The contribution of Economic Evaluation to Health Policy in the European Union

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ARE STAKEHOLDERS REALLY INTERESTED IN ECONOMIC EVALUATION?

- Patients?
- Doctors?
- Managers?
- Providers of goods and services?
- Politicians?
- Health economists!!!

THE ROLE OF ECONOMIC EVALUATION: PROTECTING THE MEDICAL COMMONS

Protecting the Medical Commons: Who is responsible?
Howard H. Hiatt.(NEJM 1975;293:235-241)

WHAT CRITERIA TO USE FOR ASSESSING THE CONTRIBUTION?

- Are economic evaluations addressing important issues in allocation of resources for health and health care?
- Has the undertaking and publication of a growing number of economic evaluations contributed towards a more appropriate – i.e. more efficient and equitable health care

CONCLUSIONS

- Health policy is increasingly focused on priorities for resource allocation
- Economic evaluation asks the relevant questions about value for money
- Development of methodology and building of competence to meet demands
- Data is an issue, but growing interest in real world data will support economic evaluation
- Implementation is key to improved contribution
- Health care systems increasing involvement in innovation is a major challenge for the future

Kenneth Arrow:

Economic Welfare and the Allocation of Resources for Invention (1962)
Uncertainty and the welfare economics of medical care (1963)

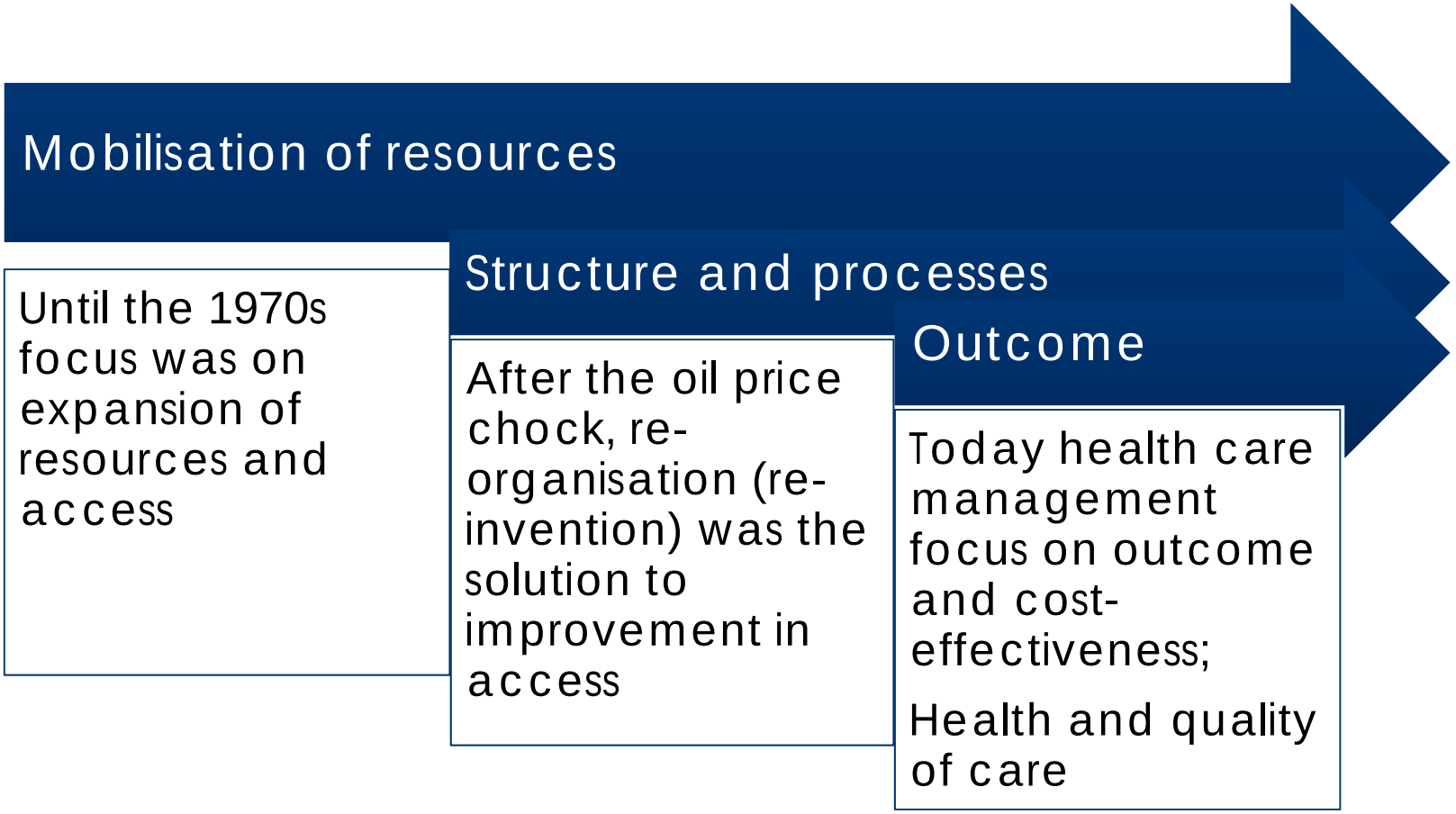
- Third party (public) payment is necessary, but there are problems
  - Asymmetric information
  - Moral Hazard
  - Adverse selection

Alan Williams:

COST-BENEFIT ANALYSIS: BASTARD SCIENCE AND/OR INSIDIOUS POISON IN THE BODY POLITICK? (1972)

