





## Health Economics and Employment: Towards sustainable growth in the EU

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# Outline

• What health care decision-makers want

- Cost of illness and its societal implications:
  - Evidence from rare diseases
  - Evidence from multiple sclerosis

 Linking HTA with the broader socio-economic impact



## What health care decision-makers want

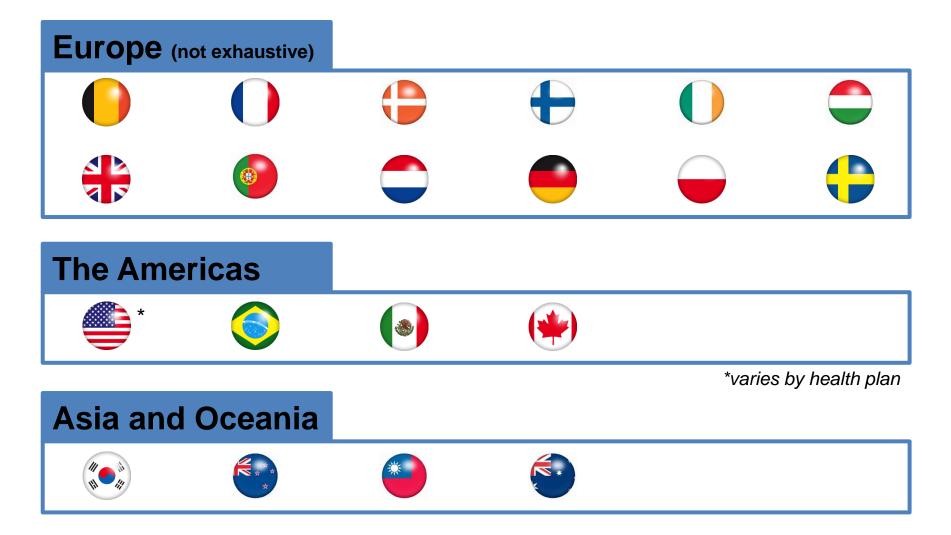
Safety and Efficacy are *first* steps to provide evidence for new therapies; Effectiveness and Efficiency need to be proven

Safety	Efficacy	Effectiveness	Efficiency
Measure of adverse effects	Measure of effect under ideal conditions	Measure of effect under "real life" conditions	Relationships between costs and benefits

- Efficacy does not imply effectiveness and effectiveness does not imply efficiency
- Safety and efficacy are the competence of regulators, effectiveness and efficiency are the competence of payers/insurers
- Use of Health Technology Assessment to assess value
- Most often a restricted perspective is adopted (health system approach rather than a societal approach)



#### Formal Use of HTA as a means of improving efficiency

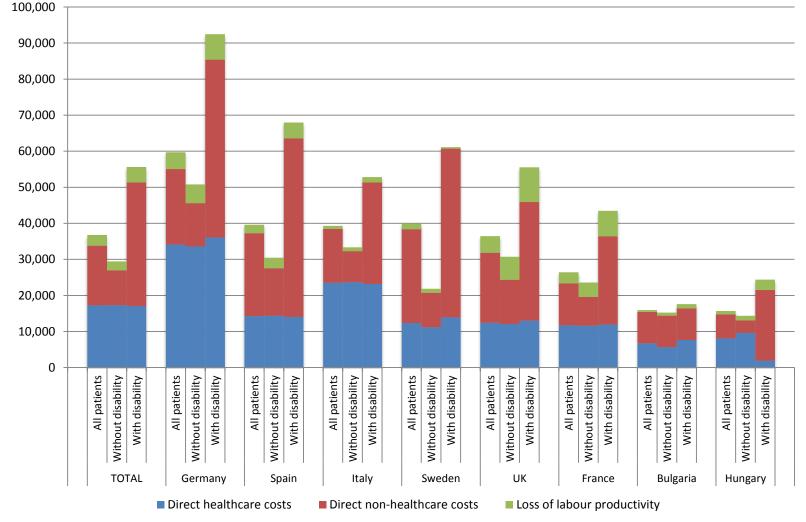




Looking at cost of illness, what dimensions are considered by health systems and HTAs? What dimensions are not?

