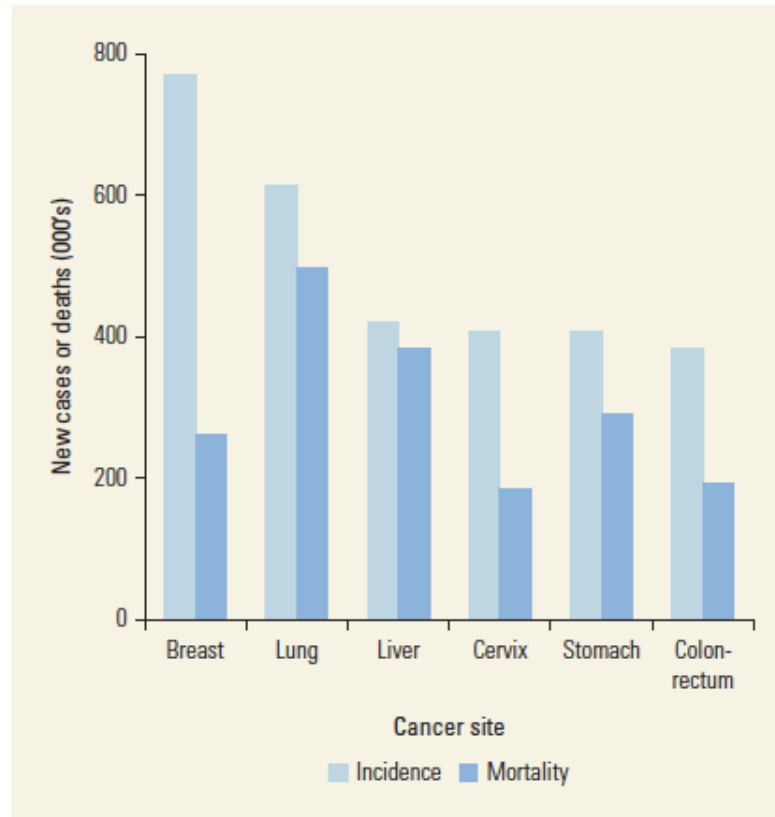
Top 10 causes of death worldwide, 2012



Estimated cancer incidence and mortality, 2012

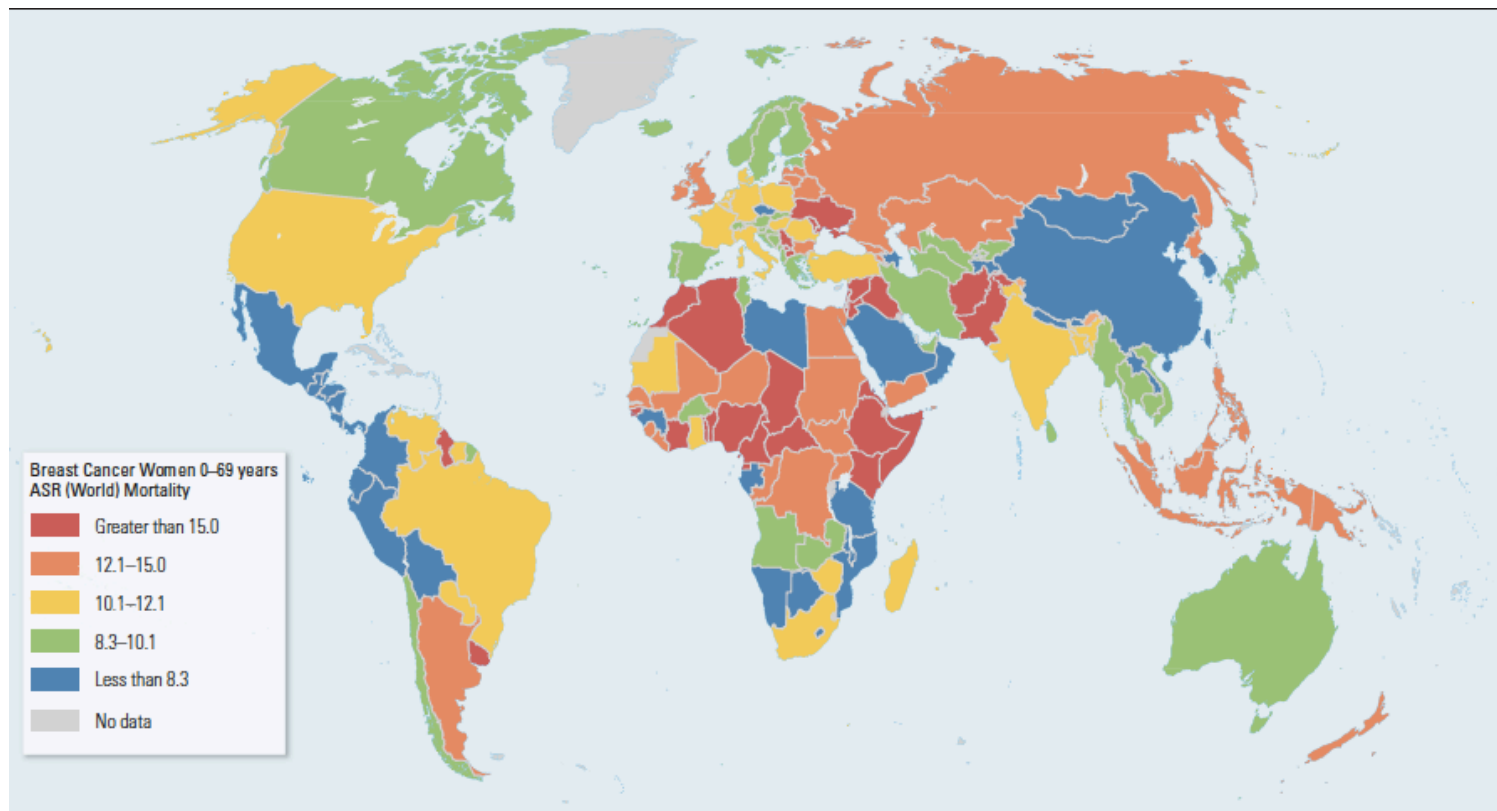


Incidence and mortality before age 70: selected cancers



Source: Based on IARC GLOBOCAN data (Ferlay and others 2015).

