

# „How Can Different Stakeholders in the Health Sector be Better Aligned?“ – the importance of incentive systems

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# What is the problem?

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- Technological, pharmaceutical and managerial innovations potentially result in better health outcomes, higher efficiency and possibly more ‘value for money’.
- Unfortunately, reality often shows that instead of more ‘value for money’, the aggregate costs of healthcare provision to European citizens increase.
- This is primarily caused by reactive mechanisms in the entire healthcare system and its environment:
  1. HTA (health technology assessment) looks at the cost-effectiveness of innovations, but is limited to available evidence which often concentrates on patients with high ability to benefit;
  2. after the innovation is included in the public benefit baskets, it is also “inappropriately” applied to patients in which it may not be cost-effective;
  3. this increase in the number of patients is fuelled by higher efficiencies of providers, made possible by other reforms such as new forms of payment; &
  4. savings are thus not translated into macro level savings (i.e. lower total expenditure on healthcare) but end up as extra revenue in the hands of the providers or, depending on the system, the payers of care.

- One of the main culprits for this problem: the existing incentive system in health care, i.e. how services, products, people (clients, patients, health professionals), care providers (e.g. hospitals), producers (pharmaceuticals, medical devices) and payers are incentivized, either monetarily or non-monetarily.
- Incentives can be implemented externally by national or regional governments, but also internally by providers or manufacturers.
- Often such incentives are not well aligned, leading to incentives that make health system actors perform in a way that may conflict with the broader goals of a given health system.
- Although many incentives are system-dependent and vary greatly internationally, their interplay is often not well understood and some general challenges are visible across countries.

## The basic question:

### What do we want when we pay providers? That ...

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

→ 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 cases	Number of services/cases					
Fee-for-service	+	+	+	-	0	0	0	-
							Risk of overtreatment	
Global budget	-	-	-	+	0	-	0	+
							Risk of undertreatment	

# 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		Expenditure control	Technical efficiency	Transparency	Quality	Administrative simplicity
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DRG based case payment	0	+	-	0	+	+	0	-
Global budget	-	-	-	+				+

USA 1980s

European countries 1990s/2000s

# 1

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Global budget	-	-	-	+				+

USA 1980s (indicated by a downward-pointing triangle over the Fee-for-service and DRG based case payment rows)

European countries 1990s/2000s (indicated by an upward-pointing triangle under the DRG based case payment and Global budget rows)

“prospective” (highlighted in yellow, pointing to the Number of services/cases column for DRG based case payment)

“activity-based” (highlighted in yellow, pointing to the Number of cases column for DRG based case payment)