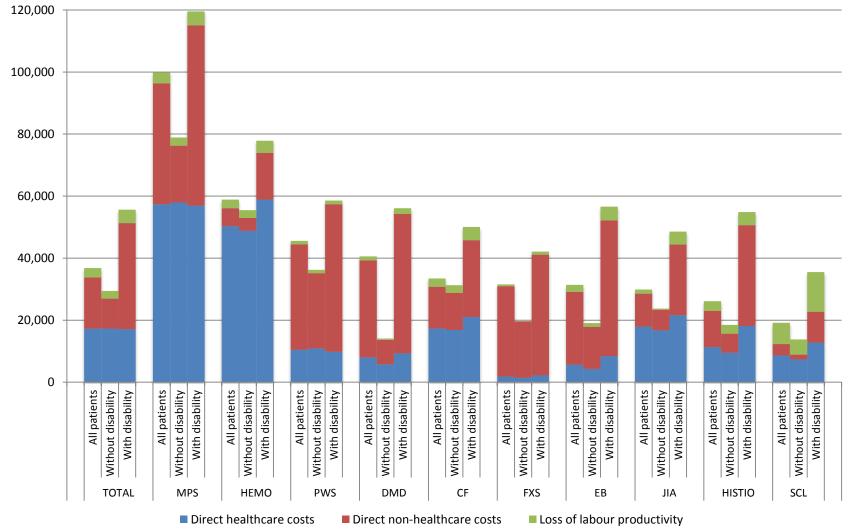
> Example 1: Rare diseases Example 2: Multiple Sclerosis

# Average total cost of treatment by country, presence of disability and type of cost (€) in 10 rare diseases across 8 EU Member States





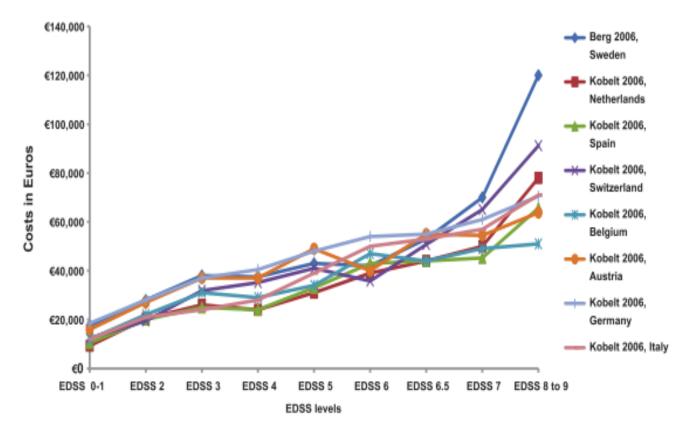
# Average total cost of treatment by disease, presence of disability and type of cost (€) in 10 rare diseases across 8 EU Member States