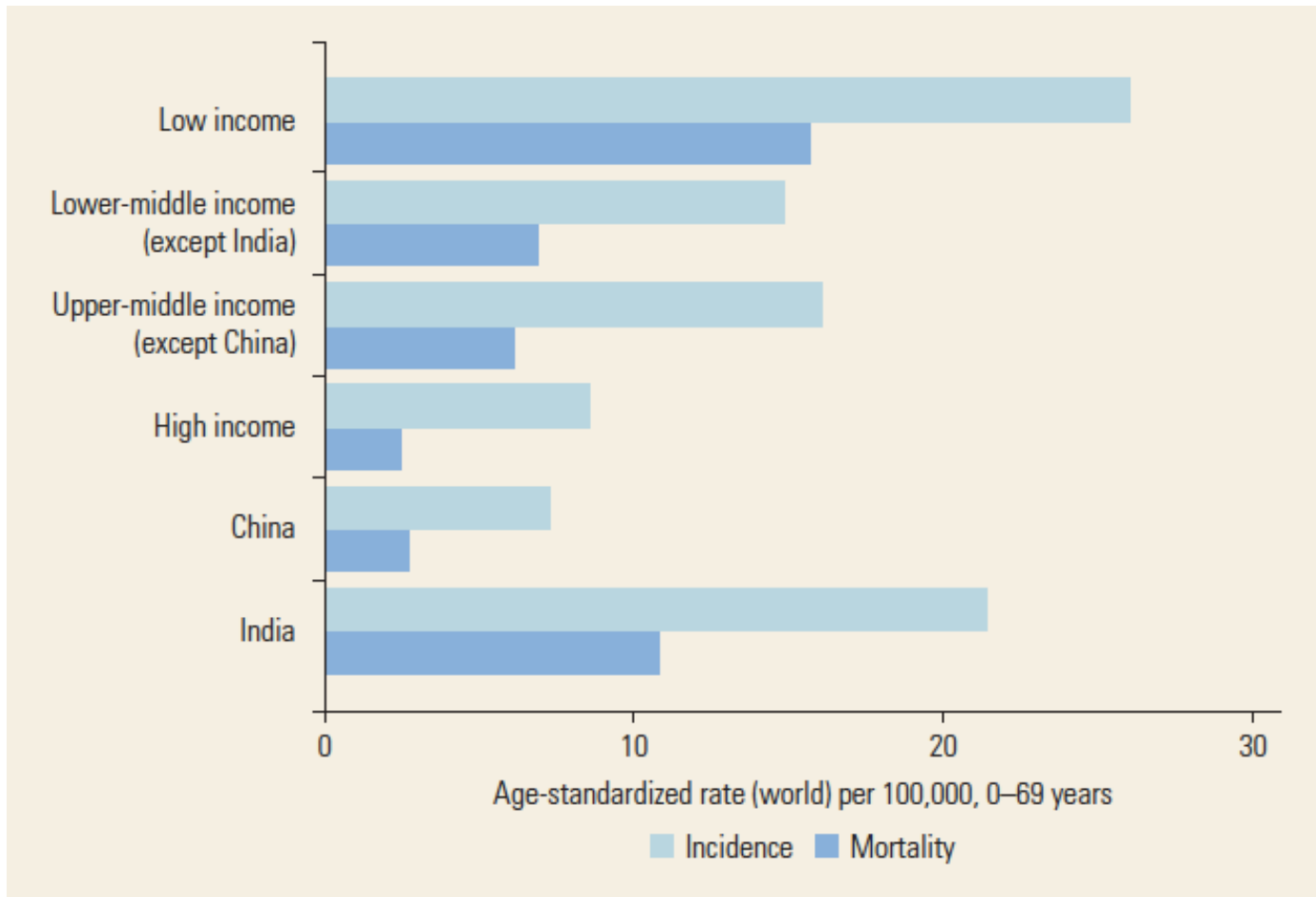
Global breast cancer mortality, women, 2012



Source: Ferlay and others 2013.

Note: Values are estimated ASR per 100,000 women. ASR = age-standardized rate.

Age-standardized cervical cancer incidence and mortality by country income group, 2012

