Does tariff re-design drive value in health care?

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European Observatory on Health Systems and Policies

The basic question: What is "value" when talking about tariffs?

- That providers care for patients when they need care?
  … and do not risk-select …
- That providers provide services? … and are not idle …
- That expenditure is well controlled? … and not sky-rocketing …
- That services are efficiently provided? … and money not wasted …
- That service provision is transparent? … and not opaque …
- That services are provided only if appropriate?
  … and not unnecessarily …
- That provided services are of high quality?
  … and do not endanger patient safety …

Together = value or performance!

→ We discuss the examples of
1 hospitals, 2 GPs and 3 chronic care

1 Incentives of different forms of hospital payment

Payment mechanism	Patient needs (risk selection)	Activity		Expenditure control	Technical efficiency	Transparency	Quality	Administrative simplicity
		Number of services/ case	Number of cases					
Fee-for-service	+	+	+	–	0	0	0	–
Global budget	–	–	–	+	0	–	0	+

1 Incentives of different forms of hospital payment

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Fee-for-service	+	+	+	—	0	0	0	—
DRG based case payment	0	—	+	0	+	+	0	—
Global budget	—	—	—	+	0	—	0	+

1 Incentives of different forms of hospital payment

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

Payment mechanism	Patient needs (risk selection)	Activity: Number of services/ case	Activity: Number of cases	Expenditure control	Technical efficiency	Transparency	Quality	Administrative simplicity
Fee-for-service	+	+	+	–				–
DRG based case payment	0	–	+	0	+	+	0	–
Global budget	–	–	–	+				+

USA 1980s

European countries 1990s/2000s

1 Incentives of different forms of hospital payment

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DRG based case payment	0	–	+	0	+	+	0	–
Global budget	–	–	–	+				+

"prospective"

"activity-based"

USA 1980s

European countries 1990s/2000s

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)

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	▲	

So then, why DRGs?

To get a common “currency” of hospital activity for

- transparency → efficiency benchmarking & performance measurement (protect/ improve quality),
- budget allocation (or division among providers),
- planning of capacities,
- payment (→ efficiency)

Exact reasons, expectations and DRG usage differ among countries – due to (de)centralisation, one vs. multiple payers, public vs. mixed ownership.

Scope of DRGs within hospital activities

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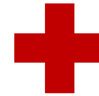


Excluded costs
(e.g. for infrastructure; *in U.S. also physician services*)

Payments for non-patient care activities
(e.g. teaching, research, emergency availability)

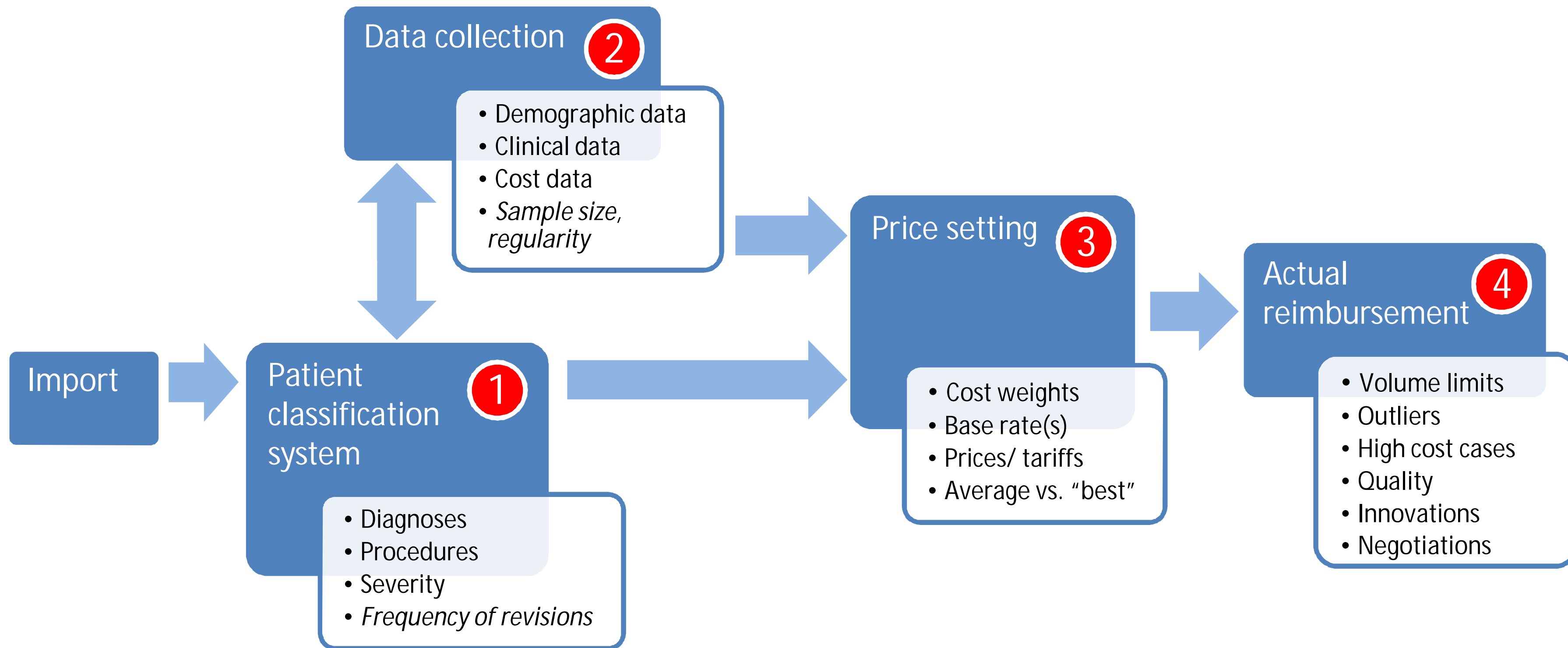
Payments for patients not classified into DRG system
(e.g. outpatients, day cases, psychiatry, rehabilitation)

Additional payments for specific activities for DRG-classified patients (e.g. expensive drugs, innovations), possibly listed in DRG catalogues