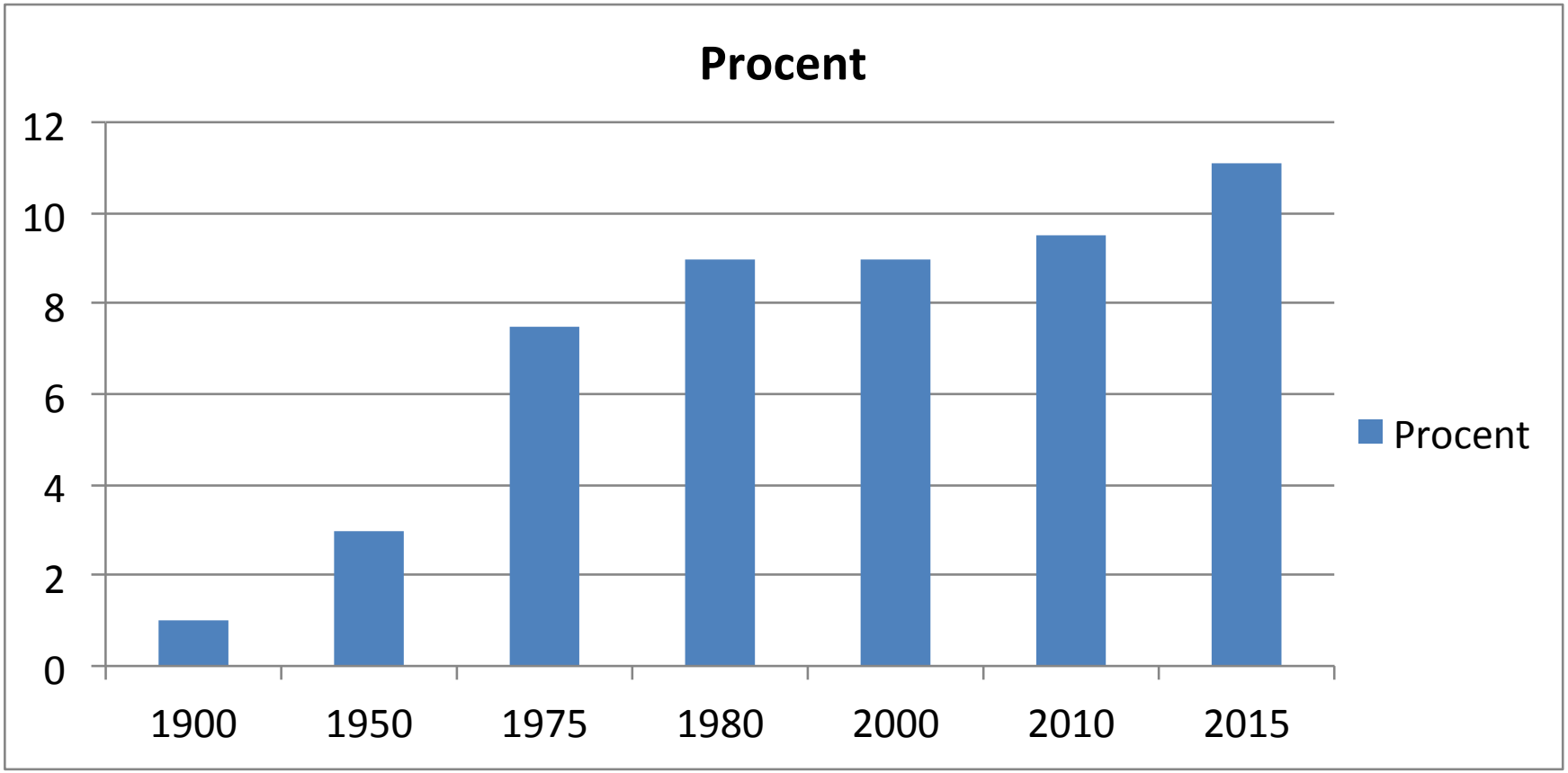
- I take the objective of cost-benefit analysis to be to *assist* choice – not to *make* choice, not to *justify* past choice, nor yet to *delay* matters

