HERC Health Economics Research Centre
Nuffield Department of Population Health

UNIVERSITY OF OXFORD

# Transforming the structure of financial incentives to integrate care

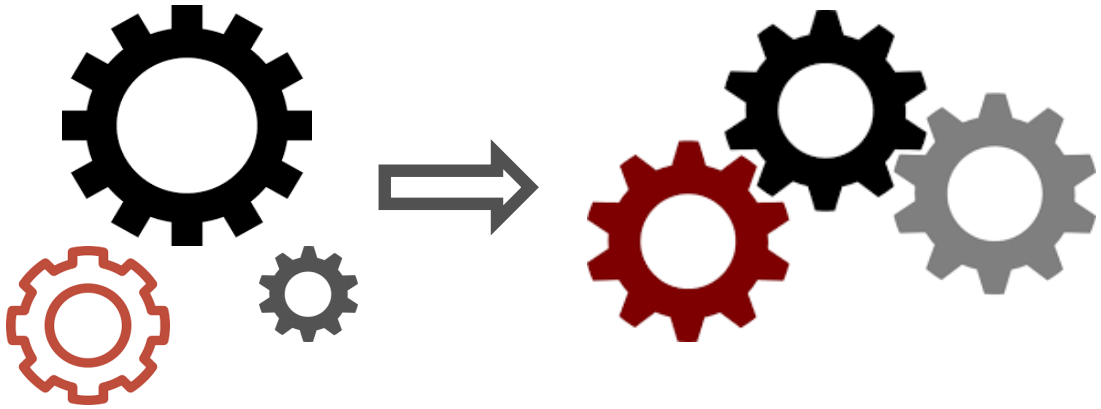
Dr. Apostolos Tsiachristas

HERC

# Outline

- Alternative payments
- Dutch bundled payment
- Value of integrated care
- Thoughts and messages

# Financial incentives to integrate care



# Financing vs Payment of healthcare

- Healthcare financing is the function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system

- The way that health purchasers pay health care providers to deliver services is a critical element of strategic purchasing

# Financing integrated care

- Aim
  - Overcome budget segmentation across health and social care sectors
  - Upfront investment in integrated care
- Governments
  - Germany: Innovation fund €300 million annually for innovative projects
  - England: Better Care Fund is a single pooled budget to integrate health and social care
- European and Global Institutions
  - Council of Europe Development Bank (CEB)
  - The European Investment Bank (EIB)
  - European Long-Term Investors (ELTI)
- Venture philanthropy and Social Investments
  - European Venture Philanthropy Association
  - Social Impact Bonds

# Traditional payments

| | Definition | Pros | Cons |
|---|---|---|---|
| Salary | Periodic lump sum | • Low transaction costs<br>• Predictable expenditure<br>• Flexibility for provider innovation | • Lack of transparency & accountability<br>• Disincentives increased activity<br>• Disincentives costly innovation<br>• Lower care quality when demand is high<br>• Does not reward good performance |
| Capitation | Periodic lump sum per enrolled patient for a range of services | • Low transaction costs<br>• Supports cost containment and financial control<br>• Incentivises attracting more patients and possibly improving quality of care | • Disincentives additional services<br>• Avoidance of high risk patients<br>• Incentives referral to other services |
| FFS | Payment for each item of service and patient contact | • Disincentives withholding care<br>• Equity may be promoted<br>• Support rapid uptake of innovations | • Limits cost control<br>• Supply-induced demand<br>• No incentives for improving efficiency or promoting prevention<br>• Delay in uptake of non-reimbursed technologies |

# Alternative payments

- Developed in U.S. to contain costs and improve care quality
  - financial risk to providers,
  - explicit measures of quality improvement driven by financial incentives to providers,
  - efforts towards patient-centred care through integration and coordination of care
- Adapted to be "transferable" to the European context
  - Accompanied by broader reforms in the European health care systems
  - The adoption (i.e. which) and adaptation (i.e. how) were based on the structure of its health care system
  - Combined or provided on top of traditional payment schemes
  - Targeted those stakeholders who were expected to adjust their behaviour and provided them with adequate financial incentives

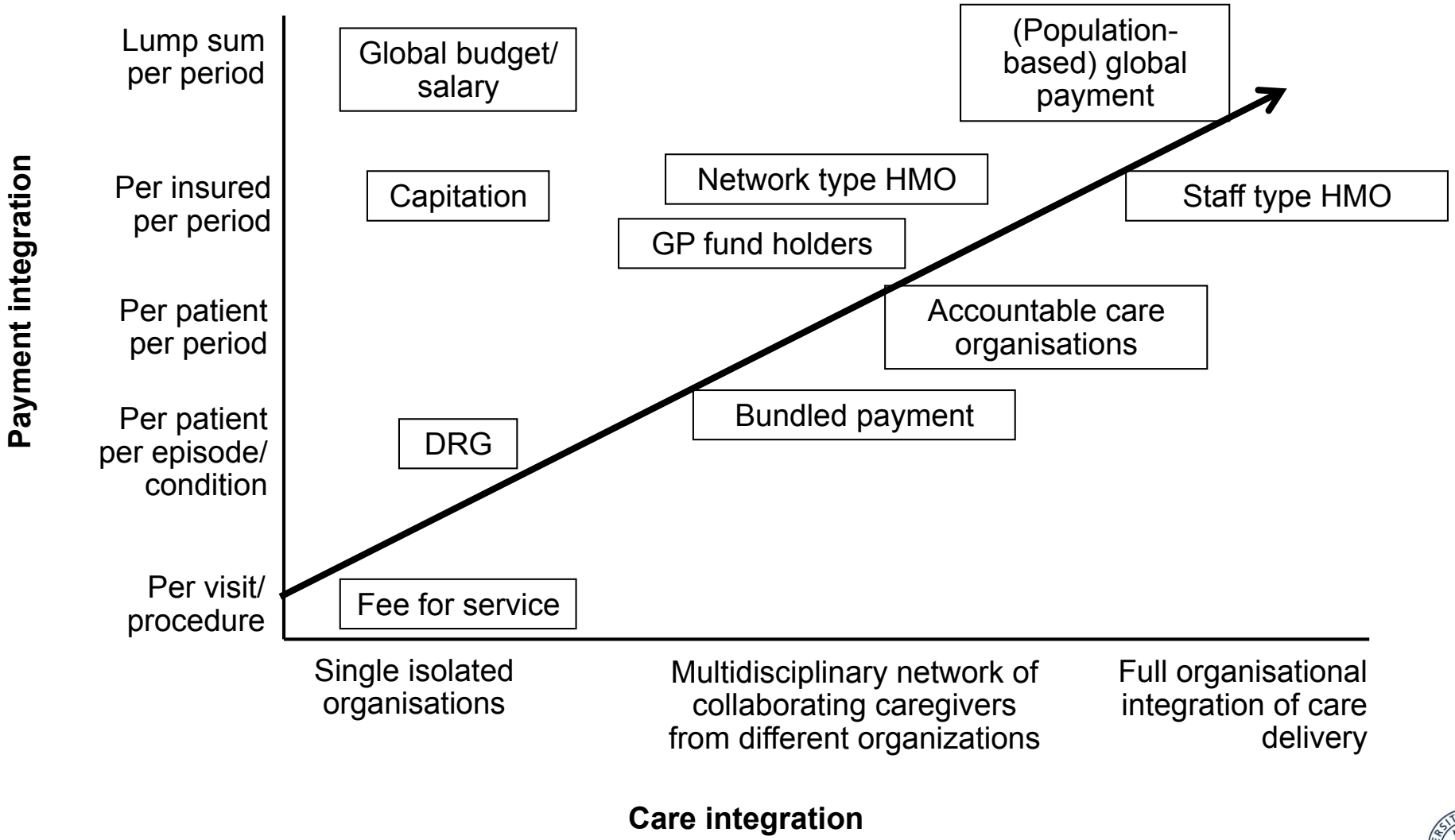
# Base alternative payments

| | Definition | Pros | Cons |
|---|---|---|---|
| Case-based | Payment for an episode of care based on a classification of the patient and the type of care they required (e.g. HRGs and DRGs) | • Reduce unit cost of care – e.g. reduced length of stay<br>• Incentivises provider to increase access and capacity | • Does not encourage demand management (i.e. there is risk of oversupply) nor a focus on improved population health<br>• Impact on quality less clear – in theory may lead to 'skimming' or 'up-coding' |
| Episode-based bundled payment | Payment for medical services delivered during an episode of care | • Discourages unneeded services within an episode | • Can be difficult to define episode<br>• May encourage unnecessary episodes<br>• Lack of coordination across episodes |
| Disease-based bundled payment | Payment for all care required for a patient for a particular disease during a predefined period | • Incentivises collaboration, coordination and prevention<br>• Reduces unnecessary services | • May jeopardise continuity of care<br>• Can be problematic in case of multi-morbidity |
| Global payment | Payment for all services offered to cover the medical needs of a defined population for a specific period of time | • Encourages cost containment (unit costs and volume of care)<br>• Encourages allocative efficiency<br>• Encourages population health management | • Can create monopolistic power (limit competition) and limit patient choice<br>• Can result in skimming |

# Top-up alternative payments

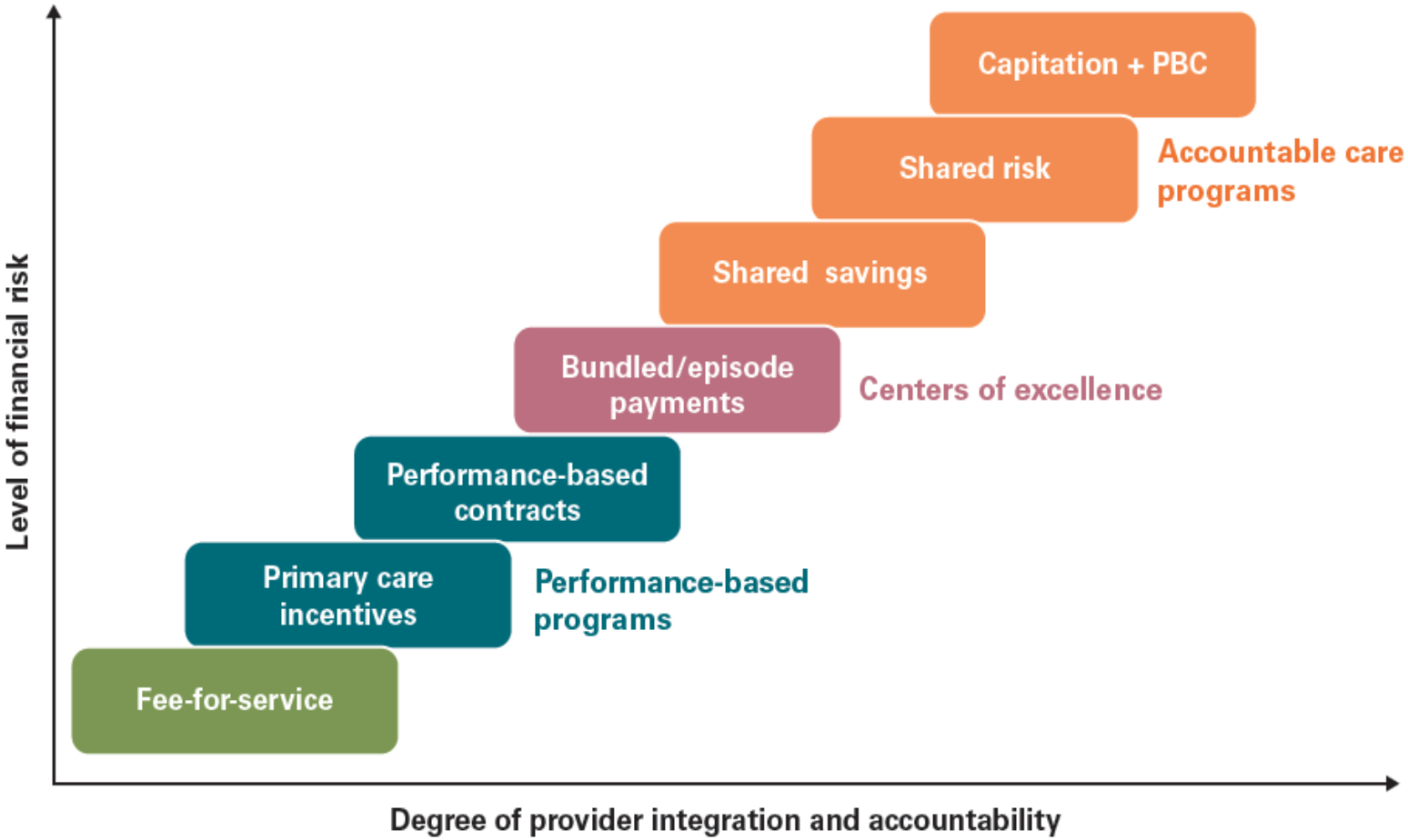
| | Definition | Pros | Cons |
|---|---|---|---|
| Pay-for-performance | Payments to providers for meeting predetermined quality indicators | • Can encourage effective clinical practice and higher quality for patients<br>• May offset perverse incentives of other approaches | • Can lead to a process-oriented view of care (easier to measure than true outcomes)<br>• Can encourage a focus on only some quality domains (the 'streetlamp' effect) |
| Pay-for-coordination | Payment for taking responsibility for coordinating a patient's care along parts/complete care pathway for a specific period | • Stimulates coordination and cooperation | • Unclear long-term impact<br>• May reward usual care ('easy meal' for providers) |
| Risk and gain sharing | Organisational or individual payments are increased if financial targets are met for the wider system | • Incentivises cost containment and allocative efficiency | • Can lead to skimming<br>• Can be complex to administer – e.g. when involving contracts with a large number of providers |

