



DGGÖ Jahrestagung 2011

**DRG systems in Europe:  
How similar, how divergent?  
A structured approach and first answers**

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# Incentives linked to different forms of hospital payment

	Productivity and number of services	Patient needs (risk acceptance)	Appropriateness and adherence to evidence-based medicine (quality of processes)	Quality of outcomes	Administrative simplicity and ease of financial sustainability
Global budget	-	(-)	<b>Cheap and bad → Undertreatment</b>		+
Per diems	(+)	0	0	<b>→ Inappropriate treatment</b>	
FFS	+	(+)	<b>Expensive and bad → Overtreatment</b>		-

# Incentives linked to different forms of hospital payment

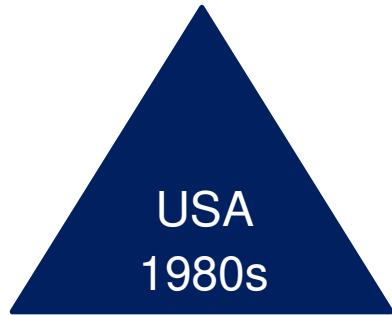
	Productivity and number of services	Patient needs (risk acceptance)	Appropriateness and adherence to evidence-based medicine (quality of processes)	Quality of outcomes	Administrative simplicity and ease of financial sustainability
Global budget	—	(—)	(—)	0	+
Per diems	(+)	0	0	(—)	(+) / 0
Simple DRGs (based on diagnosis)	+ [cases] — [services/case]	(—) [if insufficient consideration of severity]	(—) [if insufficient consideration of necessary services]	(—) / 0	(—) / 0
FFS	+	(+)	(—)	(—)	—

# Incentives linked to different forms of hospital payment

	Productivity and number of services	Patient needs (risk acceptance)	Appropriateness and adherence to evidence-based medicine (quality of processes)	Quality of outcomes	Administrative simplicity and ease of financial sustainability
Global budget	—	(—)	<b>European countries 1990s/2000s</b>		+
Per diems	(+)	0			(—)
Simple DRGs (based on diagnosis)	+ [cases] — [services/case]	(—) [if insufficient consideration of severity]	<b>USA 1980s</b>		(—) / 0
FFS	+	(+)			(—)

→ “dumping” (avoidance), “creaming” (selection) and “skimping” (undertreatment)  
→ up/wrong-coding, gaming

# Empirical evidence (I): hospital activity and length-of-stay under DRGs



Country	Study	Activity	ALoS
US, 1983	US Congress - Office of Technology Assessment, 1985	▼	▼
	Guterman et al., 1988	▼	▼
	Davis and Rhodes, 1988	▼	▼
	Kahn et al., 1990		▼
	Manton et al., 1993	▼	▼
	Muller, 1993	▼	▼
	Rosenberg and Browne, 2001	▼	▼

# Empirical evidence (II)

European countries  
1990s/  
2000s

Country	Study	Activity	ALoS
Sweden, early 1990s	Anell, 2005	▲	▼
	Kastberg and Siverbo, 2007	▲	▼
Italy, 1995	Louis et al., 1999	▼	▼
	Ettelt et al., 2006	▲	
Spain, 1996	Ellis/ Vidal-Fernández, 2007	▲	
Norway, 1997	Biørn et al., 2003	▲	
	Kjerstad, 2003	▲	
	Hagen et al., 2006	▲	
	Magnussen et al., 2007	▲	
Austria, 1997	Theurl and Winner, 2007		▼
Denmark, 2002	Street et al., 2007	▲	
Germany, 2003	Böcking et al., 2005	▲	▼
	Schreyögg et al., 2005		▼
	Hensen et al., 2008	▲	▼
England, 2003/4	Farrar et al., 2007	▲	▼
	Audit Commission, 2008	▲	▼
	Farrar et al., 2009	▲	▼
France, 2004/5	Or, 2009	▲	