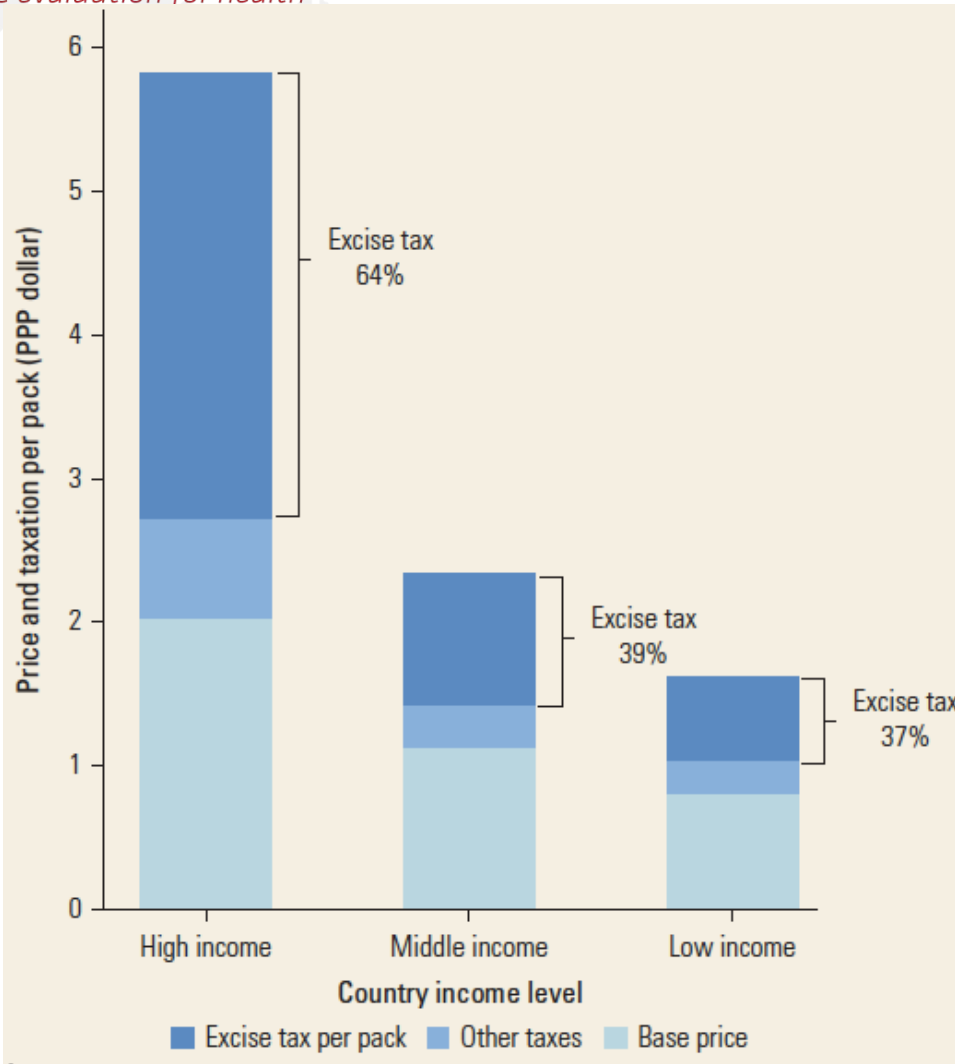


Prevention

Most urgent priority in cancer (and other NCD) control:

- tobacco cessation and preventing young people from starting smoking
 - Increased tobacco taxation will help to reduce cancer incidence and generate substantial extra revenues for governments.
- HBV vaccination (including birth dose)
- HPV vaccination

Retail price of most popular brand and excise tax



Treatment

Most other common cancers are not preventable (other than tobacco-related and virus-related cancers), but many cases of early cancer can be effectively treated—eg, breast, cervical, and colorectal cancers are common and curable if treated early. Most childhood cancers are also curable.