# Integrated care requires integrated payment




Tsiachristas, 2016, IJIC

# Financial risk to care providers



# Financial incentives in Europe

| | Reform | Target group | Elements of integrated care | Financial incentives | Uptake |
|---|---|---|---|---|---|
| **Austria** | Health Reform Act 2005 | Social health insurers and regional governments | DMPs across primary and secondary care | Budget pool of 1-2% for ICPs | Low |
| | | GPs | DMPs | €53 initial + €25 quarterly to coordinate care | |
| **Denmark** | Administrative Reform 2007 | Region | Multi-disciplinary teams, continuity and coordination of care | €70 million for ICPs | High |
| | | Municipalities | | • 15% of a regional healthcare budget to reduce inpatient care<br>• Co-financing of inpatient care | |
| **France** | Health Insurance Act 2004 | GPs | DMPs in primary care for 30 chronic diseases | €40 per patient for coordination | Medium |
| | CAPI 2009 | GPs | Integrated care related performance indicators | up to €6,000 annual reward for high performance | High |
| **Germany** | Risk Structure compensation Act 2002 | Social health insurers | DMPs across primary and secondary care | •Benefit to €1,000 per patient per year<br>•€153 annually per patient for coordination | Medium/High (but mainly in primary care) |
| | | GPs | Care coordination and documentation | €75 annually per patient | NA |
| **Netherlands** | Bundled payment | Mainly primary care providers | DMPs for diabetes, COPD and CVRM in primary care | Price negotiated between insurer and care group (bundled); Performance is a factor in price negotiations | Medium/High |
| **UK** | Quality and Outcomes Framework 2004 | GPs | Integrated care related performance indicators | reward up to 30% of salary | High |
| **Portugal** | Performance compensations 2006 | Multi-disciplinary primary care teams | Multidisciplinary high quality care, continuity of care | NA | NA |
| **Hungary** | Act of Social Health Insurance Fund's Budget 1998 | Care providers | Coordinate primary, secondary tertiary care | amount per patient per year | NA |
| | Performance based payment 2009 | GPs | Integrated care related performance indicators | €10.9 million budget for GP bonuses | NA |
| **Estonia** | Performance based payment 2009 | GPs | Integrated care related performance indicators | up to €255 per month on top of capitation | NA |

# Ongoing (similar) payment reforms

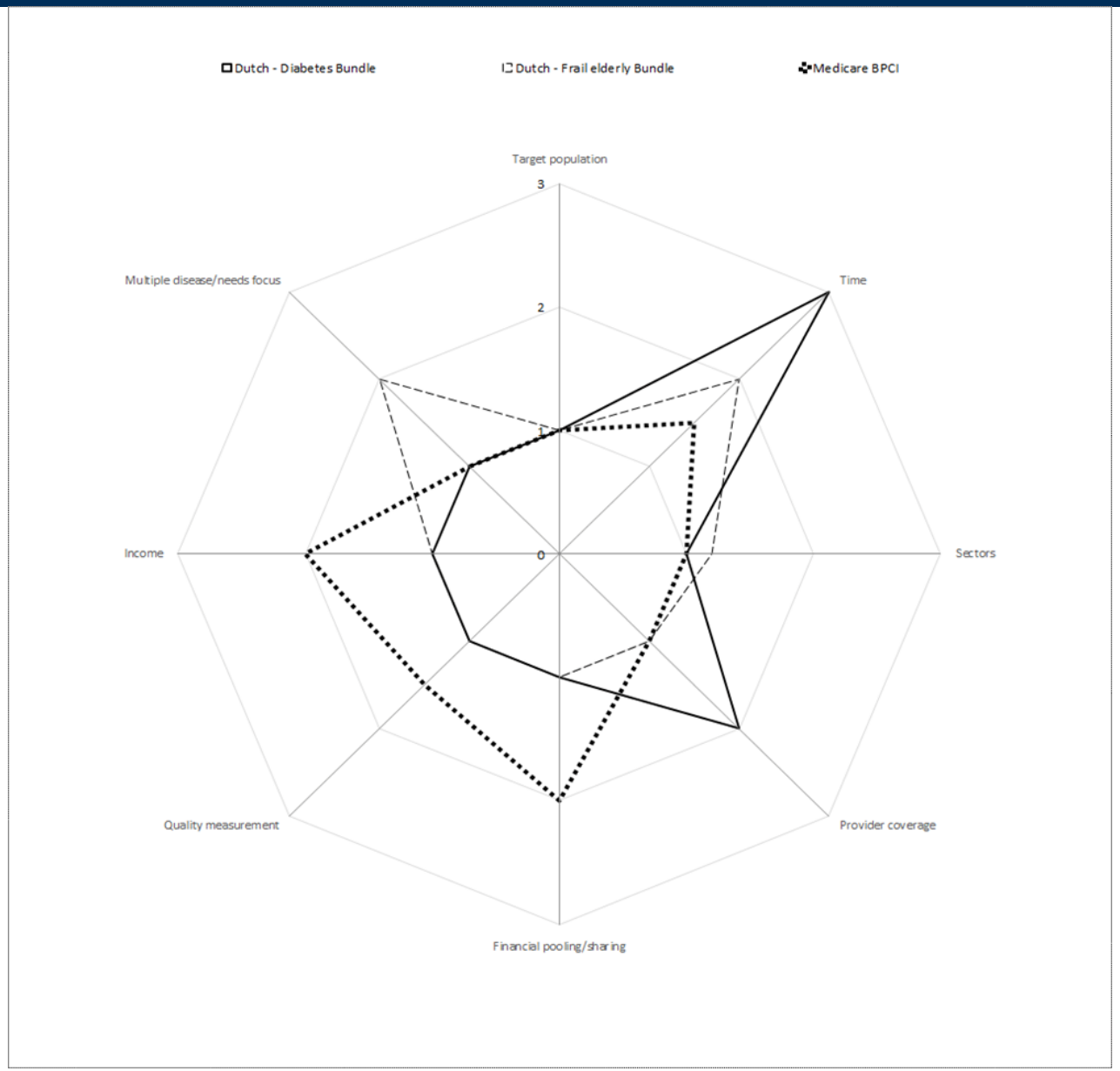
- Germany
  - 2004: Health Care Modernization Act providing **PFC** and a **global payment**
- England
  - 2004: **Pay-for-performance** in GP care
  - 2015/2016: Year of care **capitated model** for a range of services for a defined time period
  - **Multilateral gain/loss sharing**, **outcomes-based** payment for mental health, **3 part-payment** for urgent and emergency care
- The Netherlands
  - 2010: **Bundled payment** for chronic conditions
  - 2013: Regional experiments with **population-based payment** including **shared savings**
  - 2015: **3-tiers payment system** for primary care including pay-for-coordination/collaboration and pay-for-performance/innovation

# Taxonomy of payments for IC

| Category | Level of integration<br>Domain | Low integration [1] | Medium integration [2] | High integration [3] |
|---|---|---|---|---|
| Scope of payment | Target population | Single specific patient group e.g. 'high-risk' | Slightly wider defined group e.g. over 65s | All patients in catchment area |
| | Time | Single contact | Multiple contacts e.g. during an episode of care | Longer period e.g. a year |
| | Sectors | Single sector e.g. primary care only | Two sectors e.g. primary and social care/ primary and secondary care | Three or more sectors e.g. primary, secondary and social care |
| Participation of providers | Provider coverage | single provider only within the participating sectors e.g. a single GP practice within primary care | Multiple providers within the participating sectors e.g. all primary care providers and a proportion of secondary care providers | All providers within the participating sectors e.g. all primary and secondary care services within the area |
| | Financial pooling/sharing | No pooled funding/ shared savings for providers | Proportion of budget is pooled/ savings shared for the defined horizon for providers | Total health and care budget is pooled/ savings shared for the defined horizon for providers |
| Single provider/ patient involvement | Income | A small proportion of providers' total income | A relatively large proportion of providers' total income | The largest proportion of providers' total income |
| | Multiple disease/needs focus | Payment covers care for one condition for a single patient e.g. diabetes care only | Payment covers care for multiple conditions for a single patient e.g. all chronic condition care | Payment covers all care for a single patient e.g. all health and social care needs |
| | Quality measurement | Payment measures/rewards process measures e.g. number of health checks | Payment measures/rewards intermediate measures and lifestyle behaviour e.g. HbA1c, smoking | Payment measures/rewards health outcome measures e.g. Quality of life |

Stokes J, et al., Towards incentivising integration: A typology of payments for integrated care. Health Policy 2018

# Different bundled payments



# Impact of payments in literature

- PFC can be cost-saving (Berry et al., 2013), especially in primary care (Tsiachristas et al., 2016)
- PFP can potentially be effective (de Bruin et al., 2011; Eijkenaar et al., 2013), cost-effective (Walker et al., 2010), and cost-saving in hospital care (Tsiachristas et al., 2016)
- Bundled payment may reduce health care utilization (Hussey et al., 2009)
- Global payment may improve quality and reduce health care expenditure (Song et al., 2014), especially in primary care (Tsiachristas et al., 2016)
- ACOs possibly increase quality of care and shared savings (Shortell et al., 2015) and life expectancy (Pimpel et al., 2017)

# Impact of payment schemes in Europe

| Expenditure | Payment | Combined estimate | Standard error | p-value |
|---|---|---|---|---|
| Total | PFC | 30.10 | 60.19 | 0.624 |
| Total | PFP | -60.25 | 45.32 | 0.202 |
| Total | ALL | 16.55 | 62.73 | 0.795 |
| Outpatient | PFC | -19.77 | 23.97 | 0.422 |
| Outpatient | PFP | -39.88 | 23.73 | 0.112 |
| Outpatient | ALL | -277.90 | 23.08 | 0.000 |
| Hospital | PFC | -44.29 | 68.08 | 0.525 |
| Hospital | PFP | -213.30 | 14.61 | 0.000 |
| Hospital | ALL | -36.71 | 66.34 | 0.588 |
| Medication | PFC | 94.21 | 71.26 | 0.205 |
| Medication | PFP | 36.20 | 18.97 | 0.074 |
| Medication | ALL | -100.21 | 71.51 | 0.180 |
| Administrative | PFC | -1.62 | 7.35 | 0.828 |
| Administrative | PFP | -17.92 | 1.90 | 0.000 |
| Administrative | ALL | 8.73 | 7.35 | 0.252 |