# 1

## Empirical evidence (I):

### hospital activity and length-of-stay under DRGs

USA  
1980s

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	▼	▼

# 1

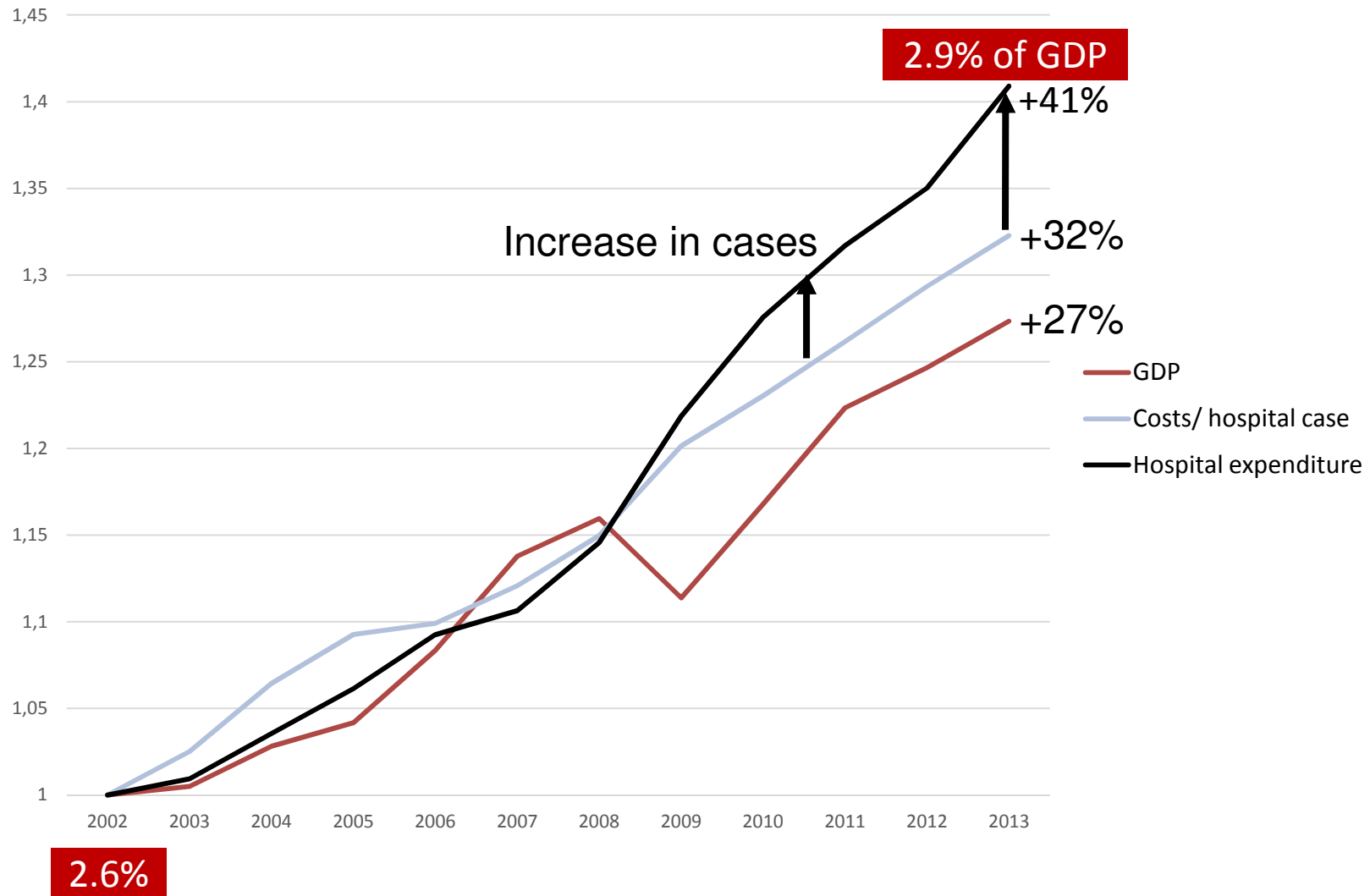
## Empirical evidence (II)

European countries 1990/ 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	▲	10

# BUT (at least in Germany):

## overall hospital expenditure has increased noticeably



# Incentives and (un-)intended hospital strategies

Incentives of DRG-based hospital payment	Strategies of hospitals
<b>1. Reduce costs per patient</b>	<b>a) Reduce length of stay</b> <ul style="list-style-type: none"> <li>optimize internal care pathways</li> <li>inappropriate early discharge ('bloody discharge')</li> </ul>
	<b>b) Reduce intensity of provided services</b> <ul style="list-style-type: none"> <li>avoid delivering unnecessary services</li> <li>withhold necessary services ('skimping/undertreatment')</li> </ul>
	<b>c) Select patients</b> <ul style="list-style-type: none"> <li>specialize in treating patients for which the hospital has a competitive advantage</li> <li>select low-cost patients within DRGs ('cream-skimming')</li> </ul>
<b>2. Increase revenue per patient</b>	<b>a) Change coding practice</b> <ul style="list-style-type: none"> <li>improve coding of diagnoses and procedures</li> <li>fraudulent reclassification of patients, e.g. by adding inexistent secondary diagnoses ('up-coding')</li> </ul>
	<b>b) Change practice patterns</b> <ul style="list-style-type: none"> <li>provide services that lead to reclassification of patients into higher paying DRGs ('gaming/overtreatment')</li> </ul>
<b>3. Increase number of patients</b>	<b>a) Change admission rules</b> <ul style="list-style-type: none"> <li>reduce waiting list</li> <li>admit patients for unnecessary services ('supplier-induced demand')</li> </ul>
	<b>b) Improve reputation of hospital</b> <ul style="list-style-type: none"> <li>improve quality of services</li> <li>focus efforts exclusively on measurable areas</li> </ul>

Positive and negative consequences are closely related

# 2

## Theory and Practice in the Design of Physician Payment Incentives

JAMES C. ROBINSON

*University of California, Berkeley*

**T**here 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 mechanism	Patient needs (risk selection)	Activity		Expenditure control	Technical efficiency	Transparency	Quality	Administrative simplicity
		Number of cases	Number of services/case					
Fee-for-service	+	+	+	-	0	0	0	-
Capitation	- (if not risk-adjusted)	+	-	+	+	-	0	0
Salary	0	-	-	+	0	-	0	+