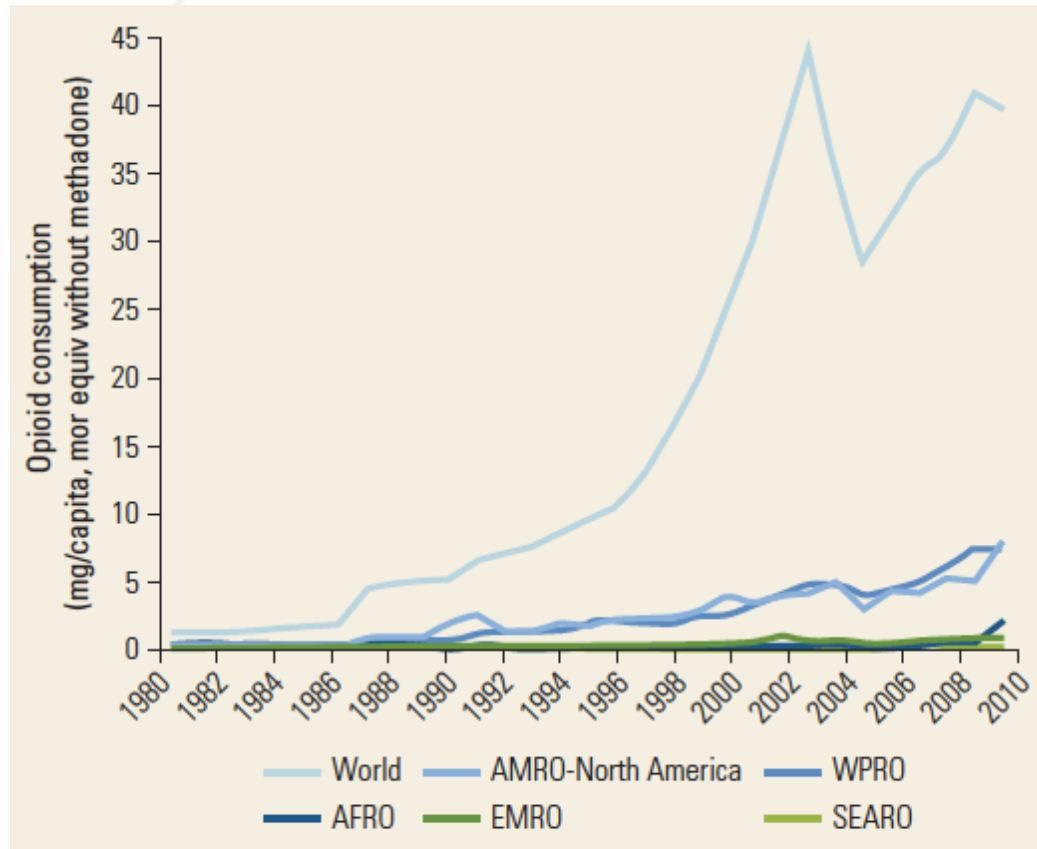
Palliative care

Cancer death is often accompanied by severe pain in the last months of life. Strong opioids, the bedrock of palliative care pain control, is unavailable to most people who die from cancer (and other painful diseases).

