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DO SOCIAL VALUES AND INSTITUTIONAL CONTEXT SHAPE THE USE OF ECONOMIC EVALUATION IN REIMBURSEMENT DECISIONS?

An Empirical Analysis

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Background (1)

- The debate on the use of economic evaluation to inform decisions about allocating scarce healthcare resources has evolved over time.
- The requirement for these analyses as part of the reimbursement process for new health technologies is regarded by many as a big step forward in recognizing the importance of economic considerations in health care decision making.
- The question of **why the attitudes towards economic evaluation** in health care differ so much from one jurisdiction to another has long been a source of discussion among scholars.

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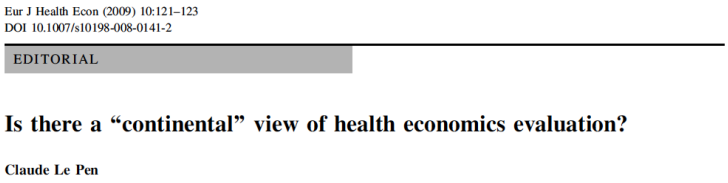
Background (2)

- The reasons underlying these differences in approaches towards economic evaluation are not sufficiently investigated.
- Some interesting ideas emerged:


Eur J Health Econ (2009) 10:121–123
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EDITORIAL

Is there a "continental" view of health economics evaluation?

Claude Le Pen

- Two arguments proposed by Le Pen (2009):
  1) distinctions between NHS-based ('Beveridge') systems and social insurance-based ('Bismarck') health care systems
  2) more philosophical differences relating to concepts of illness, health, and medicine that cause continental countries to reject the 'Anglo-Saxon' methods of assessing health care.

Background (3)

- Available evidence is:
  - Limited in scope: most of the discussion of the differences in the use of EE has compared the US with countries such as the UK
  - Limited to a single-discipline theoretical lenses (i.e. health economics)
- Other disciplines that investigated the issues of priority settings in healthcare:
  - Public administration – role of institutional context and administrative history
  - Political science – influence of social values

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EDITORIAL

CrossMark

Does the approach to economic evaluation in health care depend on culture, values, and institutional context?

Aleksandra Torbica[1] · Rosanna Tarricone[1] · Michael Drummond[2]

Background

The question of why the attitudes towards economic evaluation in health care differ so much from one jurisdiction to another has long been a source of discussion among scholars. Differences are observed both in whether economic evaluation plays a significant role in decision-making and the methods employed. In some countries, such as the Netherlands, Sweden, and the United Kingdom, the use of economic evaluation is extensive and focuses on the quality-adjusted life-year (QALY) as a measure of health gain. solidarity. Therefore, it should come as no surprise that in the UK, which has a Beveridge-type system, there is universal coverage but relatively little consumer choice in the services offered. In contrast, in Germany, which has a Bismarck-type system, there is a plurality of providers and an abundance of choice, with the consequence that some individuals may be treated differently from others. A similar dichotomy of values underpins the OECD's typology of health care systems [3]. At one end of the spectrum, national health services, like those existing in the UK, Italy, and several Scandinavian countries, are based on a strong notion

Second part of our research journey

- One step further: an attempt to test empirically the hypotheses postulated in the earlier editorial.
- **Research objective:** to empirically investigate the impact of institutional context and social values on the use of EE in healthcare decision making in a larger number of countries
- **Research scope:** 36 OECD countries

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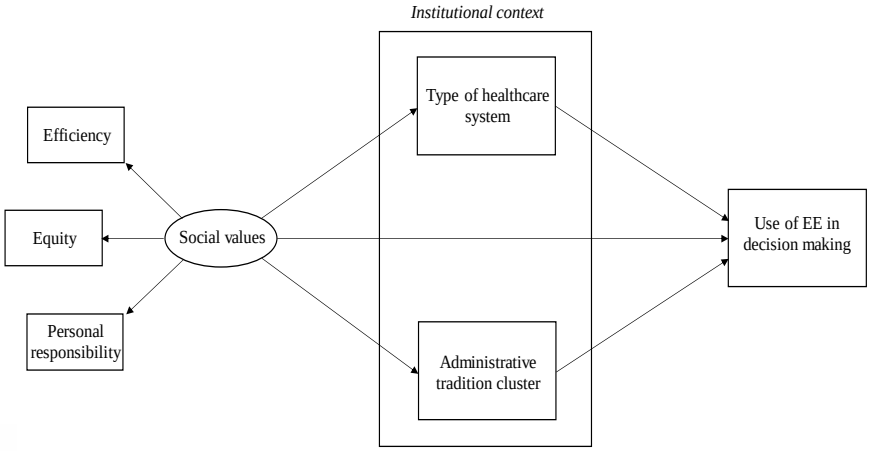
Conceptual framework