To get a common “currency” of hospital activity for

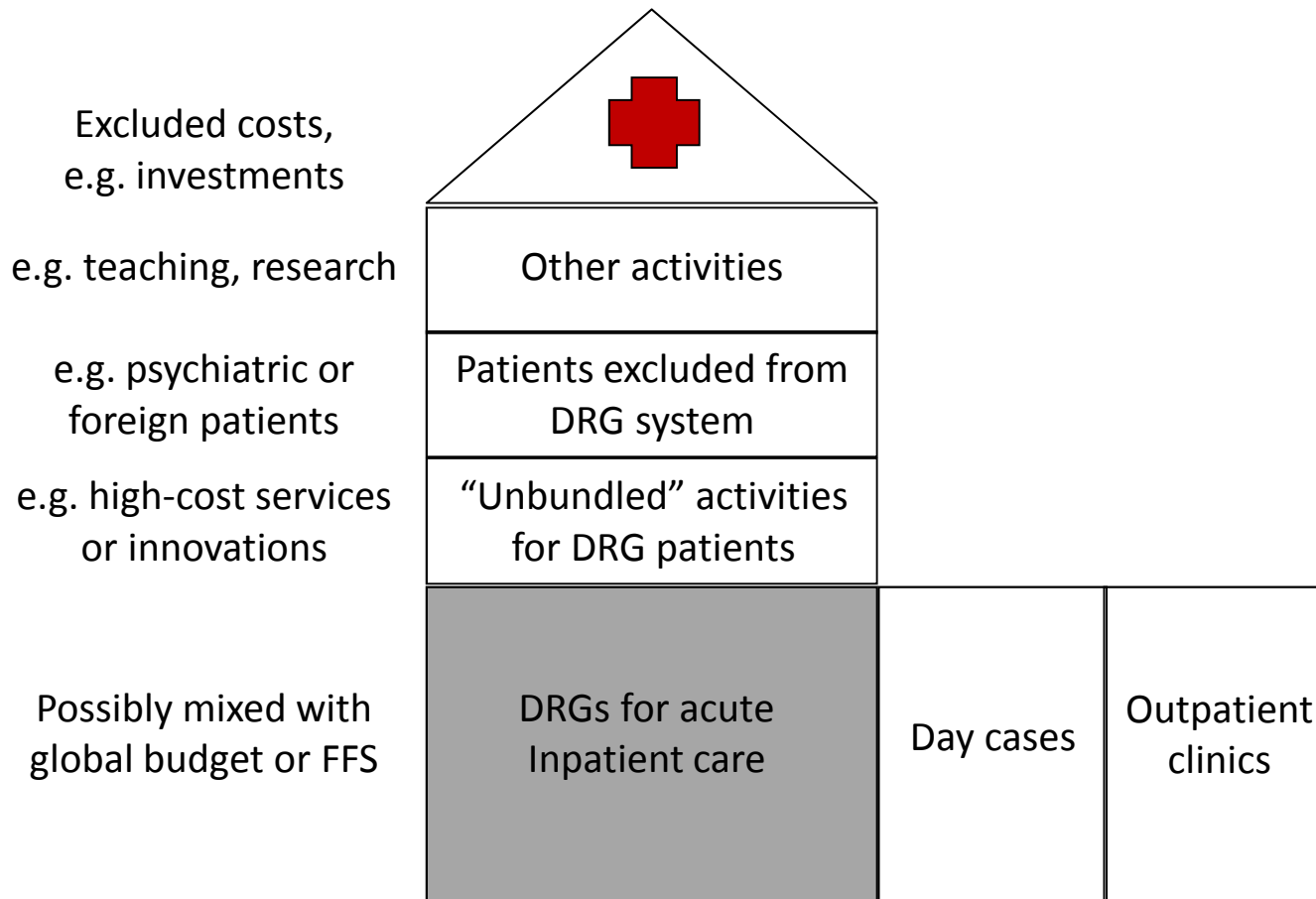
- transparency → performance measurement  
→ efficiency benchmarking,
- budget allocation (or division among purchasers),
- planning of capacities,
- payment (→ efficiency)



