

# health community

2018



## ZORG EN WELZIJN: NIEUWE PERSPECTIEVEN, GRENZELOZE KANSEN

Een inspirerende en ruime blik op innovatieve modellen en best practices in welzijn en zorg wereldwijd

Met de steun van:

abbvie

Belfius  
Bank & Insurance

BDO

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ZorgAnders

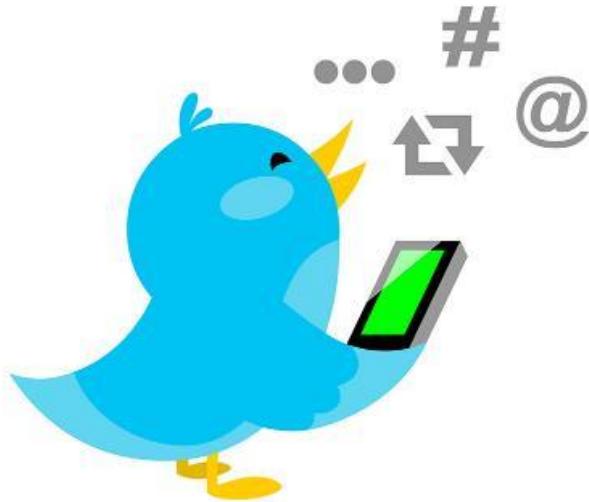
Structurale partner Voka

# Programma

- **14u00 Welkom**  
Dennis van den Buijs, journalist VRT
- **14u10 Een duurzame en toegankelijke sociale zekerheid**  
Maggie De Block, minister van Sociale Zaken en Volksgezondheid
- **14u30 Innovatie van organisatie en governance van integrale zorg**  
Mirella Minkman, vicevoorzitter IFIC
- **15u00 Gesundes Kinzigital: het betere gezondheidssysteem, ook voor ons?**  
Helmut Hildebrandt, CEO Gesundes Kinzigtzal
- **15u30 Naar een geïntegreerde financiering in Vlaanderen**  
Lieven Annemans, gezondheidseconoom UGent
- **16u00 PAUZE**
- **16u30 Digitale transformatie in zorg en welzijn: meer dan technologie alleen**  
Ann Ouvry, CEO D&A medical group  
Alexander De Croo, vicepremier en minister van Ontwikkelingssamenwerking, Digitale Agenda, Telecom en Post
- **17u30 Reflectie ‘Een brede blik op zorg en welzijn’**  
Marc Noppen, CEO UZ Brussel
- **18u00 Netwerkreceptie**

Met de steun van:

# Twittert u mee?



@Voka\_HC  
#taboesdoorbreken

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## Een kwaliteitsvolle, innovatieve en duurzame zorg

Maggie De Block,  
minister van Sociale Zaken en Volksgezondheid

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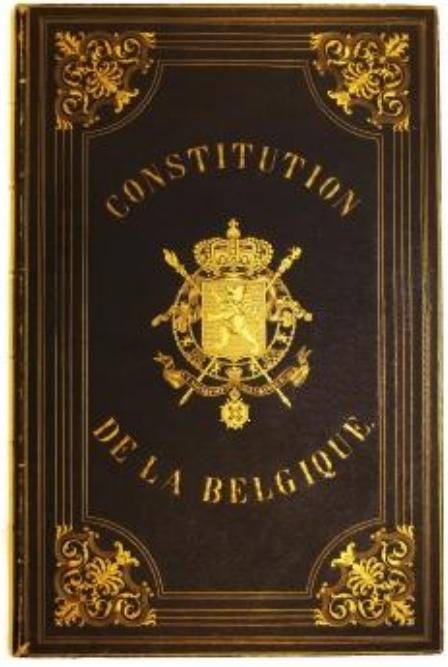
*Minister van Sociale Zaken en Volksgezondheid  
Ministre des Affaires sociales et de la Santé publique*  
**MAGGIE DE BLOCK**

# Want de burger verdient kwaliteitsvolle, toegankelijke en duurzame zorg

# Belgische samenleving en haar kenmerken

- Grondwet
- Demografische evolutie
- Budgettaire context

# Belgische Grondwet is goed voor uw gezondheid



## *Artikel 23.*

*Ieder heeft het recht een menswaardig leven te leiden.*

...

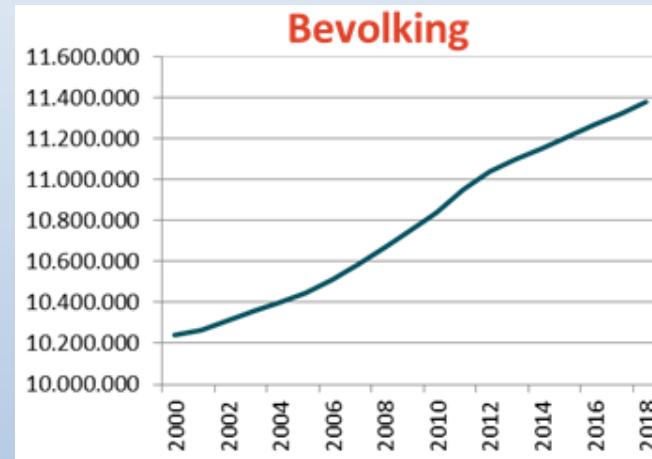
*2° het recht op sociale zekerheid, bescherming van de gezondheid en sociale, geneeskundige en juridische bijstand;*

...

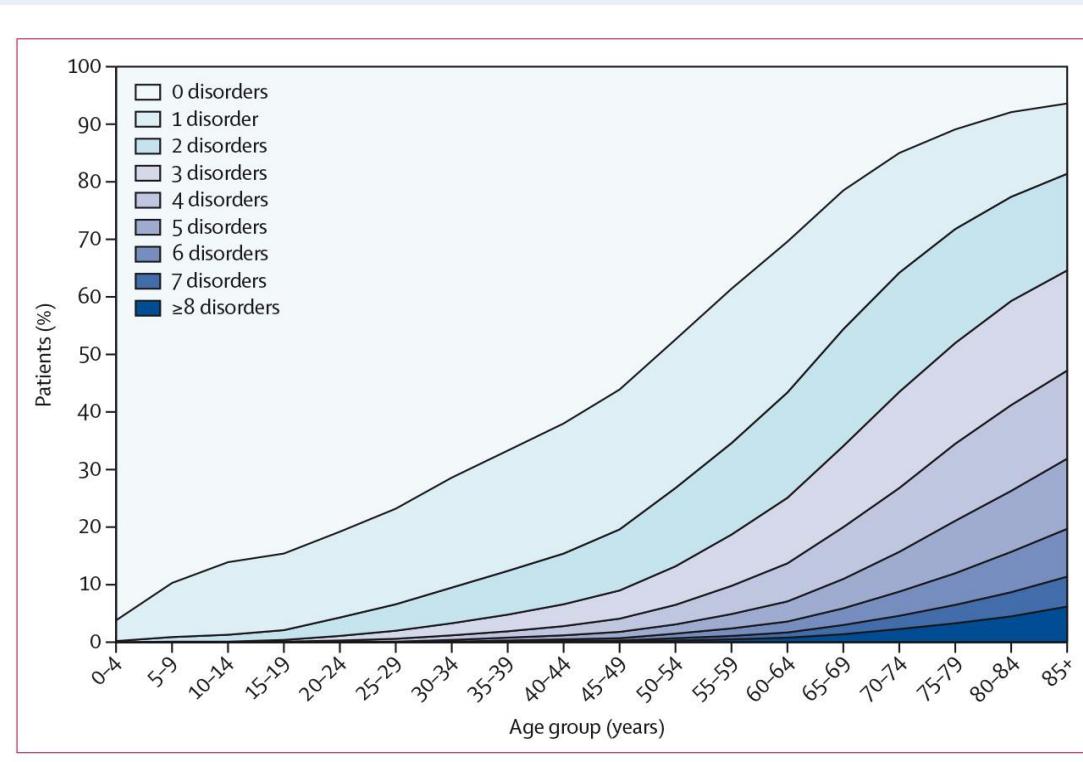
# Demografische evolutie



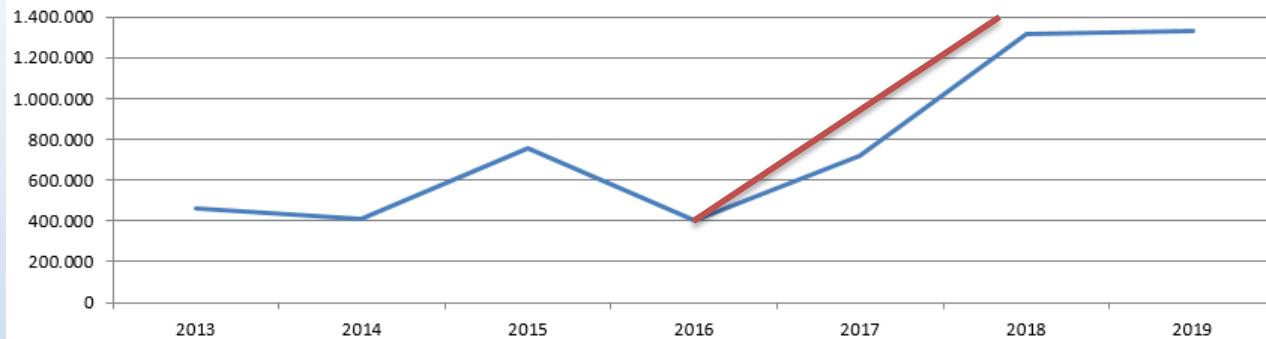
11.376.070



# Op gezondheid staat een leeftijd



### Jaarlijkse stijging van het RIZIV budget



### Jaarlijkse stijging van het RIZIV budget (%)



# Hervormen voor een kwaliteitsvolle, toegankelijke en duurzame gezondheidszorg

- Hervorming ziekenhuissector
  - Toekomstpact voor de patiënt met de farmasector
  - Geïntegreerde zorg
  - Kwaliteitswet
  - *En nog heel veel meer*

# Ziekenhuisnetwerken. Van concurrentie naar samenwerking

## Netwerken als middel, niet als doel op zich

- Betere kwaliteit van zorg
- Efficiëntere besteding overheidsmiddelen
- Financieel gezonde ziekenhuizen