# Outline

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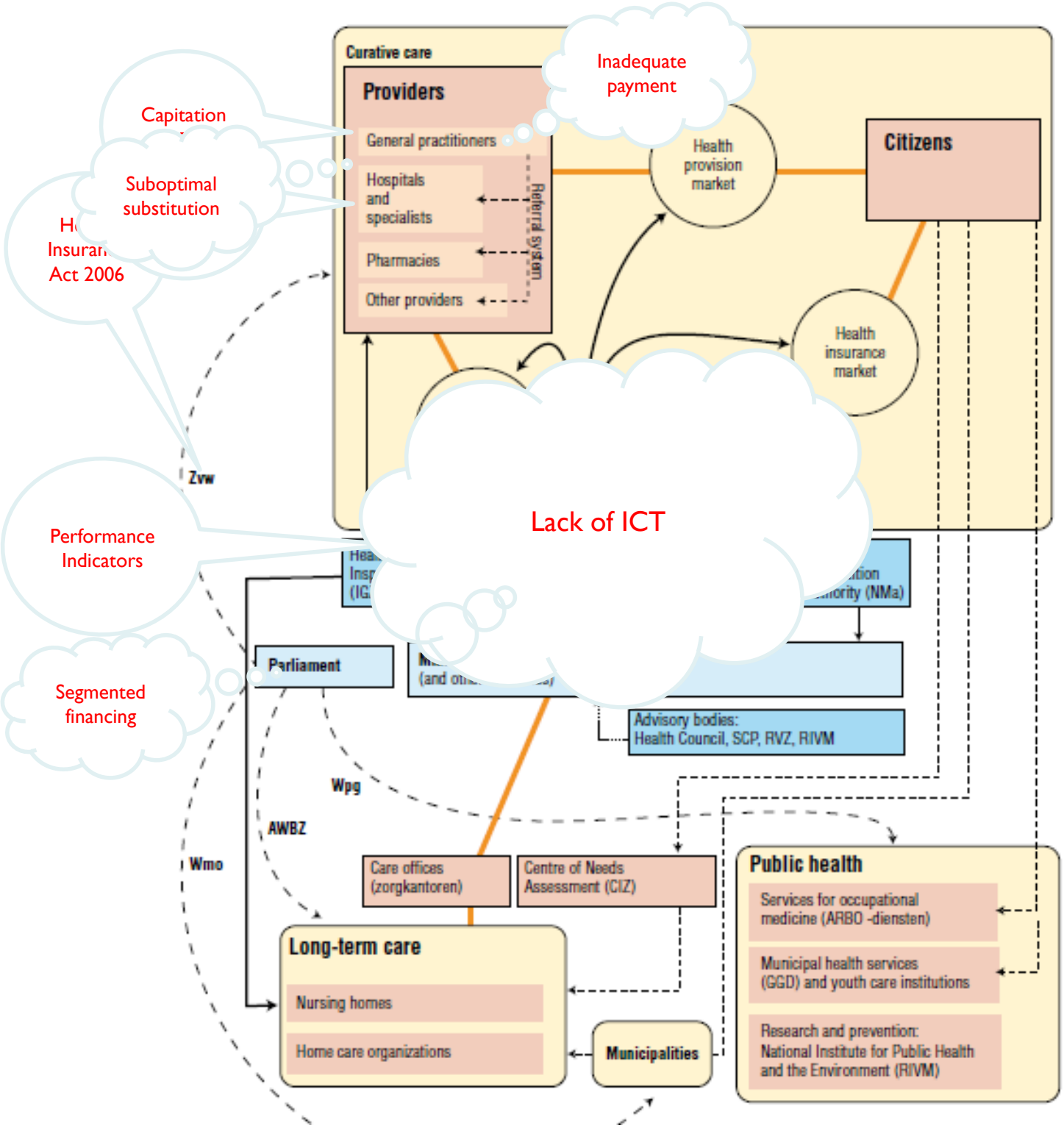
# Dutch healthcare system



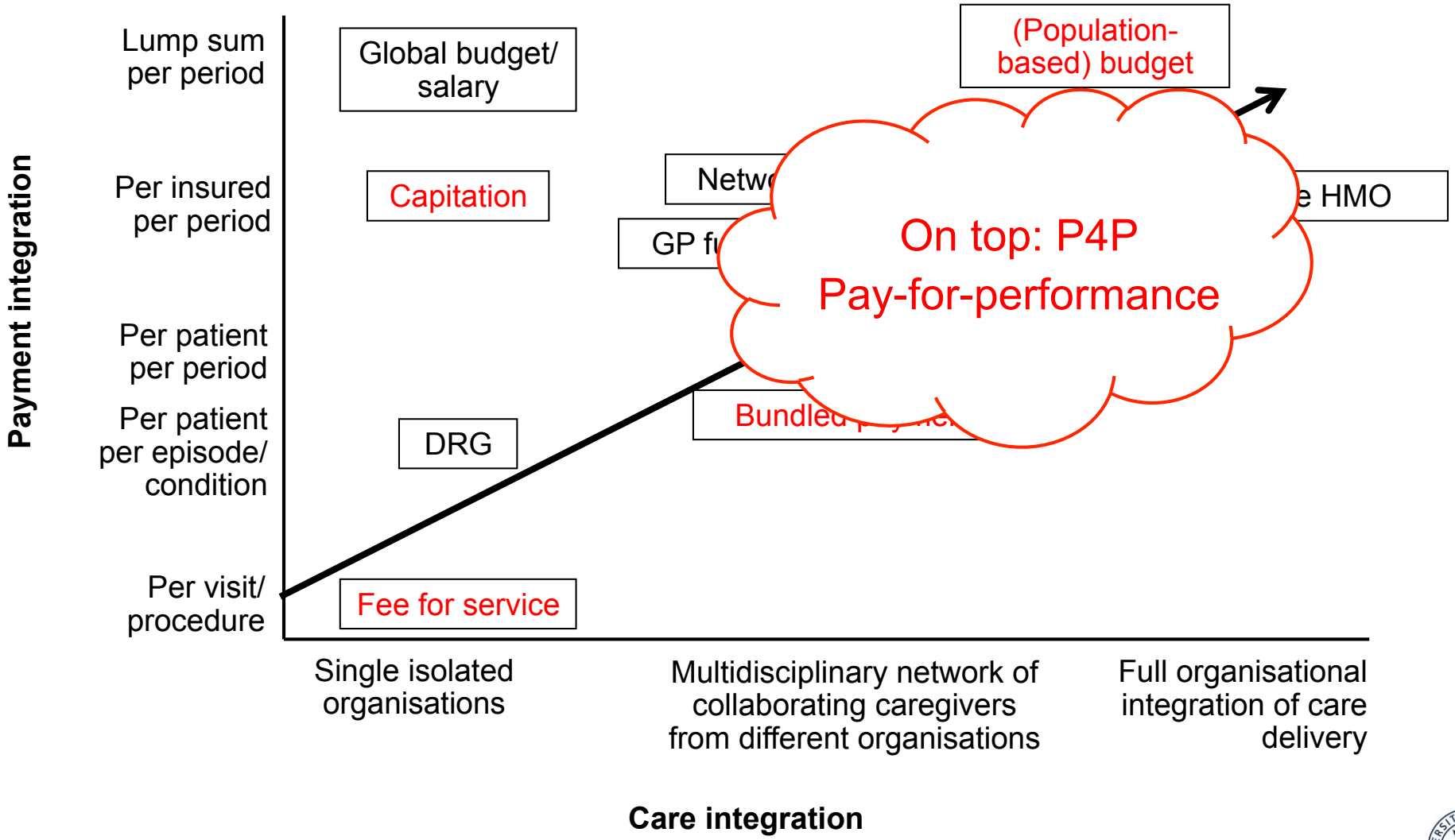
# Recent Dutch payment reforms

- 2010: **Bundled payment** for chronic conditions

- 2013: Regional experiments with **population-based payments**: virtual budgets and shared savings

- 2015: Reform **primary care payment system: 3 tiers**
  - Base payment (capitation and fee for consultation) to cover usual primary care (75%)
  - Payment for multidisciplinary collaboration chronic care (15%)
  - Pay for performance and innovation (10%)
    - Performance with respect to referrals to secondary care, substitution, efficient prescription of drugs, diagnostic tests, service and access, e-health
    - Discussion on how to define the relative performance: relative to peers or relative to the past

# Integrated care requires integrated payment

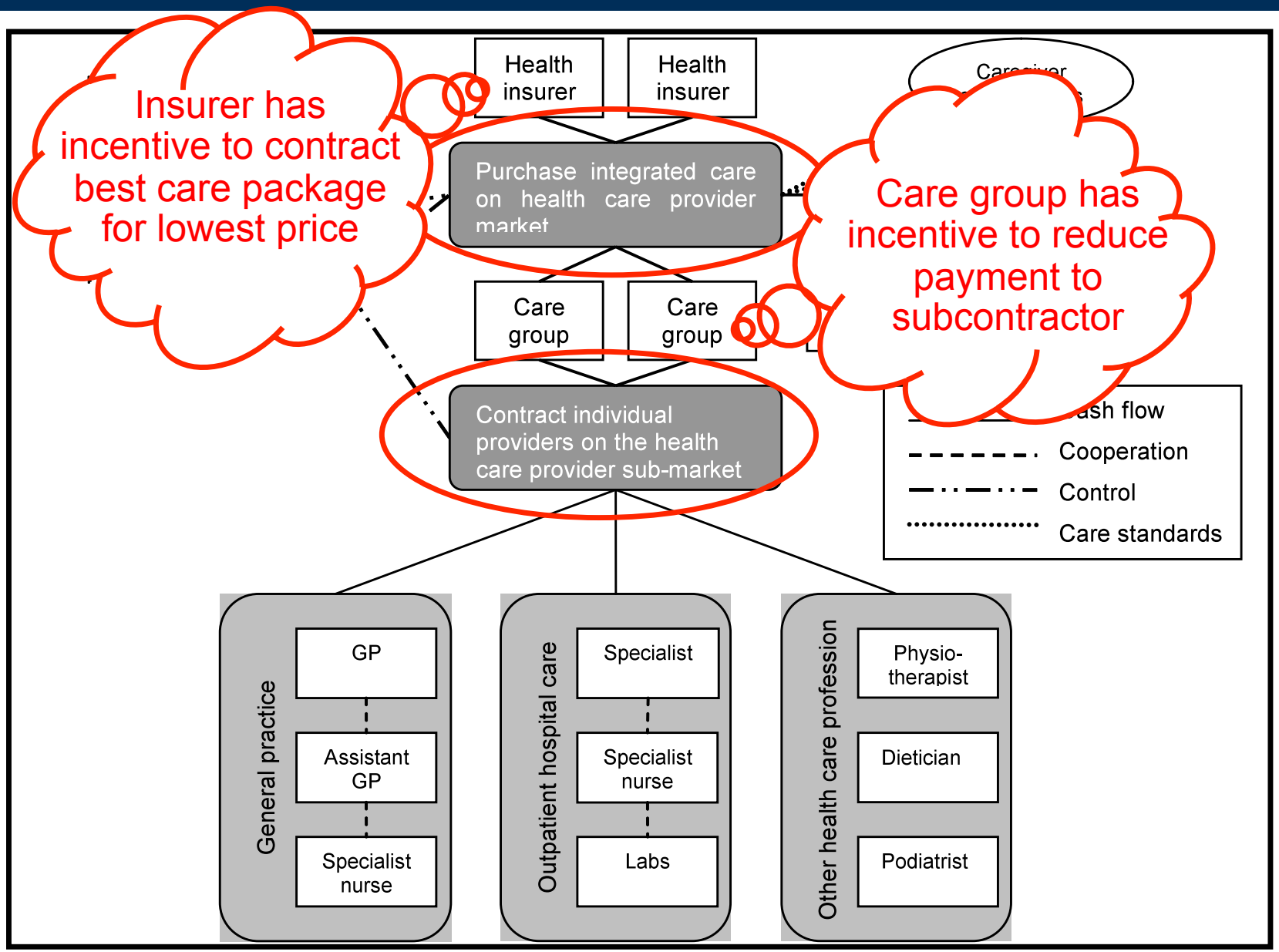



Based on Shih al. The Commonwealth Fund 2008 & Eijkenaar et al Eur J Health Econ 2013; 14: 117-31