# 2

## Traditional forms of paying GPs (until early 2000s)

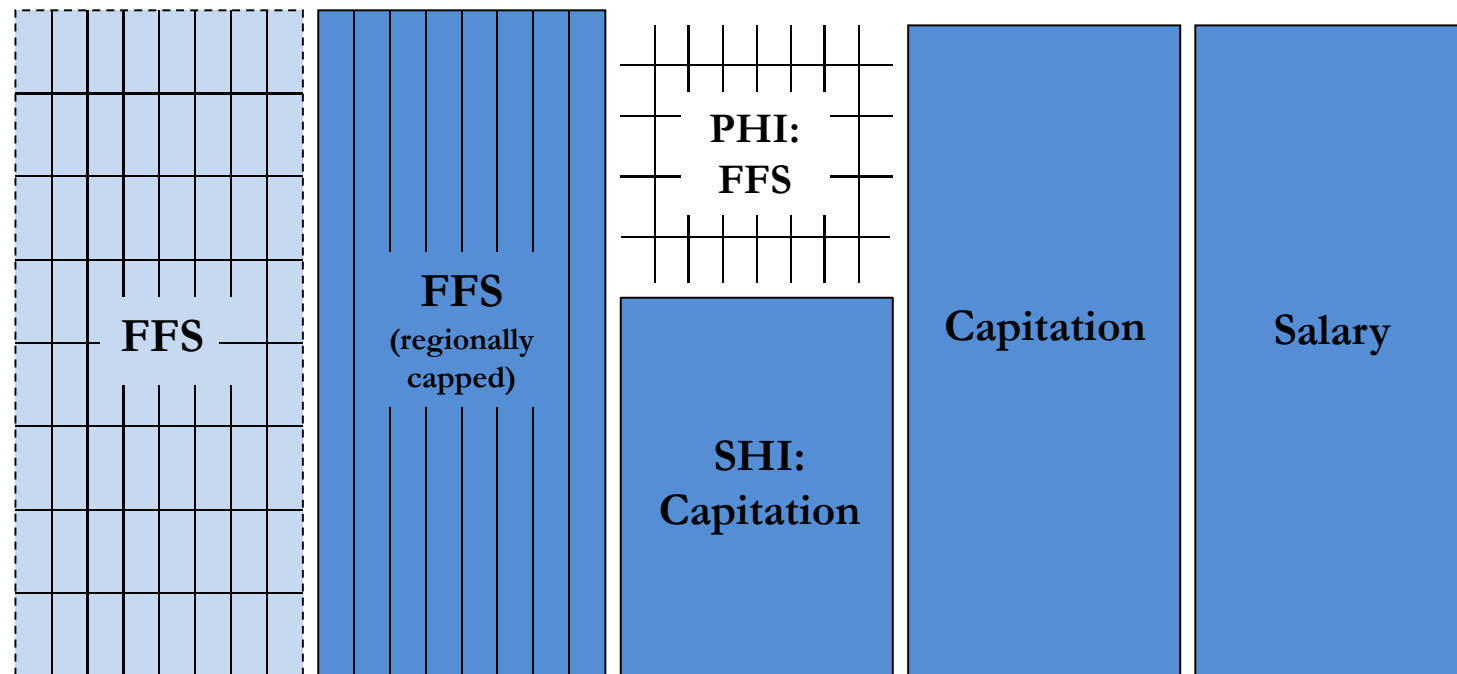
France

Germany

Netherlands

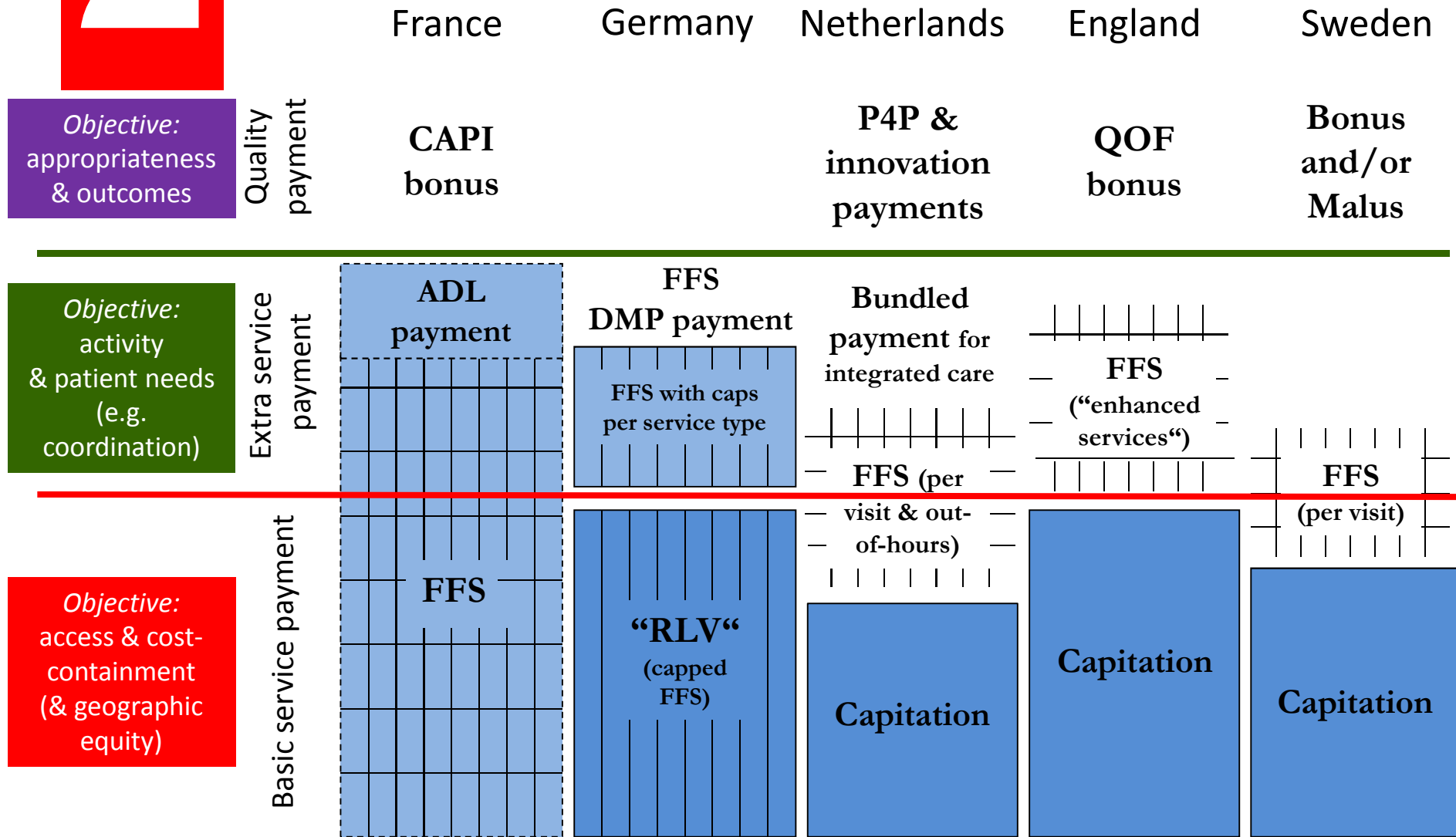
England

Sweden



# 2

## Payment components in GP care today





# 2

## Percentage of total payment per component (estimated)

	France	Germany	Netherlands	England	Sweden
<b>Objective: appropriateness &amp; outcomes</b>	5%		5%	25-30%	max. +/- 3%
<b>Objective: activity &amp; patient needs (e.g. coordination)</b>	1%	<5%	15%	<10%	10-20% (Stockholm 60%)
<b>Objective: access &amp; cost-containment (&amp; geographic equity)</b>	95%	60-70%	80%	65%	80-90% (Stockholm 40%)

# 3

## 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

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Capitation	- (if not risk-adjusted)	+	-	+	+	-	0	0
DRGs	0	+	-	0	+	+	0	-
Global budget	-	-	-	+	0	-	0	+
Salary	0	-	-	+	0	-	0	+

# 3

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Salary	0	-	-	+	0	-	0	+

# 3

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DRGs	0	+	-	0	+	+	0	-
Global budget	-	-	-	+	0	-	0	+
Salary	0	-	-	+	0	-	0	+

# 3

## Advantages and disadvantages of different forms of payment

Payment mechanism	Patient	Activity	Expendi-	Quality	Administrative simplicity
Fee-for-service					-
Capitation	(if activity based)				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) none provide incentives for producing high quality outcomes;
- 3) none provide incentives for care coordination.

