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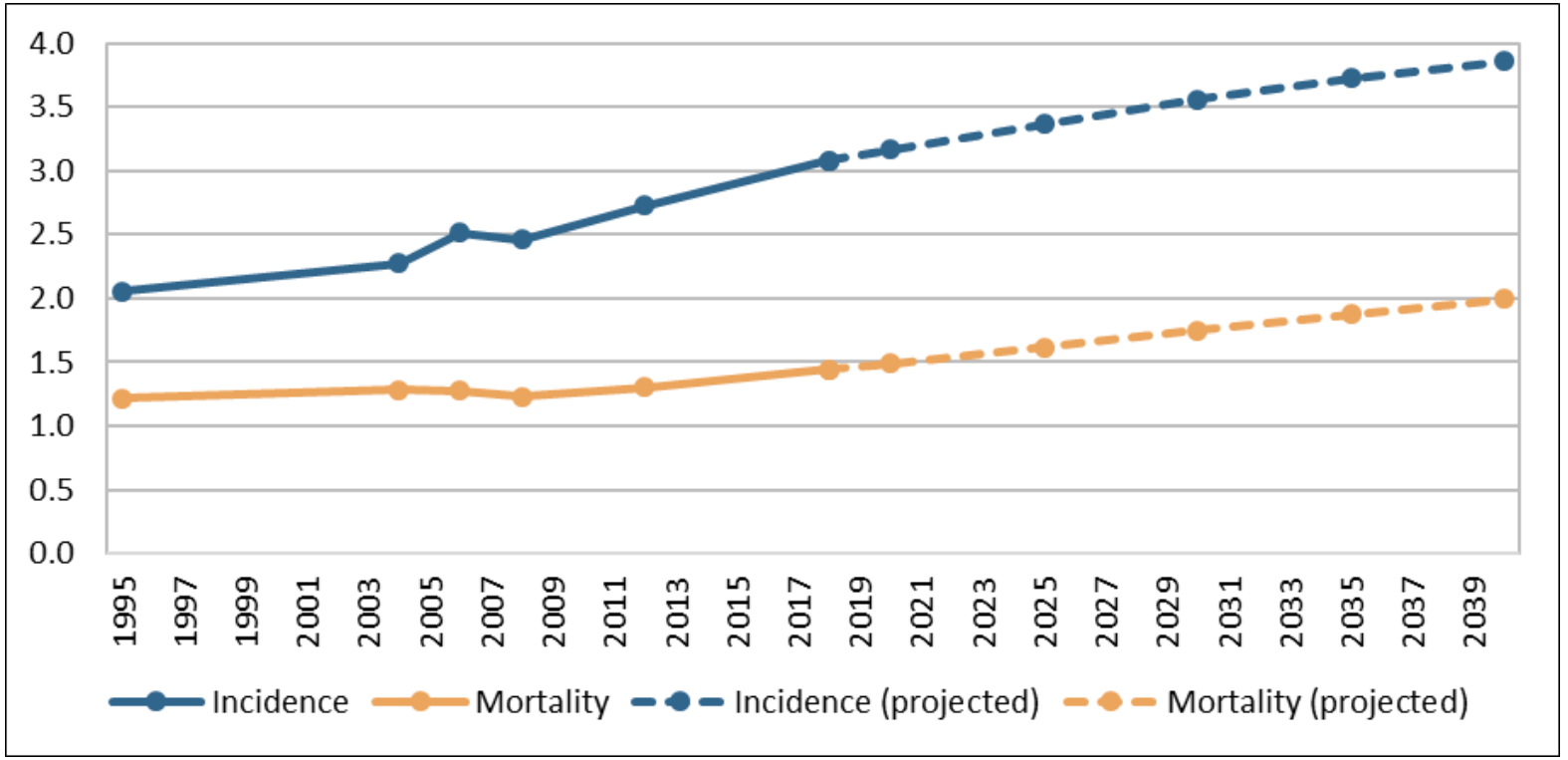
Trends in incidence and mortality