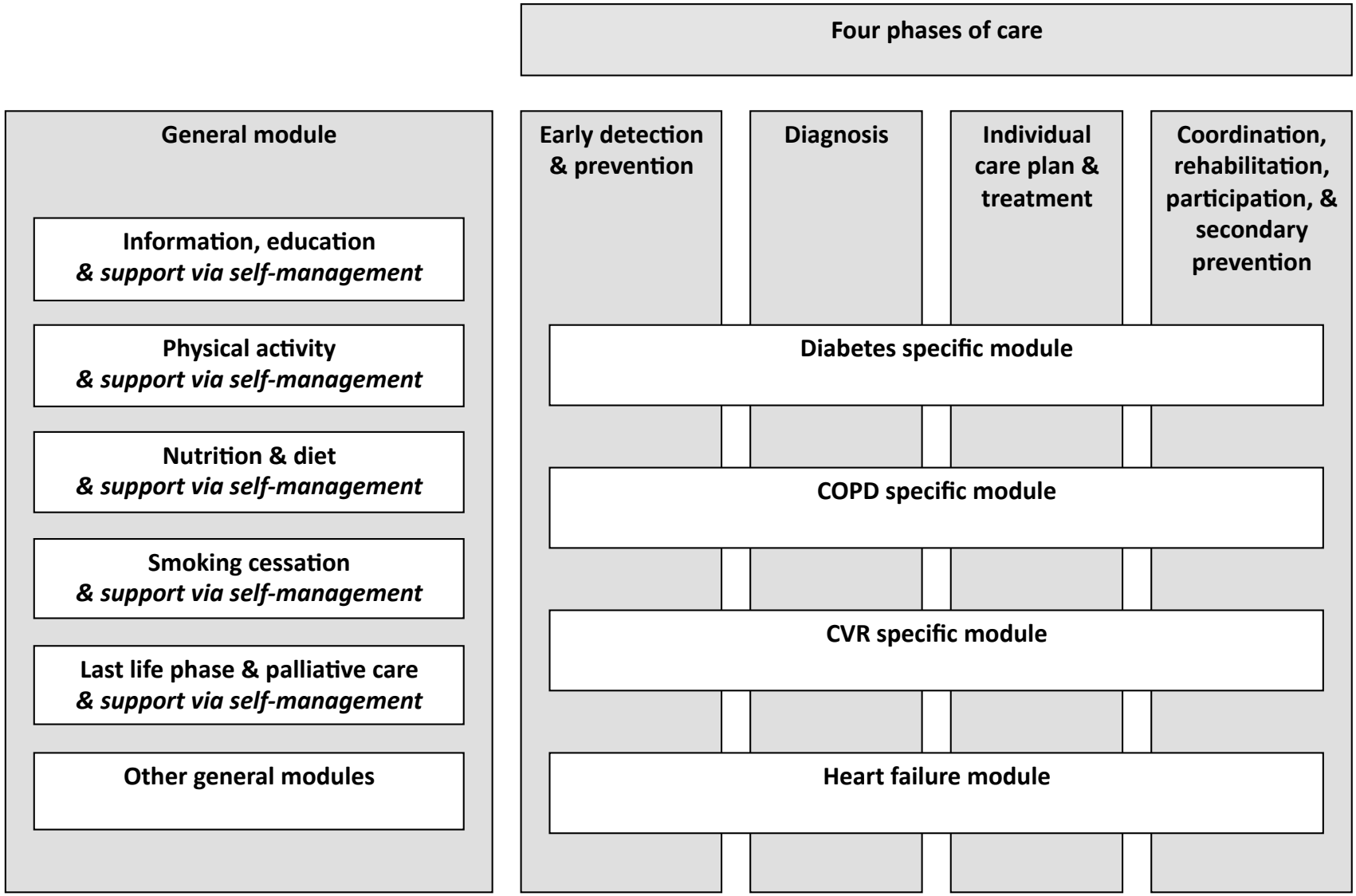
# Dutch bundled payment

- Dutch bundled payment in DM-II, COPD, and CVR care
- Retrospective payment for multi-disciplinary primary care consultation, advice from specialists, ICT, education for professionals
- Support disease management programs (DMPs)
- Care groups are the coordinators
- Care contracted by BP conforms 'care standards'
- Mutual exclusive with hospital-DBCs
- Price freely negotiable on content, volume and quality and supported by performance indicators

# Two-market model



# Care standard modules



# Price variation

- €258 to €474 per diabetic patient per year
- Not (fully) explained by care variations or patient case-mix
- Variability in development and implementation costs of DMPs

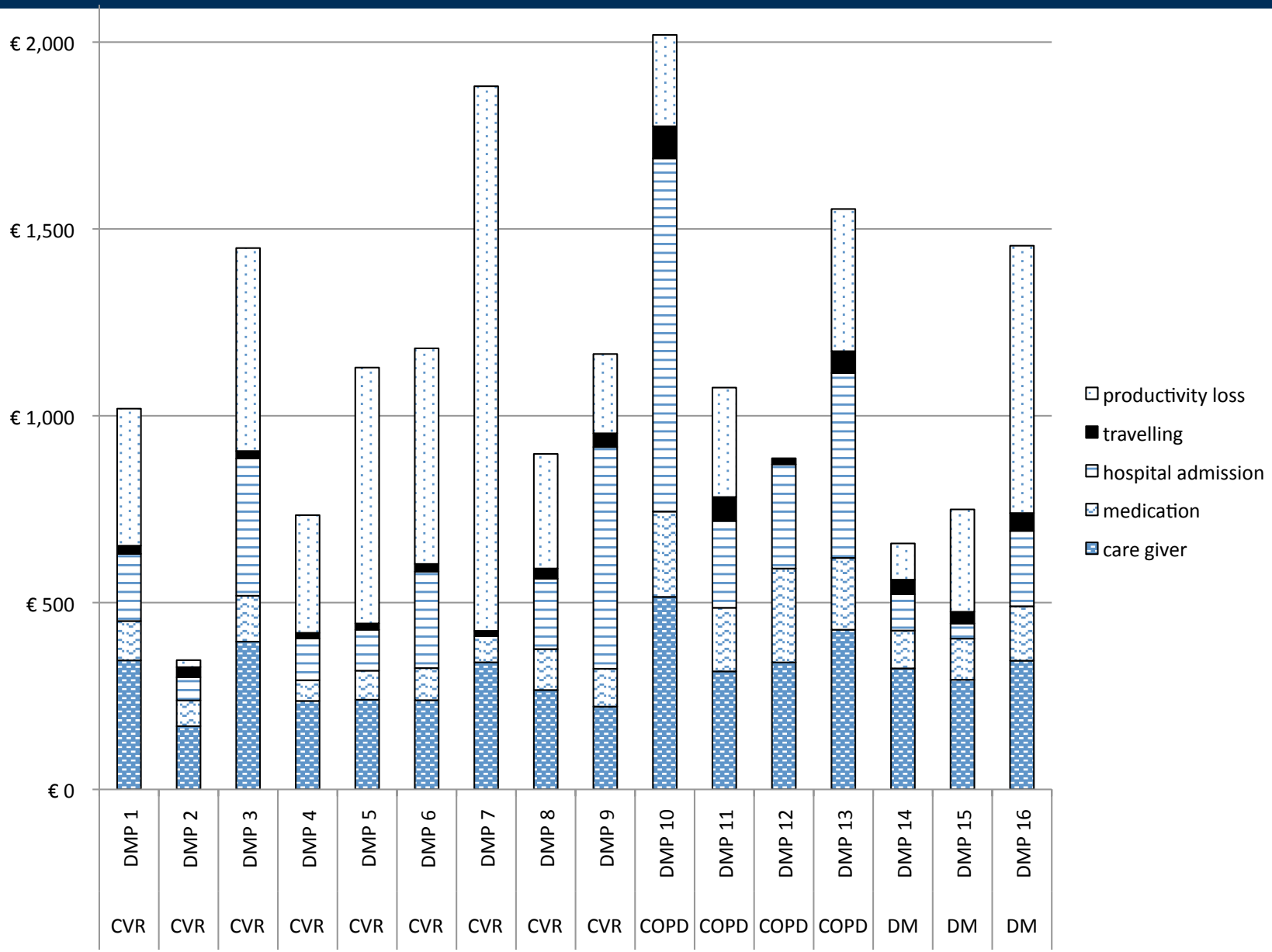
# Diabetes bundle

| Tariff | GP | Nurse practitioner | Dietitian | Diabetes nurse | Fundus screening | Podotherapist | Internist | Subtotal care per patient | DMP related overhead | Overhead organization | Health care costs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | €/year | €/year | €/year | €/year | €/year | €/year | €/year | €/year | €/year | €/year | €/year |
| Module 1 New diabetic patient | 6.41 | 15.55 | 9.38 | - | | | | 31.34 | | | 31.34 |
| Module 2 Oral anti-diabetics | 34.29 | 72.60 | 5.23 | - | | | | 112.12 | | | 112.12 |
| Module 3 New insulin patient | 4.91 | 13.94 | 4.49 | 3.58 | | | | 26.92 | | | 26.92 |
| Module 4 Insuline patient | 7.16 | 20.67 | 1.44 | 4.47 | | | | 33.74 | | | 33.74 |
| Module 4A Transition to 4dd insulin | 6.01 | 0.87 | 7.33 | 10.80 | | | | 25.01 | | | 25.01 |
| TeleAdvice GP | 3.67 | 14.53 | 3.05 | 1.04 | 20.63 | 7.03 | 2.33 | 52.28 | 38.46 | 48.14 | 100.42 |
| Costs per patient (000s) | 62.44 | 138.16 | 30.93 | 19.90 | 20.63 | 7.03 | 2.33 | 281.41 | 38.46 | 48.14 | 368.02 |
| **Total (000s)** | **749** | **1,657** | **371** | **238** | **247** | **84** | **28** | **3,376** | | **-** | **3,376** |