# Laagvariabele zorg. Nieuw financieringssysteem vanaf 2019

<b>Wat?</b>	Uniforme prijs voor dezelfde standaardiseerbare zorg
<b>Doelstelling?</b>	Transparantie, billijkheid, zekerheid voor iedereen (patiënt, zorgverlener en ziekenhuis), minder onnodige prestaties
<b>Wanneer?</b>	Stapsgewijze invoer vanaf 1 januari 2019
<b>Voorwaarde?</b>	Behandeling die weinig of niet verschilt tussen ziekenhuizen, bij complicaties ‘klassieke’ financiering

# Hervormen voor een kwaliteitsvolle, toegankelijke en duurzame gezondheidszorg

- Hervorming ziekenhuissector
- Toekomstpact voor de patiënt met de farmasector
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- Kwaliteitswet
- *En nog heel veel meer*

# Toekomstpact voor de patiënt met de farmaceutische industrie



- Toegang tot innovatie garanderen aan de patiënt
- Groei en innovatie stimuleren
- Deontologie versterken
- Inzetten op budgettaire duurzaamheid

# De Block weigert te besparen op kankertherapie

05 juli 2018 06:50

□ f in  



Maagie De Block verwacht een geste van haar collega's in de federale regering om het gat in haar begroting te vullen. ©Dieter Telemans

**Het succes van nieuwe kankerbehandelingen slaat een gat van bijna 300 miljoen euro in de begroting. Minister Maggie De Block weigert daarop te besparen.**

In 2019 zal de ziekteverzekeringsmaatschappij zo'n half miljard meer uitgeven dan aanvankelijk voorzien. Dat is voor een groot stuk te wijten aan het onderschatte succes van doeltreffende kankerbehandelingen.

[www.tijd.be](http://www.tijd.be), 5 juli 2018

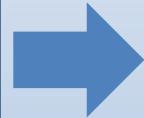
# Hervormen voor een kwaliteitsvolle, toegankelijke en duurzame gezondheidszorg

- Hervorming ziekenhuissector
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- Geïntegreerde zorg
  - Kwaliteitswet
  - *En nog heel veel meer*

# Paradigmashift: naar een geïntegreerd zorgsysteem

## Huidige paradigma

- Gefragmenteerd aanbod
- Reactieve, acute zorg
- Monodisciplinair zorgmodel
- Hiërarchie



## Waar we naartoe moeten

- Geïntegreerd aanbod
- Proactieve, geplande zorg
- Interdisciplinair zorgmodel
- Partnerschap

# Integreo: twaalf proefprojecten



# Hervormen voor een kwaliteitsvolle, toegankelijke en duurzame gezondheidszorg

- Hervorming ziekenhuissector
- Toekomstpact voor de patiënt met de farmasector
- Geïntegreerde zorg
- Kwaliteitswet
- *En nog heel veel meer*

# Kwaliteitswet: extra garanties voor de patiënt



*“De patiënt moet altijd en overal op zorg van de hoogst mogelijke kwaliteit kunnen rekenen, ongeacht wie die zorg toedient of waar dat gebeurt”*

# Conclusie



After a century of striving, after a year of debate,  
after a historic vote, health care reform is no  
longer an unmet promise. It is the law of the land.

(Barack Obama)



## Innovatie van organisatie en governance van integrale zorg

Mirella Minkman,  
vicevoorzitter IFIC

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# Presentatie Mirella Minkman

Mirella Minkman heeft ons gevraagd om haar slides niet te verspreiden. We bekijken of we alsnog een samenvatting van haar presentatie mogen publiek maken.

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## Gesundes Kinzigtal: het betere gezondheidssysteem, ook voor ons?

Helmut Hildebrandt,  
CEO Gesundes Kinzigtal

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# Patient-Centered Healthcare needs Regional Accountable Systems – Some considerations from Gesundes Kinzigtal and Gesundheit für Hamburg, Billstedt-Horn

## Gesundes Kinzigtal: het betere gezondheidssysteem, ook voor ons?

Dr. h. c. Helmut Hildebrandt, Chairman of the Board of OptiMedis AG,  
CEO Gesundes Kinzigtal GmbH and Gesundheit für Billstedt/Horn UG  
Exec.Board Member International Foundation for Integrated Care



Health Community Congres 2018 - Zorg en welzijn: nieuwe perspectieven, grenzeloze kansen – Oct 2<sup>nd</sup>, 2018

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# OptiMedis AG – health sciences based management- and holding company

**Vision:** Integrated, accountable, regional population-based care models with a strong focus on health maintenance and -promotion

Long-standing & comprehensive **expertise in developing and managing health care networks**, i. a. Gesundes Kinzigtal, Billstedt/Horn in Hamburg (since 2017), as well as in the **analysis of health care data + real-life-health services research + digital health**

## Membership include:



**Founded:** 2003 **Head office:** Hamburg

## Managing Board OptiMedis AG

Vice Chairman of the Board  
Dr. phil. Alexander Pimpler



Vorstandsvorsitzender  
Dr. rer. medic. h. c.  
Helmut Hildebrandt



Vice Chairman of the Board  
Dr. Oliver Gröne, PhD M. Sc., Dipl.-Soz.



**Employees:** 25 (health economy, management, statistic, social and data sciences & IT)

OptiMedis is supported and controlled by an interdisciplinary **supervisory board**

Dr. med. Manfred Richter-Reichhelm,  
Berlin (medical profession)



Dr. Renée Buck,  
Kiel (ministry, physician)



Prof. Dr. rer. Nat Gerd Glaeske,  
Bremen (pharmacy, statutory health insurers, university)



Prof. Dr. Dr. h. c. Ilona Kickbusch,  
Bern (Global Health, WHO,



Prof. Dr. Heike Köckler,  
Bochum (Regional- and city planning, health professions)



Jochen Herdrich,  
München (Social Impact Investment)



# Organizational structure of the OptiMedis – open source family



Chairman of the Board: Dr. h. c. Helmut Hildebrandt, Vice Chairmen of the Board: Dr. Oliver Grüne, Dr. Alexander Pimpler

Shareholder	Percentage (in %) (rounded)
Helmut Hildebrandt	41,67
Hildebrandt Vermögensverwaltung GmbH	45,54
Oliver Grüne	0,74
Alexander Pimpler	1,34
BonVenture	10,71

## German Regional Integrated Care Systems

Gesundes Kinzigtal  
GmbH

OptiMedis AG  
33,4 %

MQNK e.V.  
66,6 %

CEO:  
Dr. h. c. Helmut Hildebrandt

Gesundheit für  
Billstedt Horn UG

OptiMedis AG  
30%

Ärztenetz Billstedt  
Horn e.V.  
60%

SKH Stadtteilklinik  
Hamburg GmbH  
5%

NAV-Virchow-Bund  
Verband der niedergelassenen  
Ärzte Deutschlands e.V.  
5%

CEO:  
Dr. h. c. Helmut Hildebrandt

Gesundes Leinetal  
GmbH

OptiMedis AG  
100 %

CEO:  
Dr. h. c. Helmut Hildebrandt

## International Joint Ventures

OptiMedis Nederland  
B.V.

OptiMedis AG  
28%  
plus 1 Priority Share

Td5 (NL)  
20%  
plus 1 Priority Share

Magpar XX (NL)  
52%  
plus 1 Priority Share

CEO:  
Jurriaan Pröpper + Jurrien Pentiga

OptiMedis-  
Cobic UK  
Limited

OptiMedis AG  
1/3

Cobic Solutions  
Limited (GB)  
2/3

CEO:  
Dr. Nicholas Rooke  
Hicks

Optimedis BE  
bvba

OptiMedis AG  
1/3

Vias institute  
1/3

Hhaas bvba  
1/3

Management team  
Karin Genoe  
Frederic Maeyens  
Frank Ponsaert

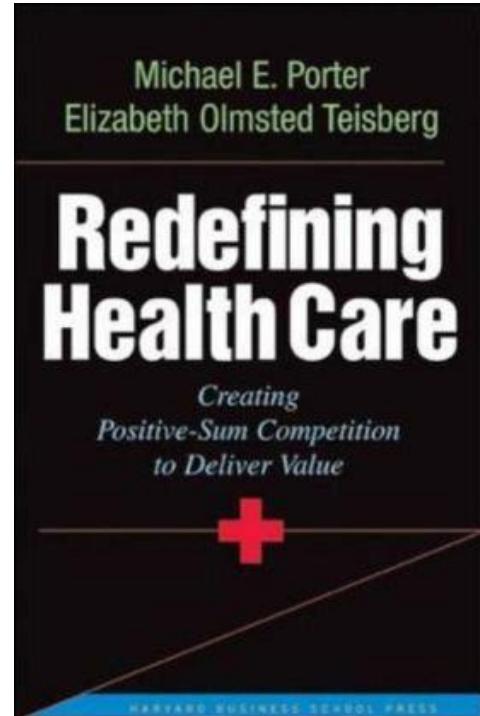
# How do You, how does a Patient encounter the Quality of Healthcare ?

In Germany there is an intense discussion regarding the quality of the single procedure, the quality of individual providers.

We plan to pay for the performance of hospitals and of individual physicians.

Porter/Teisberg argued in 2006 instead that competition should be directed towards value. They regard medical conditions as the arena of competition.

Their goal: Value-based healthcare



Enthoven/Tollen answered already in 2005 on P/T:

Only Integrated Delivery Systems with financial overall responsibility for full health care service delivery are best incentivized to produce quality & efficiency.