SHIFT IN HEALTH POLICY TOWARDS IMPROVEMENTS IN OUTCOME

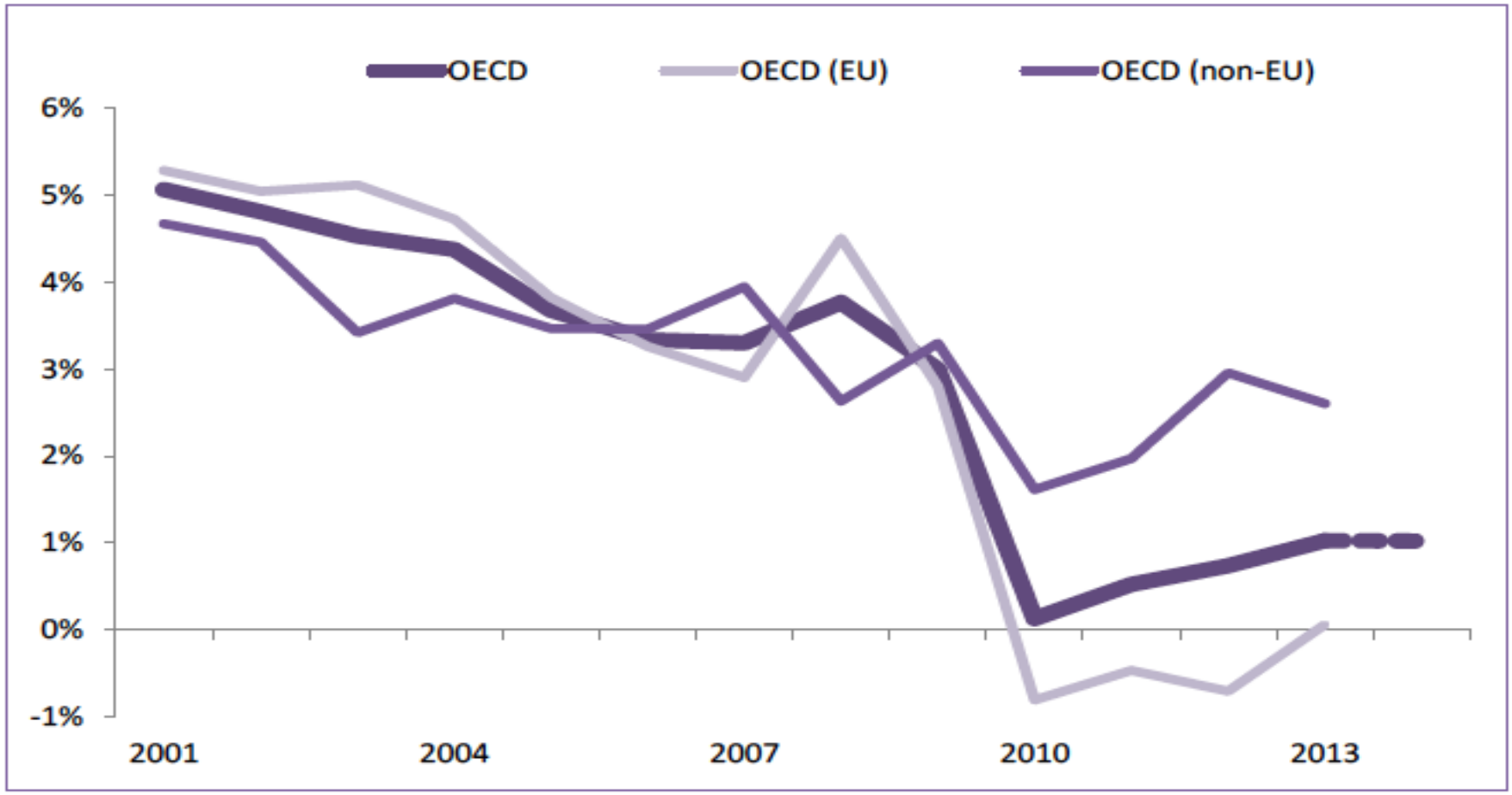


INCREASING PUBLIC EXPENDITURES FOR HEALTH CARE

HEALTH CARE COSTS AS SHARE OF GDP IN SWEDEN



ANNUAL GROWTH IN PER CAPITA HEALTH SPENDING

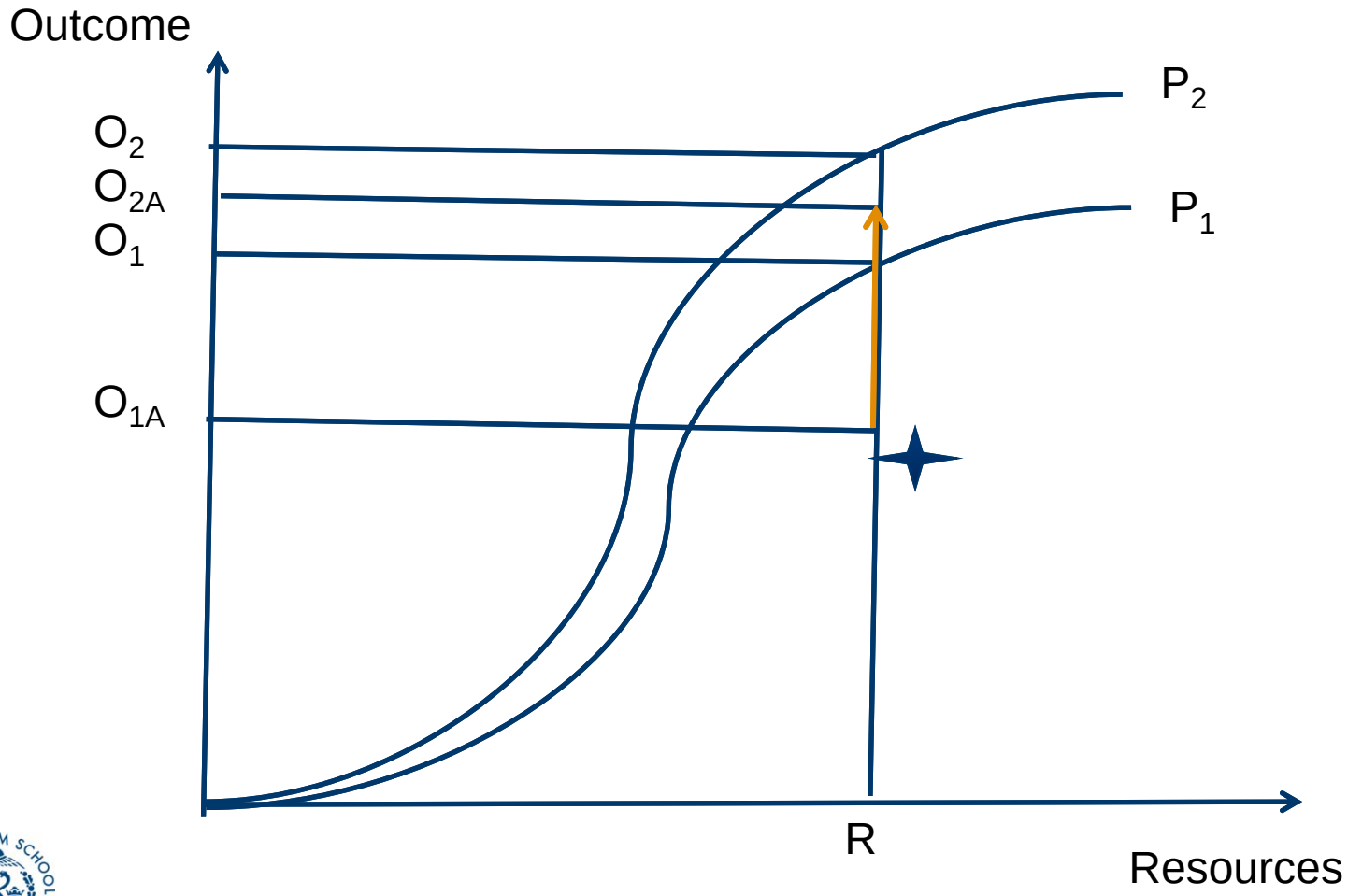


The source of the matter – Appropriate allocation of scarce health care resources

- Static efficiency
  - Over-consumption
  - Under-consumption
  - Low productivity
    - ”Inside the frontier”
- Dynamic efficiency
  - Adaption and diffusion of new medical technologies
  - Optimal incentives for innovation

Innovation and efficiency

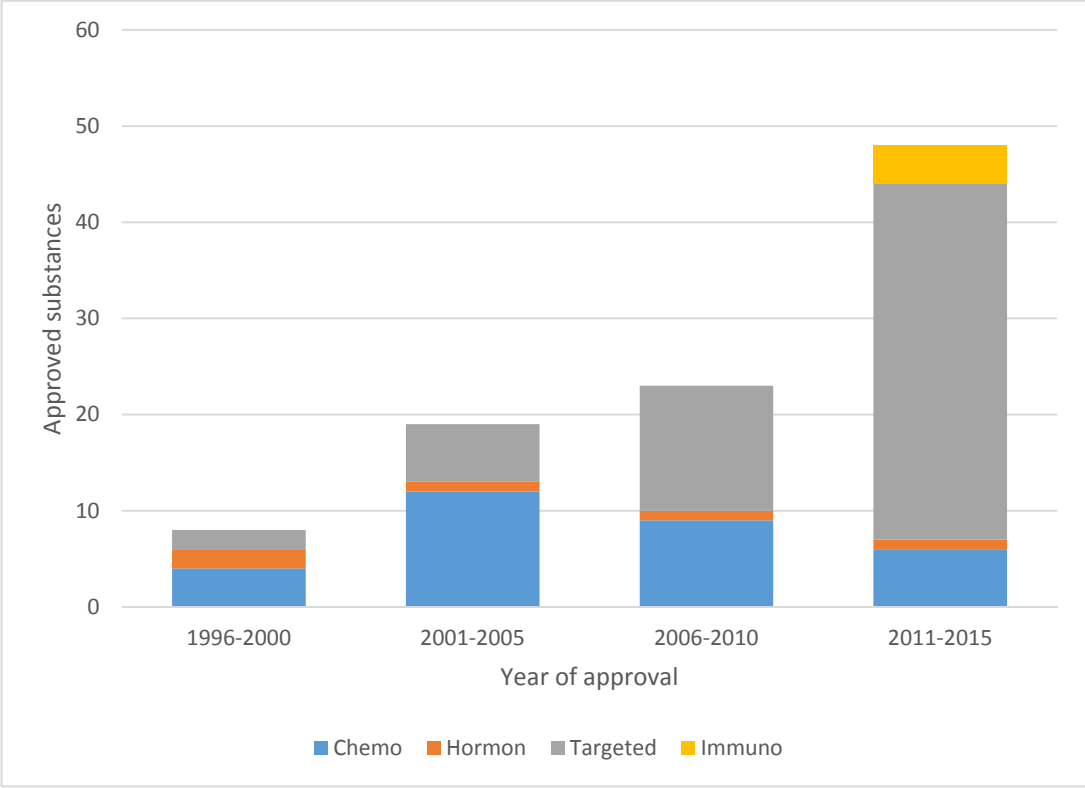
Creative challenge and destruction of existing patterns of care