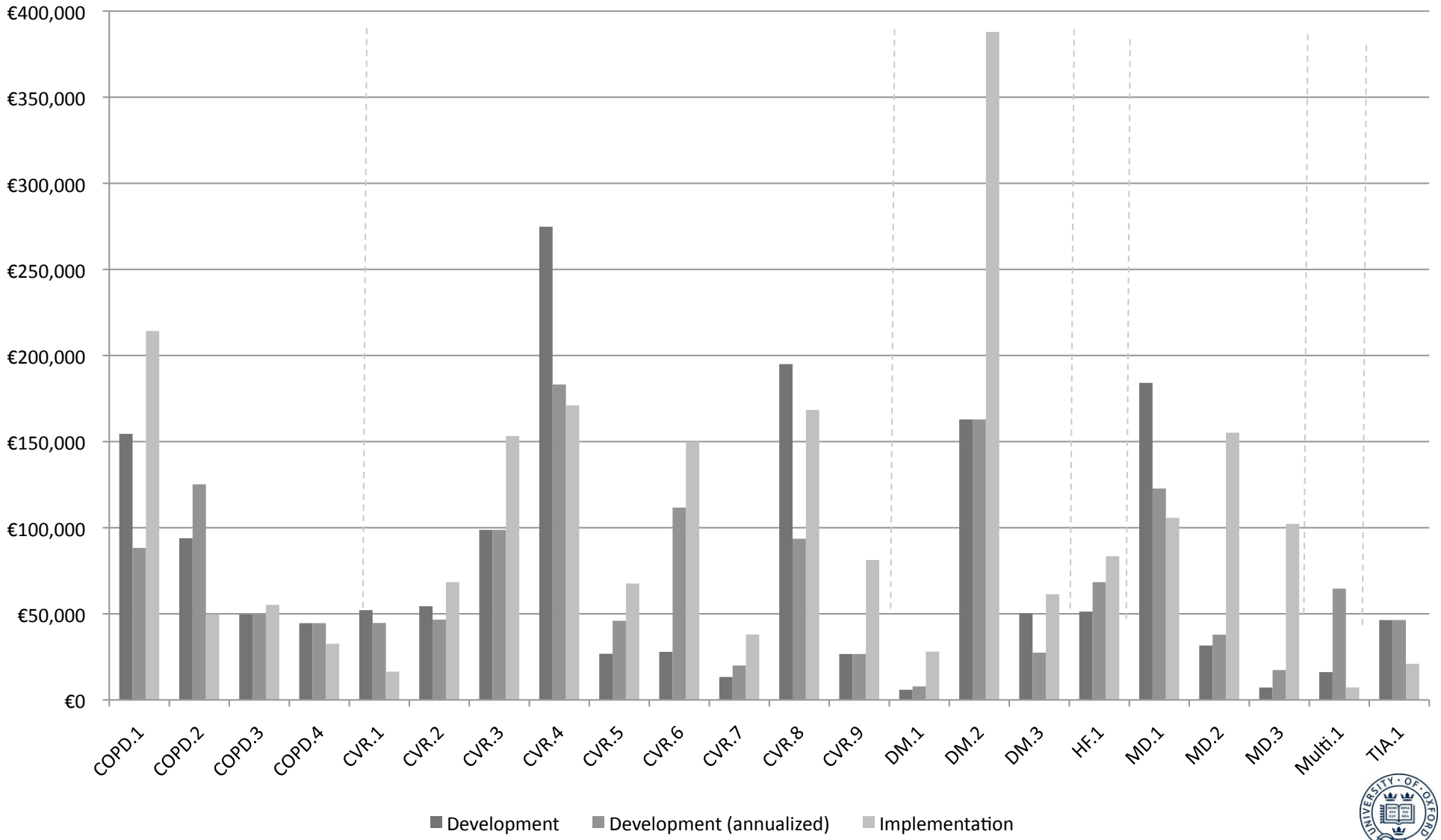
# Diabetes bundle

| **Module 1 Usual care, *new diabetic patient. Book year*** | **Activity** | **Actions** | **Time (minutes) per care provider** | | | | **Diagnostics** | **Requirement** |
|---|---|---|---|---|---|---|---|---|
| **1 year** | | | **GP** | **Nurse practicioner** | **Diadetes nurse** | **Dietitian** | **Fundus** | |
| **0-6 months** | **Tracing / diagnosis** | Dubble consultation GP 2 x glucose measurement, incl. risc control, referal funduscopy | 20 | | | | | According to guidelines |
| | | Foot control | | 20 | | | | According to guidelines |
| | | Funduscopy | | | | | 1 | |
| | | Dubble GP consultation, results discussion | 20 | | | | | |
| | | Consultation NP, Diabetes information | | 20 | | | | |
| | **Cognitive** | 4 x consultation NP incl.education | | 100 | | | | According to guidelines |
| | | 4 x consultation dietitian (nutrition/ lifestyle) | | | | 100 | | |
| **6-12 months** | **Control** | 2 x consultation 3 months control NP | | 40 | | | | According to guidelines |
| | **General** | MDO: 10 min. per patiënt | 10 | 10 | | 20 | | |
| | | Registration in ICT (during consultation) | | | | | | |
| | | Monitoring and follow-up | | 20 | | | | |
| | | **Total minutes** | **50** | **210** | **0** | **120** | **1** | |

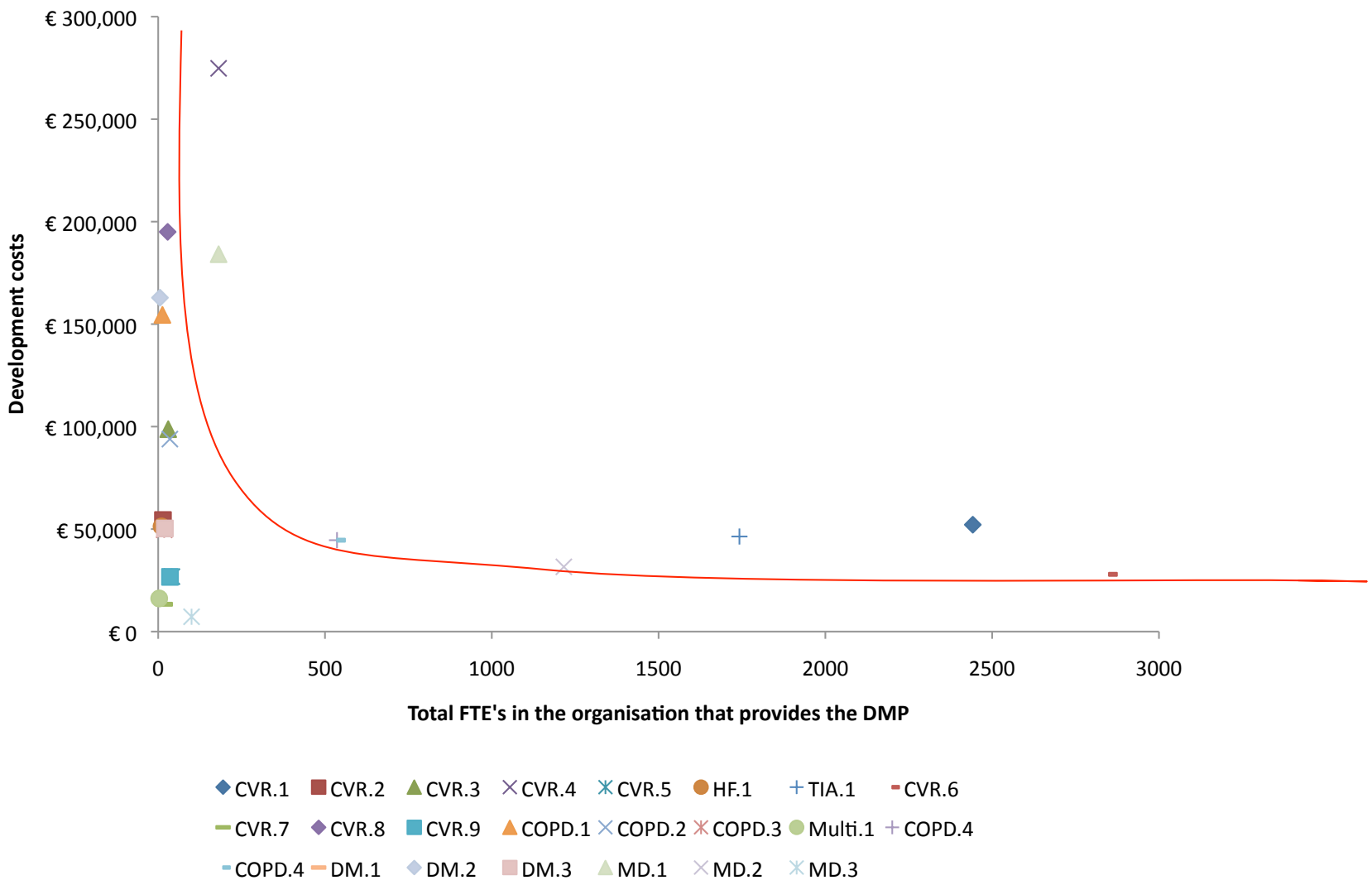
# Heterogeneity in costs of patients



# Heterogeneity in D&I costs



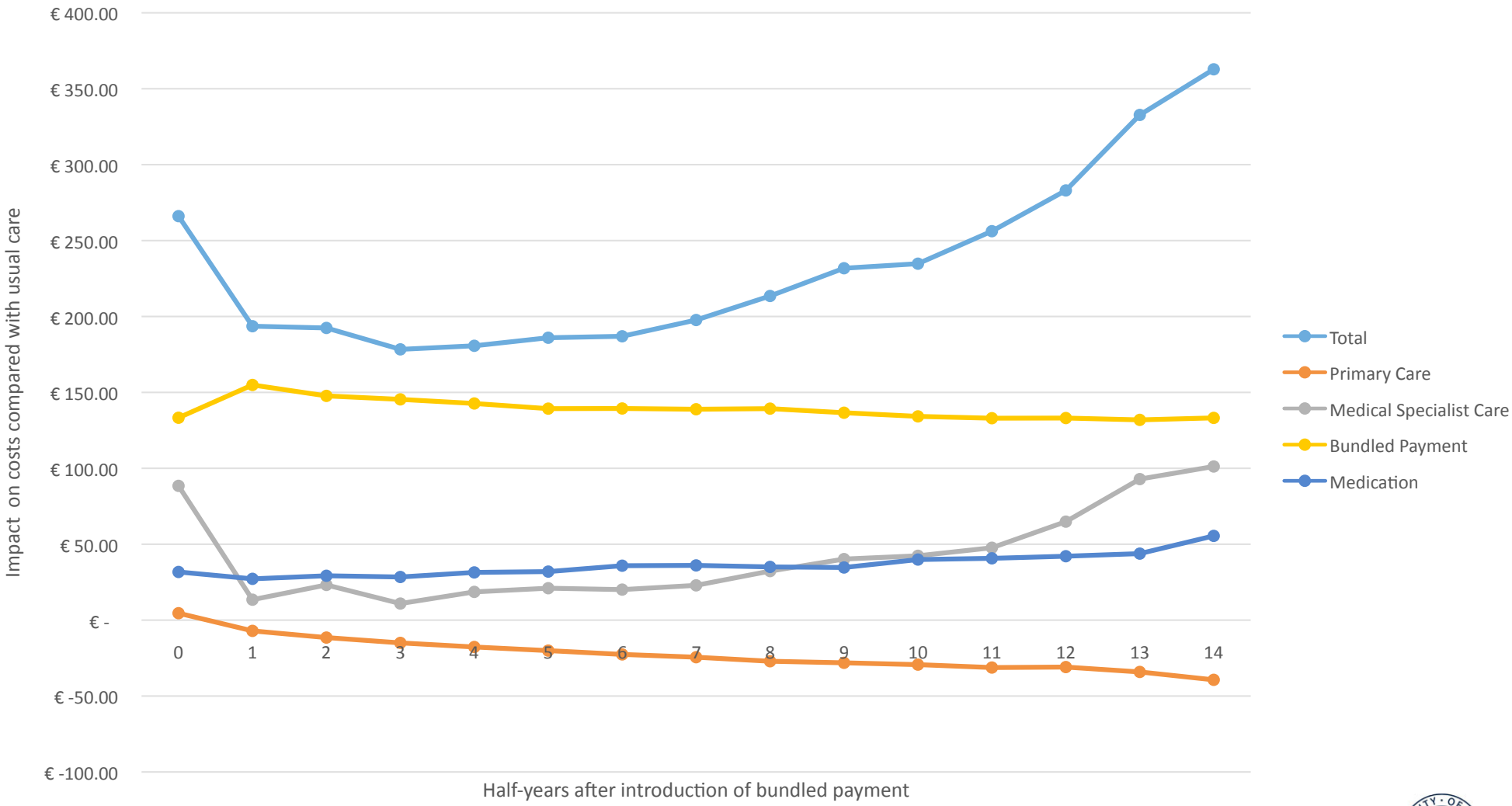
# Association between development costs and care group size



# Predictors of healthcare costs of patients in DMPs

| | exp(β) | p |
|---|---|---|
| Intercept | 571.58 | <.001 |
| Physical activity | 1.01 | 0.640 |
| Employment | 0.94 | 0.364 |
| Gender | 1.06 | 0.511 |
| Age | 1.01 | 0.024 |
| Smoker | 0.95 | 0.496 |
| ex-Smoker | 1.04 | 0.550 |
| CVD | 1.43 | <.001 |
| Charlson index | 1.28 | <.001 |
| Low educational level | 0.94 | 0.156 |
| Single | 0.98 | 0.777 |
| EQ-5D | 0.26 | <.001 |
| PACIC | 1.02 | 0.356 |
| Self-efficacy | 1.00 | 0.651 |
| Additional financing | 1.17 | 0.046 |
| CVR/DM-DMP | 0.69 | 0.001 |

# Impact of Bundled Payment for DM2 on health care costs



# Criticism on Dutch bundled payment

- Troublesome uptake of COPD and CVR DMPs
  - Unreliable price setting
  - Lack of (economic) evidence
  - Wide variability in number and type of interventions
- No evidence of improvement in health outcomes and reduction in costs
- Only a small piece of integrated care (only 8% of total costs of diabetic patients)
- Does not address multi-morbidity
- Dominant care groups with strong marker power
- Double payments and other inefficiencies are not eliminated
- No explicit link between performance and price

# Discussion on Dutch bundled payment

- Efforts prior to the DMP development **not** in D&I costs
- Role and capacities of **project leader** are crucial
- The **targeted population** influences the D&I costs
- Provision of more DMPs by a care group (**economies of scope**)
- More DMP participants reduce D&I costs (**economies of scale**)
- **Payment** scheme not related to D&I costs
- Diseases shouldn't be regarded as "**cherries**" or "**lemons**"

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# Is integrated care the solution?

"Integration is a coherent set of methods and models on the funding, administrative, organizational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors." (Kodner and Spreeuwenberg, 2002)

- Triple Aim of Integrated care (Institute for Health Improvement):
  - Improving the patient experience of care (including quality and satisfaction)
  - Improving the health of populations
  - Reducing the per capita cost of health care

# Inconclusive evidence

Flanagan *et al. Health and Quality of Life Outcomes* (2017) 15:188
DOI 10.1186/s12955-017-0765-y

Health and Quality of Life Outcomes

REVIEW Open Access

## The effectiveness of integrated care interventions in improving patient quality of life (QoL) for patients with chronic conditions. An overview of the systematic review evidence

Sarah Flanagan[1*], Sarah Darnery[1] and Gill Combes[2]

**Abstract**

**Objective:** To determine the effectiveness of integrated care interventions in improving the Quality of Life (QoL) for patients with chronic conditions.