HEALTH SYSTEMS

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## Competition In Health Care: It Takes Systems To Pursue Quality And Efficiency

If systems are the best locus of accountability for health care quality and efficiency, then competition should be designed to encourage evolution toward “systemness.”

by Alain C. Enthoven and Laura A. Tollen

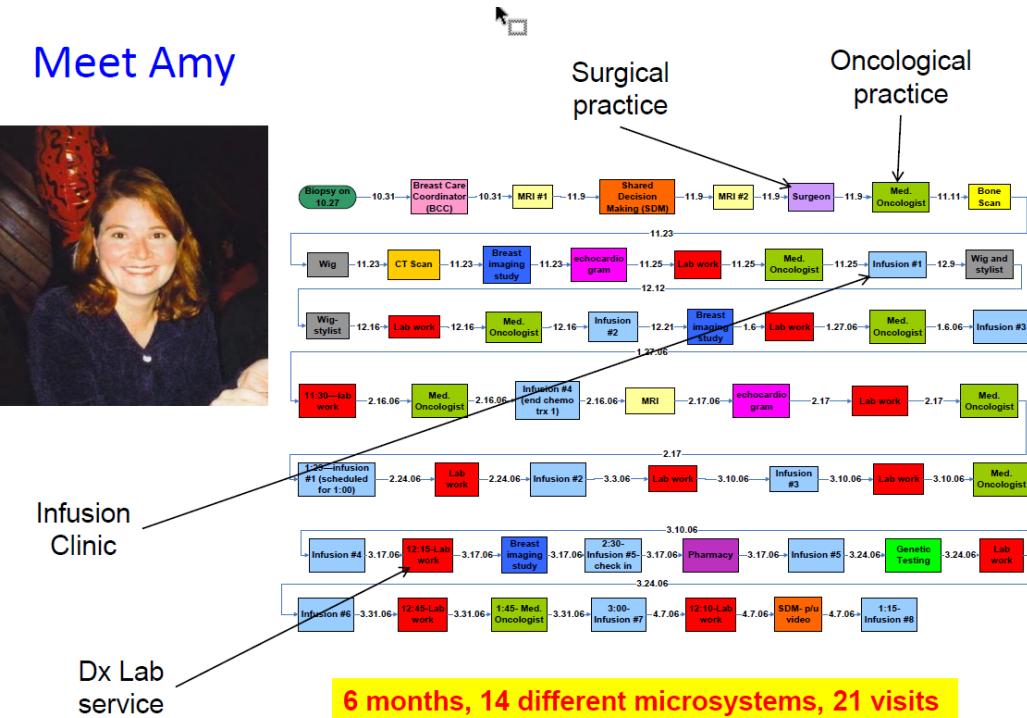
Goal: Value-based & integrated accountable care systems

DOI 10.1377/hlthaff.W5.420

# Healthcare is heavily fragmented

Each microsystem might be well organized, but the full patient pathway likely isn't!

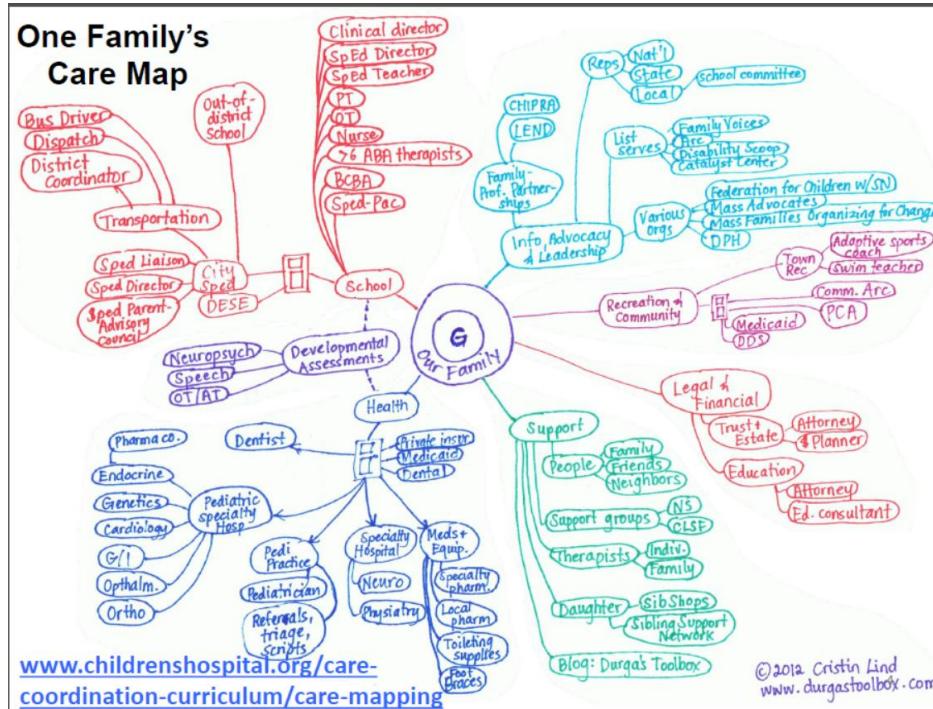
# Meet Amy



**6 months, 14 different microsystems, 21 visits**

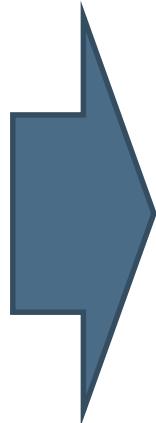
Professor Eugene C. Nelson, DSc, MPH, The Dartmouth Institute, USA

# And the patient's pathway includes even more than healthcare!



**Richard Antonelli, MD, MS** Medical Director of Integrated Care Boston Children's Hospital / Harvard Medical School Boston, USA vom 26 October 2016 in Wellington, Neuseeland

# How do You, how does a Patient encounter the Quality of Healthcare ?



For patients in complex situations, for the elderly, the quality of the full patient pathway including all sectors of care is most important!

The good news : We'll make it\*!

The health system can be organized in a way which  
is more efficient and which „produces health“.

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\* Reference to German chancellor Dr. Angela Merkel

# Integrated Care Gesundes Kinzigtal

2005 Founding of the regional management company "Gesundes Kinzigtal GmbH" by OptiMedis AG (1/3) and medical network MQNK e.V. (2/3).

Contracting health funds: AOK Baden-Württemberg (since 2005), SVLFG (since 2006), Techniker Krankenkasse (since 2016, but only for special services)



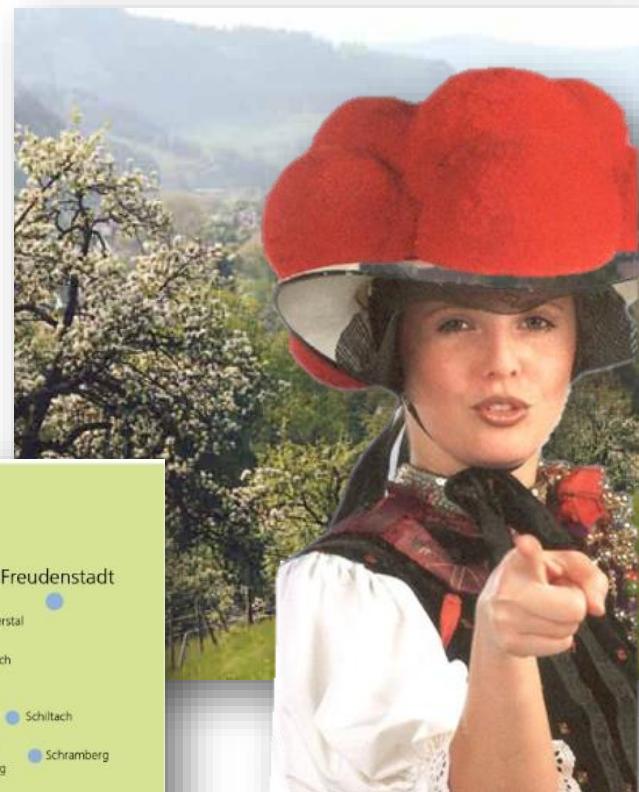
Population: Approx. 33,000 insured members of the AOK and SVLFG in Kinzigtal, of which approx. 10,000 enrolled as IV participants

Cooperating partners: approx. 300 (GPs and specialist doctors, hospitals, home care services, other medical professions, pharmacists, sports and community associations, etc.)

From Jan 2018 onwards, the ambulatory physicians are paid directly by Gesundes Kinzigtal.

# One Example: Gesundes Kinzigtal: a geographically defined long term Shared Savings contract

- Start: 2006 – 10 year contract, now indefinite contract
- Shared Savings contract: Accountability for medical and economical results of a geographically-defined population of 33,000 insurees (two statutory health insurers AOK & LKK)
- Aim: Set incentives to focus on population health, vulnerable patients and include all providers – good or bad performers – avoid risk-selection.



# A new value-based business model: Shared Savings Contract

In "Shared Savings Contracts" we generate an economical benefit for purchasers for a geographically defined population through wise investments, prevention and optimized care.

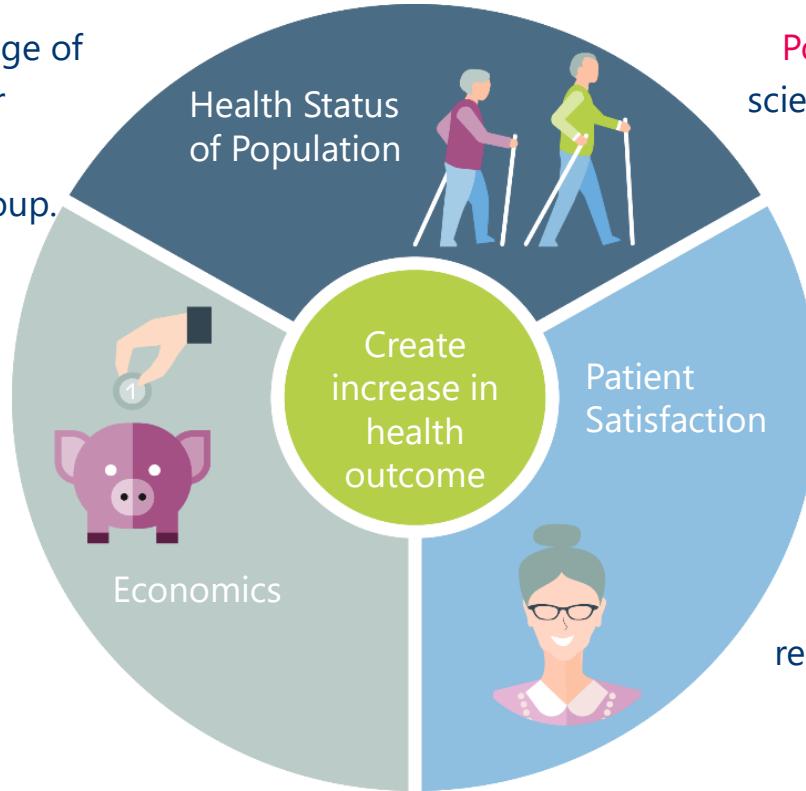
This economical benefit is shared between purchaser and us and is our motor + refinances our investment → long term contract needed



# In Gesundes Kinzigital we make it – 12 years so far, and still going strong

GK members live an average of **1.2 years** longer than their individual life expectancy, compared to a control group.