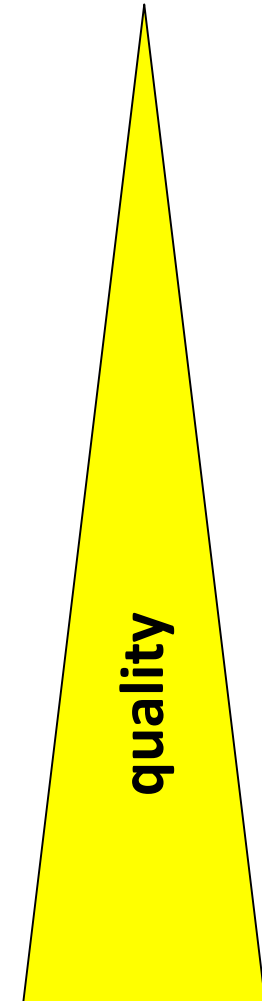
# 3

## 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



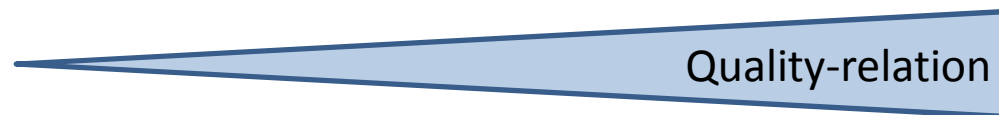
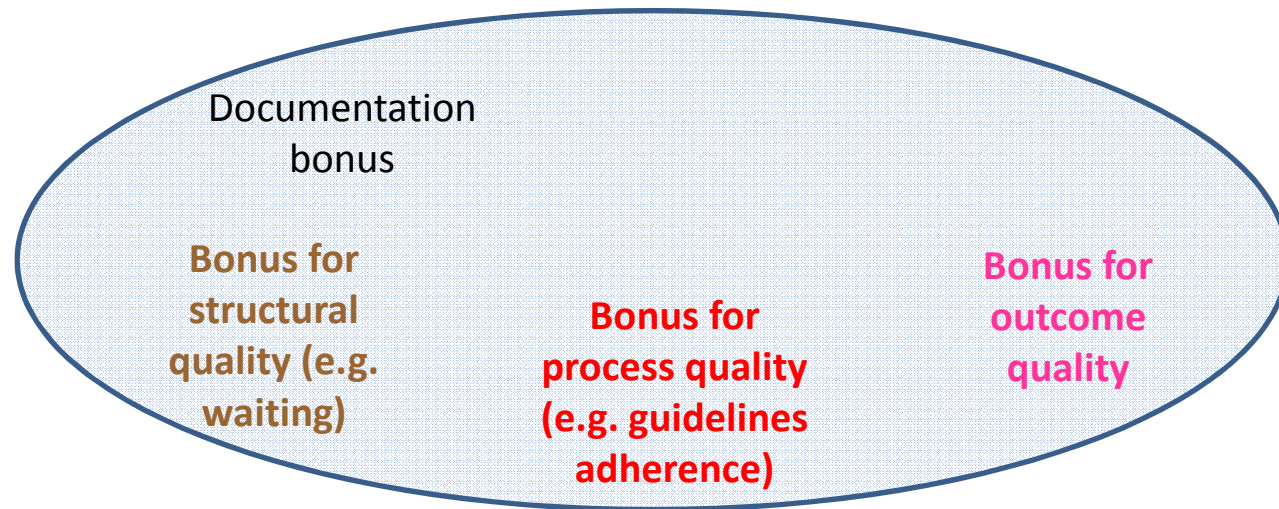
# 3