**Design:** A review of the systematic reviews evidence (umbrella review).

**Data sources:** Medline, Embase, ASSIA, PsychINFO, HMIC, CINAHL, Cochrane Library (including HTA database), DARE, and Cochrane Database of Systematic Reviews), EPPI-Centre, TRIP and Health Economics Evaluations databases. Reference lists of included reviews were searched for additional references not returned by electronic searches.

**Review methods:** English language systematic reviews or meta-analyses published since 2000 that assessed the effectiveness of interventions in improving the QoL of patients with chronic conditions. Two reviewers independently assessed reviews for eligibility, extracted data, and assessed the quality of included studies.

**Results:** A total of 41 reviews assessed QoL. Twenty one reviews presented quantitative data, 17 reviews were narrative and three were reviews of reviews. The intervention categories included case management, Chronic care model (CCM), discharge management, multidisciplinary teams (MDT), complex interventions, primary vs. secondary care follow-up, and self-management.

**Conclusions:** Taken together, the 41 reviews that assessed QoL provided a mixed picture of the effectiveness of integrated care interventions. Case management interventions showed some positive findings as did CCM interventions, although these interventions were more likely to be effective when they included a greater number of components. Discharge management interventions appeared to be particularly successful for patients with heart failure. MDT and self-management interventions showed a mixed picture. In general terms, interventions were typically more effective in improving condition-specific QoL rather than global QoL. This review provided the first overview of international evidence for the effectiveness of integrated care interventions for improving the QoL for patients with chronic conditions.

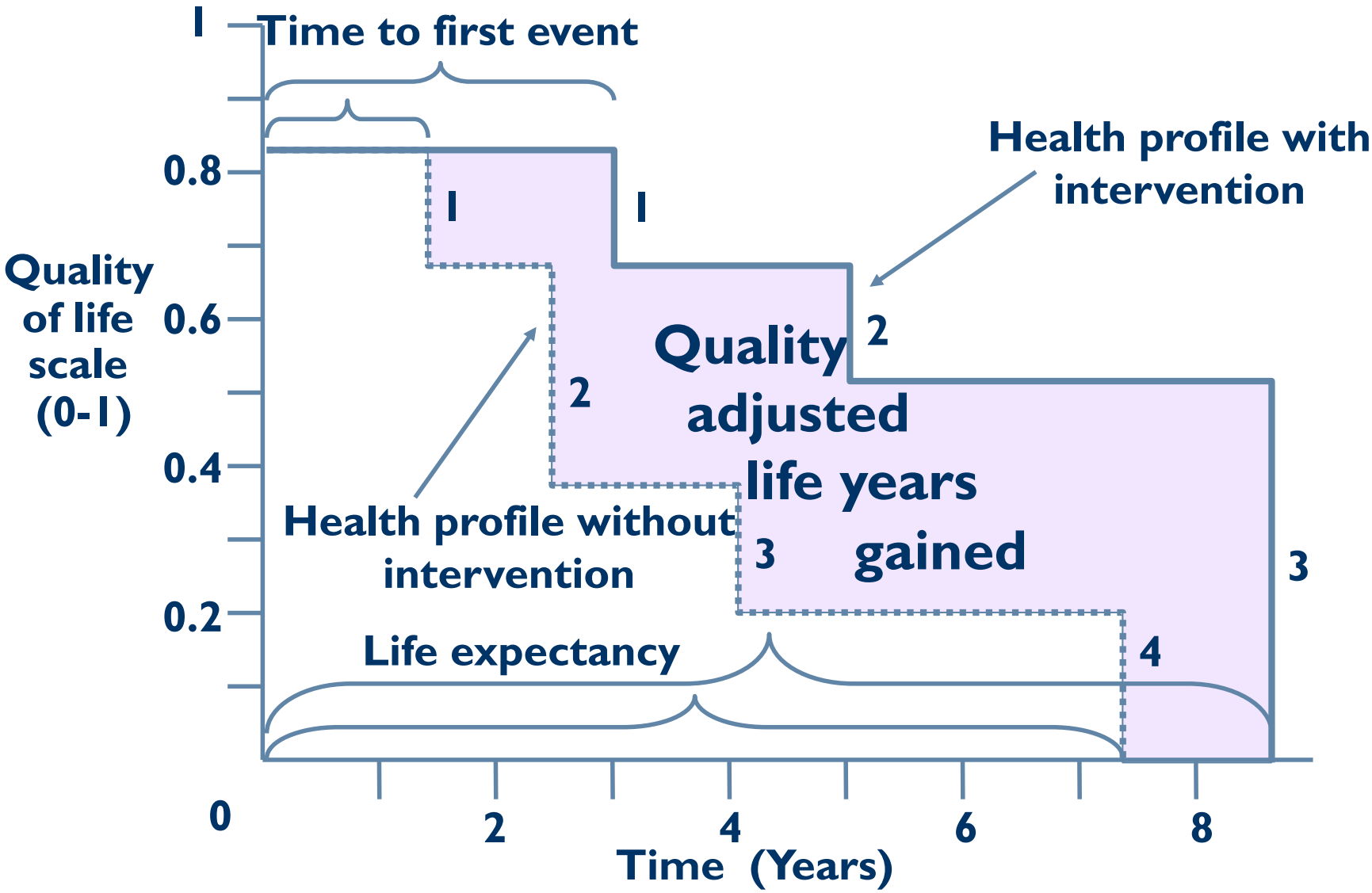
**Keywords:** Integrated care, Chronic conditions, QoL

POLICY SUMMARY 11

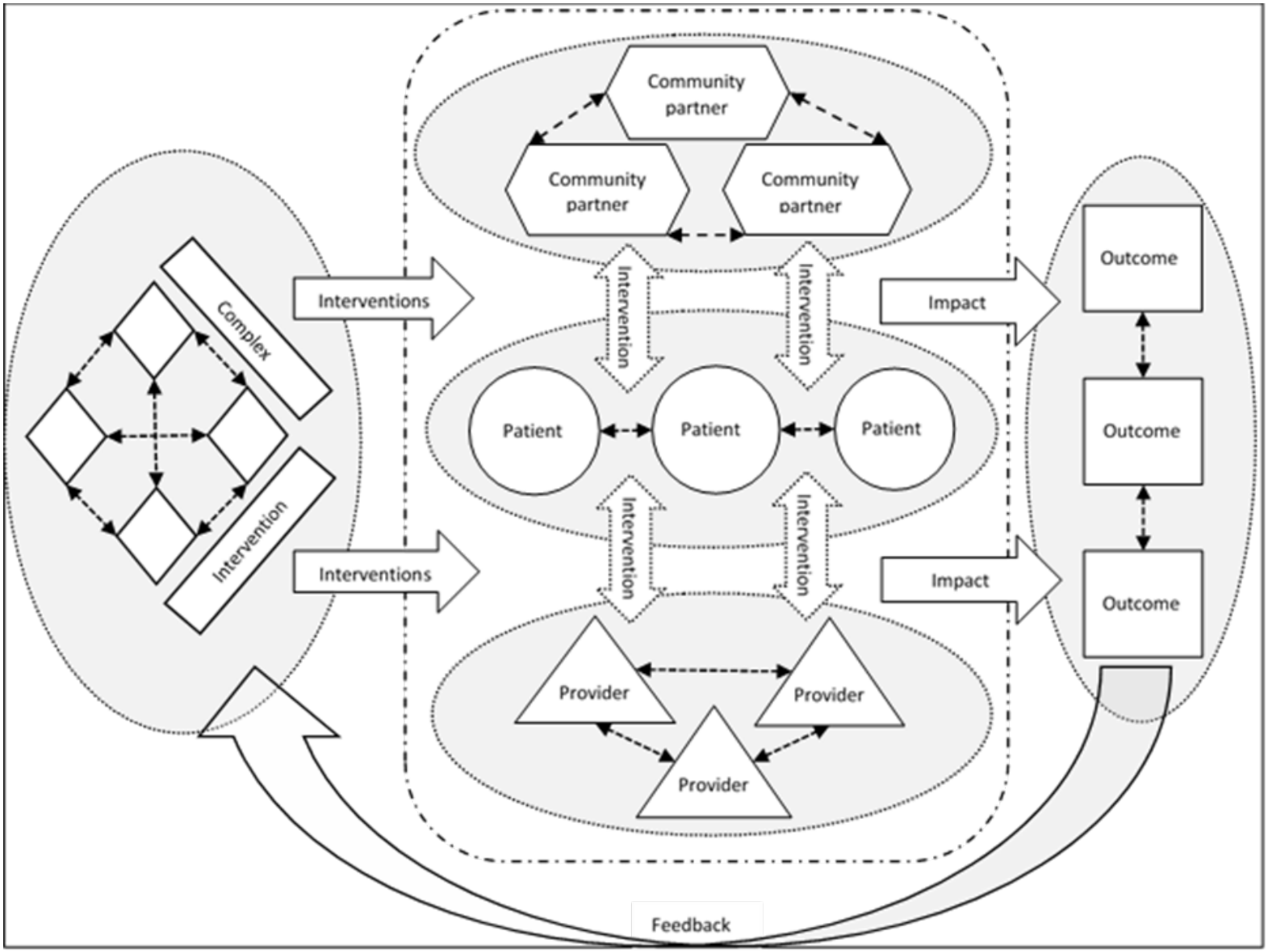
## What is the evidence on the economic impacts of integrated care?

Ellen Nolte, Emma Pitchforth

# Using QALYs to Measure Health Gain



# Complex intervention: integrated care



# Lists of outcomes relevant to IC

- Mattke et al., 2006 (DISMEVAL report WR-400)
- Tsiachristas et al., 2013 (Int J Technol Assess Health Care)
- Payne et al., 2013 (Health Economics)
- Nolte and Pitchforth, 2014 (WHO Observatory report)
- WHO, 2015 (Interim report on people-centred and integrated health services)
- and more…

- They all provide specific measurement instruments for each outcome

# Selection of outcomes by level & perspective

| Perspective/Level | **Micro** | **Meso** | **Macro** |
|---|---|---|---|
| **Patient** | • Information, education & emotional support<br>• Knowledge<br>• Self-efficacy<br>• Health related behaviour<br>• Patient/carer health related quality of life<br>• Patient/carer experiences and satisfaction<br>• Clinical outcomes<br>• Functional status<br>• Independent living<br>• Wellbeing | | |
| **Provider** | • Provider satisfaction | • Care planning<br>• Care transitions<br>• Medication management<br>• Care coordination<br>• Continuity of care<br>• Shared-decision making<br>• Other processes of clinical care | |
| **Payer** | | • Efficiency | • Direct medical costs |
| **Society** | | | • Population health<br>• Morbidity<br>• Costs to other government sectors<br>• Productivity<br>• Access to care |

# Considerations when choosing relevant outcomes

- Relevance
  - Key element in decision-making
  - Research question
  - Usage of outcome (for evaluation, monitoring, rewarding)

- Availability of reliable measurement instruments
  - validated questionnaires
  - quality of routine data

- Feasibility
  - Study design
  - Timely access to data sources

# But indicator selection remains challenging

- Indicators should be evidence-based

- Selection of indicators based on expert opinion:
  - Disagreement between professional groups of what constitutes 'high quality care'
  - Where formal consultation panels are being used, the panel format and process will also influence expert judgements

- Transferability of performance indicators across countries:
  - Differences in professional opinion and interpretation of evidence
  - Differences in the evidence-base

# Use of routinely collected data

| Advantages | Disadvantages |
| --- | --- |
| • Readily available in many healthcare settings<br>• Can be used retrospectively over longer time periods<br>• Capture processes (treatment rates, length of stay, screening rates etc.), intermediate outcomes (blood pressure etc.) and health outcomes (perioperative deaths etc.)<br>• Provide information on large number of patients across diverse settings/geographical areas | • Data may be incomplete or inaccurate<br>• Lack of detail<br>• Definition may be insensitive/ inappropriate in relation to capturing underlying care (e.g. 30-day in-hospital deaths)<br>• May provide only partial insights into quality of care<br>• Susceptible to changes in reporting practices over time<br>• Data collection methods and practices may differ between providers, regions and systems |