From 2007 to 2015 totaling **€ 35.5 Mill.**. Increase in surplus gross earnings (**net € 10.9 mill.**) for the participating health insurance funds



**Positive confirmation** by ext. scientific evaluation 2004-2011 of the effects on the – insureds in Kinzigital (2012 – 2016 evaluation in progress INTEGRAL) OptiMedis-Eubic UK Limited

**98,9%** of GK members who, mutually with their physician, agreed to define binding goals, would recommend GK membership.

# Triple Aim results: improved health

POPULATION HEALTH MANAGEMENT  
Volume 00, Number 00, 2016  
© Mary Ann Liebert, Inc.  
DOI: 10.1089/pop.2016.0036

## Original Article

### Evaluating the Impact of an Accountable Care Organization on Population Health: the Quasi-Experimental Design of the German Gesundes Kinzigtal

Alexander Pimperl, Dr. phil.<sup>1</sup>, Timo Schulte, MBA, Dipl.-Kfm.<sup>2,3</sup>, Axel Mühlbacher, Dr. rer. oec., Dipl.-Kfm.<sup>4</sup>, Magdalena Rosenmüller, PhD, MD, MBA<sup>5</sup>, Reinhard Busse, Dr. med., MPH, FFPH<sup>6</sup>, Oliver Groene, PhD, MSc, MA<sup>3,7</sup>, Hector P. Rodriguez, PhD, MPH<sup>1</sup>, and Helmut Hildebrandt, Dr. h.c.<sup>3,8</sup>

#### Abstract

A central goal of accountable care organizations (ACOs) is to improve the health of their accountable population. No evidence currently links ACO development to improved population health. A major challenge to establishing the evidence base for the impact of ACOs on population health is the absence of a theoretically grounded, robust, operationally feasible, and meaningful research design. The authors present an evaluation study design, provide an empirical example, and discuss considerations for generating the evidence base for ACO implementation. A quasi-experimental study design using propensity score matching in combination with small-scale exact matching is implemented. Outcome indicators based on claims data were constructed and analyzed. Population health is measured by using a range of mortality indicators: mortality ratio, age at time of death, years of potential life lost/gained, and survival time. The application is assessed using longitudinal data from Gesundes Kinzigtal, one of the leading population-based ACOs in Germany. The proposed matching approach resulted in a balanced control of observable differences between the intervention (ACO) and control groups. The mortality indicators used indicate positive results. For example, 635.6 fewer years of potential life lost (2005.8 vs. 2641.4; *t*-test: sig.  $P < 0.05^*$ ) in the ACO intervention group ( $n = 5411$ ) attributable to the ACO, also after controlling for a potential (indirect) immortal time bias by excluding the first half year after enrollment from the outcome measurement. This empirical example of the impact of a German ACO on population health can be extended to the evaluation of ACOs and other integrated delivery models of care.

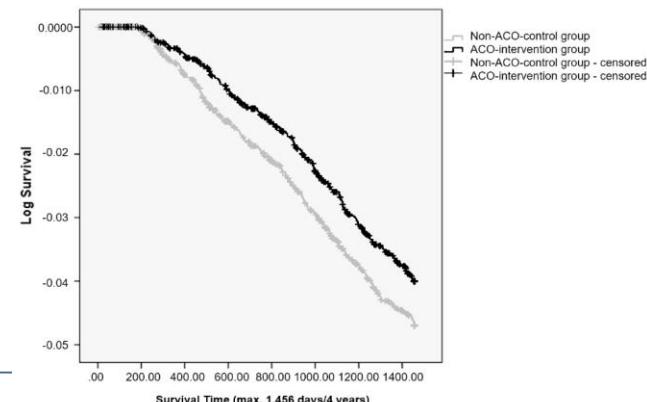
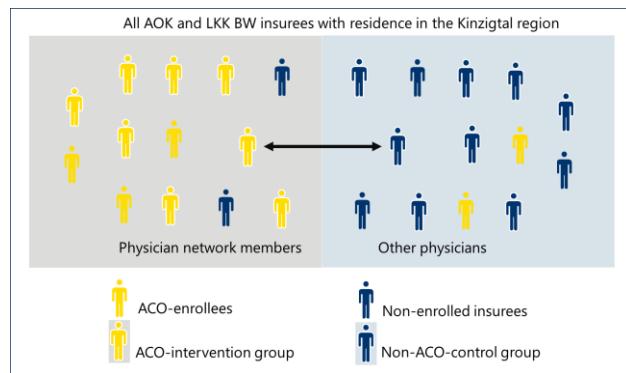
#### Background

**H**EALTH CARE SYSTEMS are aiming to achieve the Triple Aim: improving population health, patient experience, and cost efficiency. The architects of the Triple Aim<sup>1</sup> highlight that it is achieved by an integrator, who organizes a close collaboration between all actors, such as care providers, professionals, or community institutions. An accountable care organization (ACO) can play a central facilitating role in

moving providers and systems toward the Triple Aim. The Centers for Medicare & Medicaid Services defines ACOs as “[...] groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high-quality care to the Medicare patients they serve [...] When an ACO succeeds in both delivering high-quality care and spending health care dollars more wisely, it will share in the savings it achieves for the Medicare program.”<sup>2</sup> Integrated accountable care initiatives have been introduced in

1.5 years longer survival for GK-enrollees, without higher need of care (vs. a control group, Exact-matching +propensity score matching)

45% less fractures after program participation „Strong Muscles – Solid Bones“ (n= 438) for patients with osteoporosis



<sup>1</sup>Health Policy and Management, School of Public Health, University of California, Berkeley, Berkeley, California.

<sup>2</sup>Department of Health, University of Witten/Herdecke, Witten, Germany.

<sup>3</sup>OptiMedis AG, Hamburg, Germany.

<sup>4</sup>Institute for Health Economics and Health Care Management, Hochschule Neubrandenburg, Neubrandenburg, Germany.

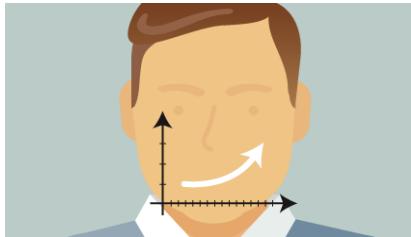
<sup>5</sup>Centre for Research in Health Innovation Management, IESE Business School, Barcelona, Spain.

<sup>6</sup>Department of Health Care Management, Berlin University of Technology, Berlin, Germany.

<sup>7</sup>Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom.

<sup>8</sup>Gesundes Kinzigtal GmbH, Haslach, Germany.

## ... and we create benefits in additional dimensions



Doctors and other health care providers benefit from higher income and better cooperation.



The region is gaining in attractiveness for skilled workers and young families.



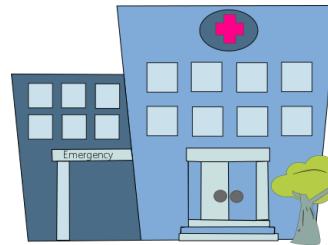
Securing provision of care in communities and attractive working conditions for employees of all health professions



Gaining insights to improve healthcare (research on health care provision)



Company health management:  
We help companies keep their employees healthy.

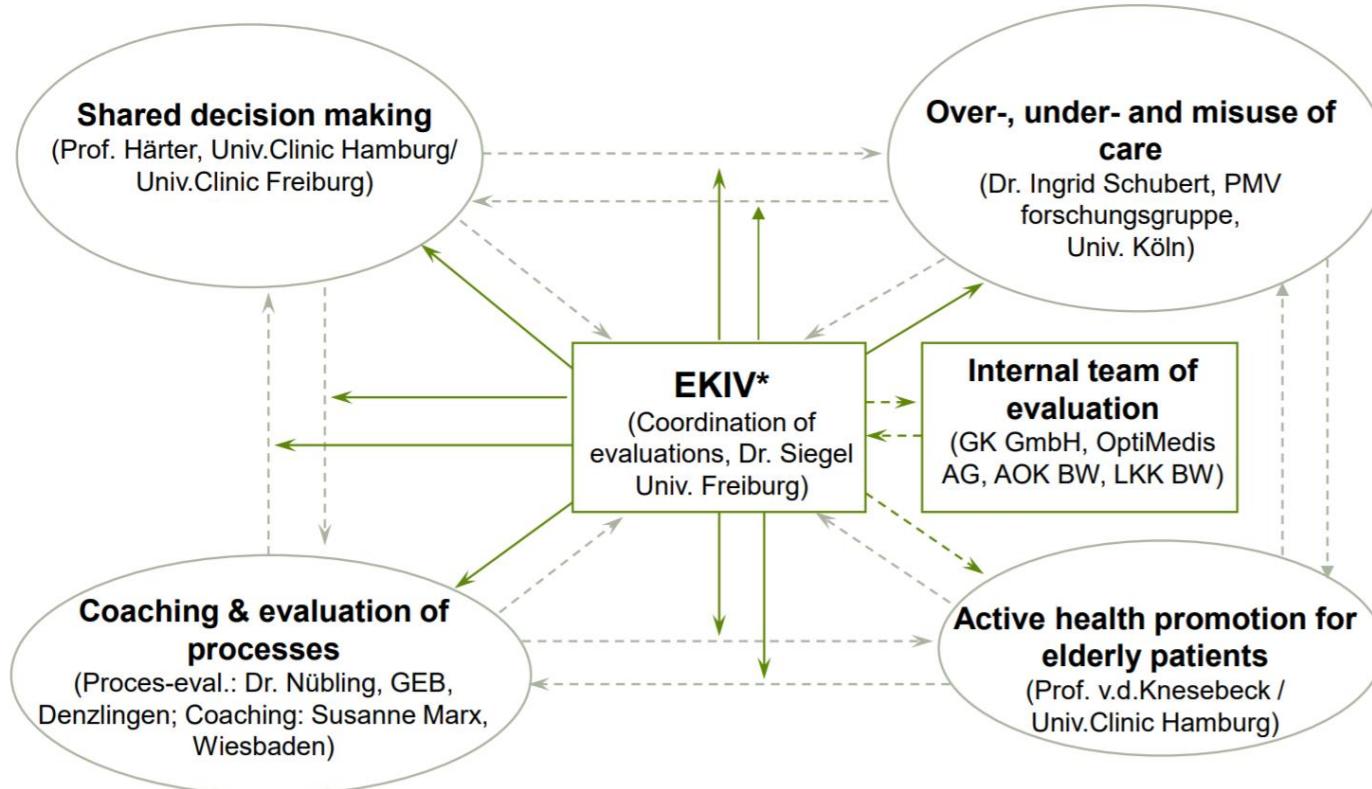


Digital & Health Innovation Centre  
for the assessment of innovations in health care (currently in development)