INNOVATION AND ECONOMIC EVALUATION
CANCER AS AN EXAMPLE

- **Comparator Report on Patient Access to Cancer Medicines in Europe Revisited**
  - **http://ihe.se/filearchive/2/2651/IHE%20Report%202016_4_.pdf**

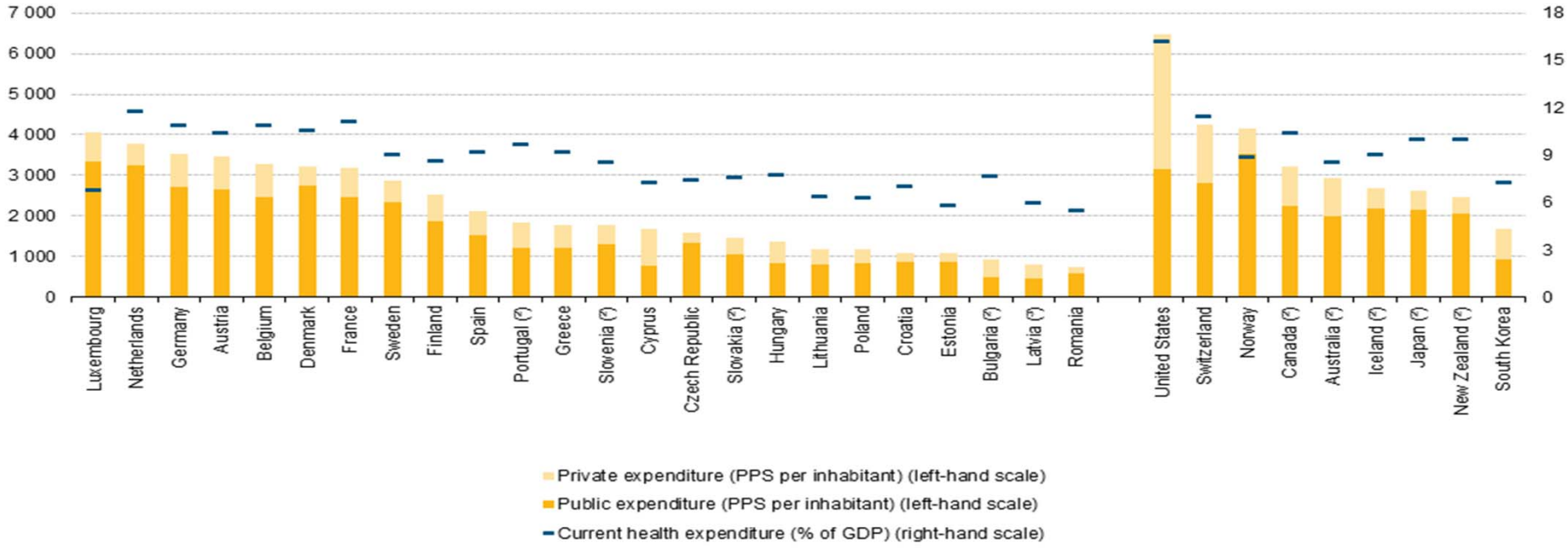
New opportunities creates more alternatives "The need to choose"



Source. EMA (2016)

Rationale for taking a European perspective

One market but many health care systems with similar needs and great differences in health care spending



(¹) Countries are ranked on total (public + private) healthcare expenditure in PPS per inhabitant. Denmark, Cyprus, Portugal, Iceland, Norway and Switzerland: provisional. Ireland, Italy, Malta and the United Kingdom: not available.
(²) 2011.
(³) 2010.
Source: Eurostat (online data code: hlth_sha_hf)

http://ec.europa.eu/eurostat/statistics-explained/index.php/File

Diapositiva 15

BJ1 Table on EU health care expenditures please

Bengt Jönsson; 14/09/2016

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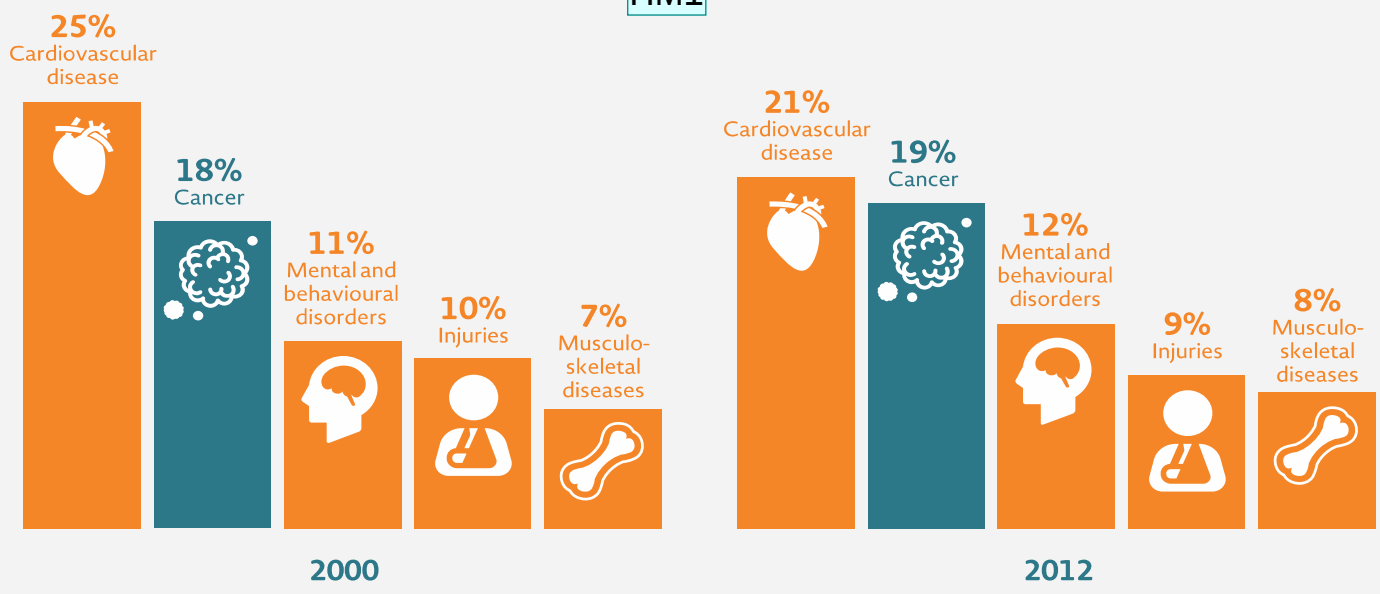