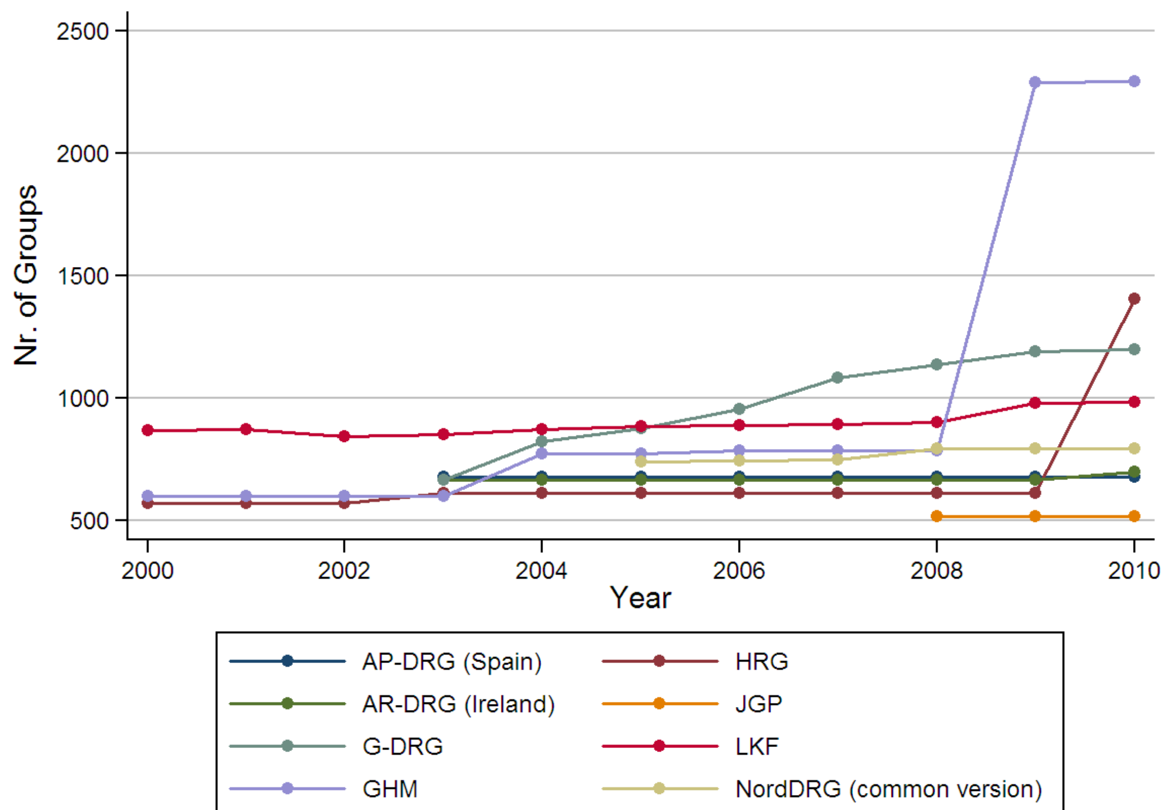
Other types of payments for DRG-classified patients
(e.g. global budgets, fee-for-service)

DRG-based case payments,
DRG-based budget allocation
(possibly adjusted for outliers, quality etc.)

Essential building blocks of DRG systems



Basic characteristics of Patient classification systems in Europe



Patient classification system

- Diagnoses
- Procedures
- Severity
- *Frequency of revisions*

	AP-DRG	AR-DRG	G-DRG	GHM	NordDRG	HRG	JGP	LKF	DBC
DRGs / DRG-like groups	679	665	1,200	2,297	794	1,389	518	979	≈30,000
MDCs / Chapters	25	24	26	28	28	23	16	-	-
Partitions	2	3	3	4	2	2*	2*	2*	-

Main questions relating to data collection

Data collection

- Demographic data
- Clinical data
- Cost data
- *Sample size, regularity*

Clinical data
→ classification system for diagnoses *and*
→ classification system for procedures

Cost data
→ imported (not good but easy) *or*
→ collected within country (better but needs standardised cost accounting)

Sample size
→ entire patient population *or*
→ a smaller sample

Many countries: *clinical data* = all patients;

cost data = hospital sample
with standardised cost accounting system

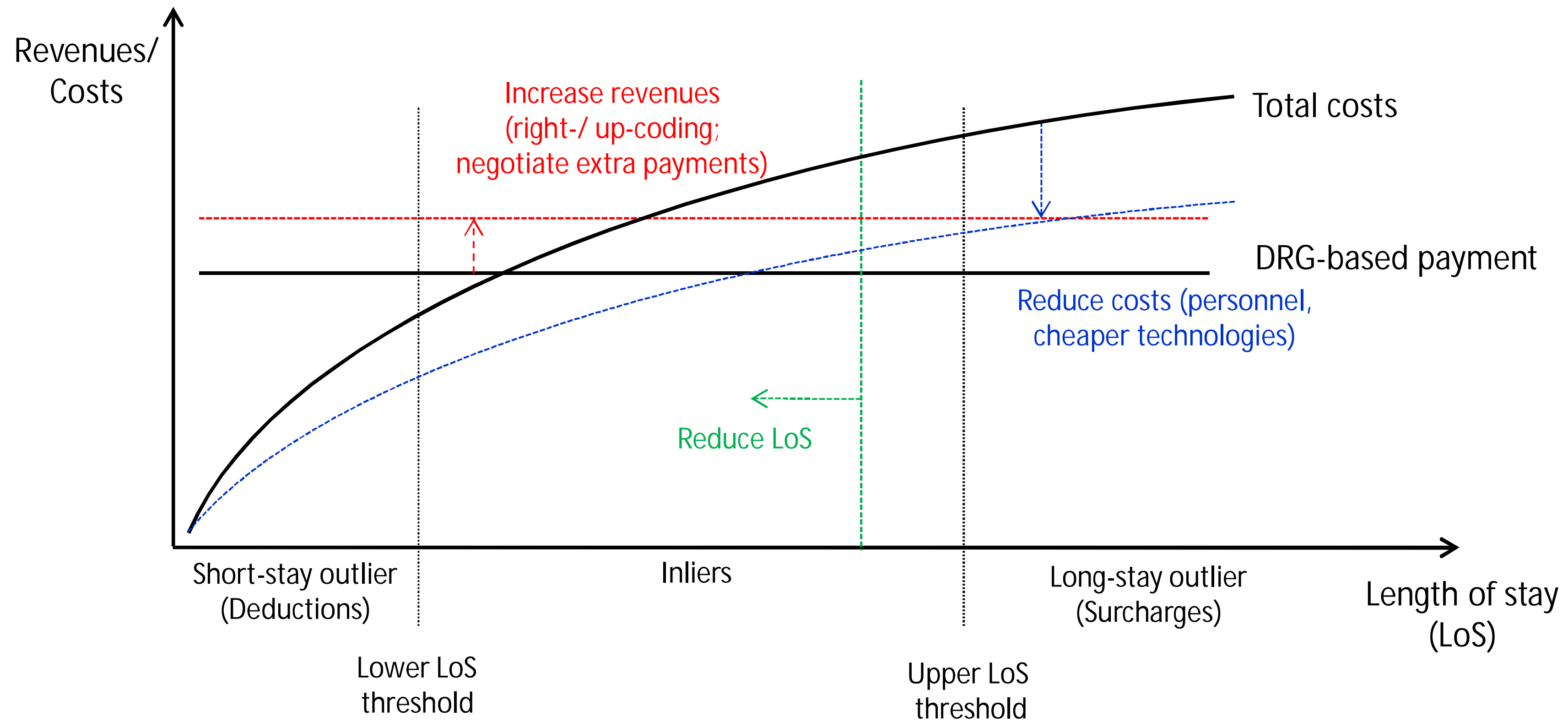
How to calculate costs and set prices fairly