Gesundheitswelt Kinzigtal: Medical training and education centre running since 2016 .... more than 600 training patients, 2400 participants in courses and programs, more than 10.000 members & friends



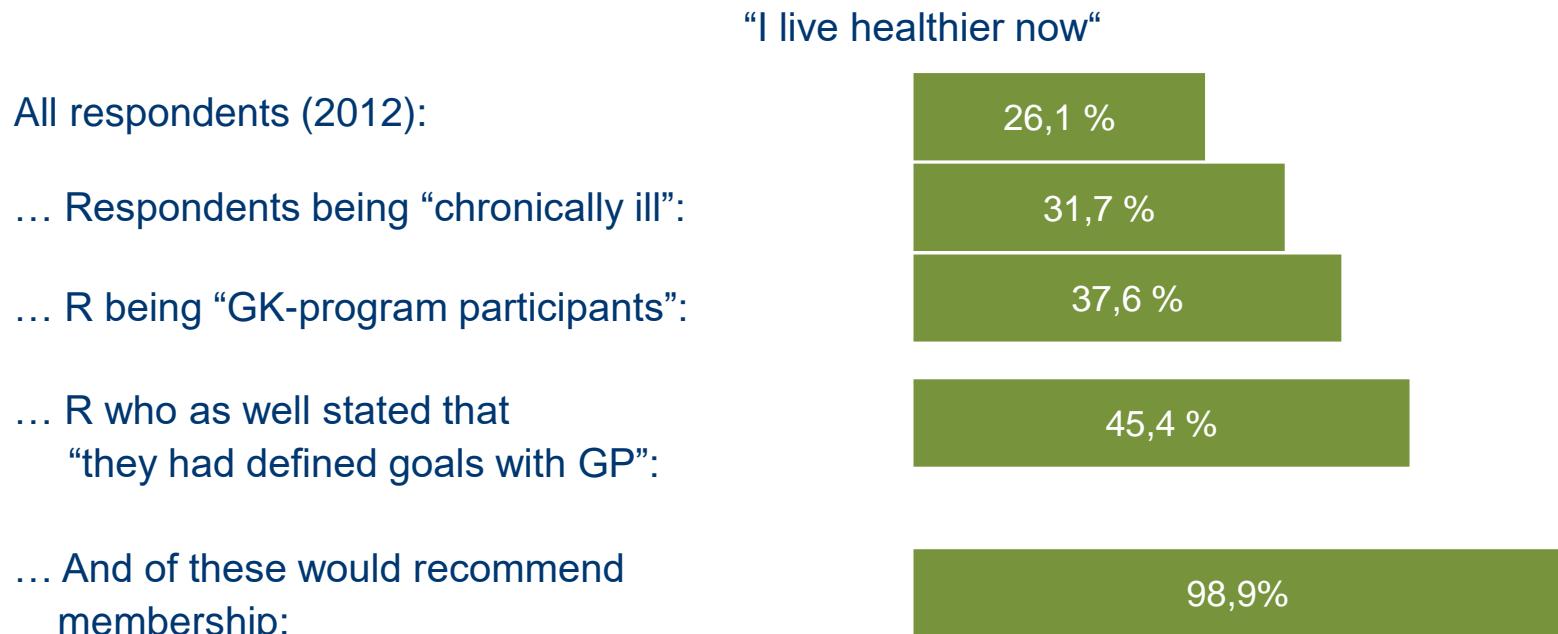
# Setup of external evaluation – first five years (now extended)



\* [www.ekiv.org](http://www.ekiv.org)

# Triple Aim results: better health and better experience of care

“I live healthier now“ .... Answering in a positive way is correlated with the intensity of involvement, cooperation and shared-decision making



Siegel A, Stössel U (2014) Patientenorientierung und Partizipative Entscheidungsfindung in der Integrierten Versorgung Gesundes Kinzigtal. In: Pundt J (Hrsg.) Patientenorientierung: Wunsch oder Wirklichkeit?. 195-230. Apollon Bremen

# Ambulatory care-sensitive hospitalizations: If the Gesundes Kinzigtal results would be achieved in whole Germany 941.000 hospitalizations could be avoided and 2.7 Billion € saved (brutto)

ACSH diagnosis group (Core list from Sundmacher et al. 2015)	Age-standardized cases in thousands, projected on 80.3 million citizens (standard population GER 2011, rounded)			Ø Hosp. case costs (GK**) (based on data from 2012-2015)	
	Hosp. cases GER*	Hosp. cases GK**	Δ hosp. cases GER - GK (A)	Ø hosp. case costs (B)	Δ Total hosp. case costs (A)*(B)*1000
Ischaemic heart diseases	436	285	151	3,295 €	497,545,000 €
Heart failure	415	433	-18	3,682 €	-66,276,000 €
Other diseases of the circulation system	388	357	31	5,155 €	159,805,000 €
Mental and behavioural disorders due to use of alcohol or opioids	368	302	66	2,625 €	173,250,000 €
Bronchitis & COPD	358	288	70	3,019 €	211,380,000 €
Back pain (dorsopathies)	312	151	161	2,515 €	404,915,000 €
Hypertension	286	189	97	1,648 €	159,856,000 €
Gastroenteritis and other diseases of intestines	268	188	80	3,016 €	241,280,000 €
Depressive disorders	260	278	-18	2,098 €	-37,764,000 €
Intestinal infectious diseases	264	170	94	3,955 €	371,770,000 €
Influenza and pneumonia	271	255	16	2,202 €	35,232,000 €
Ear nose throat infections	251	225	26	9,127 €	237,302,000 €
Diabetes mellitus	198	174	24	4,896 €	117,504,000 €
Other avoidable mental and behavioural disorders	187	218	-31	7,084 €	219,604,000 €
Soft tissue disorders	186	143	43	2,601 €	111,843,000 €
Gonarthrosis (arthrosis of knee)	183	186	-3	5,814 €	-17,442,000 €
Diseases of urinary system	155	120	35	1,901 €	66,535,000 €
Diseases of the eye	155	116	39	2,406 €	93,834,000 €
Diseases of the skin and subcutaneous tissue	136	105	31	2,642 €	81,902,000 €
Sleep disorders	122	94	28	894 €	25,032,000 €
Malnutrition & nutritional deficiencies	54	41	13	3,491 €	45,383,000 €
Dental diseases	38	32	6	2,144 €	12,864,000 €
<b>Total</b>	<b>5,291</b>	<b>4,350</b>	<b>941</b>		<b>2,706,096,000 €</b>

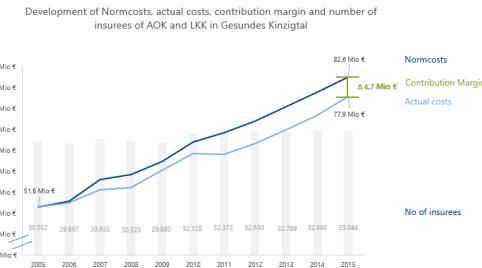
# ... and this relative cost reduction is not marking the end in a developed stage of competition between multiple health system companies

In the developed stage, we are assuming a saving potential that is up to four times higher than what we have achieved so far in the pilot GK, that is, up to 20% gross savings potential / 4% net for the funds

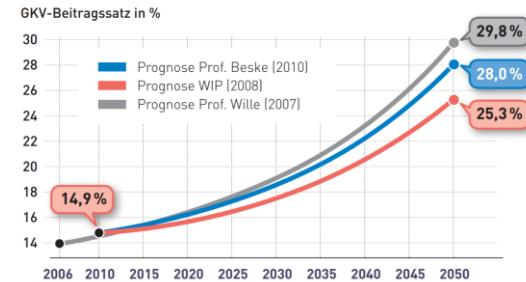
Transfer to the whole of Germany would mean:

- A relative reduction of the contribution rate by approx. 0.7 percentage points
- A relative reduction in the investment requirements in the hospital sector for the Federal Government / Federal States (Länder)
- An orientation of the service providers to the maximization of health benefits
- A massive increase in incentive for Public Health efforts

Additional Contribution Margin of AOK and LKK 2015 for their whole Kinzigtal population: 4,7 Million €



Der Beitragssatz zur GKV bis 2050  
in Prozent vom beitragspflichtigen Einkommen



Quelle: Beske [2007]; Beske [2010]; Wille [2007] in Beske [2010]; WIP [2008]

# Direct and indirect target population

- The intervention is **directly** related to the approximately 10,000 enrolled integrated care participants. These are almost 1/3 of the total population of AOK Ba-Wü and SVLFG (33,000 in the Kinzigtal region). \*
- **Indirectly**, all insureds of the AOK Ba-Wü and SVLFG - this is a total of 33,000 insureds in the Kinzigtal region (0-99 years) - benefit from doctors' training, health promotion, prevention and BGM interventions.
- The participation of the insured is free of charge, voluntary and only to insureds with their registered residence in the Kinzigtal (according to defined postal codes).