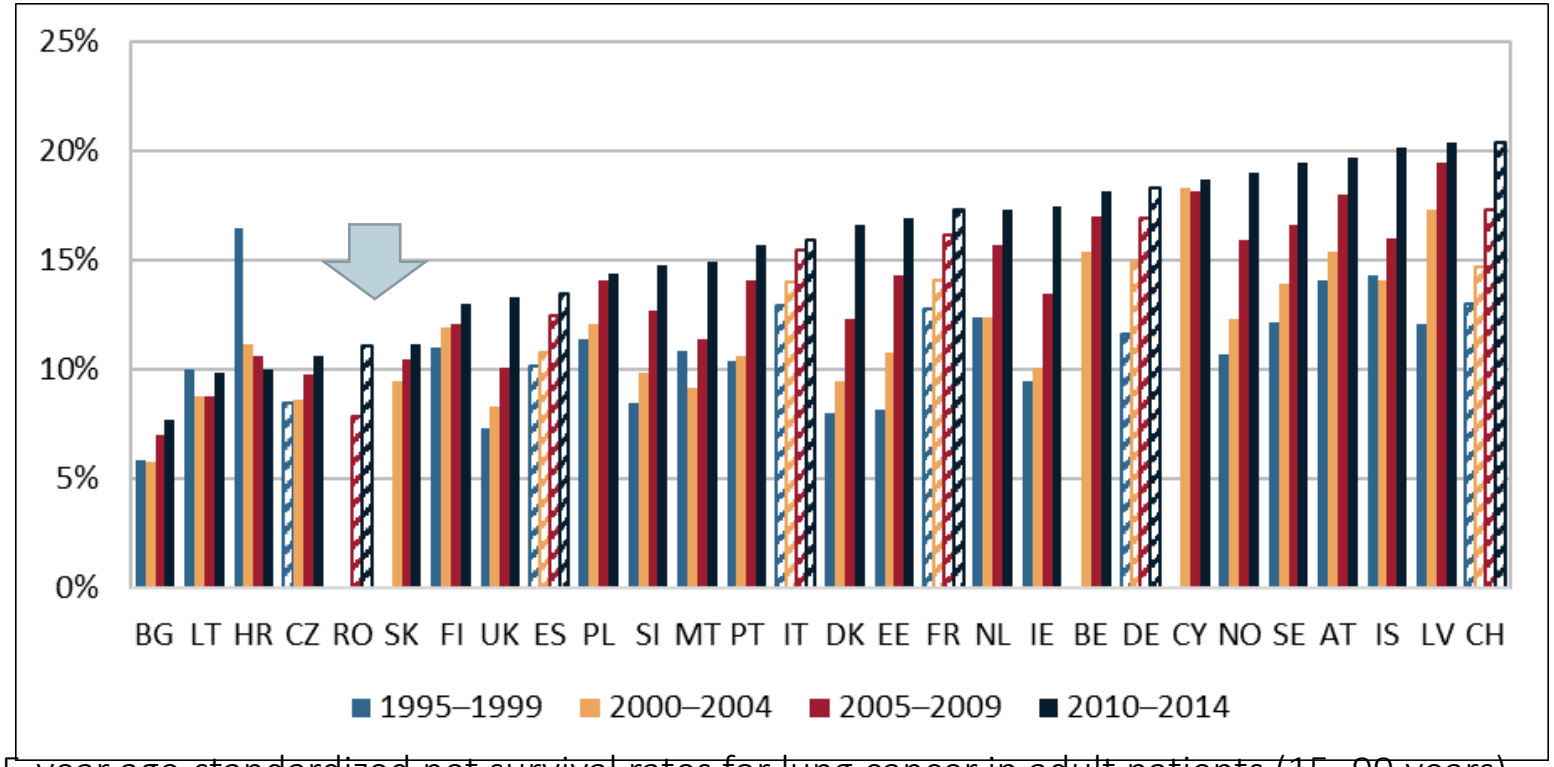
50% increase in incidence
1995–2018
3.1 million cases in 2018
20% increase in mortality
1995–2018
1.4 million cases in 2018

Population aging is a major determinant of trends in incidence and mortality

Cancer incidence and mortality (in million cases) in Europe, 1995–2018 and projection of status quo 2020–2040

Notes: Europe includes the EU-28, IS, NO, and CH. Cancer is defined as ICD-10 C00-C97/C44.
Source: Boyle et al (2005), Bray et al (2002), Ferlay et al (2007+2010+2013+2018)

