

The cost of cardiovascular disease in the European Union

Europe's Unequal Burden Of Cardiovascular Diseases – The Actual Facts

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Evaluating the cost of CVD in the EU

- Objective was to estimate the costs of CVD (ICD 10: I00-I99) for the 28 countries that made up the EU in 2015
- Costs evaluated from a societal perspective, including: healthcare, informal care, and productivity costs due to illness and premature death
- Estimate the proportion of CVD costs due to CHD (I20-I25) and cerebrovascular diseases (I60-I69)



Methods

- Annual time-frame (2015)
- Societal perspective
 - Health care costs
 - Informal care costs (unpaid care by friends and relatives)
 - Productivity losses associated with premature death or absence from work/early retirement
- Costs were expressed in 2015 Euros (€)
- Sources searched: WHO, OECD Health data, EUROSTAT, SHARE Database, national ministries, national statistical institutes, and published studies
- In the presence of missing data we used best estimates using data from other countries
- Same methodology as used previously to estimate the costs of CVD, cancer and dementia



Data quality: Healthcare resources

	Primary care	Outpatient care	A&E	Inpatient care
Austria	Yellow	Yellow	Yellow	Green
Belgium	Yellow	Yellow	Yellow	Green
Bulgaria	Yellow	Yellow	Blue	Green
Croatia	Yellow	Yellow	Yellow	Green
Cyprus	Blue	Blue	Yellow	Green
Czech Rep.	Yellow	Yellow	Orange	Green
Denmark	Yellow	Yellow	Green	Green
Estonia	Blue	Yellow	Yellow	Green
Finland	Blue	Yellow	Yellow	Green
France	Blue	Blue	Blue	Green
Germany	Blue	Blue	Green	Green
Greece	Yellow	Yellow	Orange	Green
Hungary	Blue	Yellow	Yellow	Green
Ireland	Yellow	Yellow	Yellow	Green
Italy	Yellow	Yellow	Yellow	Green
Latvia	Blue	Blue	Yellow	Green
Lithuania	Yellow	Yellow	Yellow	Green
Luxembourg	Yellow	Yellow	Orange	Green
Malta	Yellow	Yellow	Yellow	Green
Netherlands	Blue	Blue	Yellow	Green
Poland	Yellow	Yellow	Yellow	Green
Portugal	Yellow	Yellow	Yellow	Green
Romania	Yellow	Yellow	Yellow	Green
Slovakia	Yellow	Yellow	Yellow	Green
Slovenia	Blue	Blue	Orange	Green
Spain	Yellow	Yellow	Yellow	Green
Sweden	Yellow	Green	Yellow	Green
UK	Blue	Yellow	Yellow	Green

- National CVD-specific data
- Survey CVD-specific data
- National but not CVD-specific
- No national data



Economic Burden of CVD

- CVD cost the economies of the EU approx. €210 billion in 2015
- Of the total cost:
 - €111bn (53%) was spent on healthcare;
 - €45bn (21%) in informal care costs;
 - €32bn (15%) due to early mortality; and
 - €23bn (11%) due to absence from work or early retirement
- CVD costs in Germany (€58bn), Italy (€28bn), the UK (€27bn), France (€24bn) and Spain (€17bn) represented over 70% (€153bn) of total costs