- Based on good quality data (not possible if cost weights imported)
- "Cost weights x base rate" vs. "Tariff + adjustment" vs. Scores
- Average costs vs. "best practice"

Price setting
- Cost weights
- Base rate(s)
- Prices/ tariffs
- Average vs. "best"

	"cost weight" (varies by DRG)	"base rate" or adjustment
Relative weight (e.g. Germany)	1.0	€ 3000 (+/-) (varies slightly by state)
Raw tariff (e.g. France)	€ 3000	1.0 (+/-) (varies by region and hospital)
Raw tariff (e.g. England)	£ 3000	1.0 – 1.32 (varies by hospital)
Score (e.g. Austria)	130 points	€ 30

Hospital behaviour and strategy

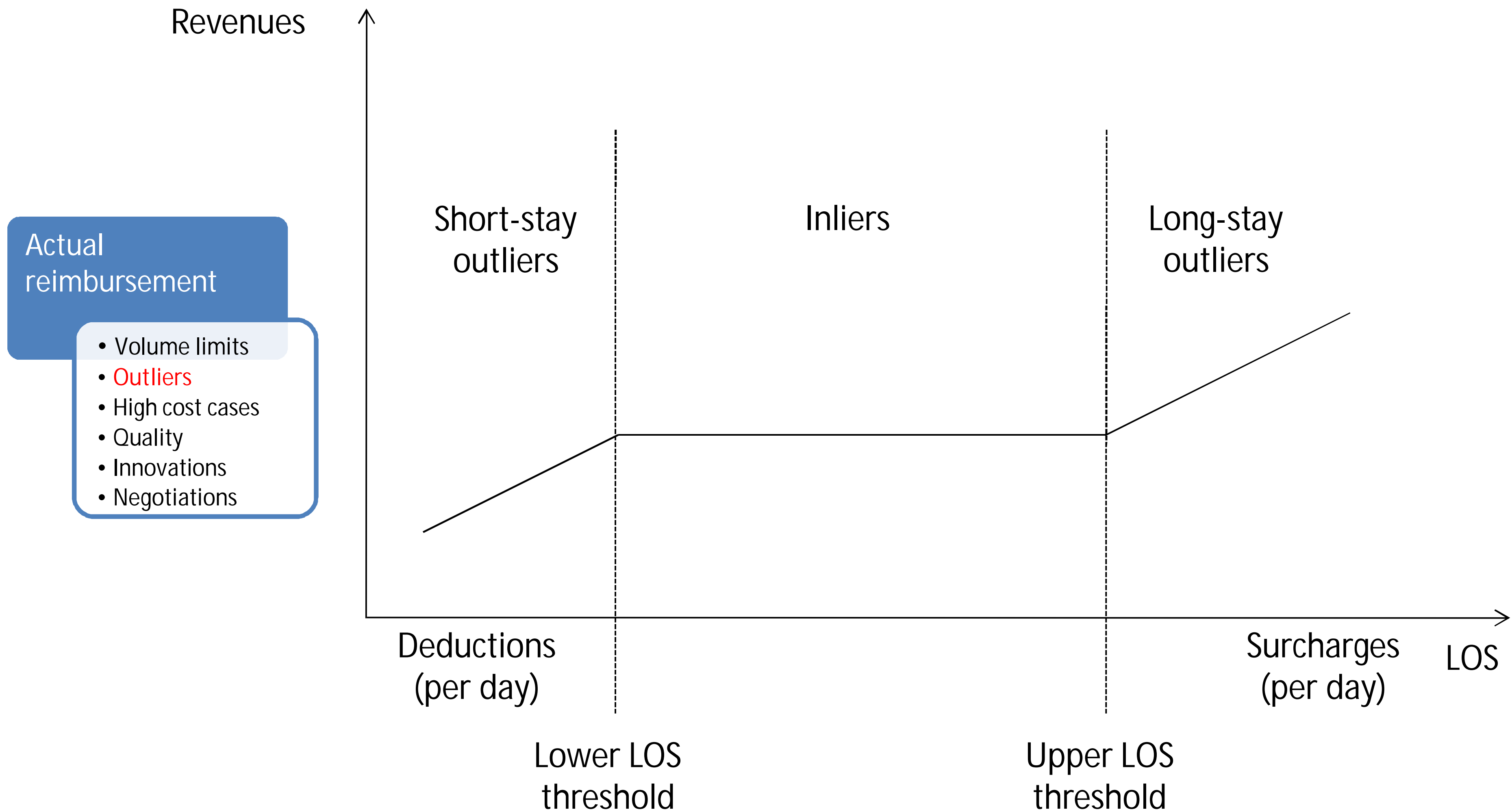


Incentives and (un-)intended hospital strategies

Incentives of DRG-based hospital payment	Strategies of hospitals
1. Reduce costs per patient	a) Reduce length of stay • optimize internal care pathways • inappropriate early discharge ('bloody discharge')
	b) Reduce intensity of provided services • avoid delivering unnecessary services • withhold necessary services ('skimping/undertreatment')
	c) Select patients • specialize in treating patients for which the hospital has a competitive advantage • select low-cost patients within DRGs ('cream-skimming')
2. Increase revenue per patient	a) Change coding practice • improve coding of diagnoses and procedures • fraudulent reclassification of patients, e.g. by adding inexistent secondary diagnoses ('up-coding')
	b) Change practice patterns • provide services that lead to reclassification of patients into higher paying DRGs ('gaming/overtreatment')
3. Increase number of patients	a) Change admission rules • reduce waiting list • admit patients for unnecessary services ('supplier-induced demand')
	b) Improve reputation of hospital • improve quality of services • focus efforts exclusively on measurable areas

Positive and negative consequences are closely related

How European DRG systems reduce unintended behaviour: 1. long- and short-stay adjustments



How European DRG systems reduce unintended behaviour: 2. Fee-for-service-type additional payments

Euro DRG — Technische Universität Berlin

Actual reimbursement
- Volume limits
- Outliers
- High cost cases
- Quality
- Innovations
- Negotiations

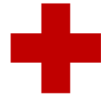
	England	France	Germany	Nether-lands
Payments per hospital stay	One	One	One	Several possible
Payments for specific high-cost services	Unbundled HRGs for e.g.: • Chemotherapy • Radiotherapy • Renal dialysis • Diagnostic imaging • High-cost drugs	Séances GHM for e.g.: • Chemotherapy • Radiotherapy • Renal dialysis Additional payments: • ICU • Emergency care • High-cost drugs	Supplementary payments for e.g.: • Chemotherapy • Radiotherapy • Renal dialysis • High-cost drugs/ devices	Since 2012: • ICU • Care in cooperation with practice-based physicians
Innovation-related add'l payments	Yes	Yes	Yes	Yes (for drugs)