5yr survival – lung cancer

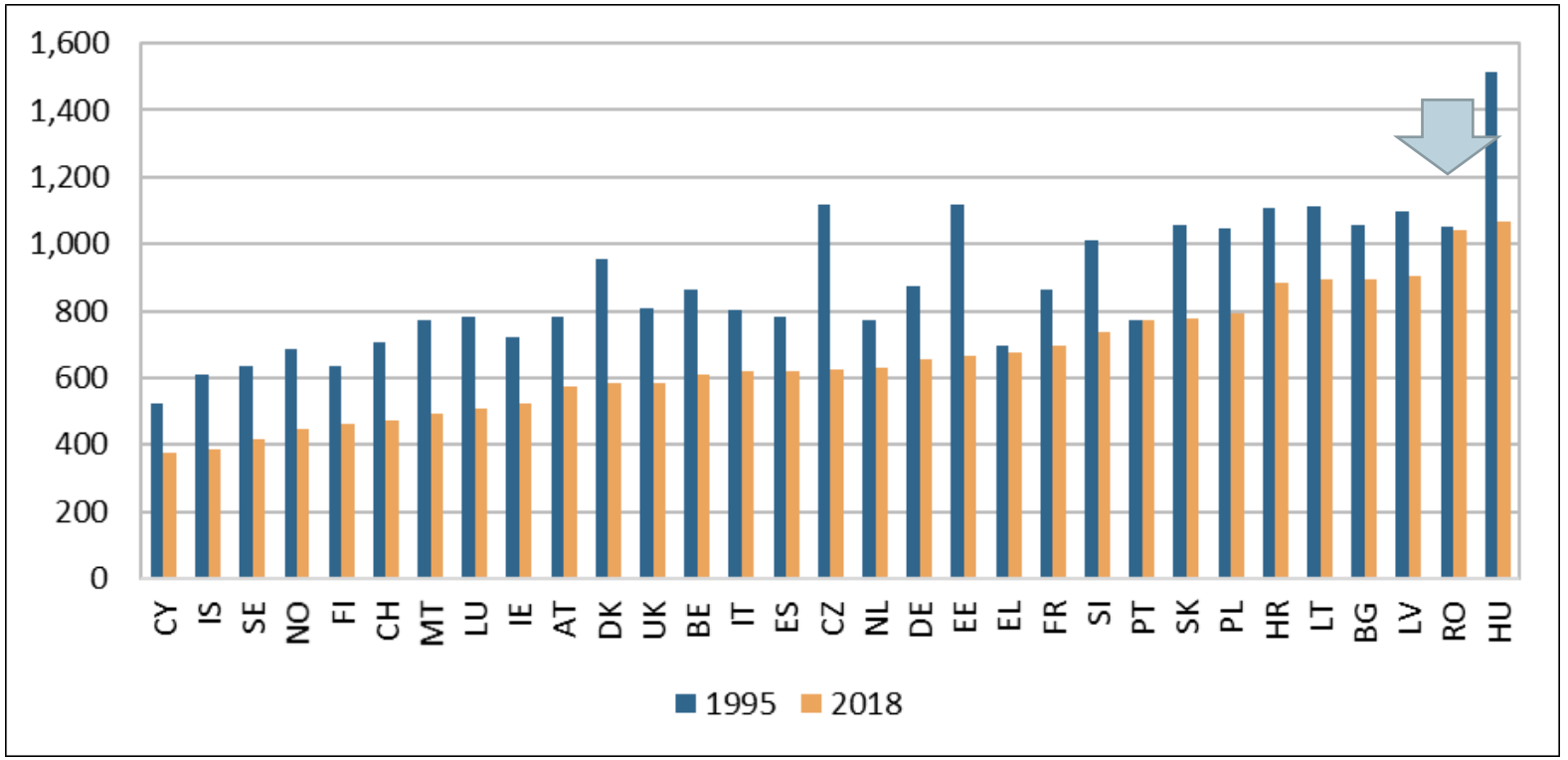


Very large country differences in survival

5-year age-standardized net survival rates for lung cancer in adult patients (15–99 years), 1995–2014

Notes: Hatched bars in CH, DE, ES, FR, IT, and RO indicate that national estimates are based on regional data.
Source: Allemani et al (2015+2018)