Source: Kanavos et al, 2015, BURQOL-RD

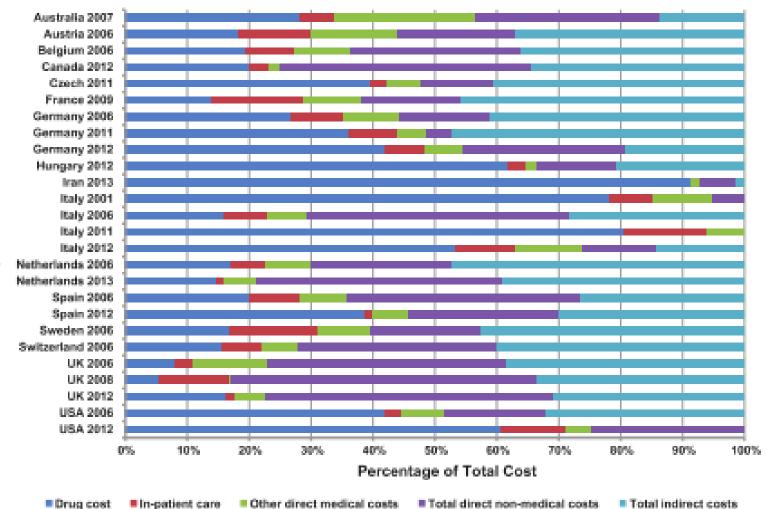


#### **Cost of illness in Multiple Sclerosis** by level of severity in 2005 euros for eight EU countries



Note: The costs in the Switzerland study was reported in Swiss Francs but converted to 2005 Euros based on historical foreign exchange rates. The eight countries correspond to eight studies. Sources: Berg 2006, Sweden<sup>5</sup>; Kobelt 2006, The Netherlands<sup>9</sup>; Kobelt 2006, Spain<sup>12</sup>; Kobelt 2006, Switzerland<sup>11</sup>; Kobelt 2006, Belgium<sup>8</sup>; Kobelt 2006, Austria<sup>7</sup>; Kobelt 2006, Germany<sup>6</sup>; Kobelt 2006, Italy<sup>10</sup>

### Distribution of the total costs of MS



## Societal impact of MS: Unemployment

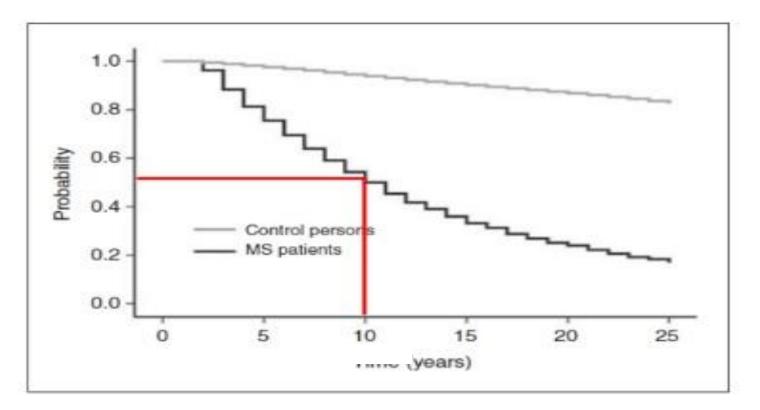


Figure 1. Probability of remaining in active employment after onset of multiple sclerosis. Key: grey, controls; black, patients.



## Premature loss of employment by people with MS and their informal carers (I)

It may incur significant costs to the labour market and economy:

- The annual costs of MS may vary from £12,000 for those with low disability scores to £60,000 for those with severe disability stage. One estimate suggests that MS costs UK society about £2.3 billion per year.
- Many people with MS want to work; with the right support they could continue to live full and productive lives for much longer.
- Yet during periods of economic downturn and job losses people with long term or chronic health problems, such as MS, may feel especially vulnerable.
- Many employers lack knowledge about the condition and may not always understand that the needs of employees with MS can and should be accommodated at the workplace.

The Work Foundation; 2011 - EMSP survey of 1,200 young people



## **Direct and indirect costs**

- Direct costs were mainly driven by medication costs.
  - pharmaceutical costs generally decreased from moderate to severe MS due to the lack of MS-specific treatments for severe patients
  - The amount of informal care is generally a function of the extent of services offered by the healthcare systems. Eg countries such as Italy or the UK seem to offer limited services, leading to a greater use of informal care.
- Indirect costs tended to be more of a contributing factor as patient disability increased e.g. higher Expanded Disability Status Scale (EDSS) scores.
  - with the highest cost seen among patients with an EDSS score of 8–9.
  - For example, Kobelt et al. report that mean annual costs per patient increase approximately 2-fold from \$32,297 for EDSS <4.0 (mild disability) to \$64,492 for EDSS >6.0 (severe disability).
- The proportion of total costs attributable to medications, inpatient care, and other cost categories varied across studies and countries

## Is HTA a panacea? Challenges

While HTA systems increasingly play a role in supporting decision-making, they are not without controversy. Questions abound surrounding the following issues, among others:

- Role of HTA in decision-making and priority-setting;
- What evidence is used;
- Methods employed during the assessment process, incl. costs, metrics, comparators;
- Impact on innovation and access;
- Role of stakeholders