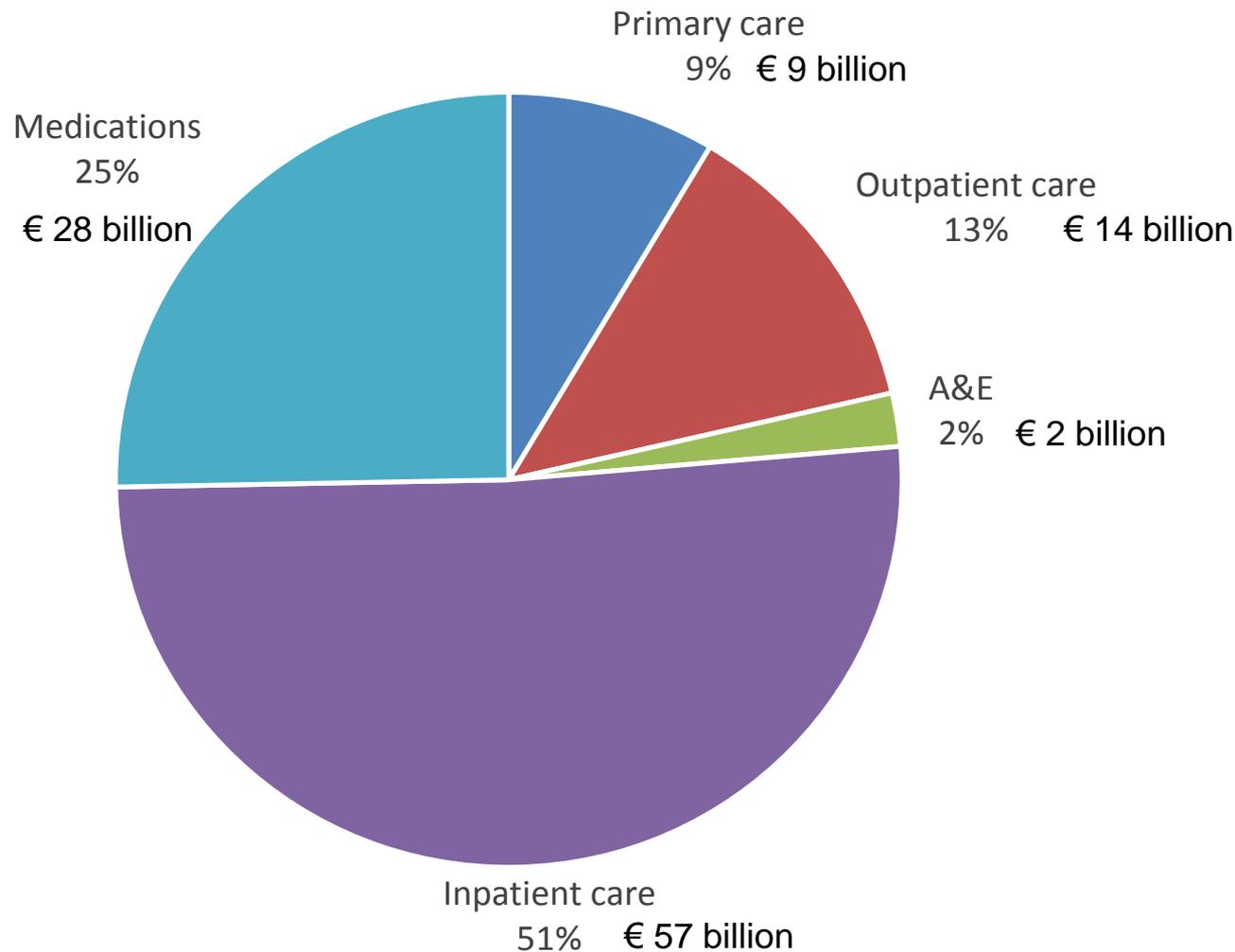


CHD and cerebrovascular diseases

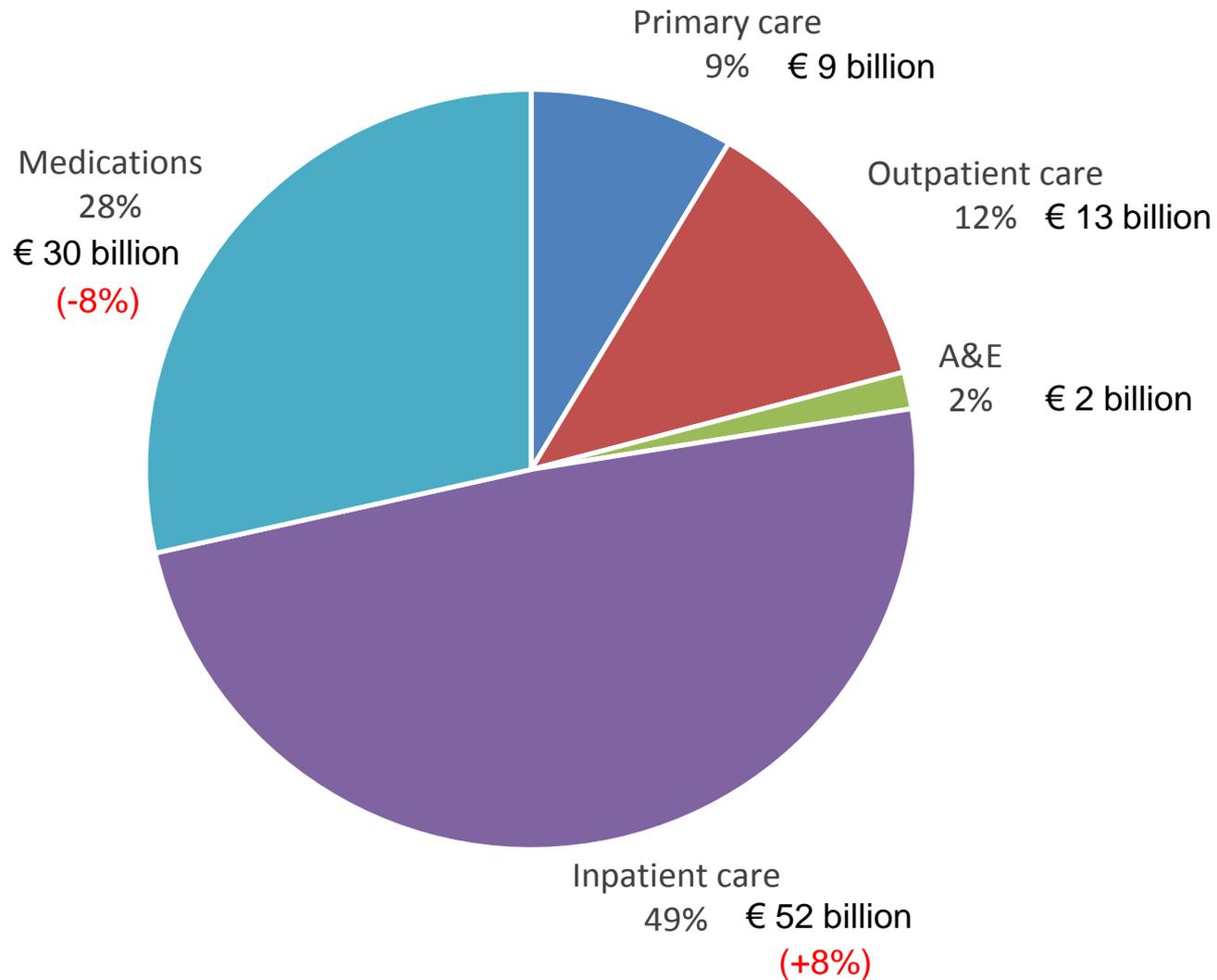
- Coronary heart disease:
 - Cost the EU economy over €59bn a year: nearly a third of the overall cost of CVD
 - €19bn (32%) of these costs being incurred in health care, a considerably lower proportion than for CVD
- Cerebrovascular disease:
 - Cost the EU in excess of €45 billion a year: around one-fifth of the overall cost of CVD;
 - €20bn (44%) of these costs being incurred in health care



CVD Healthcare costs, 2015, €111bn



CVD Healthcare costs, 2009, €106bn



CVD-related inpatient care costs

Comparing 2009 and 2015

- 103 million CVD-related inpatient days in 2009
- 96 million CVD-related inpatient days in 2015
 - 7% reduction
- However, outbalanced by an increase in hospital service costs of 15%
 - €52bn in 2009 and €57bn in 2015