Trend: Reduction in mortality in patients of working age



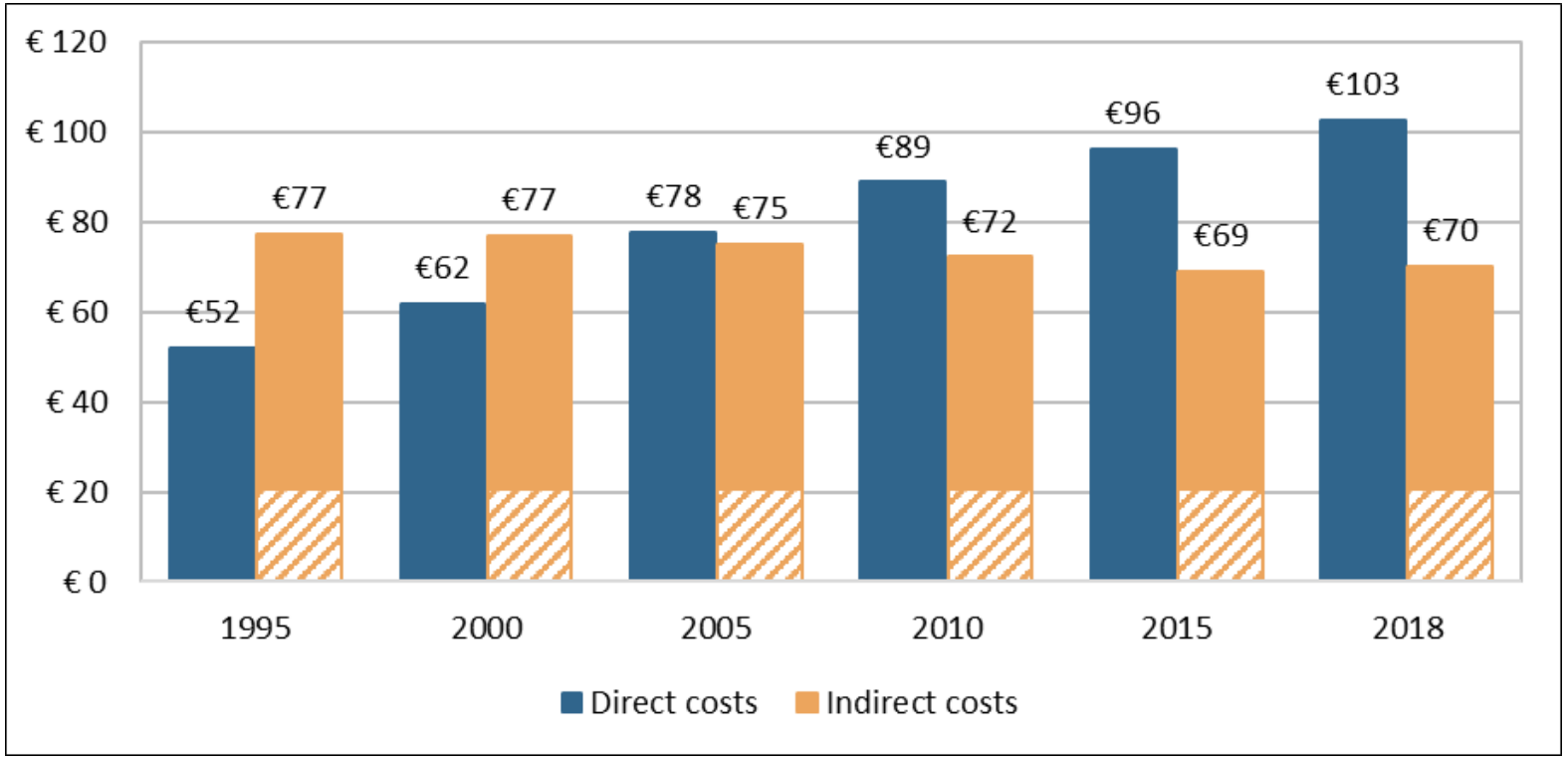
Number of PYWLL due to cancer (per 100,000 inhabitants aged 15–64), 1995 & 2018

Increases in survival translate into a reduction in years of working life lost (PYWLL)

Reduction in Europe from 2.9 to 2.3 million years 1995–2018

Reductions in all countries (stable in EL, PT, RO)