# Monitoring of outcomes

- Regular measurement of outcomes integral part of IC
- Enable sound evaluation studies
- Evidence about the sustainability of integrated care
- Convert outcomes into performance indicators to:
  - Enhance patient choice (micro)
  - Enable outcome/performance based payments (meso)
  - Inform commissioners (meso)
  - Reinforce decision-support systems in clinical practice (meso)
  - Achieve national targets and facilitate resources planning (macro)

# Process or outcome indicators?

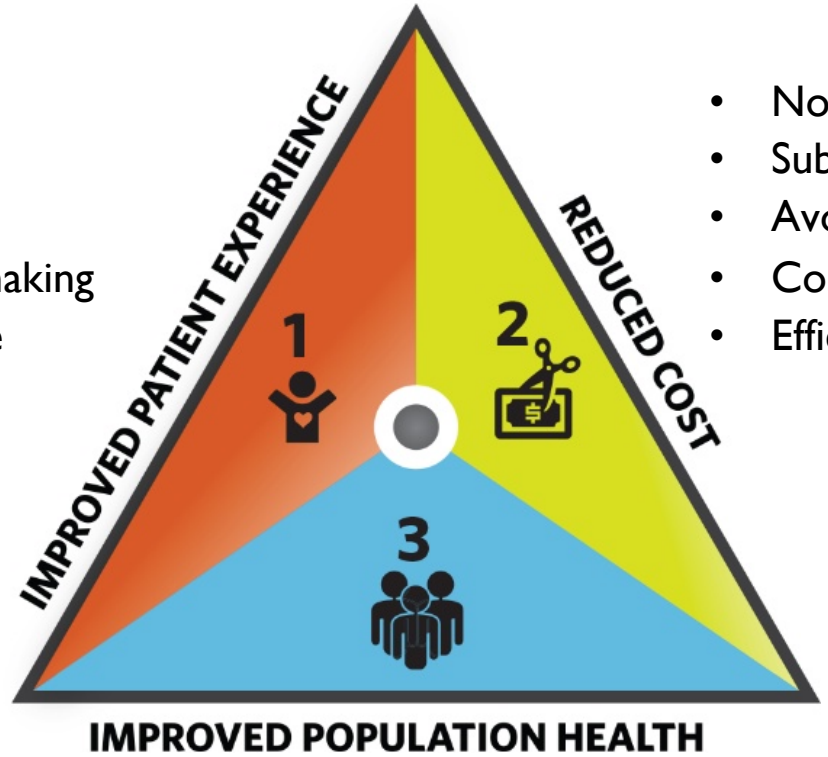
| Process indicators | Outcome Indicators |
|---|---|
| ▪ Sensitive to changes in the quality of care<br>▪ Easily measured and easy to interpret<br>▪ Enable detection of problems (more) rapidly<br>▪ Capture aspects of care that are important to patients<br><br>***BUT***<br>▪ Tend to focus on a given intervention/ condition<br>▪ Insensitive to technology and organisations progress<br>▪ May stifle innovation and development of new modes of care<br>▪ Potential for manipulation | ▪ Focus "the attention of policy makers on whether systems are achieving the desired goals"<br>▪ Focusing on patient rather than service<br>▪ May promote innovation (new models of care)<br>▪ Necessary to ensure that changes in processes improve attainment of desired health system goals<br>***BUT***<br>▪ Outcomes are often delayed<br>▪ Long observation period is required<br>▪ Difficulty to establish causality<br>▪ It is not always clear why outcomes might be poor<br>▪ Large sample size to significant effects |

# Measuring and monitoring value

- Multi-Criteria Decision Analysis (MCDA):
  - Ranking of two or more alternatives
  - Performance on predetermined criteria (outcomes and costs)
  - Incorporates preferences of different stakeholders
- Examples in the (health care) literature:
  - Tsiachristas et al., 2013 (Int J Technol Assess Health Care)

# MCDA based on triple aim

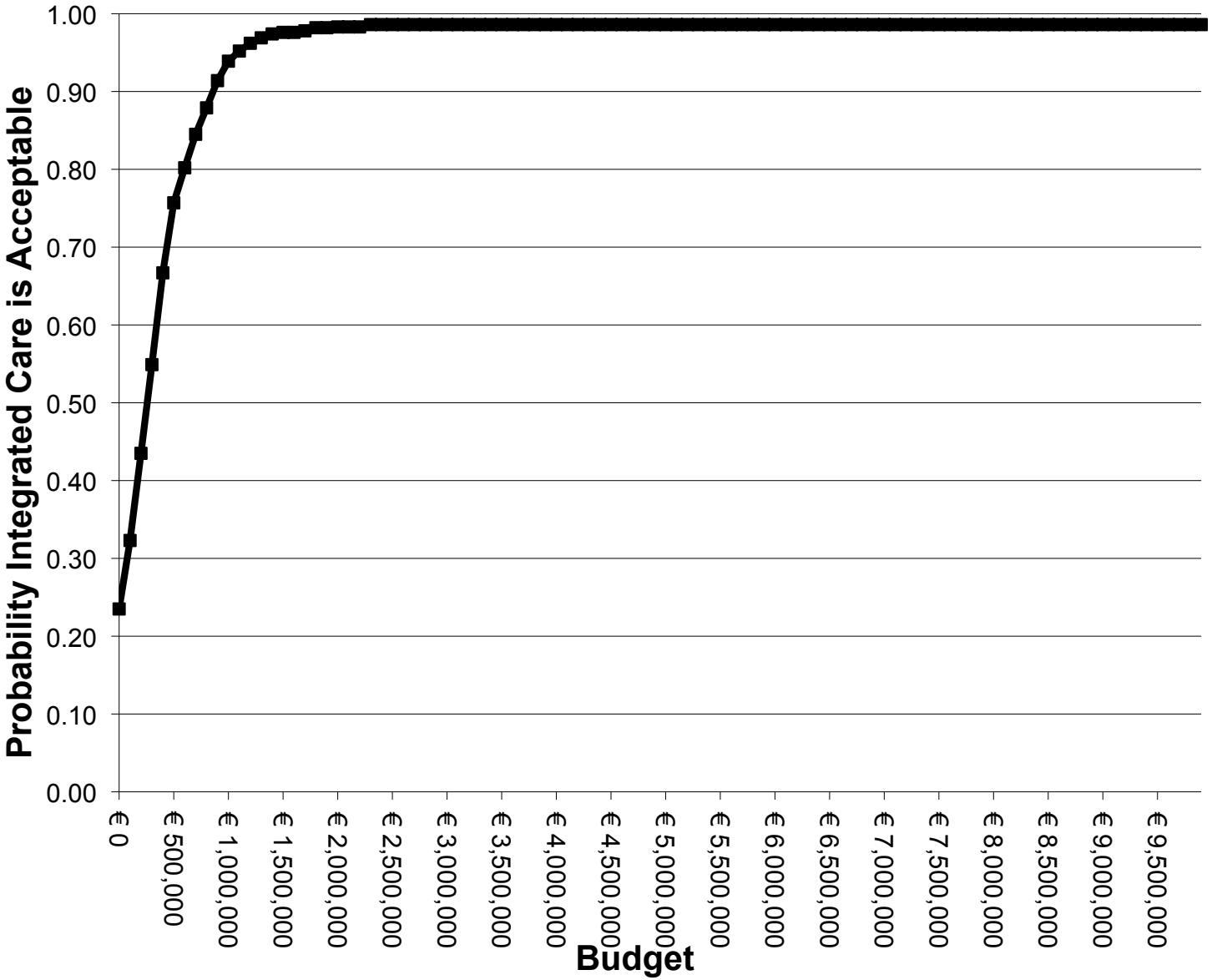
- Access
- Timely
- Patient centered
- Shared decision making
- Continuity of care
- Coordination
- Communication




- No duplication
- Substitution
- Avoid complications
- Cost savings
- Efficiency

- Healthy behavior and self-management: physical activity, nutrition, smoking cessation, treatment adherence
- Clinical Outcomes
- Health-related QoL
- Wellbeing: maintaining dignity/independence/status, getting affection, behavioural confirmation, comfort and stimulation

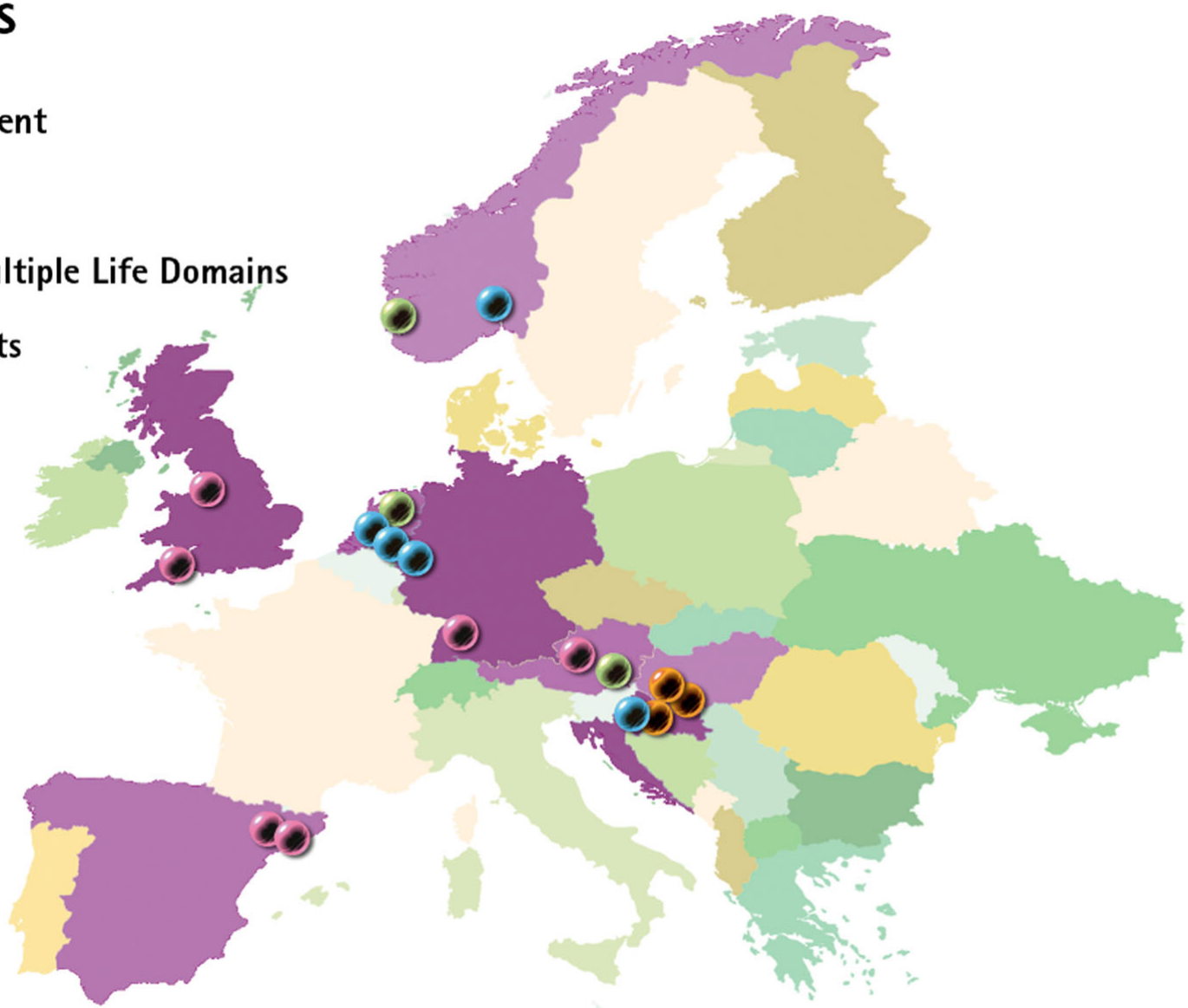
# Conditional Multi-attribute Acceptability Curve (CMAC)



# 17 integrated care programmes

## Selected programmes

- Population Health Management
- Frail Elderly
- Persons with Problems in Multiple Life Domains
- Palliative & Oncology Patients