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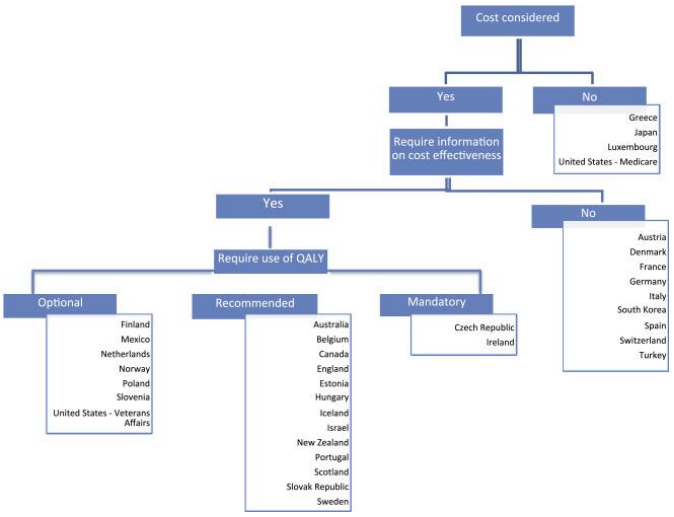
Operationalisation of variables (1)

Use of cost-effectiveness analysis in reimbursement decisions: classification of 36 OECD countries based on Barnieh et al (2014)



Source: Barnieh, L., et al., *A synthesis of drug reimbursement decision-making processes in organisation for economic co-operation and development countries.* Value Health, 2014. **17**(1): p. 98-108.

Operationalisation of variables (2)

General welfare paradigm/type of healthcare system	Countries	Dimensions
Beveridge-type (National Health System)	Australia, Canada, Denmark, Finland, Greece, Iceland, Ireland, Italy, Latvia, New Zealand, Norway, Portugal, Spain, Sweden, United Kingdom	1) Coverage 2) Funding 3) Ownership
Bismarck-type (Social Health Insurance)	Austria, Belgium, France, Germany, Israel, Japan, Lithuania, Luxembourg, Netherlands, Switzerland, South Korea, Turkey	
Market oriented (Private Insurance)	Chile, Mexico, United States	
System in transition (former Semaschko model)	Czech Republic, Estonia, Hungary, Poland, Slovak Republic, Slovenia	
Administrative tradition cluster		
Anglo-American	Australia, Canada, Ireland, New Zealand, United Kingdom, United States	1) Legal tradition 2) Relationship between state and society 3) Intensity of political involvement 4) Public accountability
Germanic	Austria, Czech Republic, Estonia, Germany, Hungary, Latvia, Lithuania, Luxembourg, Netherlands, Slovak Republic, Switzerland	
Napoleonic	Belgium, France, Greece, Italy, Poland, Portugal, Slovenia, Spain, Turkey	
Scandinavian	Denmark, Finland, Iceland, Norway, Sweden	
Other	Chile, Israel, Japan, Mexico, South Korea	

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Operationalisation of variables (3)

Social Values

- Extensive scoping for data:
  - European Social Survey ERIC
  - World Values Survey
  - European Value Survey
  - **ISSP, International Social Survey Programme: Health**

- **ISSP -** respondents from each country were asked about the extent to which they agreed or disagreed with a range of statements about health and healthcare
- We built upon the approach of Landwehr and Klinnert (2014) by considering efficiency, equity/equality, and personal responsibility as the key social values driving priorities in health care and operationalized them by computing Likert scale scores on a set of relevant questions

Results (1)

Distribution of OECD countries across different institutional context and extent of CEA use in reimbursement decisions (n=36)

	EE low-user (n=16)	EE high-user (n=20)	p-value
General welfare system and healthcare system			
Beveridge-type (National Health Service)	31%	50%	
Bismarck-type (Social Health Insurance)	56%	15%	0.014
Market-oriented (Private Insurance)	13%	5%	
System in transition (former Semaschko model)	0%	30%	
Administrative tradition			
Anglo-American	6%	25%	
Germanic	38%	25%	
Napoleonic	31%	20%	0.345
Scandinavian	6%	20%	
Other	19%	10%	