Total costs of cancer between 1995–2018



Total costs in Europe increased from €129 to €173 billion between 1995 and 2018

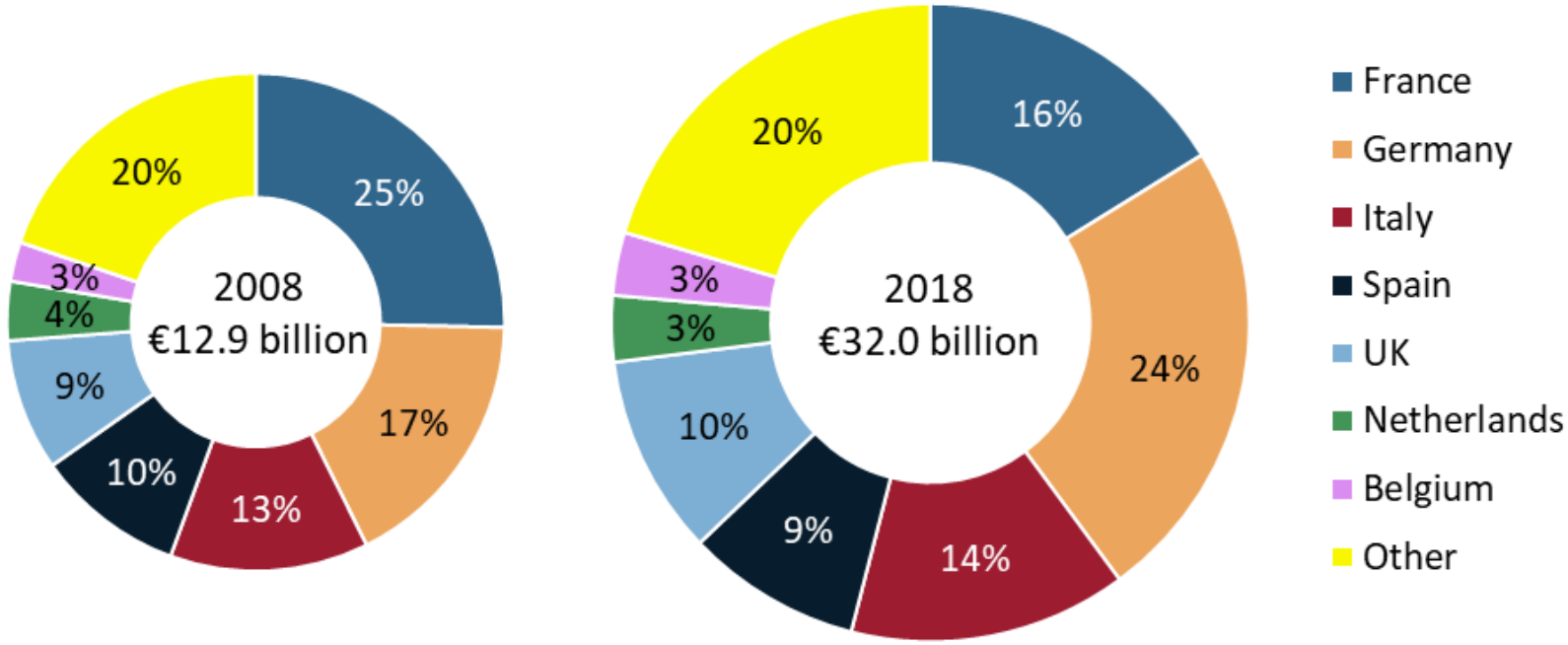
Increase in direct costs (typically by 60–150% in wealthier countries and >200% in poorer countries)

Decrease in indirect costs (typically by 15–30% in wealthier countries and 0–10% in poorer countries)

Total costs of cancer in Europe (in billion €; 2018 prices & exchange rates), 1995–2018

Notes: The hatched part of the indirect costs indicates uncertain estimates of the size of productivity loss from morbidity.

Access to cancer medicines (sales value)