Disease burden of the top 5 disease groups in Europe, 2000 –2012

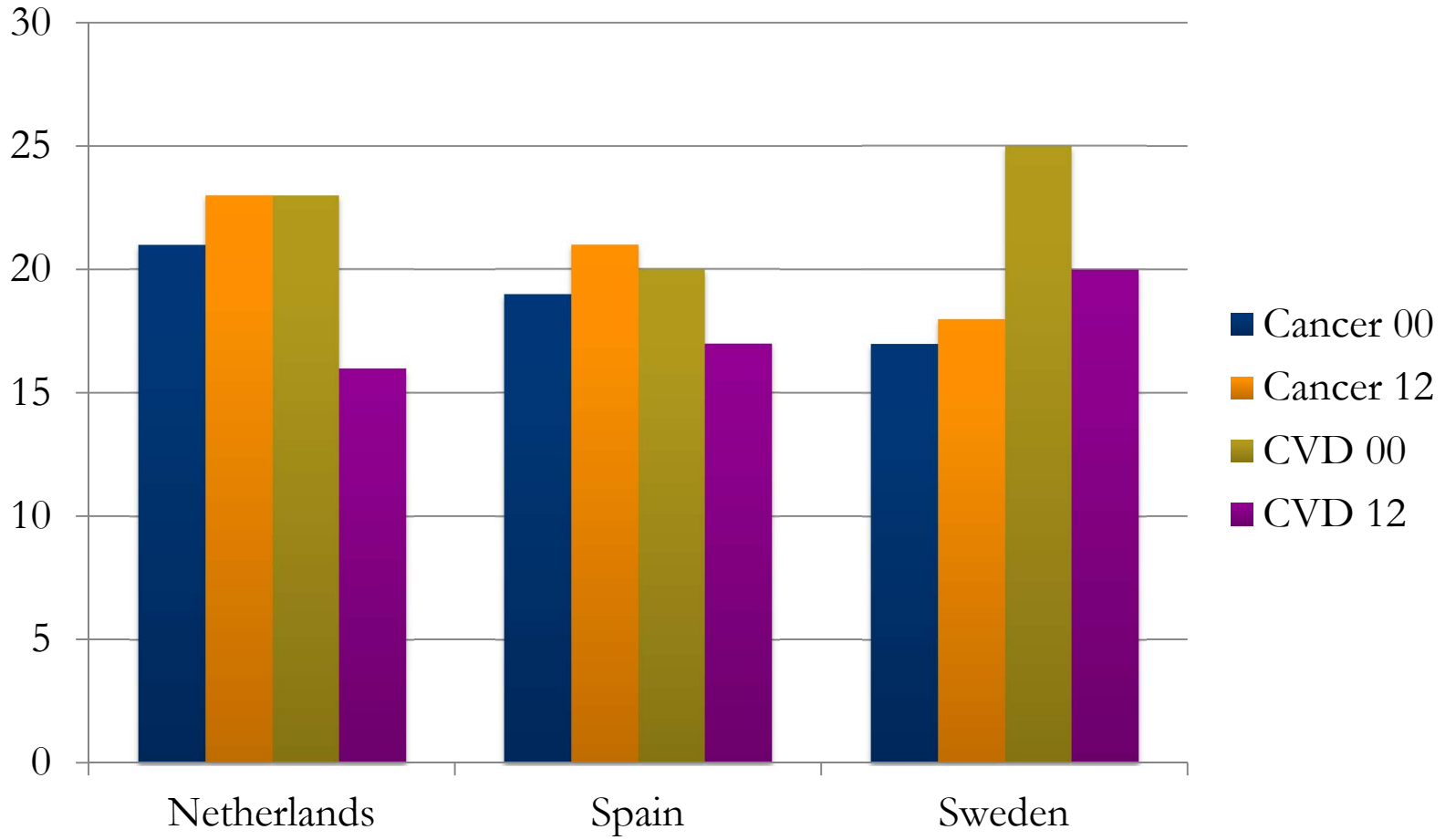
References: Jönsson B et al. Comparator Report on Patient Access to Cancer Medicines in Europe, Revisited. 2016. Available at: http://www.ihe.se/access-to-cancer-medicines-in-europe.aspx. Accessed September 2016.

Diapositiva 16

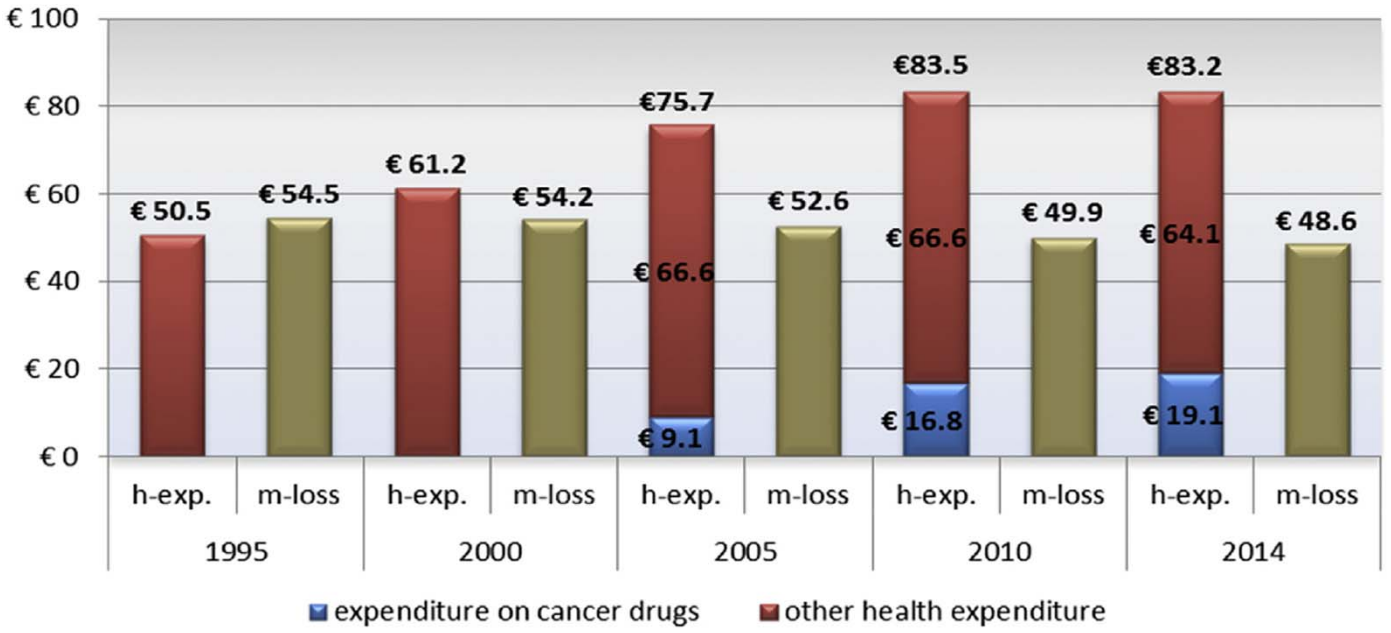
HM1 Note to artwork, please adapt this infographic in-line with the slide design/theme