## Direct interventions

- Target Agreements + Risk Screening
- addl. care provision programs, comparable to DMPs
- EPR
- Personalized advice
- Case Management
- Functional Training / Rehab-Sport
- Relaxation/Balancing
- Benchmarking + Feedback-Reports by means of GKV-standard data to physicians
- Campaigns to reduce / critically evaluate prescription of antibiotics
- Self-management-trainings
- Trainings, classes
- Healthy Company network

## Indirect interventions

\*Separate contract with TK, allows TK insureds to benefit from and participate in defined health and preventive programs

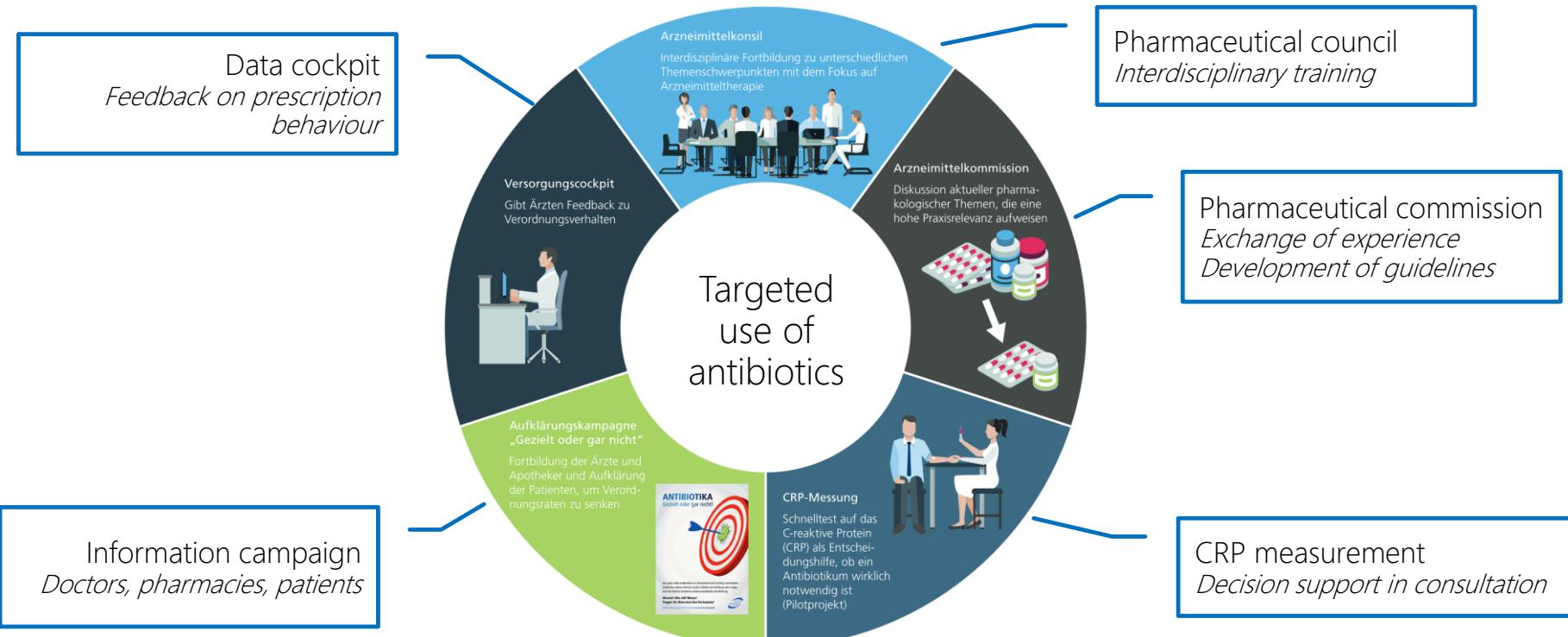
# THE ANTIBIOTICS CHALLENGE



- ✓ For many diseases antibiotics help effectively and even save lives
- ✓ BUT antibiotic resistance occurs when bacteria change in response to the use of these medicines
- ✓ This is a worldwide problem and referable to the inappropriate use and prescription of antibiotics
- ✓ What does “inappropriate” mean here?
  - ✓ Too frequently used, esp. for small & non-bacteriological infections
  - ✓ Wrongly used, esp. due to wrong diagnosis or lack of info on alternatives
  - ✓ Not used according to recommendations / guidelines

[WHO 2011]

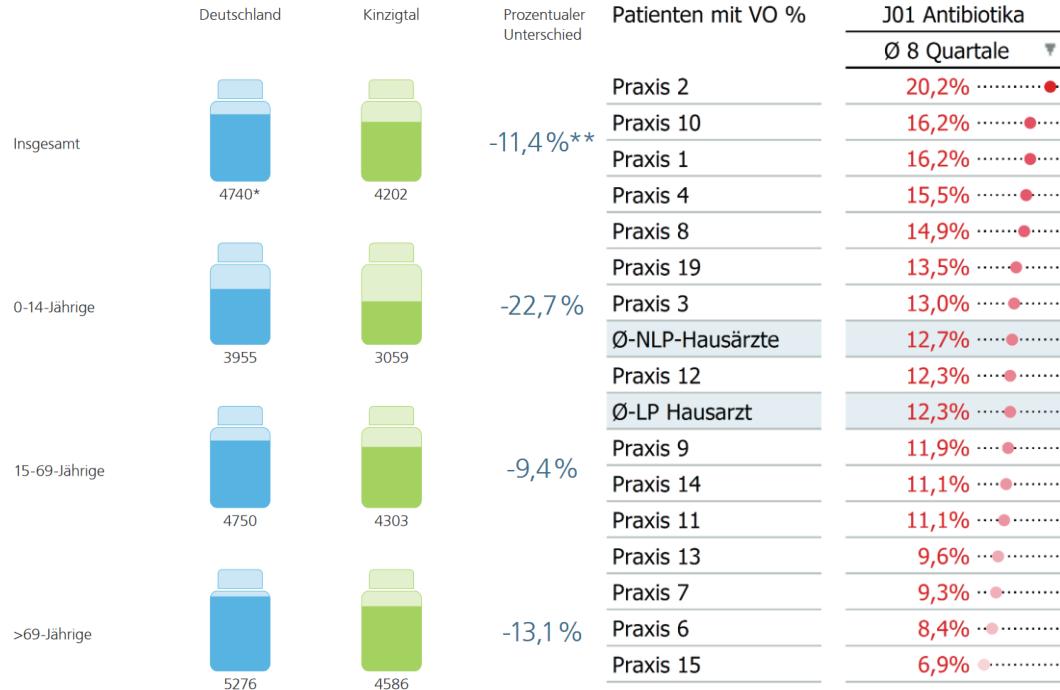
# APPROACHING THE PROBLEM FROM DIFFERENT ANGLES



# EVALUATION RESULTS



- ✓ Less prescription of defined daily doses (DDD) in Kinzigtal compared to Germany
- ✓ 2008 to 2014
- ✓ Esp. among children
- ✓ But: huge differences between practices



NLP-Arztpraxis	Arztpraxis	KH	Pflege	Privater Endnutzer	Externer eHealth Anbieter	Apotheken	Therapeuten
 AIS	 AIS (CGM)  AIS (nonCGM)	 KIS	 PACS	 PflegeIS	 Mobile App	 ApothekenIS	 TherapeutenIS
 Onlinezugriff	 Onlinezugriff  Versorgungscockpit	 Onlinezugriff	 Versorgungscockpit	 Versorgungscockpit	 Onlinezugriff	 Onlinezugriff	 Versorgungscockpit

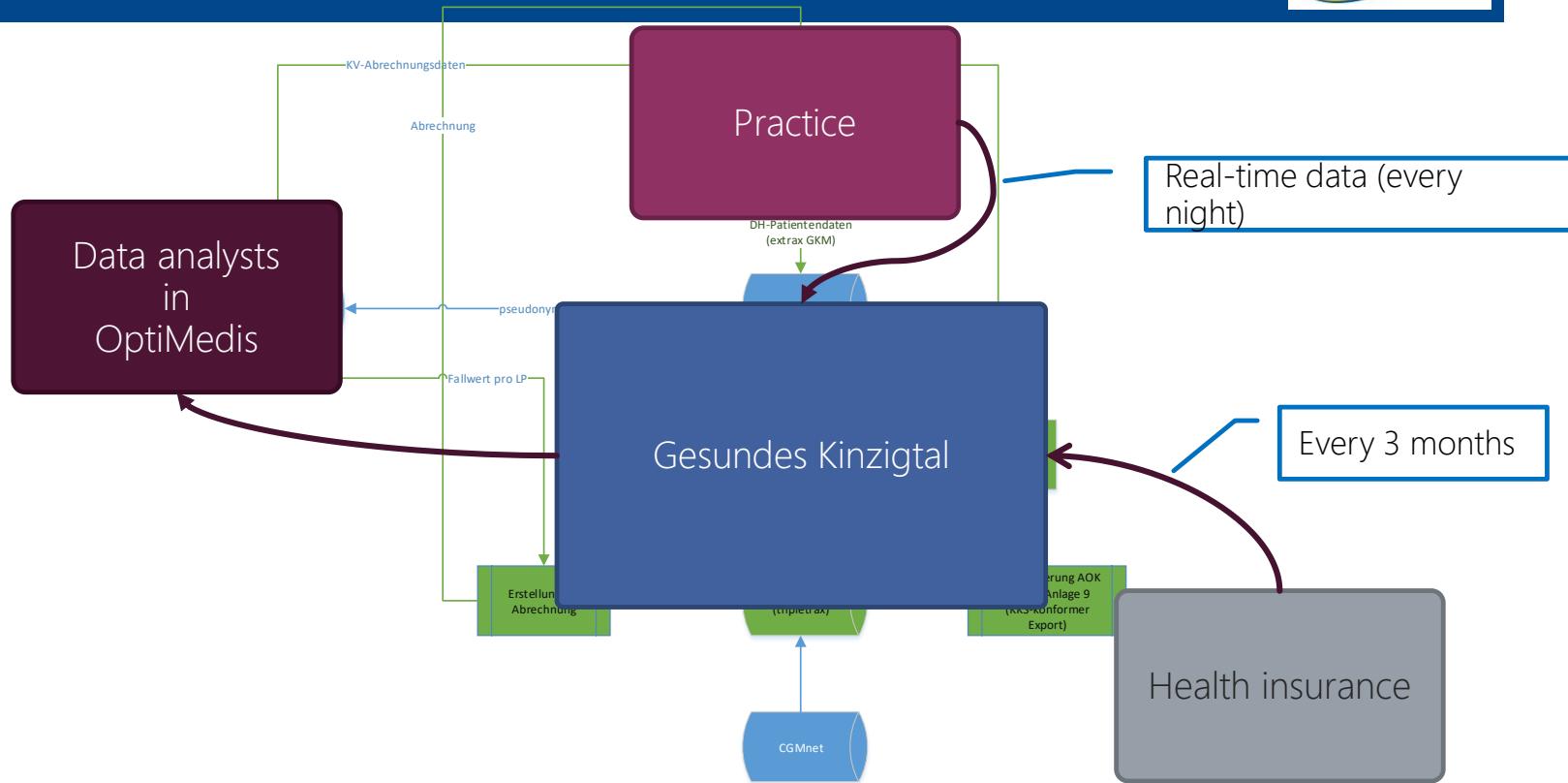
Transformation, Routing, Orchestrierung (standardconform)