How DRG systems reduce unintended behaviour: 3. adjustments for quality

Type of adjustment	Mechanism	Examples
Hospital based	• Payment for entire hospital activity is adjusted upwards or downwards by a certain percentage • Hospital receives an additional payment unrelated to activity	• Predefined quality results are met/not met *(e.g., in England)* • Overall readmission rate is below/above average or below/above agreed target *(e.g., in the United States)* • Hospitals install new quality improvement measures *(e.g. in France)*
DRG/ disease based	• Payment for all patients with a certain DRG (or a disease entity) is adjusted upwards or downwards by a certain percentage • DRG payment is not based on average costs but is awarded to those hospitals delivering 'good quality'	• Insurers negotiate with hospitals that DRG payment is higher/lower if certain quality standards are met/not met *(e.g., in Germany and the Netherlands)* • DRG payment for all hospitals is based on 'best practice'; that is, costs incurred by efficient, high-quality hospitals *(e.g., in England)*
Patient based	• Payment for an individual patient is adjusted upwards or downwards by a certain amount • No payment is made for a case	• Certain readmissions within 30 days are not paid separately but as part of the original admission *(e.g., in England and Germany)* • Complications (that is, certain conditions that were not present upon admission) cannot be used to classify patients into DRGs that are weighted more heavily *(e.g., in the United States)*

Conclusions

- DRG-based hospital payment is the main method of provider payment in Europe, but systems vary across countries
  - Different patient classification systems
  - DRG-based budget allocation vs. case-payment
  - Regional/local adjustment of cost weights/conversion rates
- To address potential unintended consequences, countries
  - implemented DRG systems in a step-wise manner
  - operate DRG-based payment together with other payment mechanisms
  - refine patient classification systems continously (increase number of groups)
  - place a comparatively high weight on procedures
  - base payment rates on actual average (or best-practice) costs
  - reimburse outliers and and high cost services separately
  - update both patient classification and payment rates regularly
- If done right (which is complex), DRGs can contribute to increased transparency and efficiency – and quality



DRG payment – the way forward

Excluded costs
(e.g. for infrastructure; *in U.S. also physician services*)

Payments for non-patient care activities
(e.g. teaching, research, emergen[...]ability)

Payments fo[...] system
(e.g. outp[...]litation)

Additiona[...]specific activities for DRG-classified p[...]ents (e.g. expensive drugs, innovations), possibly listed in DRG catalogues

Other types of payments for DRG-classified patients
(e.g. global budgets, fee-for-service)

DRG-based case payments,
DRG-based budget allocation
(possibly adjusted for outliers, quality etc.)

Develop intersectoral "bundled" DRGs based on care pathways

Integrate all relevant cost categories into DRGs

Separate priority activities not related to a particular patient from DRG payments

Pay separate for patient-related activities which you want to incentivize (upon prior authorization, 2nd opinion?)

- Define clinically meaningful groups (constant updating),
- which are cost-homogeneous (on average or "best practice"),
- measure quality and
- adjust payment

The McGraw·Hill Companies

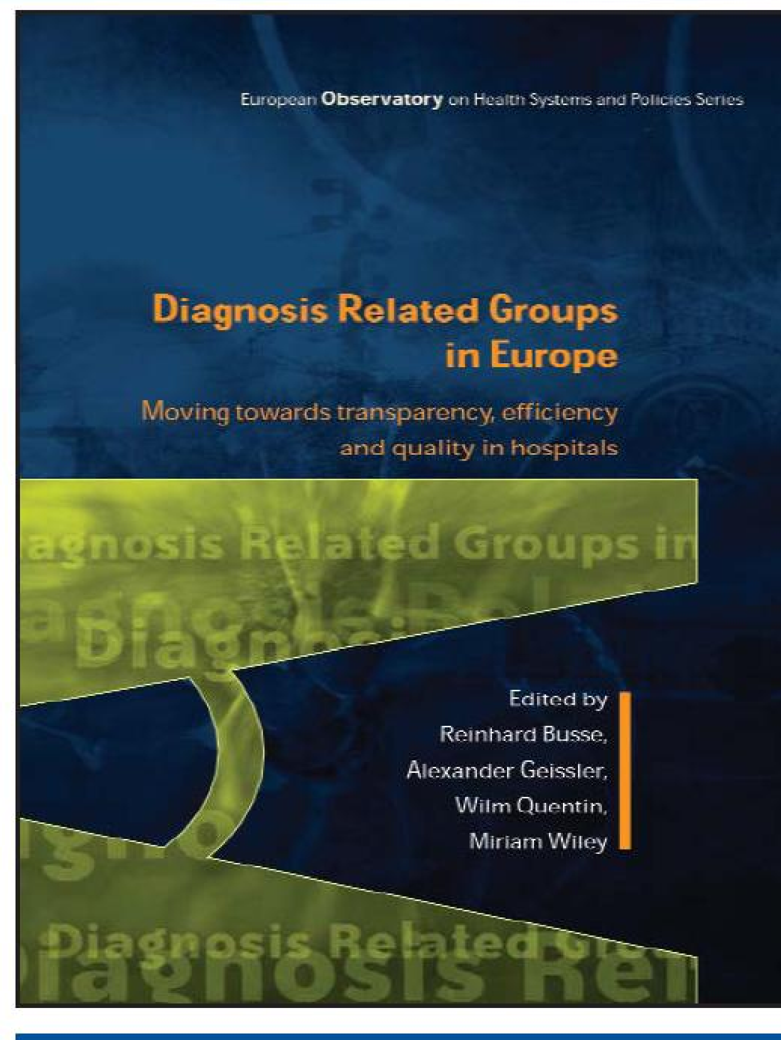
New from Open University Press

Diagnosis-Related Groups in Europe

Moving towards transparency, efficiency and quality in hospitals

Reinhard Busse, Alexander Geissler, Wilm Quentin and Miriam M. Wiley (Eds)

Berlin University of Technology, Germany; Berlin University of Technology, Germany; Berlin University of Technology, Germany; Economic and Social Research Institute, Dublin, Ireland



Diagnosis Related Group (DRG) systems were introduced in Europe to increase the transparency of services provided by hospitals and to incentivise greater efficiency in the use of resources invested in acute hospitals. In many countries, these systems were also designed to contribute to improving - or at least protecting - the quality of care. After more than a decade of experience with using DRGs in Europe, this book considers whether the extensive use of DRGs has contributed towards achieving these objectives.