Helena Mann; 12/09/2016

Relative burden of Cancer and CVD in 2000 and 2012
Per cent of total burden measured by DALY



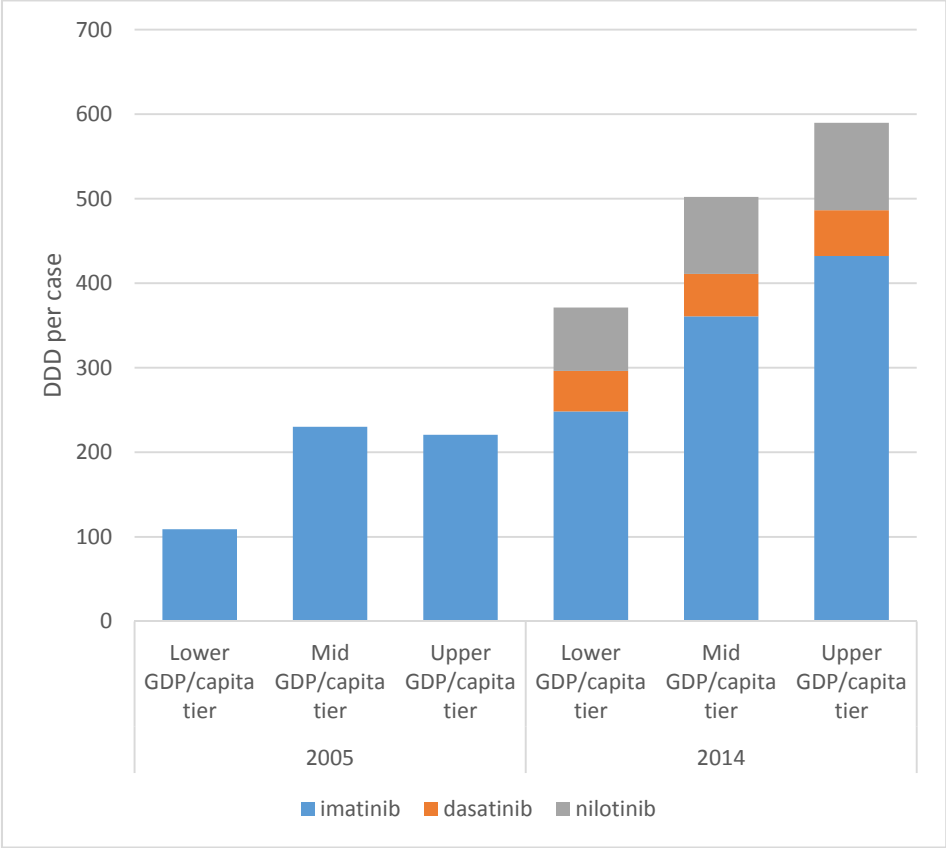
CHANGES IN THE COMPOSITION OF TOTAL CANCER COSTS



Components of the total cost of cancer in the EU (in billion €; 2014 prices), 1995–2014. Notes: Cancer is defined as ICD-10C00-D48 for health expenditure and ICD-10 C00-97, B21 for production loss due to premature mortality. EU = European Union; h-exp = health expenditure on cancer; m-loss = production loss due to premature mortality from cancer during working age.

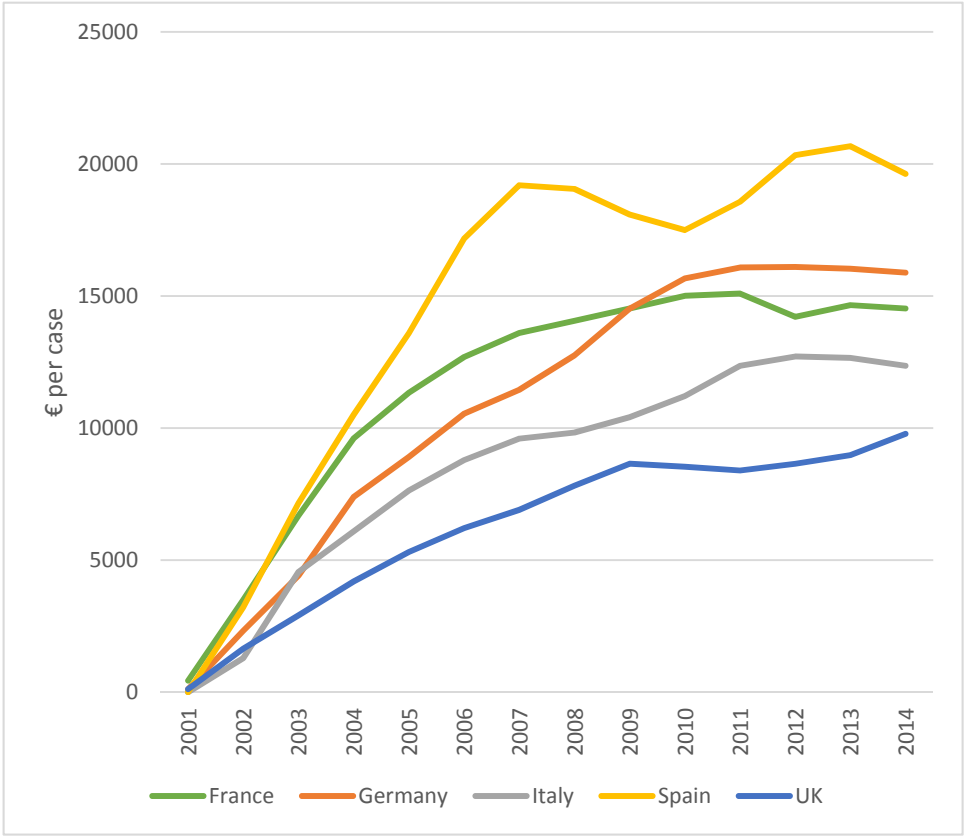
References: Jönsson B et al. Eur J Cancer 2016; 66: 162–170.