# COMPREHENSIVE IT-WORKCYCLE .... WITH ACCESS FOR THE PATIENTS IN PLAN





# THE IT SYSTEM BEHIND ALL THIS



# OUR DATA COCKPIT

## Verordnungen Arzneimittelkosten brutto (IV-Zeiten)

[A] ALIMENTÄRES SYSTEM UND STOFFWECHSEL

[B] BLUT UND BLUTBILDENDE ORGANE

[C] KARDIOVASKULÄRES SYSTEM

[D] DEUTSCHE MEDIZINISCHE LISTE

[G] UROGENITALSYSTEM UND SEXUALHORMONE

[H] SYSTEMISCHE DOPAMINAPARATE, EXKL. SEXUALHORMONE UND INSULINE

[J] ANTIINFektIVA ZUR SYSTEMISCHEN ANWENDUNG

[L] ANTINEOPLASTISCHE UND IMMUNMODULIERENDE MITTEL

[M] MUSKEL- UND Gelenkmittel

[N] NERVENSYSTEM

[P] ANTIPARASITARE MITTEL, INSEKTIZIDE UND REPELLENZIEN

[R] RESPIRATORISCHE MITTEL

[S] STNESERANTIKÖRPER

Sonstige

unbekannt

Other prescriptions (e.g. assistive technology)

[V] VARIA

Ohne ATC-Code

From different sources

Standard-PZN : Standard-PZN ohne Hilfsmittelnummer: Bei Hilfsmitteln ohne PZN, ab [9999028]

Sonder-PZN :Individuell hergestellte parenterale Lösungen mit Monoklonalen Antikörpern [2567478]

Sonder-PZN :Rezepturen – auch Rezepturstoffzusätze ungemischt [9999011]

Sonder-PZN :Sonstige individuell hergestellte parenterale Lösungen, soweit nicht mit den S [9999152]

Sonder-PZN :Thrombozytenkonzentrate ohne Pharmazentralnummer [2567490]

Sonder-PZN :Zytostatika-Zubereitungen [9999092]

	Ø pro Versicherten		
	IV	NIV	▲ IV - NIV
	54,90	38,88	16,02
	66,50	29,78	36,72
	76,86	50,02	26,85
	8,98	7,50	1,48
	13,03	10,62	2,41
	18,97	11,68	7,29
	29,98	26,80	3,18
	80,57	75,40	5,17
	22,47	16,90	5,57
	81,98	67,05	14,93
	0,87	0,68	0,19
	27,98	19,77	8,21
	12,45	7,77	4,68
	17,37	15,40	1,97
	11,28	11,22	0,05
	22,74	15,89	6,85
	131,30	67,24	64,06
	1,02	0,82	0,20
	45,21	20,10	25,11
	2,43	1,97	0,46
	0,02	0,94	-0,92
	6,68	0,11	6,57
	26,75	13,59	13,16
Summe	678,23	472,61	205,63

# FROM SYSTEM TO CASE LEVEL: THE POTENTIAL OF REAL-TIME DATA



- ✓ Cockpit data is used for care planning, e.g. development of new healthcare or prevention programmes
  - ✓ e.g. for more targeted prescription of antibiotics
- ✓ Some data (e.g. final data on hospital cost) take almost 2 years to arrive
  - ✓ Coming from the provider, being used in reimbursement negotiations with health insurance, then processed by health insurance, then passed on to us, the processed by us
- ✓ With real-time data comes a new possibility for real-time intervention design
  - ✓ Detecting trends impacting on outcomes in real-time and intervening on a case level
  - ✓ First step on the way to individualised pathways

# EC-PROJECTS .... TWO ACTIVITIES THAT ARE INTRODUCED INTO ACT@SCALE

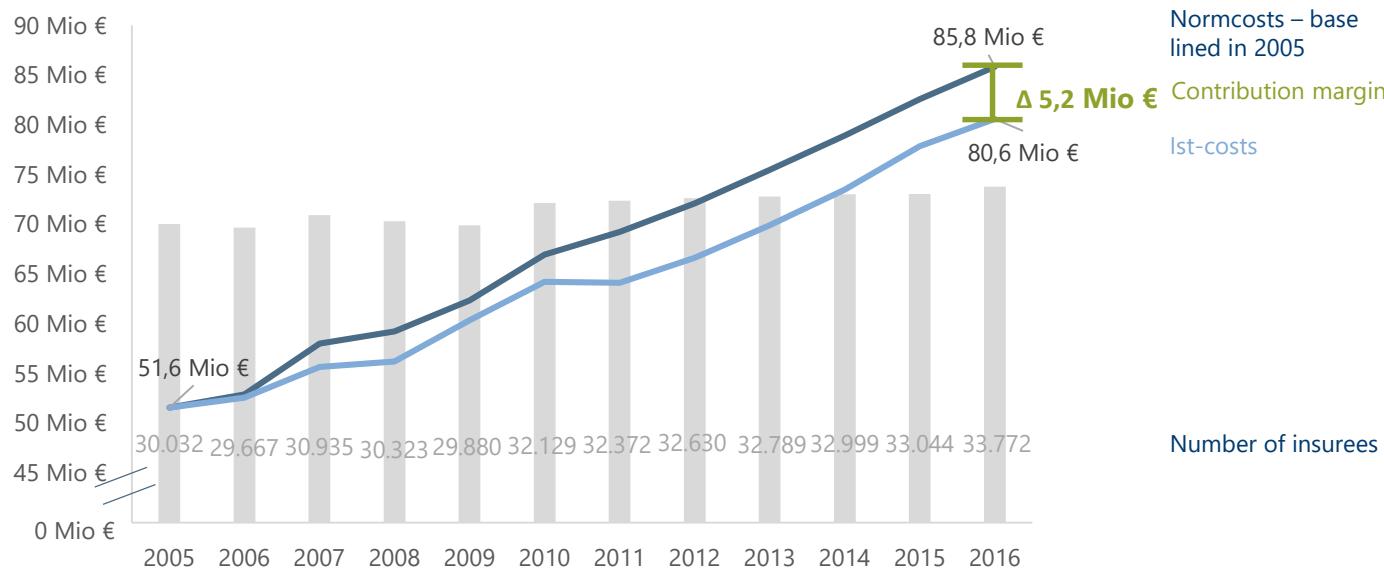


- ✓ Scaling up physical training as medical intervention for chronic patients
  - ✓ In 2016 we startet to integrate the value of physical training into the work of physicians for their patients + we want to connect the data from training sessions to the central medical record
  
- ✓ Scaling up health coaching and coordinating care and social activities
  - ✓ Since several years we piloted small scale health coaching in different ways to support life style changes of patients, coordinate social and health care and support the patients in their positive resources and their self management



# Brutto-Benefit for AOK and SVLFG (LKK) 2016 for their insurees in Kinzigtal: 5,2 Mio. €\*

Normcost, Ist-costx, contribution margin and number  
insurees of AOK and LKK in Gesundes Kinzigtal\*



\* SVLFG-Zahlen für 2016 noch nicht vorliegend, analog geschätzt wie in 2015

# Solutions and / or Options in Germany



## Metropolitan Region Rhein-Neckar

Three Federal States (HE, BW, RLP)

2,35 Mio. Inhabitants

15 Counties/ One-district cities

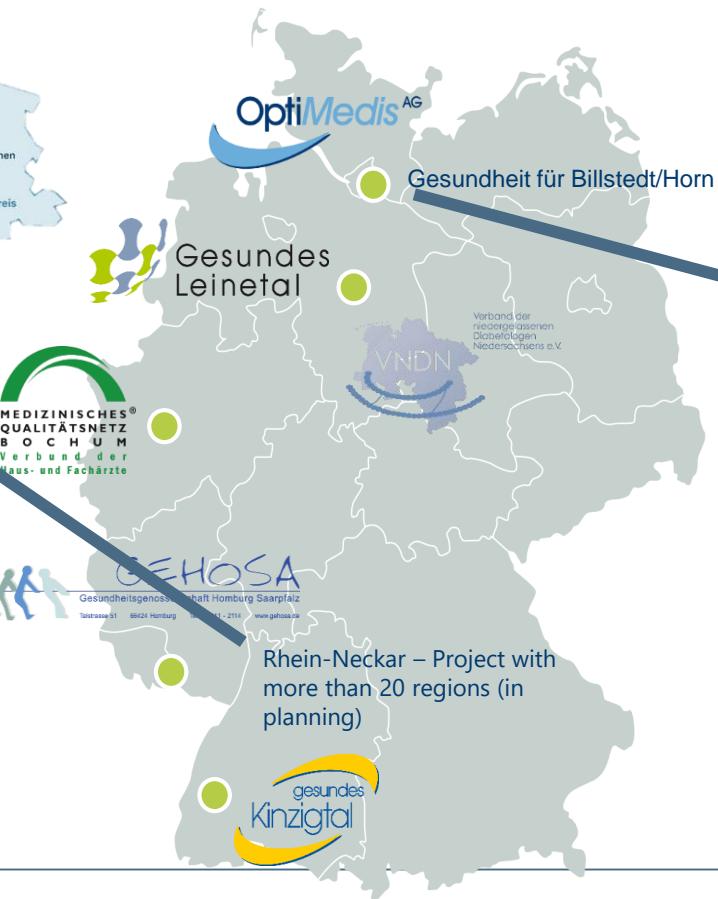
Center for health research (UK Heidelberg, UK Mannheim, EIT Health,...)

Big companies such as SAP, Roche, Heidelberger Druck, Freudenberg, BASF,...