# Overview of core set and programme-type specific outcomes

| Outcomes for integrated care for persons with multi-morbidity | | | | | |
|---|---|---|---|---|---|
| | **Core set outcomes** | **Programme-type specifi c outcomes** | | | |
| | | *Populati on health management* | *Frail elderly* | *Palliati vand oncology* | *Problems in multi ple lif e domains* |
| Health & well-being | Physical functi oning | Acti vati on & engagement | Autonomy | Mortality | Self-suffi ciency |
| | Psychological well-being | | | Pain and other symptoms | |
| | Social parti cipati on/ relati onships | | | | |
| | Resilience | | | | |
| | Enjoyment of life | | | | |
| Experience | Person-centeredness | | Burden of medicati on | Compassionate care | |
| | Conti nuity of care | | Burden of informal caregiving | Timely access to care | |
| | | | | Preferred place of death | |
| | | | | Burden of informal caregiving | |
| Costs | Total health- and social care costs | Ambulatory care sensiti ve hospital admissions | Living at home | | Justi ce costs |
| | | Hospital re-admissions | Falls leading to hospital admissions | | |

# Calculating overall value scores

| | Range performance score | Performance | | Standardized performance* | | Weights | | Weighted aggregation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | worst-best | Integrated care | Comparator | Integrated care | Comparator | P1 | P2 | Integrated care | | Comparator | |
| | | | | | | | | P1 | P2 | P1 | P2 |
| **Health & wellbeing** | | | | | | | | | | | |
| Physical functioning | 0-100 | 60 | 70 | 0,65 | 0,76 | 0,100 | 0,250 | 0,065 | 0,163 | 0,076 | 0,190 |
| Psychological wellbeing | 0-100 | 70 | 50 | 0,81 | 0,58 | 0,150 | 0,100 | 0,122 | 0,081 | 0,087 | 0,058 |
| Social participation & relationships | 0-4 | 3 | 4 | 0,60 | 0,80 | 0,125 | 0,100 | 0,075 | 0,060 | 0,100 | 0,080 |
| Resilience | 1-5 | 2 | 4 | 0,45 | 0,89 | 0,050 | 0,100 | 0,022 | 0,045 | 0,045 | 0,089 |
| Enjoyment of life | 0-4 | 4 | 3 | 0,80 | 0,60 | 0,300 | 0,150 | 0,240 | 0,120 | 0,180 | 0,090 |
| **Experience** | | | | | | | | | | | |
| Person centeredness | 1-4 | 4 | 3 | 0,80 | 0,60 | 0,100 | 0,050 | 0,080 | 0,040 | 0,060 | 0,030 |
| Continuity of care | 1-5 | 5 | 3 | 0,86 | 0,51 | 0,125 | 0,050 | 0,107 | 0,043 | 0,064 | 0,026 |
| **Costs** | | | | | | | | | | | |
| Total health and social care costs | 8500-5500 | 8000 | 6000 | 0,20 | 0,40 | 0,050 | 0,200 | 0,010 | 0,040 | 0,020 | 0,080 |
| | | | | | | | | **0,722** | 0,592 | 0,632 | **0,643** |

Rutten-van Mölken et al. BMC Health Services Research (2018) 18:576

# Outline

- Alternative payments
- Dutch bundled payment
- Value of integrated care
- Thoughts and messages

# Facilitators and barriers

| | Facilitators | Barriers |
|---|---|---|
| Pay-for-coordination | • Stakeholder cooperation (AUS, GER)<br>• Patient demand (AUS)<br>• Adequate financial incentive for GP engagement in DMPs (DEN) | • Gaming (GER)<br>• Misaligned incentives between stakeholders (AUS)<br>• GP Opposition (AUS,GER, FRA)<br>• Virtual budget (AUS)<br>• Inflexible task allocation (AUS) |
| Pay-for-performance | • Adequate financial incentive for GPs (ENG, FR) | • Gaming (ENG)<br>• Defining performance indicators (ENG) |
| Bundled Payment | • Stakeholder cooperation (NL)<br>• Flexible task allocation (NL) | • Gaming (NL)<br>• Lack of transparency (NL)<br>• Lack of comprehensive means to address multi-morbidity (NL) |
| Global Payment | • Adequate financial incentive for engagement (GER)<br>• Stakeholder cooperation (GER) | • Misaligned incentives in short versus long-term(GER)<br>• Gaming (GER)<br>• Political investment (GER) |

# Incentivize different stakeholders

- Purchasers/payers:
  - What: the allocation of resources towards coordination and more integrated care delivery
  - Examples: 'Accountable Care Organizations' with population based payment or earmarked payments
- Providers:
  - What: provision of coordinated/integrated care
  - Examples: global payments, pooled funds, bundled payments, pay-for-coordination, pay-for-performance
- Patients:
  - What: patient compliance, prevention and self-management
  - Examples: personal health budgets or waivers/reductions of out-of-pocket contributions
  - Supplemented by preventive and health promoting measures such as discount for gym membership and privileged access to physicians outside normal hours
- Incentives for different stakeholders should be aligned!

# Measuring value

- We need a consensus about the most suitable outcomes of IC
- Use outcomes in a systematic manner to provide robust evidence about IC
- Outcomes should be used in redesigning and implementing IC
- Outcome to be used as indicators to improve performance at individual, organizational and national level.

# Take home messages

- Payment models are potentially powerful tools to stimulate integration of care
- They should be used as a means to extend the cost-effective potential of integrated care rather than as cost-containment policies
- Consider experiences from countries that have comparable health care systems and context
- Strong willingness and commitment of the health authorities to re(design) financial incentives
- Need to find an optimal mixture (type and size) of financial incentives
- Guided by evidence from high quality evaluation studies

# Personal view

- Blended payment scheme:
  - Basis: a yearly risk-adjusted global payment
  - Additional: pay-for-coordination and pay-for-performance
  - Shared savings to avoid "gaming", align incentives, support prevention, and reward patients

- Challenges:
  - Global payment per insured/ patient/ citizen/ specific group?
  - D&I costs of IC in the payment (economies of scale/scope)
  - Appropriate performance indicators
  - How to distribute savings

Thank you for your attention!

Questions?

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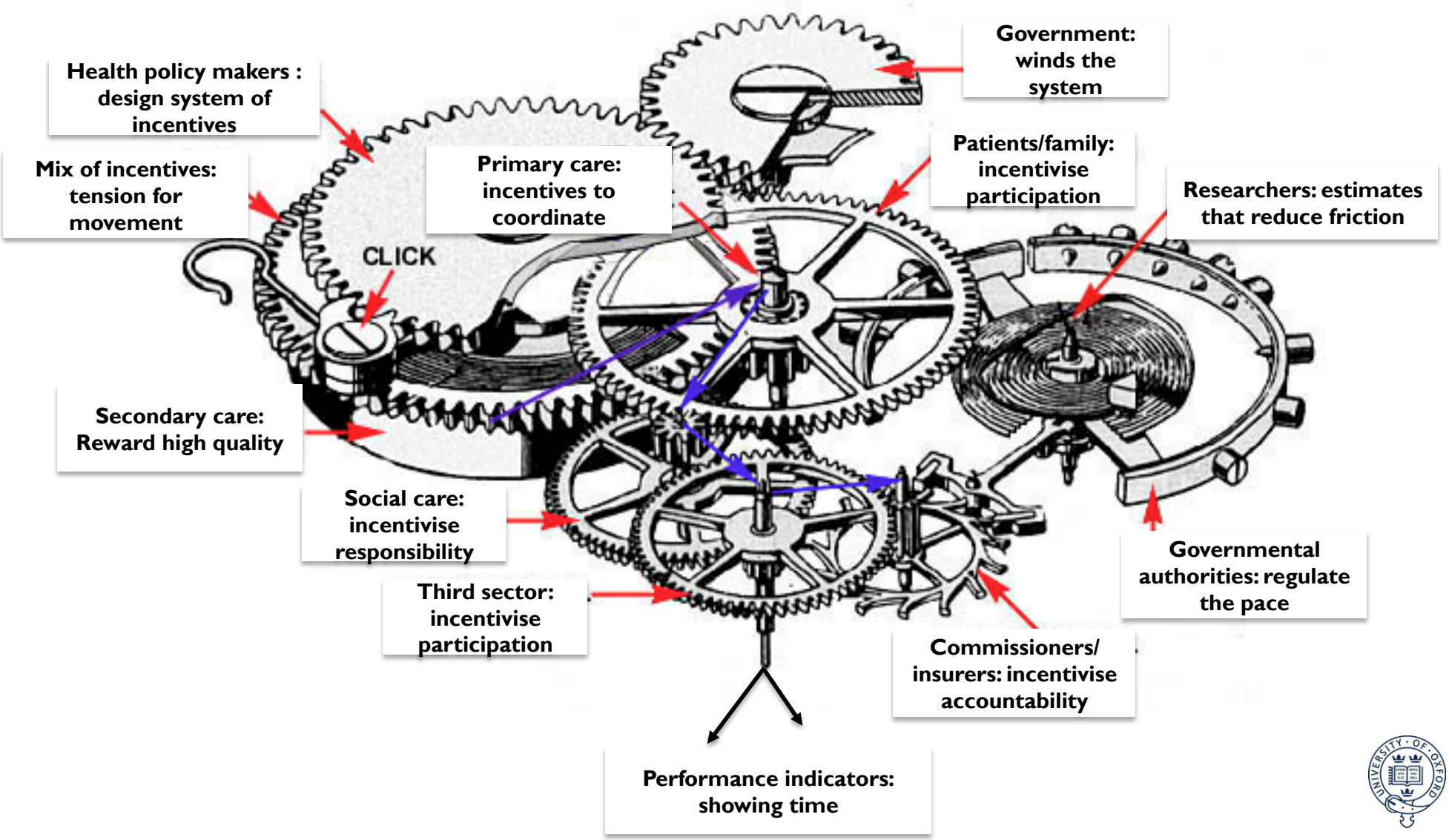
# Clockwise system of financial incentives



# Variation in DMP implementation across GP practices

- Results from the RECODE trial:
  - Variation in which and how DMP interventions were implemented
  - Variation in changes of quality of care (PACIC & ACIC)
- Main reasons of variation in DMP implementation:
  - Unmotivated patients and providers
  - Non adherence to agreements,
  - Small proportion of staff involvement
  - problems with the ICT
  - Problematic or lack of reimbursement lifestyle interventions

# Relation of PIs with health

**Only 4/8 positive associated with HR-QoL!**

| | | *n the same year as the or was registered* | |
|---|---|---|---|
| **Health-related quality of life** | | **Δ SGRQ** | **Δ EQ-5D** |
| *A patient with registered smoking status* | 2 | -1.196 | .016 |
| *A registered smoker* | -.050 | -.485 | -.003 |
| *A registered smoker with smoking-cessation advice in the last year* | .089 | -.050 | .021 |
| *A patients of which the BMI is registered in the last year* | -.057 | -1.564* | .012 |
| *A patient of which the physical activity is registered in the last year* | -.043 | -1.549* | .003 |
| *A patient with registered inhalation technique in the last year* | -.053 | -1.414 | .009 |
| *A patient with a registered spirometry test in the last year* | -.129** | -3.198** | .010 |
| *A patient with registered functioning with a structured method in the last year* | -.113** | -1.966** | .019 |
| *Registered all process indicators* | .069 | -2.397 | .041 |

# Designing financial incentives

- Comprehensive, evidence-based incentives attuned to norms of medical professionalism
- Reward risk with premium
- Balance of rewards and penalties depending on context
- Offering providers a choice among schemes
- A blend of group and individual-level incentives
- Combination of absolute and relative targets differentiated across groups
- Right-sized incentives with payoff rules known in advance
- Timely payment schedule, minimized time-lag
- Incentives to be sustained over the long run

# Conditions for success of alternative payments

- A clearly defined target group
- Sufficient and relevant data to compensate for high risk patients
- Unambiguous and measurable goals to determine success
- Broadly accepted, sensitive, and clinically relevant indicators
- Transparency and willingness to record results
- Involved parties share commitment and goals
- Insight into costs of the population
- High degree of organization in primary care
- An integrated ICT system
- Long-term scope: sufficient time allowed to wait for the first results

# Accountable Care Organisations (ACOs)

- A group of providers that take responsibility for providing all the care for a given population for a specified period of time.
- Originated in US and stimulated by Obamacare
- Core elements:
  - An alliance of providers that collaborate to meet the needs of a defined population
  - Responsibility for a budget allocated by a commissioner or alliance of commissioners to deliver a range of services to that population
  - Contract that specifies the outcomes and other objectives they are required to achieve within the given budget
- Shared savings to align and stimulate providers
- ACOs outside US:
  - Gesundes Kinzigtal in Germany
  - Sustainability and transformation partnerships in England
  - Population based payments in the Netherlands
  - Canterbury Health Board in New Zealand