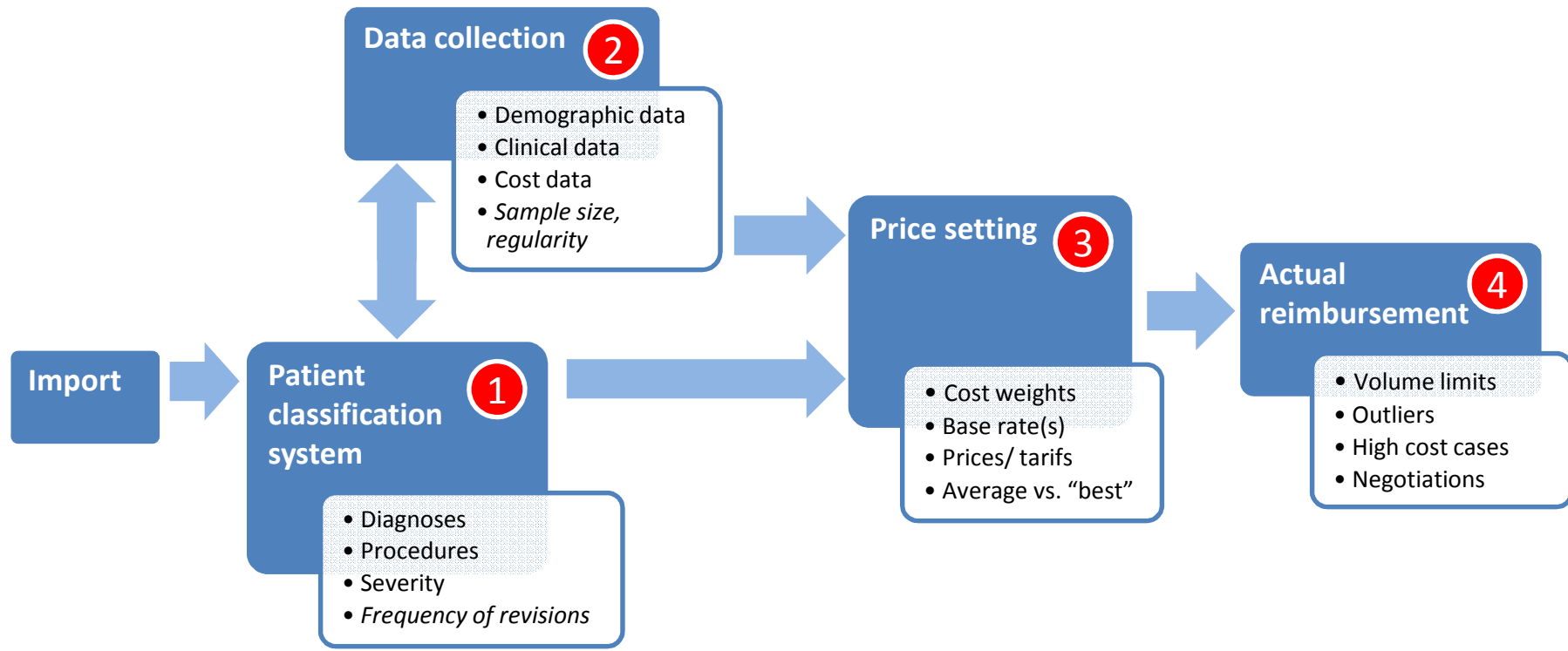
## Phase I (2009/2010)

- Description of DRG systems, updates and usage for patient classification and reimbursement across countries
  - Detailed description of grouping algorithm and cost weights for 10 episodes of care
  - Analysis of commonalities and differences
  - Literature review on effects in regard to quality and efficiency
- Book on DRGs in Europe (Open University Press 2011) with chapters on patient classification systems, cost accounting, DRGs for reimbursement/ avoiding unintended consequences, efficiency, quality, innovations in DRG systems + country chapters