MiG 2002-2012 Health Care Management

THE MILBANK QUARTERLY
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Volume 79 Number 2, 2001

Theory and Practice in the Design of Physician Payment Incentives

JAMES C. ROBINSON

University of California, Berkeley

There are many mechanisms for paying physicians; some are good and some are bad. The three worst are fee-for-service, capitation, and salary. Fee-for-service rewards the provision of inappropriate services, the fraudulent upcoding of visits and procedures, and the churning of "ping-pong" referrals among specialists. Capitation rewards the denial of appropriate services, the dumping of the chronically ill, and a narrow scope of practice that refers out every time-consuming patient. Salary undermines productivity, condones on-the-job leisure, and fosters a bureaucratic mentality in which every procedure is someone else's problem. But American medicine exhibits numerous interesting compensation systems that blend elements of retrospective and prospective payment, of fee-for-service, salary, and capitation. These innovations seek a middle ground between high- and low-intensity incentives, between piece rates and straight salary. Payment

2

Advantages and disadvantages of different forms of GP payment

Payment mecha-nism	Patient needs (risk selection)	Activity		Expendi-ture control	Technical efficiency	Trans-parency	Quality	Admini-strative simplicity
		Number of services/ case	Number of cases					
Fee-for-service	+	+	+	–	0	0	0	–
Capi-tation	– (if not risk-adjusted)	–	+	+	+	–	0	0
Salary	0	–	–	+	0	–	0	+

2

Traditional forms of paying GPs (until early 2000s)

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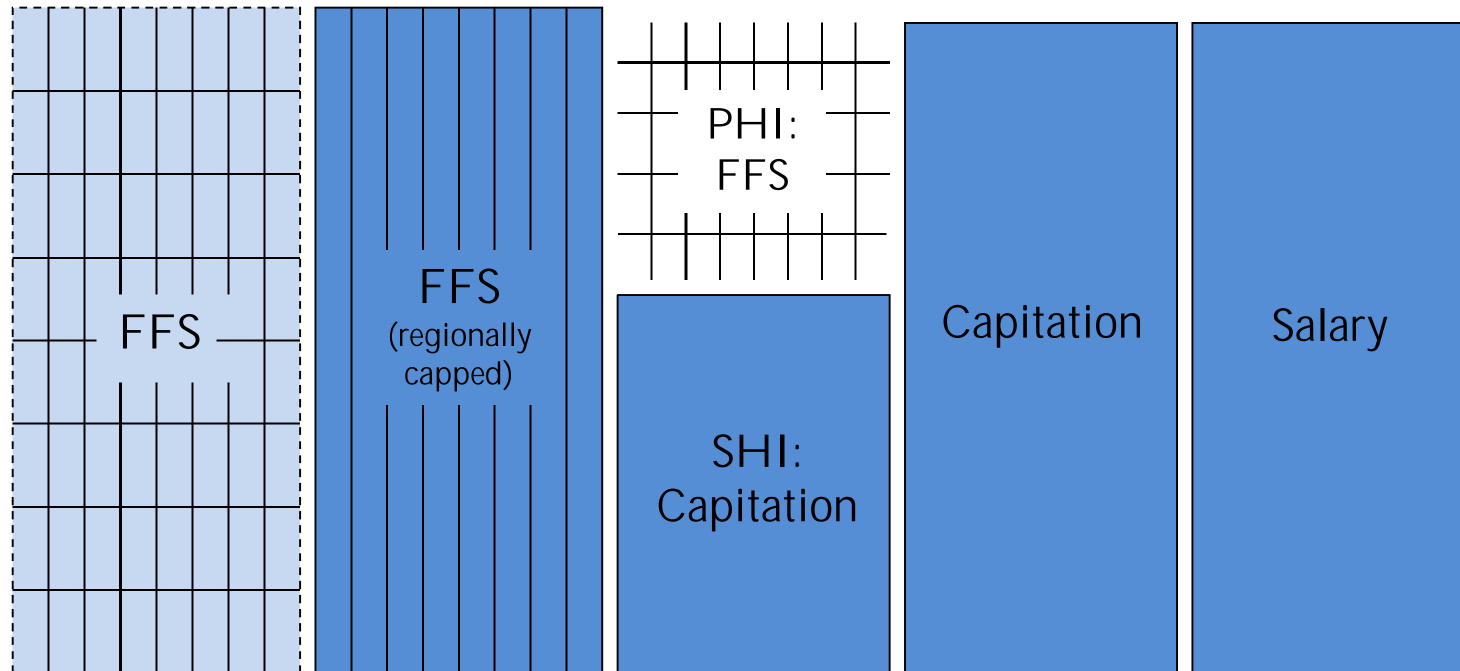
France Germany Netherlands England Sweden



Payment components in GP care today

Objective	Payment component	France	Germany	Netherlands	England	Sweden
Objective: appropriateness & outcomes	Quality payment	CAPI bonus			QOF bonus	Bonus and/or Malus
Objective: activity & patient needs	Extra service payment	ADL payment	FFS DMP payment; FFS with caps per service type	FFS (per visit & out-of-hours)	FFS (“enhanced services“)	FFS (per visit)
Objective: cost-containment (& geographic equity)	Basic service payment	FFS	“RLV“ (capped FFS)	Capitation	Capitation	Capitation

Percentage of total payment per component (estimates)

Technische Universität Berlin

	France	Germany	Netherlands	England	Sweden
Objective: appropriateness & outcomes	5%			25-30%	max. +/- 3%
Objective: activity & patient needs	1%	<5% 30%	40-45%	<10%	10-20% (Stockholm 60%)
Objective: cost-containment (& geographic equity)		60-70%	55-60%	65%	80-90% (Stockholm 40%)

France: 95% (activity & patient needs and cost-containment combined)

The challenge for paying for chronic care

- Care for people with chronic conditions is an issue with increasing importance in all industrialized countries

- Countries have been experimenting and working towards care models in response to the fact that chronic diseases can rarely be treated in isolation

- These models try
  - to coordinate and potentially integrate care
  - with the aim of providing higher quality of care
  - while also being efficient

- Challenge: to pay providers in a way that incentivizes these objectives

3 Advantages and disadvantages of different forms of ayment

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Fee-for-service	+	+	+	—	0	0	0	—
Capi-tation	— (if not risk-adjusted)	—	+	+	+	—	0	0
DRGs	0	—	+	0	+	+	0	—
Global budget	—	—	—	+	0	—	0	+
Salary	0	—	—	+	0	—	0	+

3 Advantages and disadvantages of different forms of ayment

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Capi-tation	– (if not risk-adjusted)	–	+	+	+	–	0	0
DRGs	0	–	+	0	+	+	0	–
Global budget	–	–	–	+	0	–	0	+
Salary	0	–	–	+	0	–	0	+

3 Advantages and disadvantages of different forms of ayment

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DRGs	0	–	+	0	+	+	0	–
Global budget	–	–	–	+	0	–	0	+
Salary	0	–	–	+	0	–	0	+

3 Advantages and disadvantages of different forms of ayment

Payment mecha-nism	Patient r... se...	Activity	Expendi-	T...	T...	...ity	Admini-strative simplicity
Fee-for-service							—
Capi-tation	(if ac...						0
DRGs							—
Global budget							+
Salary							+

Three observations stand out:

1) all payment mechanisms provide conflicting incentives for "activity" and "expenditure control", with capitation and DRGs best for efficiency;

2) <u>none</u> provide incentives <u>for producing high quality outcomes</u>;

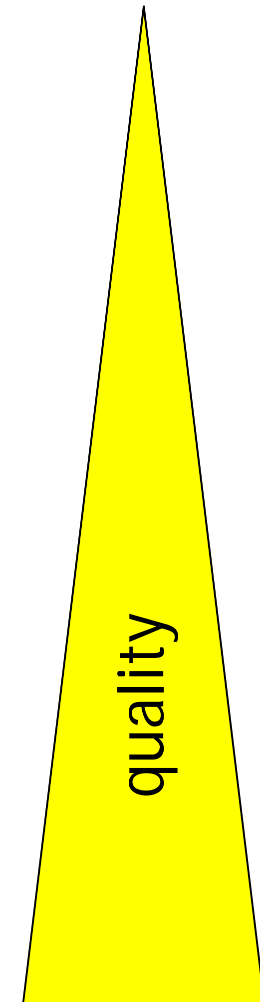
3) <u>none</u> provide incentives <u>for care coordination</u>.