In 2006, of the global population:

- 66% lived in countries with no opioid consumption
- 13%, low consumption
- 4%, moderate consumption

Opioid consumption per capita by WHO region, 1980-2010



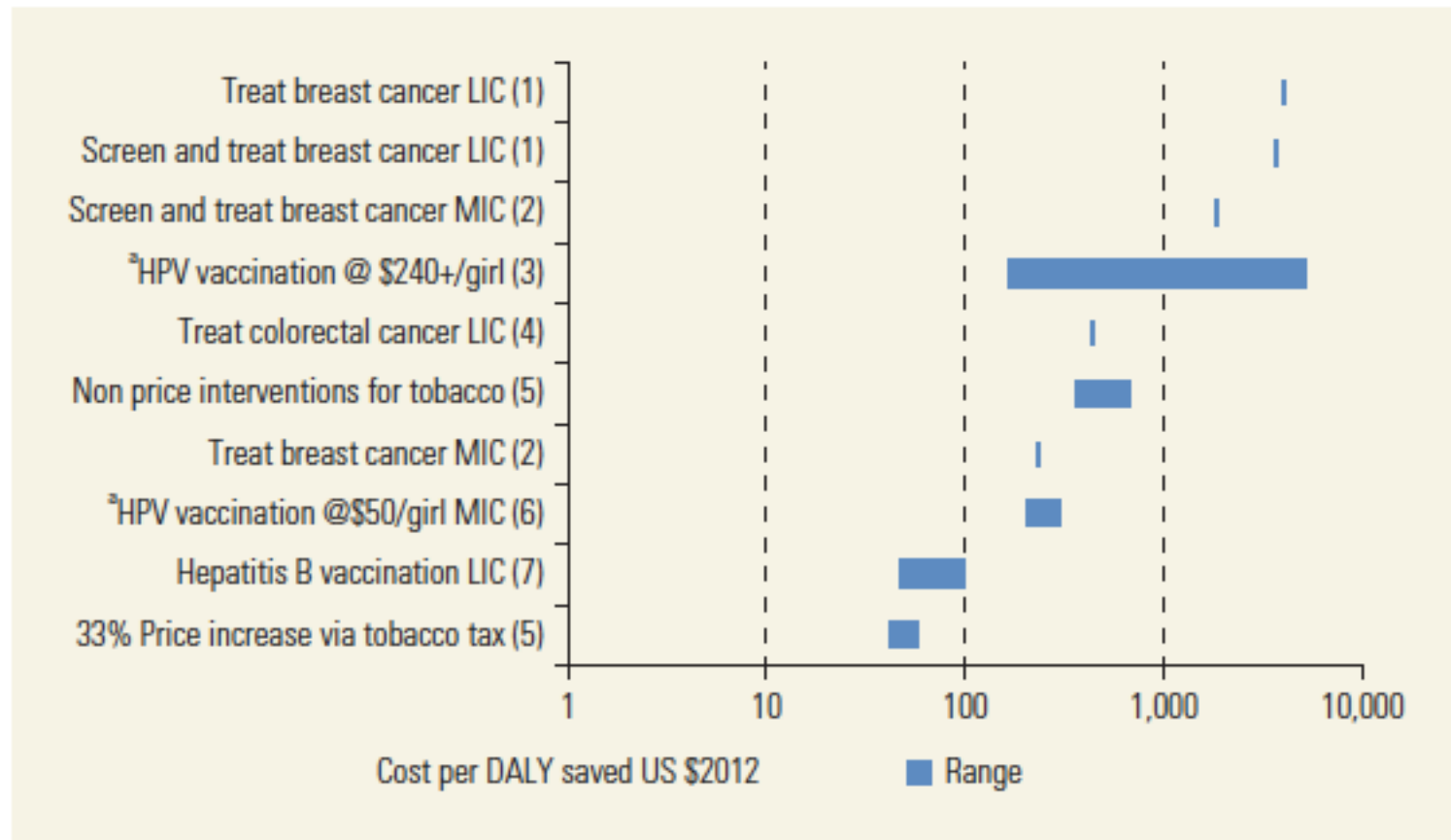
Source: Cleary, Radbruch, and others 2013.