Capitation

or

Case-based

and



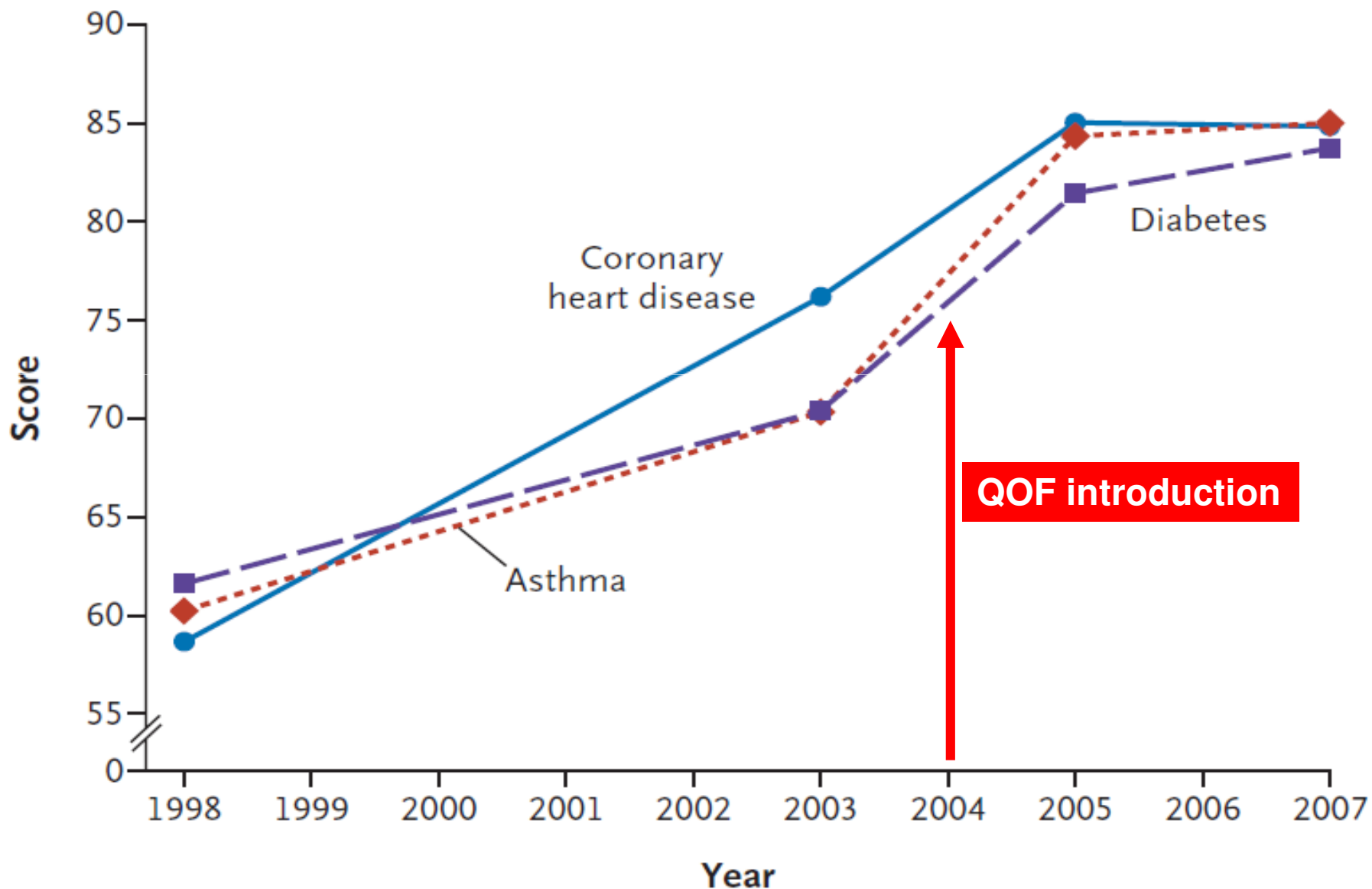
Structure

Process  
Paying for quality

Outcome



# Quality of care before and after QOF: mean scores for clinical quality for Coronary Heart Disease, Asthma, and Type 2 Diabetes, 1998-2007



## Second Strategy: Paying for care coordination

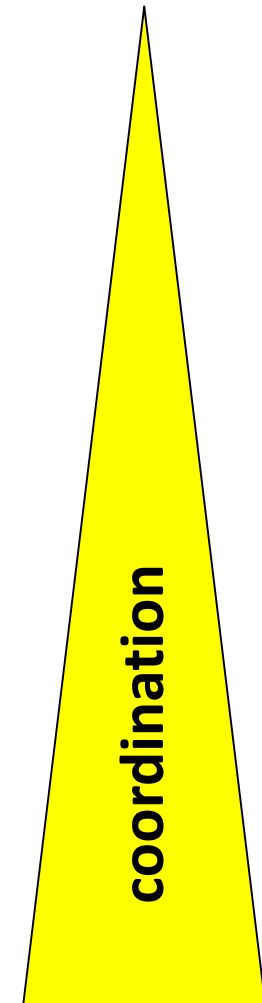
*1<sup>st</sup> level:* separate payment for coordination or extra effort