First strategy: Paying for quality of care

for Structure, e.g. access time, provider's function as a gatekeeper or for including patients in registers

for Processes, i.e. for treating chronically ill according to established practice, e.g. adherence to guidelines

for Outcomes of care, i.e. short- or long-term clinical outcomes or patient satisfaction

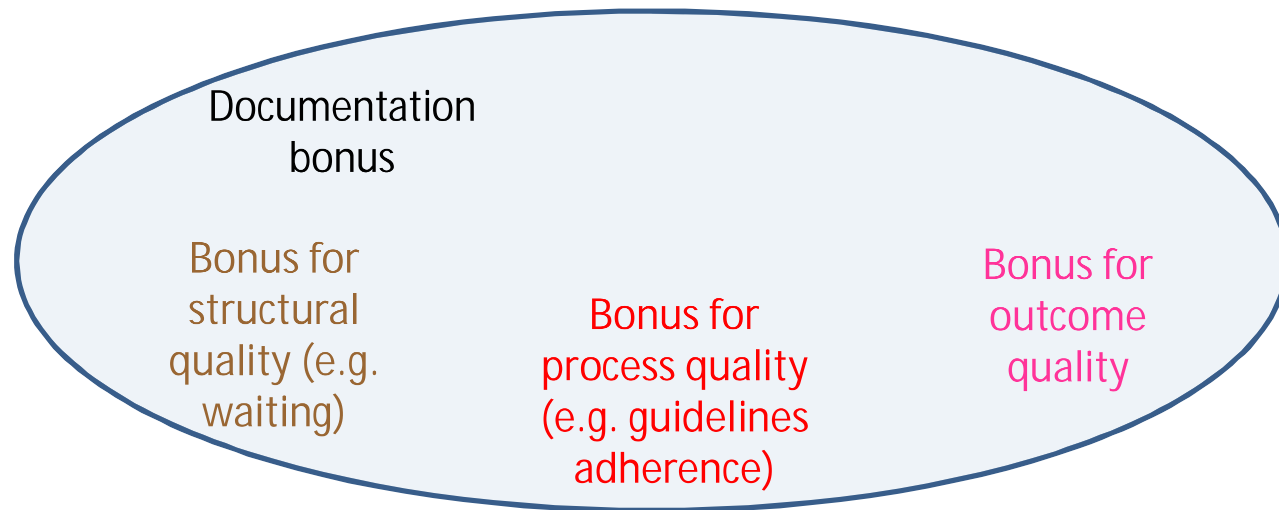


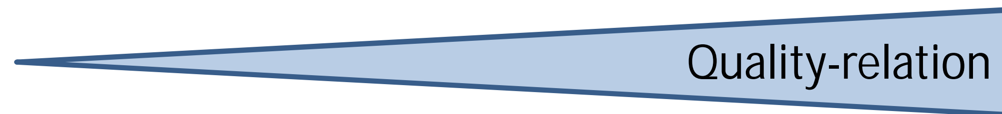
Capitation

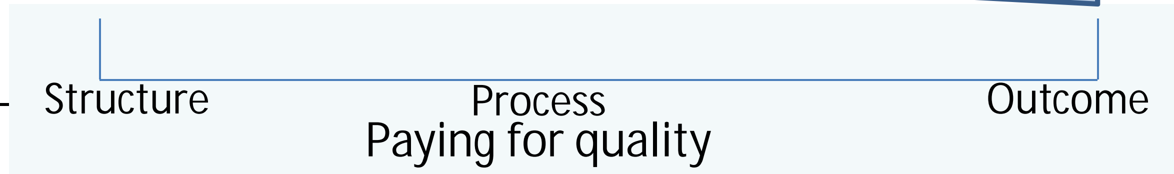
or

Case-based

and







Financial incentives to (primarily) improve quality of care

… targeting structures of care	… targeting processes of care	… targeting outcomes of care
Per patient bonus for physicians for acting as gatekeepers for chronic patients and for setting care protocols or providing patient education (FR)	Points for reaching process targets (UK: QOF; FR: CAPI; AUS: PIP)	Points for reaching outcome targets (UK: QOF)
Bonus for DMP / PIP recruitment and documentation (GER; AUS)	P4P (mainly hospitals, US)	P4P (mainly hospitals, US)
Points for reaching structural targets (UK: QOF; FR: CAPI)		

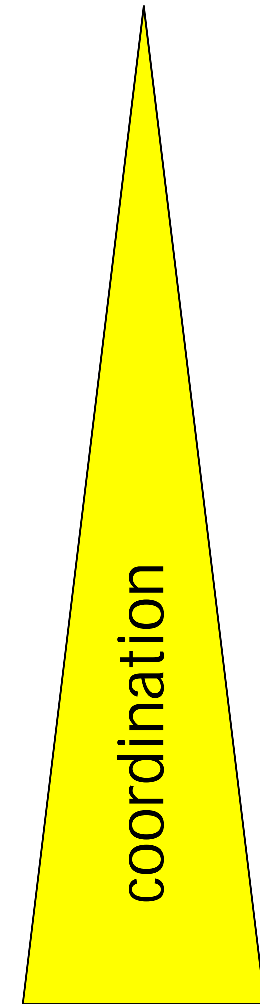
Second Strategy: Paying for care coordination