Large variation in uptake between richer and poorer countries even for drugs that have dramatically changed outcome (example: CML)



Source. IMS MiDAS

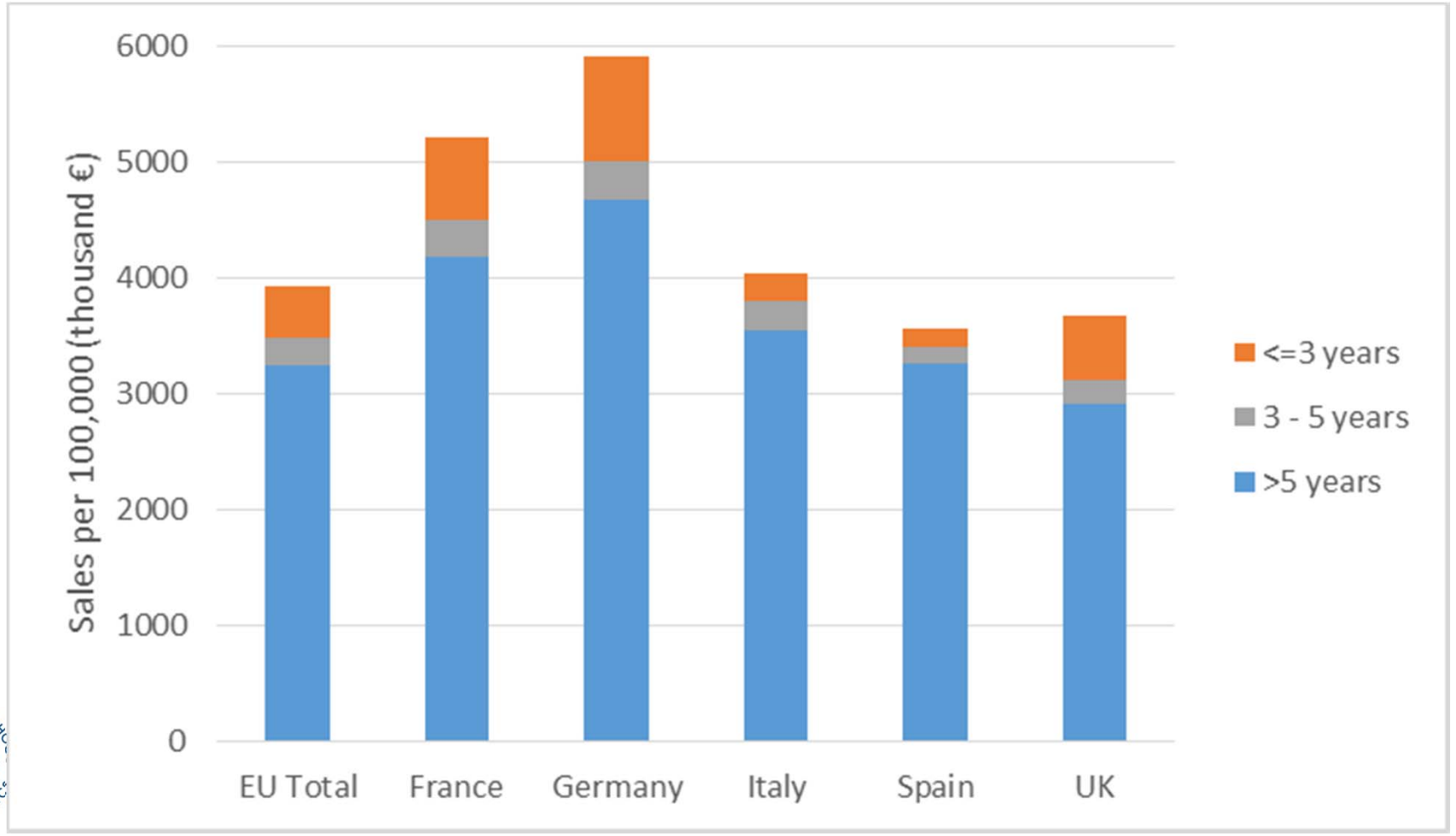
Large difference between countries with similar economic strength (example: CML)



Source. IMS MiDAS

SALES OF CANCER MEDICINES 2014

THOUSANDS EURO PER 100 000 INHABITANTS



BETTER DECISIONS WITH THAN WITHOUT ECONOMIC EVALUATION

- Process matters
  - The fact that an economic evaluation is undertaken means that relevant issues for the decision are put on the table, discussed and communicated
- Methodology and data matters as well
  - Inadequate method and data can miss-lead the decision process
  - But it should be remembered that the economic evaluation is a tool not a rule
  - Input to a deliberate process

Three key research issues

- Theory and methodology
- Quality of data and practice
- Implementation and impact

RESEARCH ON METHODOLOGICAL ISSUES

- Cost-benefit versus cost-effectiveness
- Social versus payer perspective on costs
- Inclusion and calculation of indirect costs
  - Friction method
- Inclusion of costs in added years of life
- Confidence intervals for cost-effectiveness ratios
- Probabilistic sensitivity analysis
- Choice of discount rate for costs and effectiveness
- Inclusion or exclusion of VAT

Alan Williams:

Economics of coronary artery bypass grafting. British Medical Journal, 1985, 291(6491): 326-329

- Selected the most important paper published in health economics during 25 years (1972-1997)
- Establishing the QALY concept

RESEARCH ON QALY

- Inclusion of distributional objectives
  - equity- weighted utility maximization
  - testing the validity of underlying assumptions
- Disease specific QALY
- Willingness to pay for a QALY

ECONOMIC EVALUATION AND THE NEW CONCEPT OF VALUE BASED HEALTH CARE – THE NEW PUBLIC MANAGEMENT

- Value according to Porter
  - Outcome divided by payment/cost
  - Looks to me like cost-effectiveness
- Mechanisms for achieving value
  - Definition of relevant outcomes
  - Collecting data on outcomes and resource use
  - Bundle payments and competition
- Importance for economic evaluation
  - Improving external validity of data and creates link to implementation

TRIAL BASED VERSUS MODEL BASED ECONOMIC EVALUATIONS

- Ramsey SD, Willke RJ, Augustovski F, et al.
  - **Cost-effectiveness analysis alongside clinical trials II**—an ISPOR Good Research Practices Task Force report. Value Health 2015;18:161–72.
- Editorial
- Clinical Trials Provide Essential Evidence, but Rarely Offer a Vehicle for Cost-Effectiveness Analysis
  - Marc Sculpher, York

POLICY INITIATIVES AT THE EUROPEAN LEVEL WITH OPPORTUNITIES TO IMPROVE ECONOMIC EVALUATION

- IMI – BD4BO
  - Linking drug development to health outcomes
- Early joint regulatory-HTA advice
  - Improve external validity of clinical trial data
- Adaptive licencing
  - Optimizing the drug development process from both a clinical and payer perspective