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

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

*4<sup>th</sup> level:* bundled payment across services and providers

**Main incentive: be efficient and keep savings!**

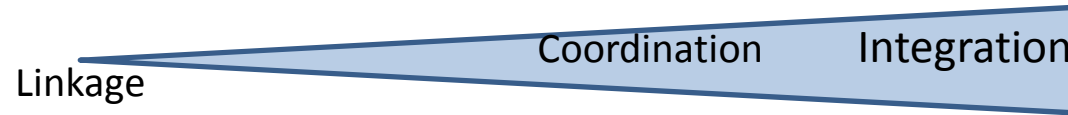


# 3

Separate provision

Paying for care coordination

Full Integration

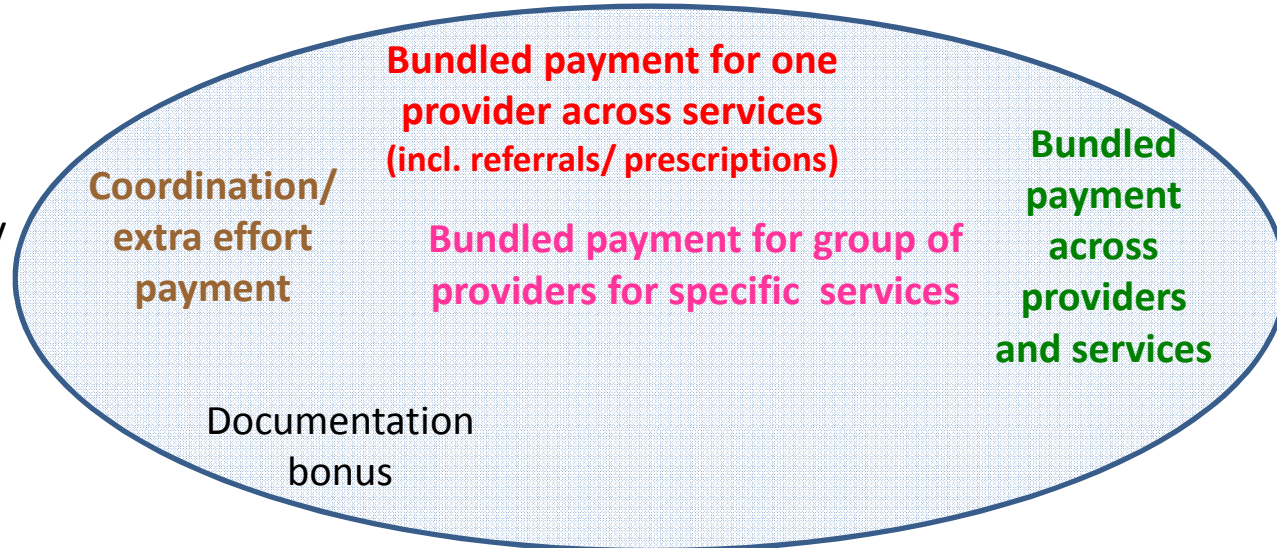


Capitation

and/  
or

or

Case-based



# But simply “bundling” is not enough ...

Integrated care intervention	Patient				Experience of healthcare providers	Costs/ patient/ year
	Intermediate clinical outcomes and mortality	Hospital care utilization	Process indicators	Patient experience		
<b>D E</b> Gesundes Kinzigtal Integrated Care	Mortality ↓ (2 ½ years after enrollment: 1.76% vs. 3.74%)	Admissions ↑; length-of-stay ↓		Change of insurer ↓	Cooperation ↑	- \$ 203
<b>N L</b> Bundled payment system	Control of blood pressure & cholesterol ↑; HbA1c ↑; BMI ↓	Specialist care ↓	4 check-ups ↑; foot/ kidney exams ↑; eye testing ↓	“Cooperation & coordination for diabetes excellent”	Perceived quality ↑; patient-centeredness ↑	<b>+ \$ 388</b>
<b>U K</b> Integrated care pilots	6 pilots	Admissions: emergency ↑/ elective ↓; outpatient ↓		Care plans/ follow-up ↑; listening to/ involving patient ↓; preferences taken into account ↓	Teamwork ↑; communication ↑; job depth/ breadth ↑	- \$ 358 (emergency/ elective admissions + \$ 276/ - \$ 529; outpatient - \$ 106)
	All 16 pilots					- \$ 93 (emergency/ elective admissions + \$ 143/ - \$ 204; outpatient - \$ 32)
North west London	Control cholesterol ↑; HbA1c unchanged	No significant change in 1st year	Care plans ↑; diabetes testing ↑	“good idea, but no actual change”	Inter-professional learning & collaboration ↑ but “time-consuming”	No significant change in 1st year

SOURCE Authors' selection of results from Schulte et al. (2012), Köster et al. (2011), Zerpies et al. (2013), Siegel and Stöbel (2012), Struijs et al. (2012a), Struijs et al. (2012b), Roland et al. (2012), RAND Europe, Ernst & Young LLP (2012), Curry et al. (2013), Pappas et al. (2013) and Nuffield Trust (2013)