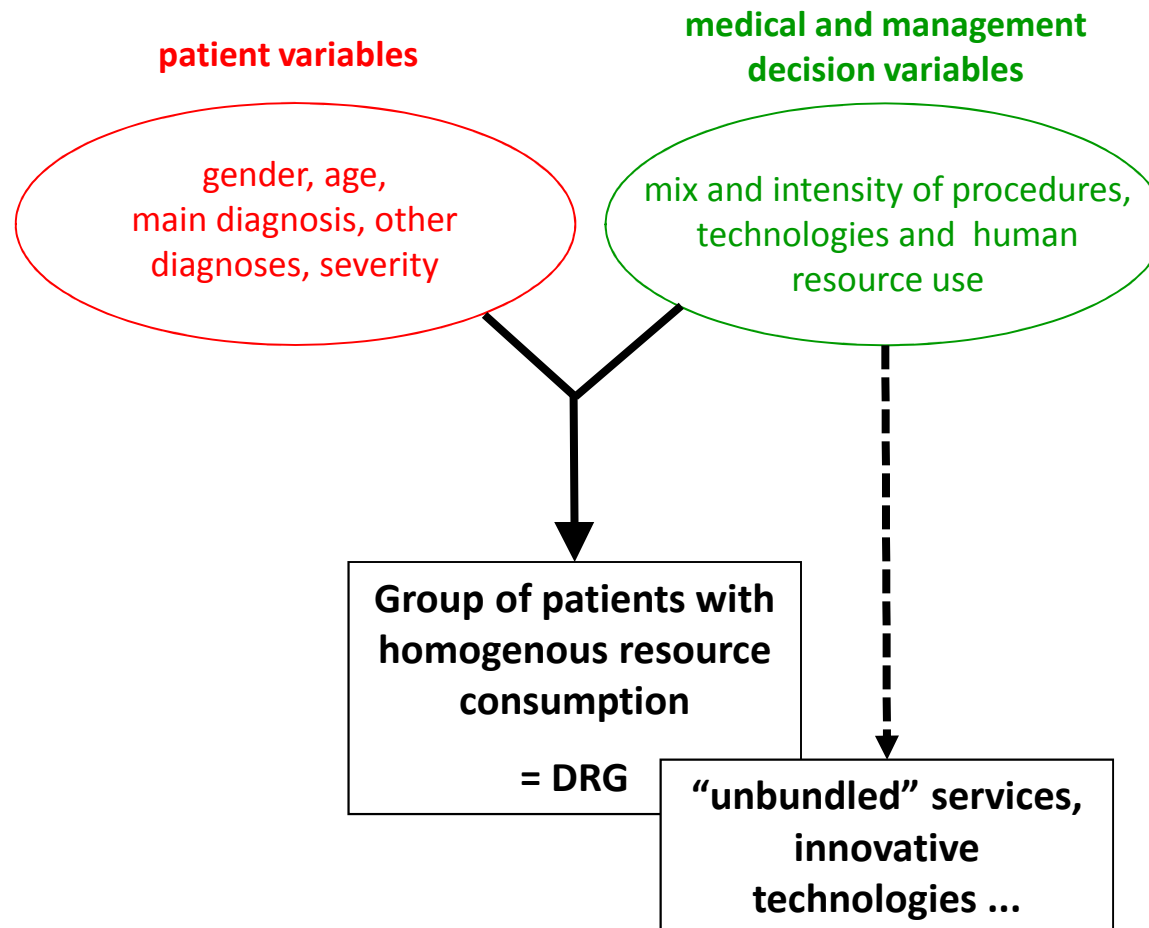
## Scope of DRGs – the “DRG house”



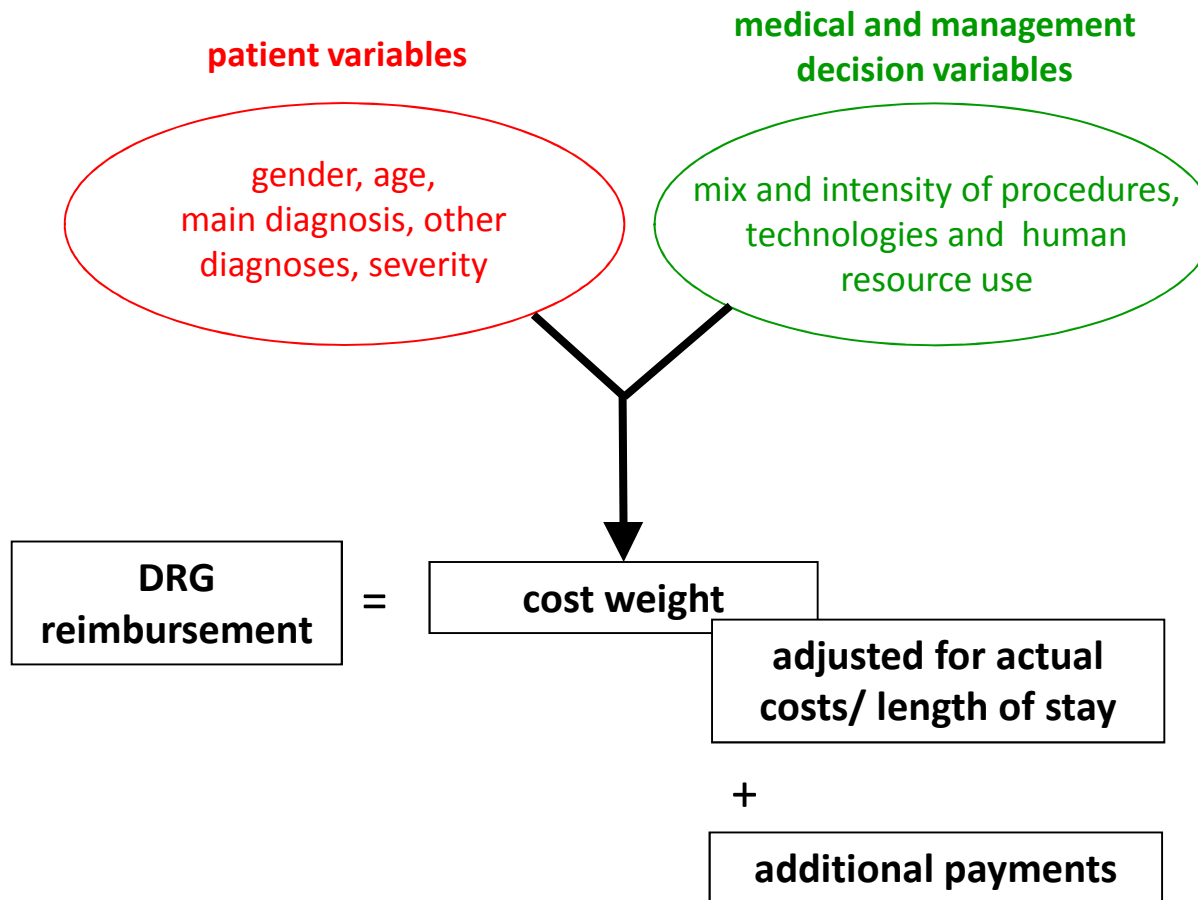
Country	Inpatient	Outpatients	Psychiatry	Rehabilitation
Austria	X	?	?	?
England	X	X	starting 2012	?
Estonia	X	starting 20xx	?	?
Finland	X	X	?	?
France	X	X	starting 20xx	starting 20xx
Germany	X	-	starting 2013	-
The Netherlands	X	X	?	?
Ireland	X	X	-	?
Poland	X	starting 20xx	starting 20xx	starting 20xx
Portugal	X	?	starting 20xx	?
Spain	X	starting 20xx	?	?
Sweden	X	X	?	?



