

#### From activity-based costing to Value-based Care in Danish Health Care

Breddam, Henrik Bøgedal; Edwards, Kasper; Vilhelmsen, Charlotte

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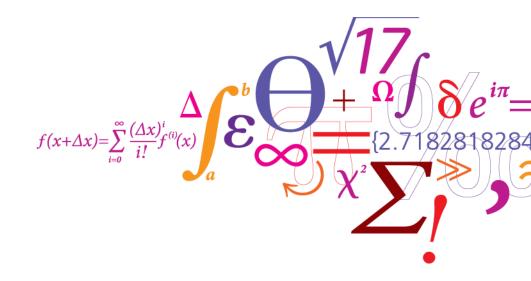
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#### From activity-based costing to Valuebased Care in Danish Health Care

By Henrik Bøgedal Breddam<sup>1</sup>, Kasper Edwards<sup>1</sup>, Charlotte Vilhelmsen<sup>1</sup> <sup>1</sup>DTU Management Engineering



**DTU Management Engineering** Institut for Systemer, Produktion og Ledelse



#### Why Do We Need Value Based Health Care?



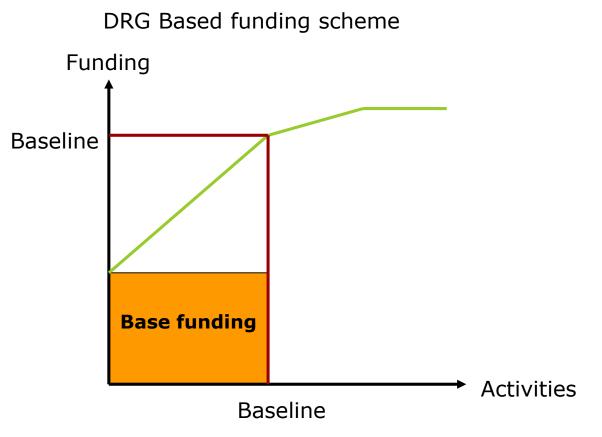
#### "You get what you measure!"





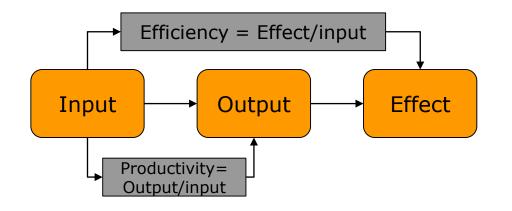
### Up to speed on the Danish Health Care System

- Managed by 5 regions
- Funded by:
  - -~82% State
  - ~18% Municipality
- Based on Diagnosis Related Grouping
- 2% annual growth in baseline level



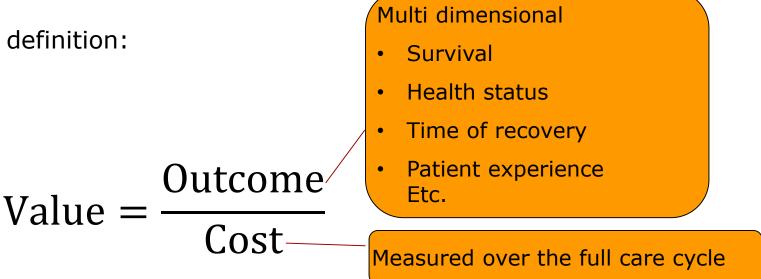
# **The Danish Discussion**

- The system have become very productive
- But what about the effect?
- Choice of less invasive treatment:
  - Often prefered by patients
  - Shorter recovery time
  - Cheaper
- Moving care to lowest effective cost level
- Consolidation of treatment



### What is Value?

• Michael Porter provides a good definition:



• Porters grand vision: Design a system that competes on value and the free market will in it self maximize it!



### Value Based Health Care in a Danish Context

- Earlier trials:
  - Medical staff choose clinical KPIs
  - Bornholm Hospital in its entirety with 8 initiatives to improve value
  - Incentive linked to value statements
  - Flexible ambulatory care

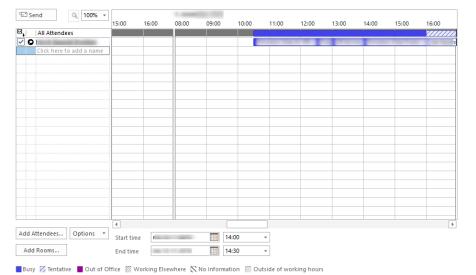
- I have analysed 7 cases from Capitol Region:
  - 4 projects that are focused on defering unneccsary activities
  - 3 projects that work with Value as a management tool

# Finding the Implications of Value Based Health Care

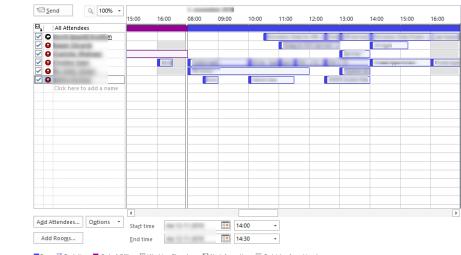
- Task 1: Identify the operational changes going from activity based to value based
- Assumption: Some operational tools needs to change such as:
  - Planning and scheduling models and algorithms
  - Decision support tools
- Task 2: Create Value Based models for health care planning using Operations Research
- Task 3: Implement these tools in a department

#### **Example: Planning Needs Based Ambulatory** Care

- Moving from periodic check-ups to needs based ambulatory care means:
  - More time critical and include several functions
  - Change in patient mix
  - More focus on how to live with the medical condition



#### 1 doctor 6 month ahead



Busy 🖉 Tentative 📕 Out of Office 🖾 Working Elsewhere 📉 No Information 📗 Outside of working hours

#### 6 hospital 1 week ahead