NOTES Dark green = significant positive result (for integrated care vs. control); light green = positive result (partially significant); yellow = mixed positive and negative results; red = significant negative result

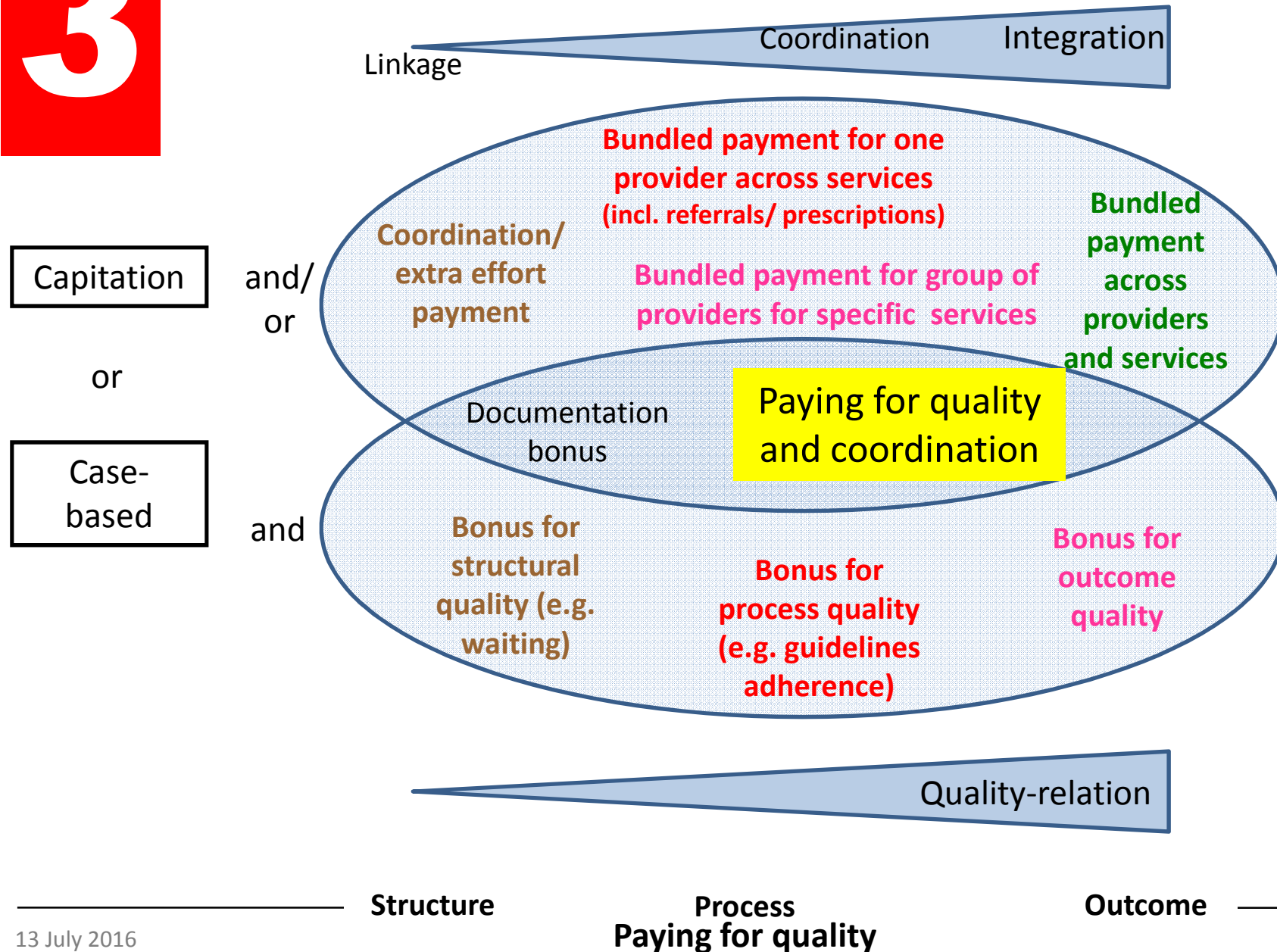
Busse R, Stahl J (2014) Transforming Health Care to Meet the Needs of Chronically Ill Patients ... Health Affairs 33: 1549-58

# 3

Separate provision

## Paying for care coordination

Full Integration



# 3

## 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 cost-savings and/or 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*