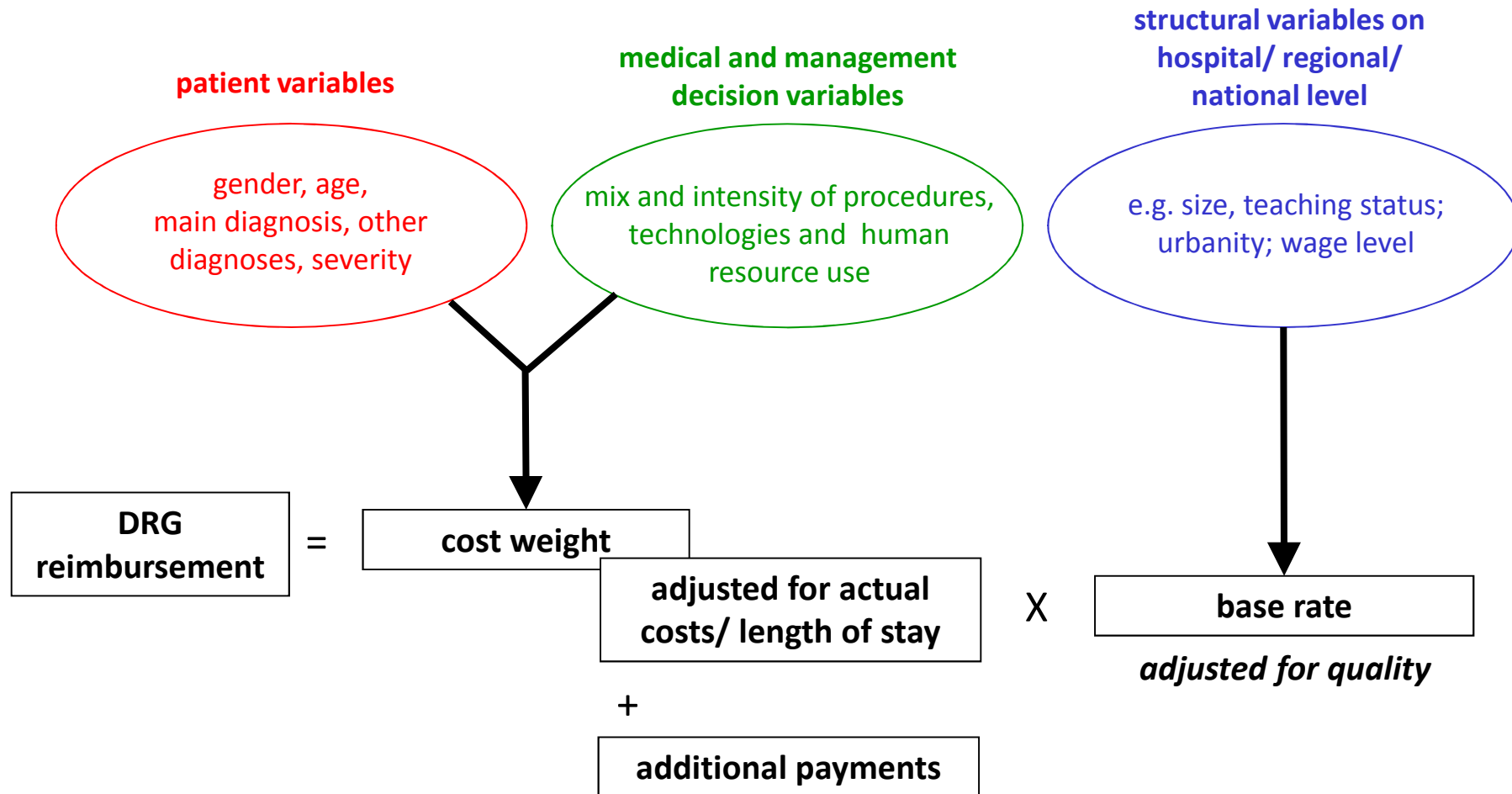
# Understanding the role of 3 factors in cost differences and price setting (1)