1st level: separate payment for coordination or extra effort

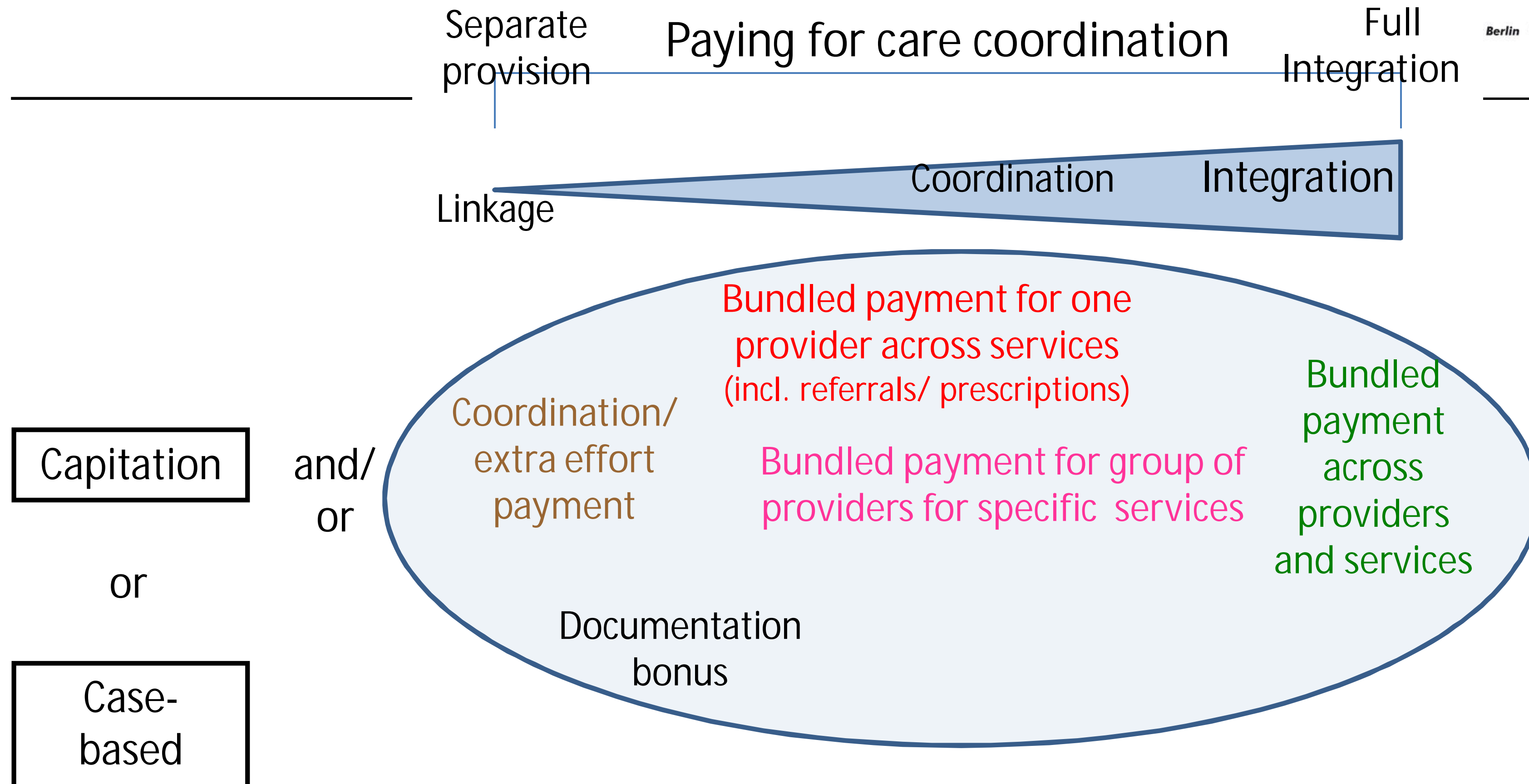
2nd level: bundled payment across services (for one provider but incl. referrals/ prescriptions)

3rd level: bundled payment across providers (but restricted to a set of activities, e.g. only those related to one disease)

4th level: bundled payment across services and providers



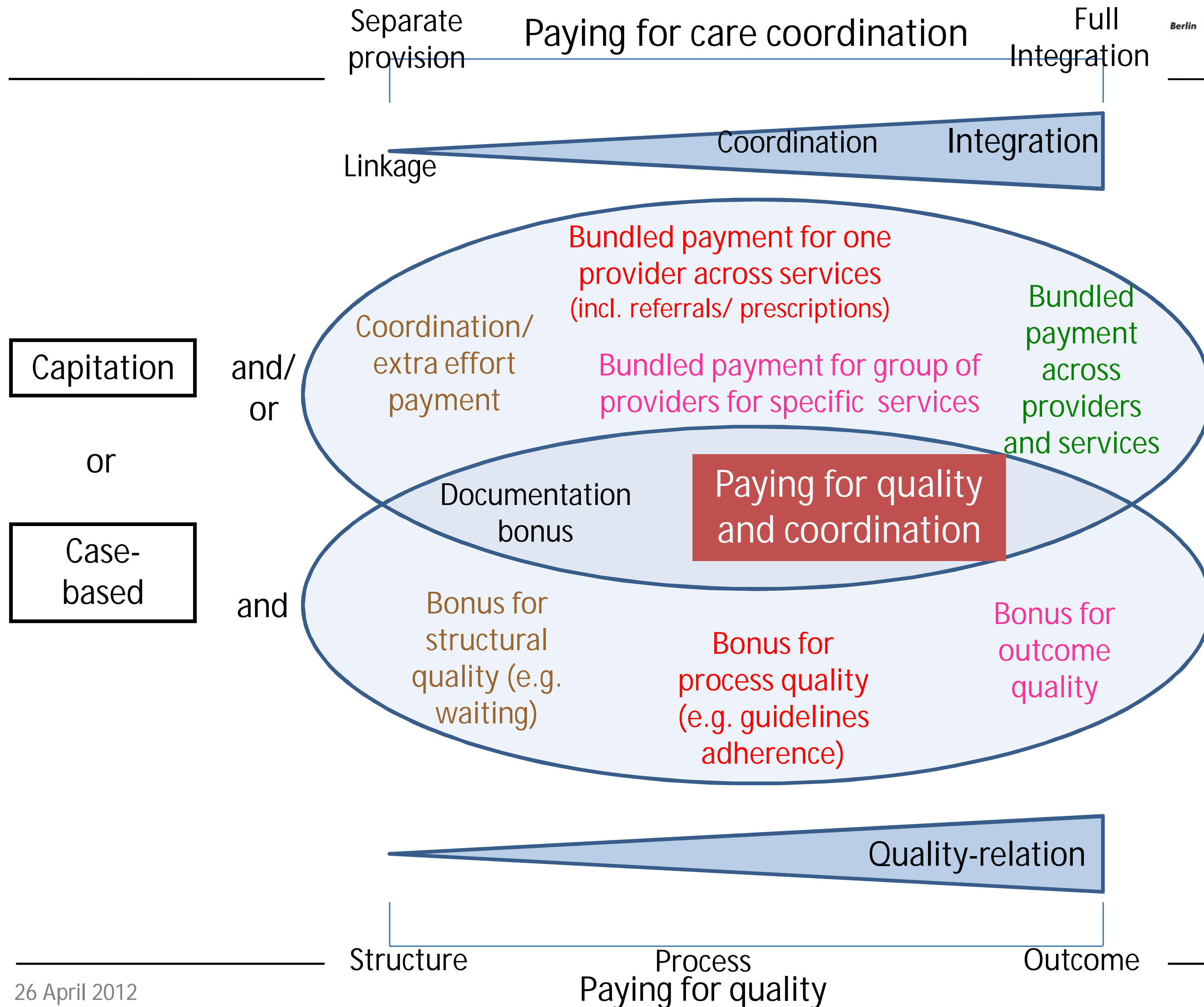
Main incentive: be efficient and keep savings!