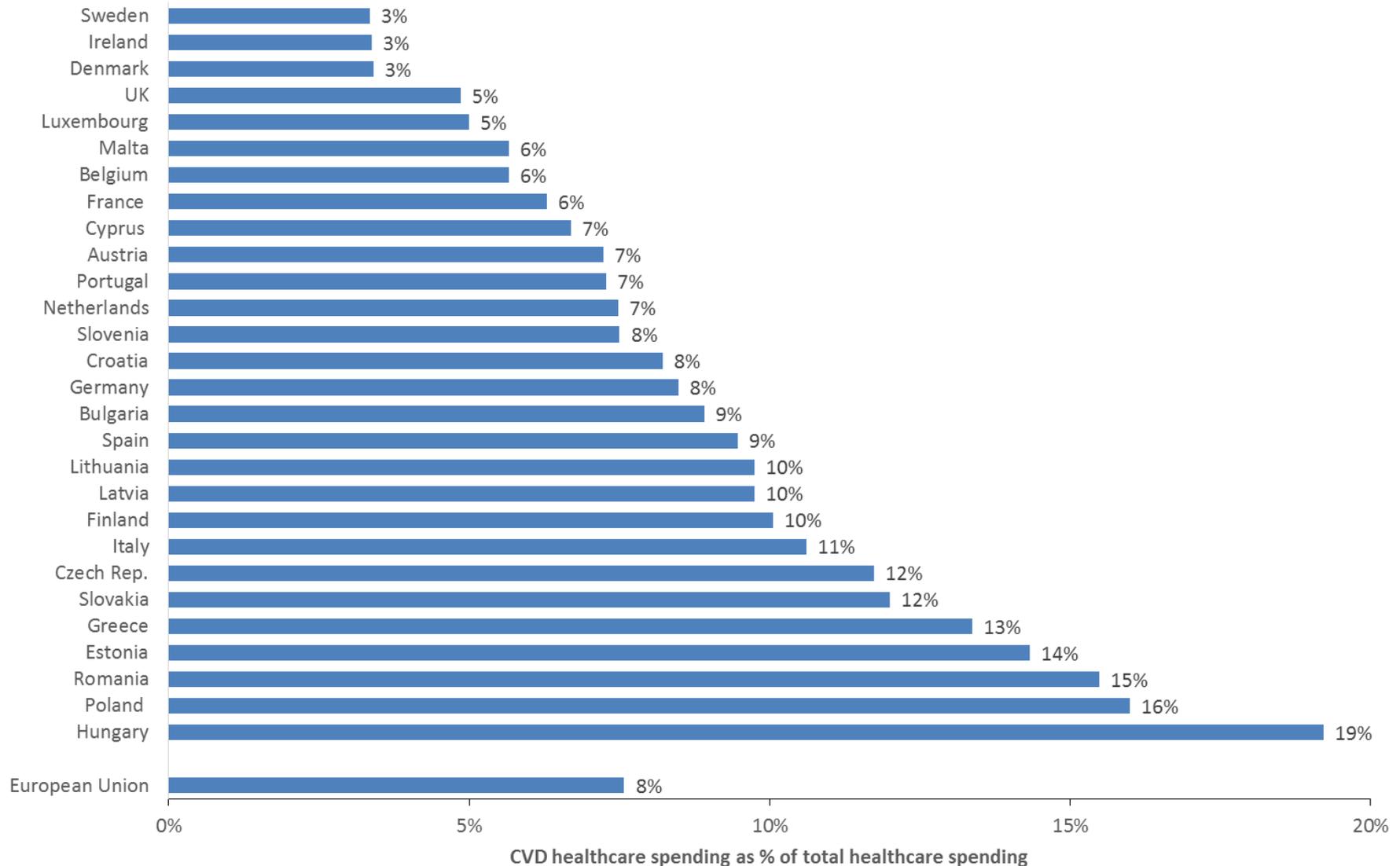
CVD Medication costs comparing 2009 and 2015

- Reduction in CVD medication costs observed in several countries
 - France, Germany, Italy, Netherlands
 - UK (adjusting for exchange rate changes)
- For example, in UK, significant drop in prices due to introduction and adoption of generic drugs
 - 33% reduction in costs of CVD drugs between 2009 and 2015 despite 14% increase in number of prescriptions
 - Lipid-regulating drugs
 - Hypertension and heart failure