# Understanding the role of 3 factors in cost differences and price setting (2)

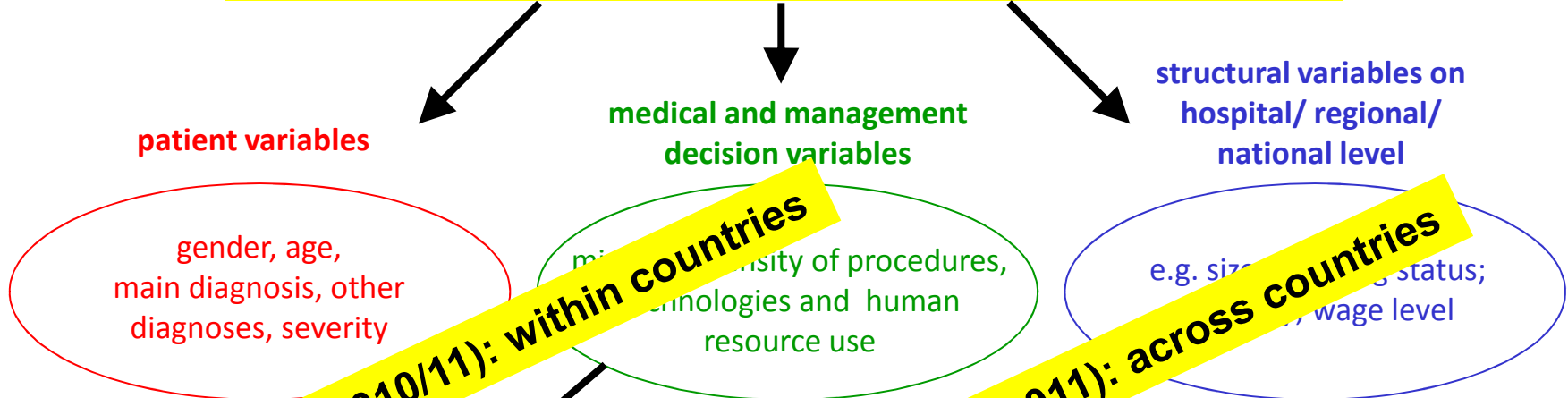


# Understanding the role of 3 factors in cost differences and price setting (3)





## determinants of hospital costs for 10 episodes of care



$$\begin{aligned}
 \text{DRG reimbursement} &= \text{cost weight} \times \text{base rate} \\
 &= \left[ \begin{array}{l} \text{adjusted for actual} \\ \text{costs/ length of stay} \\ + \\ \text{additional payments} \end{array} \right] \times \left[ \begin{array}{l} \text{base rate} \\ \text{adjusted for quality} \end{array} \right]
 \end{aligned}$$

**“Hospital Benchmarking Club” – explores this with individual hospital data**

**DRGs and quality**

Final conference regarding policy conclusions in November 2011 in Berlin:

- Are hospital services and costs across European countries really so different to justify different systems for patient classification and cost weights? Could cost differences not be handled through base rate adjustments (as in the US)?
- What do we know regarding the effects on hospital efficiency and quality of service delivery under DRGs?



[www.eurodrg.eu](http://www.eurodrg.eu)