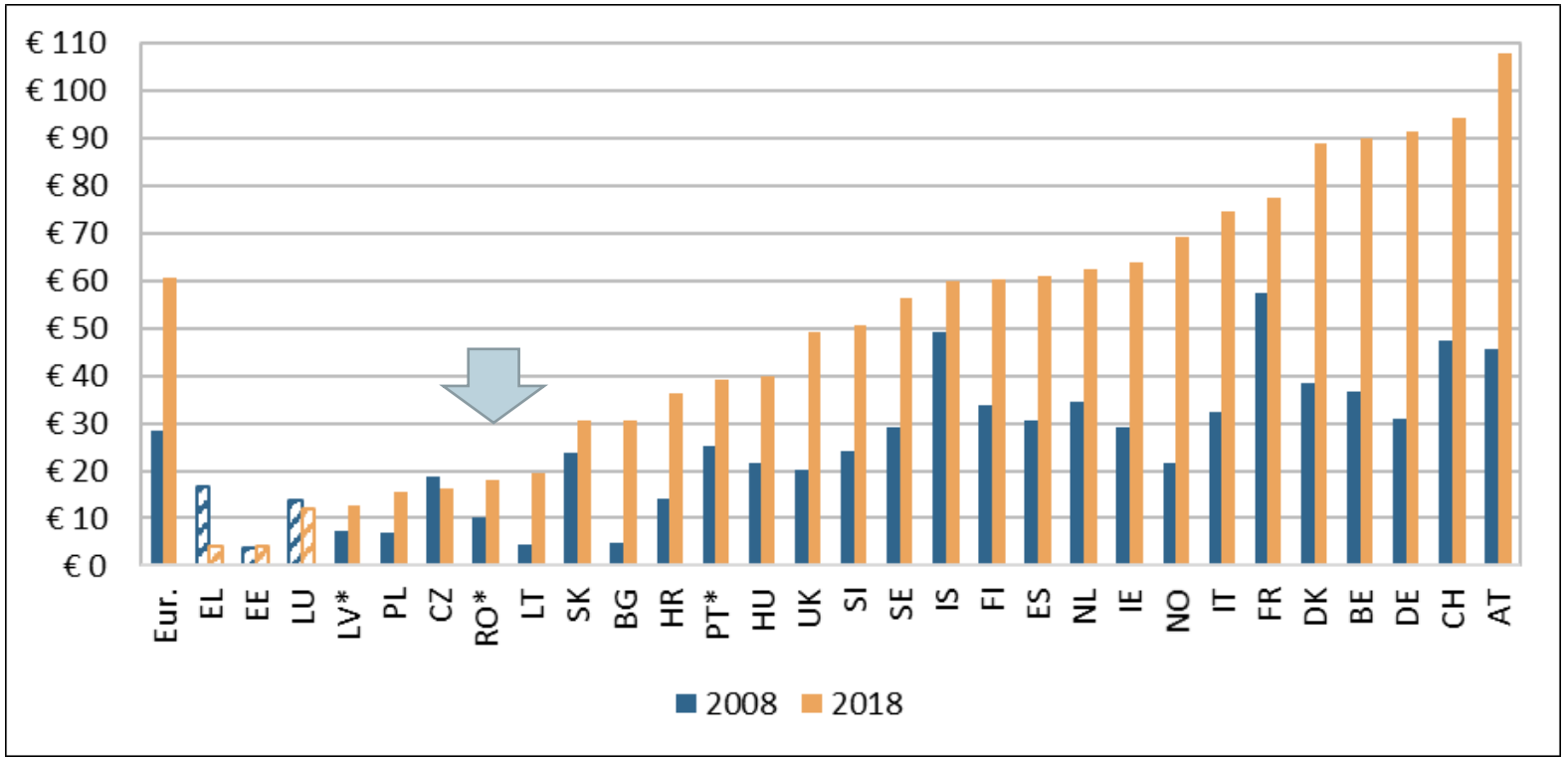
Total cost of cancer medicines (in current prices) in Europe, 2008 & 2018

Notes: Cancer medicines in groups ATC L01, L02, L04
Source: IQVIA

Many reasons for increased spending over time:

- Higher prices of new medicines (cost per treatment)
- More cancer patients
- More rounds of treatment due to increased survival
- Many newly approved medicines (86) and indications (115)
- New medicines for previously untreated patient groups
- More adjuvant treatment
- Increasing use of combination therapies

Access to cancer medicines (sales value)