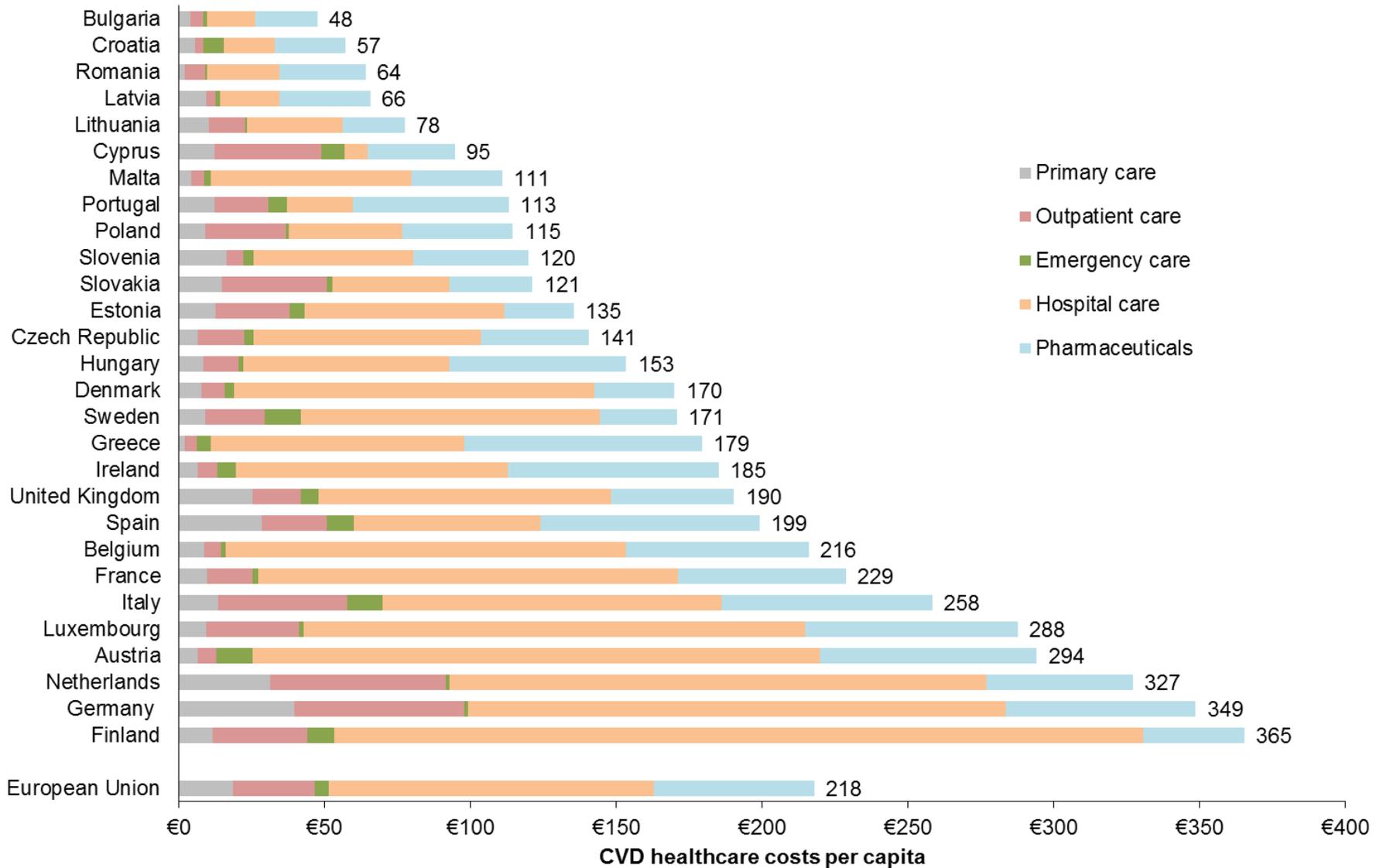
CVD Healthcare costs

% of Total Healthcare Spending



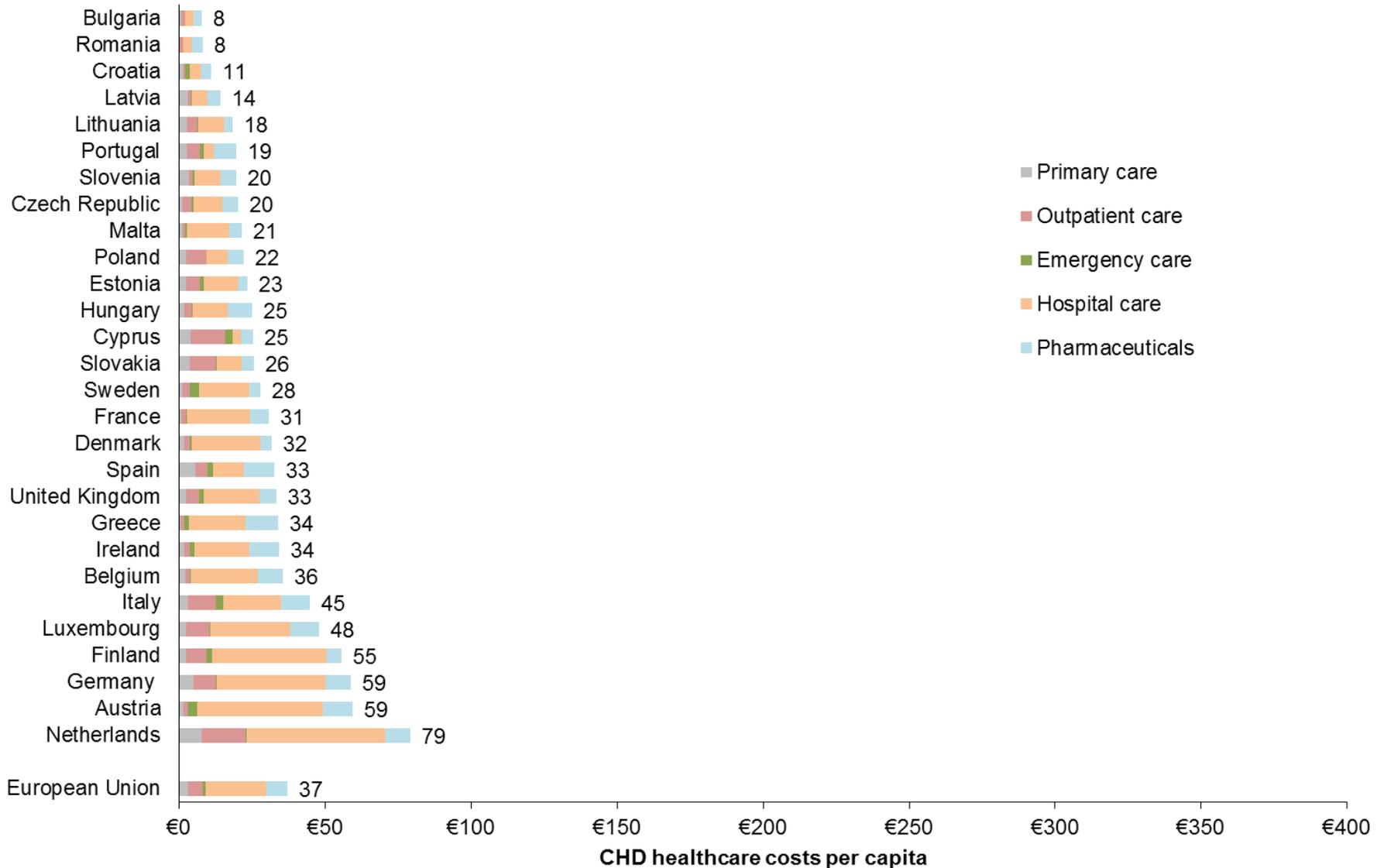
CVD Healthcare costs

Costs per Capita



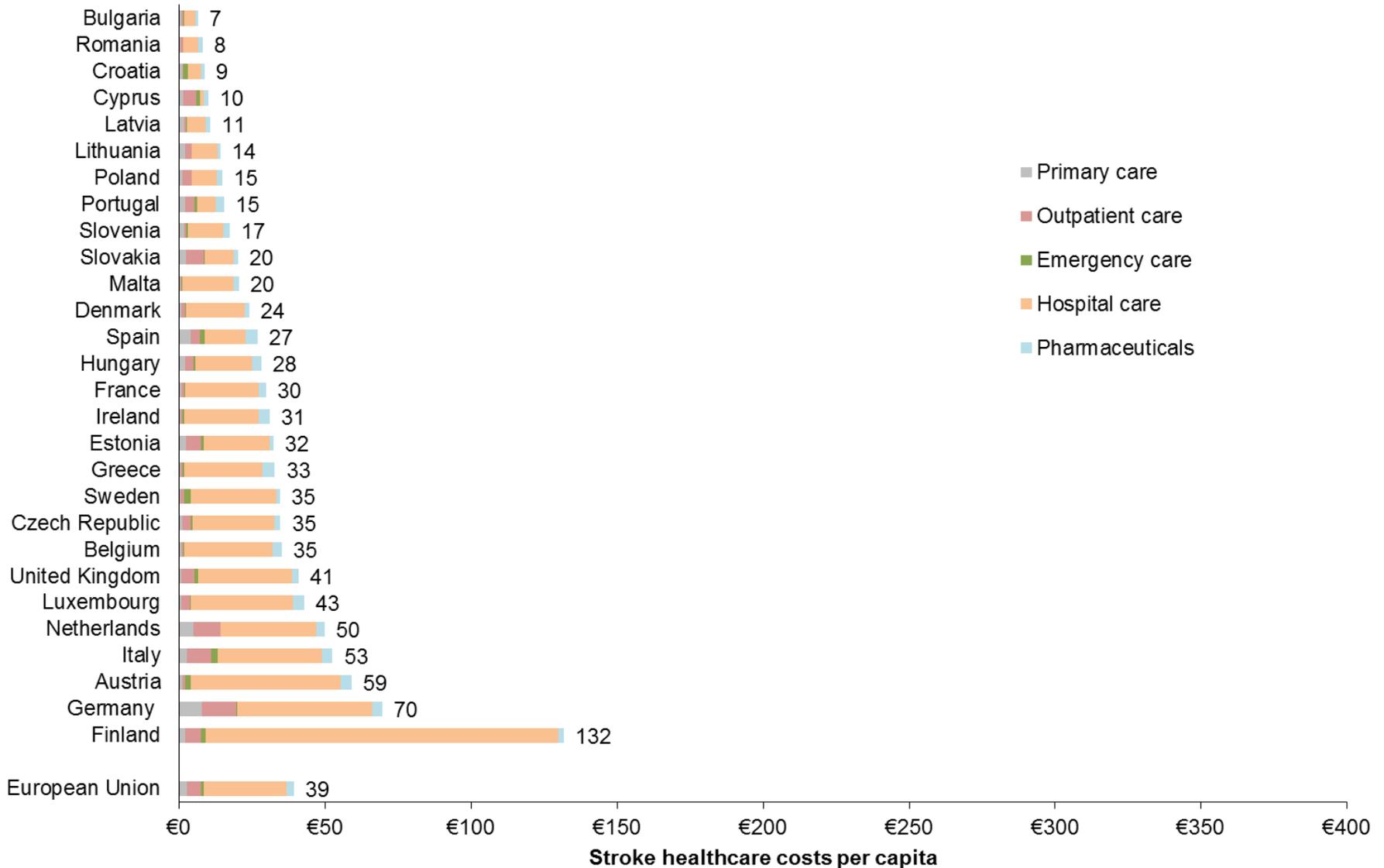
CHD Healthcare costs

Costs per Capita



Stroke Healthcare costs

Costs per Capita



Conclusions

- The cost of CVD to the EU economy is €210bn
 - Majority (€111bn - 53%) due to healthcare costs
- CHD and cerebrovascular diseases combined account for 50% of CVD costs
 - Rest include other conditions such as: heart failure, renovascular disease, hypertension, etc.
- Great differences in what EU-countries spend in CVD-related healthcare, both in terms of amount per citizen, and proportion of healthcare budget