Results (2)

Spearman's rho correlation coefficients between institutional context variables and social values (n=25)

Results of t-test on independence of the two variables in parentheses
*** p<0.01, ** p<0.05, * p<0.1

	(1) Efficiency	(2) Equity	(3) Personal responsibility
Beveridge	-0.057	-0.317	-0.238
	(0.788)	(0.123)	(0.252)
Bismarck	-0.197	0.208	0.150
	(0.347)	(0.318)	(0.474)
Market oriented (Private Insurance)	0.327	-0.245	-0.164
	(0.110)	(0.237)	(0.435)
System in Transition (former Semaschko model)	0.091	0.333	0.242
	(0.661)	(0.104)	(0.244)
Anglo-American	**0.044****	**-0.410****	0.273
	(0.026)	(0.042)	(0.036)
Germanic	-0.065	0.234	**0.572*****
	(0.758)	(0.261)	(0.003)
Napoleonic	0.000	0.333	**-0.511*****
	(1.000)	(0.104)	(0.009)
Scandinavian	**-0.454****	-0.106	-0.197
	(0.023)	(0.614)	(0.346)
Other	0.136	-0.227	-0.061
	(0.516)	(0.275)	(0.774)

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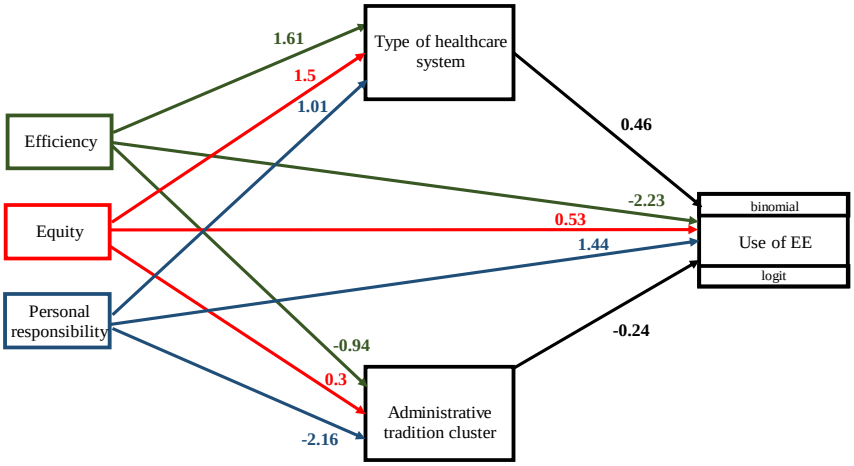
Results (3)

Output of path analysis



Discussion

- This is the very first study to investigate empirically whether the use of economic evaluation in health care decision-making in different countries is influenced by the prevailing social values and institutional context in the countries concerned.
- EE high users include significantly more Beveridge-type systems (50% vs 38%) and less Bismarck-type (15% vs 50%).
- Napoleonic countries seem to reject personal responsibility in health (r=-0.511, p=0.009) while Germanic countries embrace it (r=0.572, p=0.003)
- Anglo-American countries exhibit a significant association with efficiency (r=0.444, p=0.026) while Scandinavian countries appear to reject it as a criterion for rationing in healthcare (r=-0.454, p=0.023)
- No significant direct association was found between social values and use of economic evaluation.

Limitations

- This is the first time such an empirical analysis has been attempted so our analysis should be regarded as exploratory and our results should be considered preliminary.

- Several limitations in the data should be considered:
  - a single source to determine whether or not a country is a high or low user of economic evaluation in health care decision-making
  - reliable data on social values are hard to find.
  - the small sample (n=25) severely limited our attempts to conduct multivariate analyses (path analysis provides interesting insights, but requires larger sample size to provide reliable estimates)

Lessons learned

- Health economists can gain additional insights into the use of economic evaluation, within the broader application of health technology assessment, by considering other strands of literature, such as public administration.

- It is unlikely that there will ever be a single, harmonized approach to the use of economic evaluation in healthcare decision-making, because of the differences between countries in term of institutional context, which may in part be conditioned by social values.

- Increasing efforts to harmonize HTA/EE methods and use across EU countries embedded in "one size fits all" approach, may be ineffective if the above is not acknowledged

- A country contemplating an expanded role for economic evaluation within HTA should consider how well its institutional context and social values relate with those countries that are already high users of economic evaluation, since a better understanding of these factors could help in implementing such a policy.

Thank you.

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