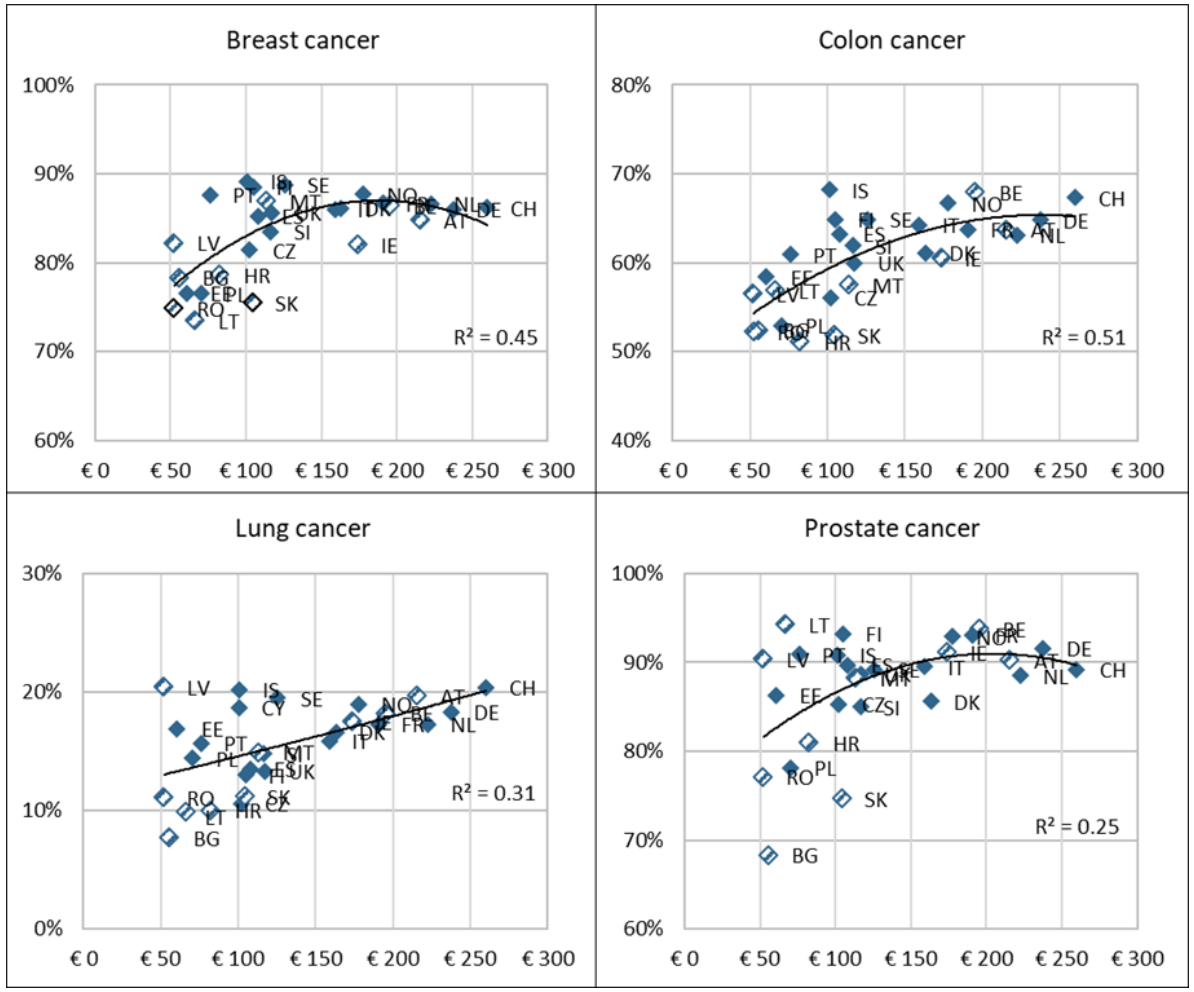
Large country differences in spending on cancer medicines, and no signs of shrinking country differences over time

Poorer countries spend around one third of the amount of wealthier countries

Cost of cancer medicines per capita (in 2018 price levels and exchange rates), 2008 & 2018

Notes: Eur. = Europe. Hatched bars indicate that data for EE, EL, and LU only comprise retail sales. CY and MT are missing due to lack of data. * The values in 2008 are from 2014 for LV, from 2009 for RO, and from 2010 for PT.
Source: IQVIA

Efficiency of cancer care spending and patient outcomes



Cancer expenditure (in € per capita, PPP-adjusted) in 2010 and 5-year net survival (in %) in 2010–2014

Upward sloping trend lines
→ indicate that adequate health spending on cancer is a prerequisite for achieving high survival rates

Great variation in health spending on cancer between countries that achieve similar survival rates
→ indicates opportunities to improve efficiency and outcomes