Note: AFRO = Africa; AMRO-North America = Latin America and Caribbean (America not including North America); EMRO = Middle East (Eastern Mediterranean); SEARO = Southeast Asia; WPRO = Western Pacific.

Essential Package

Cancer type/ Number of deaths, ages 0–69 years, 2012 (thousands)	Platform for intervention delivery			
	Nationwide policies, regulation, or community information	Primary health clinic or mobile outreach	First-level hospital ^b	Specialized cancer center/unit ^c
All cancers 3,230	Education on tobacco hazards, value of HPV and HBV vaccination, and importance of seeking early treatment for common cancers Palliative care, including, at a minimum, opioids for pain relief			
Selected tobacco-related cancers (oral, lung, and esophagus) 900	Taxation; warning labels or plain packaging; bans on public smoking, advertising, and promotion; and monitoring	Cessation advice and services, mostly without pharmacological therapies		
Breast cancer 280				Treat early-stage cancer ^d
Cervical cancer 180	School-based HPV vaccination	Opportunistic ^e screening (visual inspection or HPV DNA testing); treat precancerous lesions	Treat pre-cancerous lesions	Treat early-stage cancer
Colorectal cancer 210			Emergency surgery for obstruction	
Liver cancer 380		Hepatitis B vaccination (including birth dose)		
Childhood cancers 80 ^f				Treat selected cancers in pediatric cancer units/hospitals

Cost-effectiveness of selected interventions



Cost of essential package

- Cost of essential package = US\$20 billion per year—3% of total public spending on health in LMICs:
 - 2.6% in upper-middle-income countries
 - 5% in lower-middle-income countries
 - 13% in low-income countries
- Annual expenditure per capita:
 - \$5.7 in upper-middle-income countries
 - \$1.7 in lower-middle-income
 - \$1.7 in low-income countries
- Potentially feasible in all but low-income countries without external support.

- Essential cancer services should be included in universal health coverage:
 - Eventual coverage of all people for essential services, but cost-ineffective services should not be covered for anyone
- Global initiatives needed:
 - reduce the costs of key inputs (drugs, radiotherapy, testing)
 - expand technical assistance and human resource development
 - promote cancer research



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