LINK TO AND IMPACT ON DECISION MAKING

ESTABLISHMENT OF COMPETENT AUTHORITIES

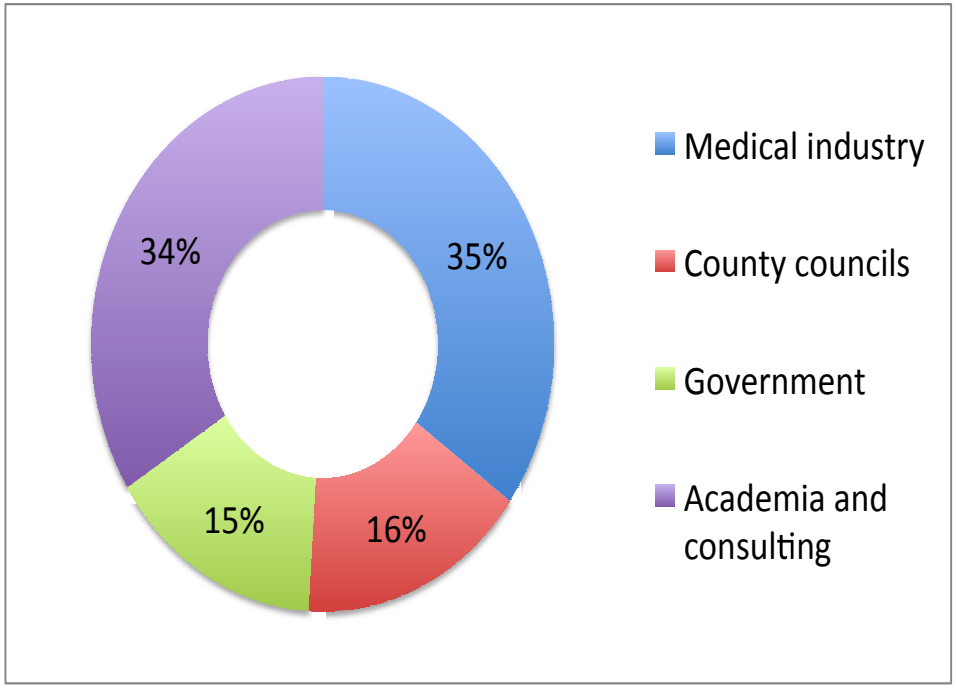
TLV
TANDVÅRDS- OCH
LÄKEMEDELSFÖRMÅNSVERKET

The Dental and Pharmaceutical Benefits Agency, TLV, is a central government agency whose remit is to determine whether a pharmaceutical product or dental care procedure shall be subsidized by the state.

Swedish National Board of Health and Welfare National Guidelines:
are a support for those who make decisions concerning the allocation of resources within Health and Medical Care and Social Services. The goal of these guidelines is to contribute towards patients and clients receiving a high standard of medical care and social services

SWEDISH HEALTH ECONOMISTS

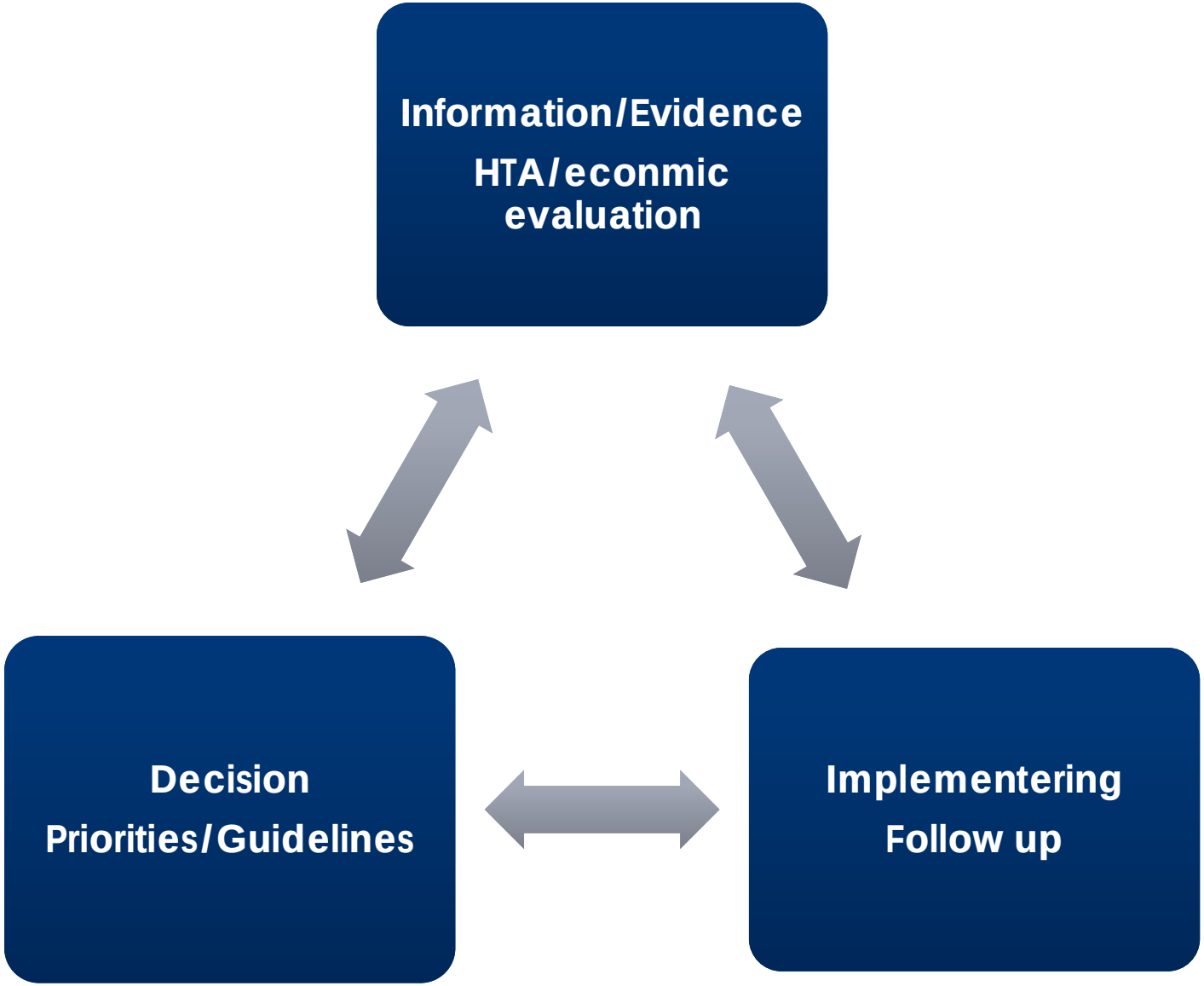
- **All**



- **Working for government**

- TLV 34%
- National Board of Health and Welfare 34%
- SBU 15%
- Ministry of Health 5%
- Public Health Institute 4%
- Other agencies 8%

Right decision is necessary but not sufficient



IMPLEMENTATION AND IMPACT. SOME NEW ISSUES

- Economic evaluations performed very early in the development of new technologies
  - New cancer medicines as example
  - Cost-effectiveness driven by pricing
- Management of uncertainty
  - Coverage by evidence development
  - Pay for performance

Conclusions – Doing better and feeling worse

- Relative effectiveness and cost-effectiveness have emerged the guiding principles for resource allocations
- Economic evaluations will increasingly be based on cost and outcome data from clinical practice
- Economic evaluation as an instrument for managing the early introduction of new, expensive end-of life technologies is a new challenge