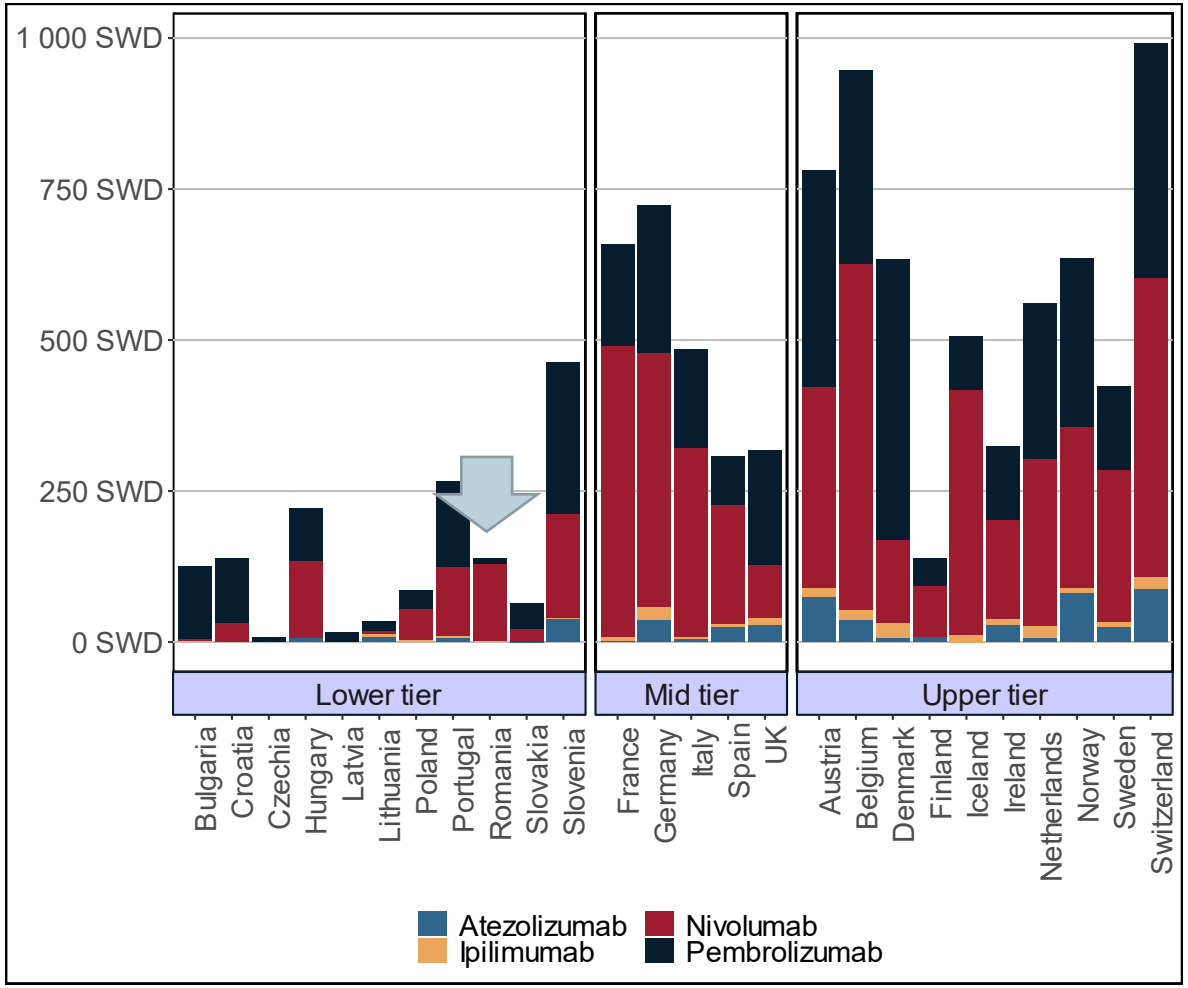
All countries should:

- Continue to invest in cancer care to achieve higher survival rates

Countries below the fitted lines should also:

- Prioritize adjusting their mix of health resource inputs and invest in areas where the greatest efficiency gains can be expected

Access - immunotherapy medicines (volume)



Large differences in uptake even within country groups

Very low uptake in almost all poorer countries

Uptake of immunotherapy medicines expressed as sales in SWD per 100,000 inhabitants, 2018

Notes: SWD = standard weekly dose
Source: IQVIA

Translating research into value for patients

- Incentivize innovation of valuable medicines through outcome-based payment models
- Encourage payers to implement innovative and timely pricing and reimbursement approaches
- Novel approaches to pricing, valuation, and payment of are needed

Tools for improving efficiency

- National Cancer Control Programme / Cancer Plans
  - Comprehensive (from prevention to palliative care)
  - Evidence-based measures
  - Financing plan
- Nationwide population-based cancer registry
  - Detailed level of diagnosis
  - All treatments given