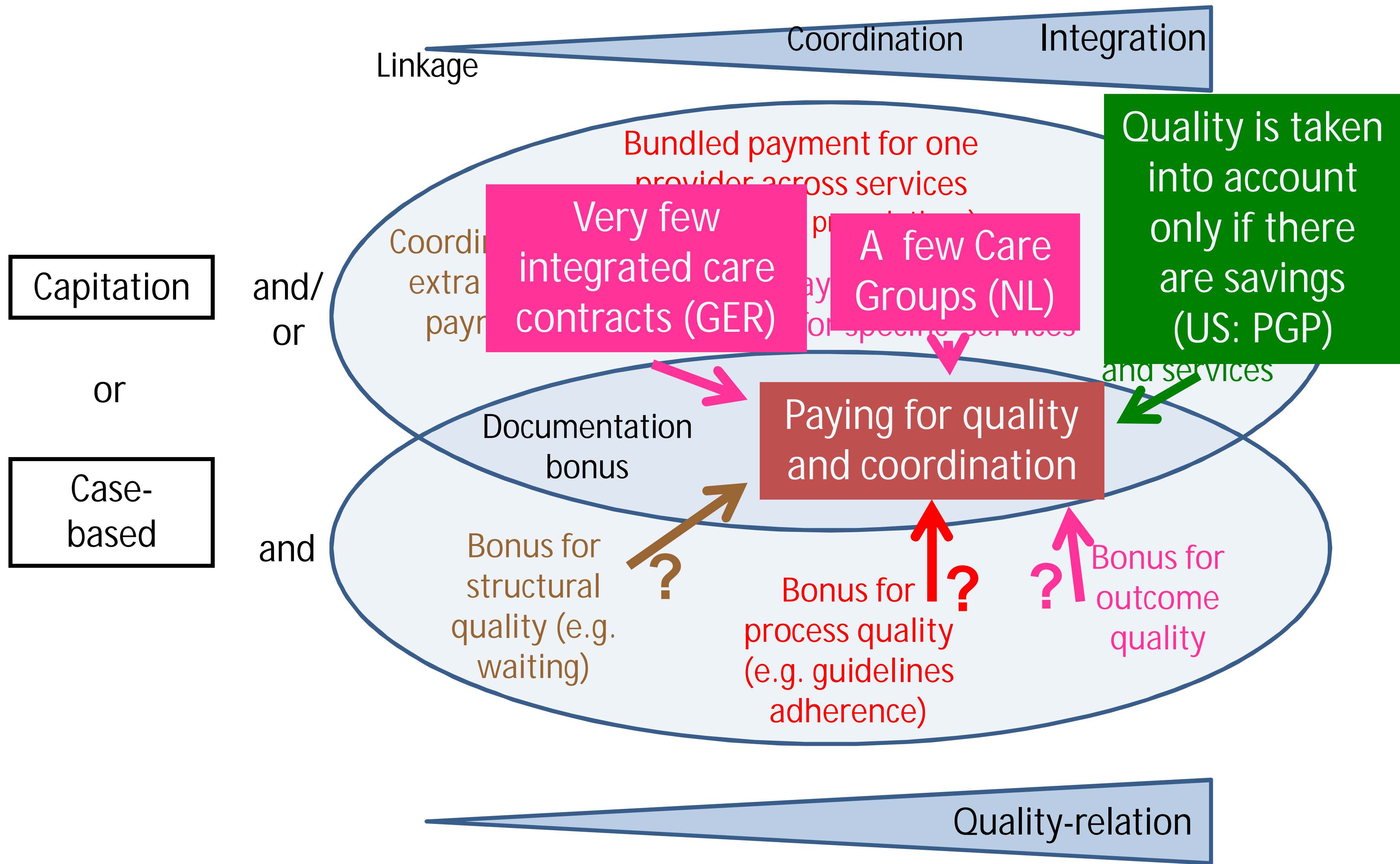


Paying for care coordination
Separate provision
Full Integration
Linkage
Coordination
Integration
Capitation
or
Case-based
and/ or
Coordination/ extra effort payment
Bundled payment for one provider across services (incl. referrals/ prescriptions)
Bundled payment for group of providers for specific services
Bundled payment across providers and services
Documentation bonus

Financial incentives used to (primarily) improve care coordination

... for coordination/ extra effort	... for bundling across services	... for bundling across providers	... for bundling across services and providers
"Year of care" payment for the complete package of chronic disease management (UK) or service incentives (AUS)	GP "fundholding" (UK)	1% of overall health budget available for integrated care → majority of integrated care contracts (GER)	1% overall health budget available for integrated care → population-based integrated care (Kinzigtal; GER)
Per patient bonus for physicians acting as gatekeepers for chronic patients/ for setting care protocols/ providing patient education (FR)		Payment for professional cooperation and diagnostic-related bundled payment (FR)	Shared savings for Accountable Care Groups ; tested in Physician Group Practice demonstration (US)
Bonus for DMP recruitment and documentation (GER) or initial payments (AUS)		Integrated Care Groups (NL)	
Service outcome payments (AUS)		Bundled payment for acute-care episodes (US)	


Separate provision
Paying for care coordination
Full Integration
Linkage
Coordination
Integration
Capitation
or
Case-based
and/ or
and
Bundled payment for one provider across services
(incl. referrals/ prescriptions)
Coordination/ extra effort payment
Bundled payment for group of providers for specific services
Bundled payment across providers and services
Documentation bonus
Paying for quality and coordination
Bonus for structural quality (e.g. waiting)
Bonus for process quality (e.g. guidelines adherence)
Bonus for outcome quality
Quality-relation
Structure
Process
Outcome
Paying for quality


Linkage
Coordination
Integration
Capitation
and/ or
or
Case-based
and
Bundled payment for one provider across services
Very few integrated care contracts (GER)
A few Care Groups (NL)
Quality is taken into account only if there are savings (US: PGP)
and services
Documentation bonus
Paying for quality and coordination
Bonus for structural quality (e.g. waiting)
?
Bonus for process quality (e.g. guidelines adherence)
?
?
Bonus for outcome quality
Quality-relation

Conclusions: paying for chronic care

- A shift from incentives which simply take into account the presence of chronically ill towards incentives designed to improve structural and process indicators
  - ➢ Although a trend towards more quality-related payment can be observed, financial incentives for the delivery of quality outcomes are still limited
  - ➢ A separate trend towards more bundling of payments across providers, services or both (“integrated care”) can be observed (main incentive: profit-sharing for efficiency)
- The challenge – paying for successful coordination AND quality (rather than just efficiency) – still remains
  - ➢ The current rare approaches need to be evaluated
  - ➢ Further models need to be developed

Presentation available at:

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