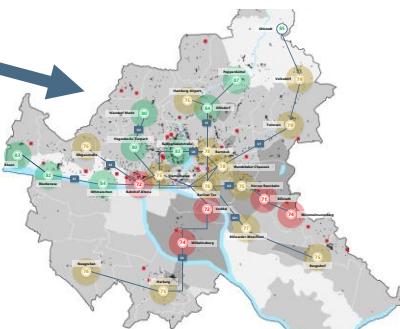
BMBF promoted „Health Region of the Future“

BMWi promoted region for model „Intelligent Networking“

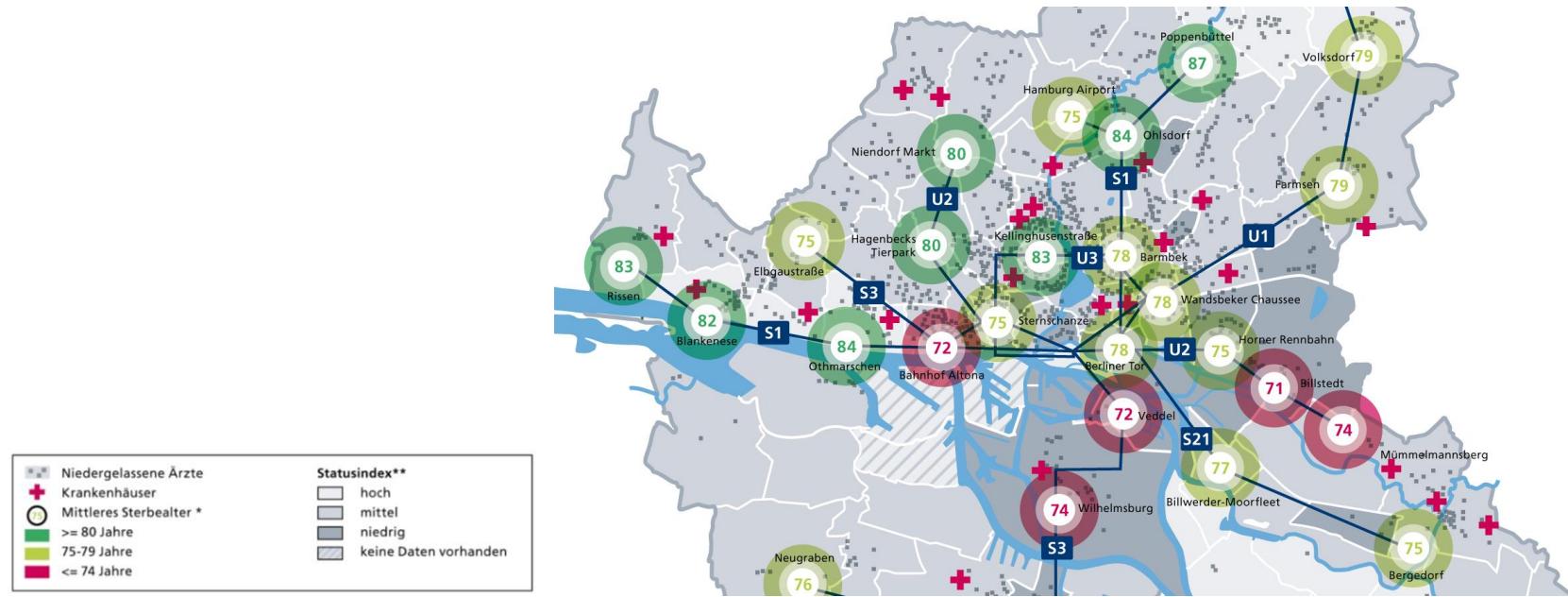
Project „INFOPAT“ with focus on development of personalized, electronic patient record (PEPA)



Since 2017 implementation of the care model in disadvantaged Hamburg boroughs (Billstedt and Horn) with funding of up to 6.3 million euros by the Joint Federal Committee



**Our goal: to reduce the currently up to 16 years difference at time of death between Billstedt-Horn and other parts of Hamburg**  
(Below the average age at time of death of the AOK insureds at the postal code level)



\* basierend auf Routinedaten der AOK Routinedaten der Jahre 2010-2014 auf PLZ-Ebene

\*\* Sozialmonitoring Integrierte Stadtentwicklung Bericht 2015 (niedrig > 5,88 > mittel > -5,88 > hoch)

<http://suche.transparenz.hamburg.de/dataset/sozialmonitoring-integrierte-stadtteilentwicklung-bericht-2015-anhang>

# Some impressions of our work in Billstedt/Horn on ZDF-television



**drehscheibe**

Hamburger Gesundheitskiosk - ZDFmediathek 720

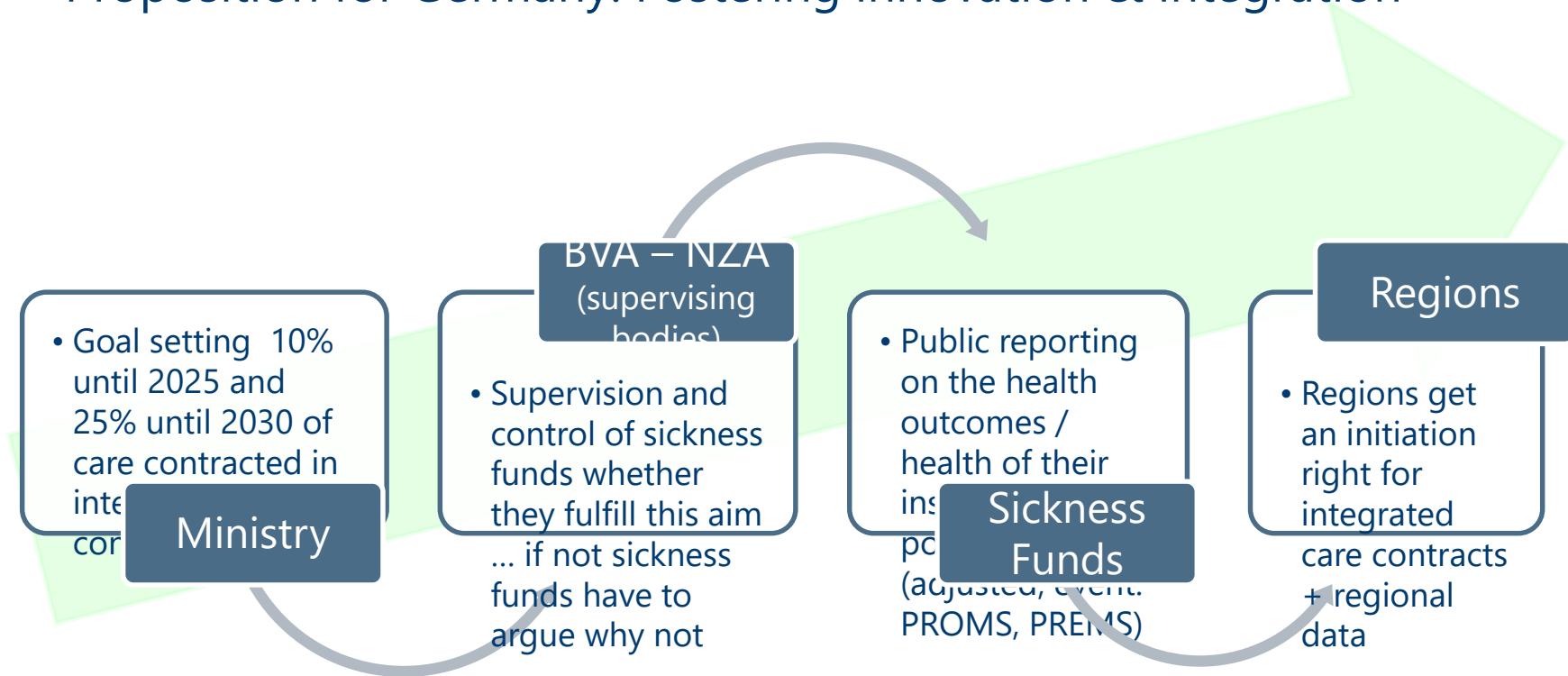
<https://www.zdf.de/nachrichten/drehscheibe/drehscheibe-clip-4-804.html>

## Lessons learned – success factors



Everything else is developing in itself = self interest of the regional health enterprise

# Proposition for Germany: Fostering innovation & integration



## Take Home Messages .... What you can do for sustainable healthcare

Care providers together with local communities can produce health if you reward them for it

This is a transition, like sustainable energy: invest in local initiatives that save costs in future

We run up against the fragmentation and financial comfort of the current system

Support is needed from the policy makers to make current system less comfortable

Make startup of sustainable healthcare easier to tip the balance

# Ways to stay in touch



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Mobil +49 172 4215165



Web:

[www.optimedis.de](http://www.optimedis.de) in english : ....com

[www.gesundes-kinzigtal.de](http://www.gesundes-kinzigtal.de) in english : ....com

[www.gesundheit-bh.de](http://www.gesundheit-bh.de) (Billstedt-Horn)

OptiMedis BE: [www.optimedis.be](http://www.optimedis.be)  
[info@optimedis.be](mailto:info@optimedis.be)  
(under construction)



Stay up to date with our newsletter OptiMedium: [www.optimedis.com/newsletter](http://www.optimedis.com/newsletter)



## Naar een geïntegreerde financiering in Vlaanderen

Lieven Annemans,  
gezondheidseconoom UGent

Met de steun van:

abbvie

Belfius  
Bank & Insurance

BDO

bens  
bouw en ontwikkeling

InterSystems  
Health | Business | Government

Medtronic

Solidariteit voor het Gezin

Universitair  
Ziekenhuis  
Brussel

ZorgAnders

Structurale  
partner Voka

sdworx  
Result driven HR

# *Naar geïntegreerde financiering in Vlaanderen*

*Towards integrated  
financing in Flanders*

Lieven Annemans

[Lieven.Annemans@Ugent.be](mailto:Lieven.Annemans@Ugent.be)  
@LievenAnnemans

# The real triple aim



# What the pessimists say

- 1. Fragmentation of care cannot be resolved**
- 2. Overuse/misuse/abuse will always be there**
- 3. Unprecedented demographics cannot be stopped**
- 4. Too expensive technologies is a market reality**
- 5. Unequal access happens everywhere**



HBR.ORG

# Harvard Business Review

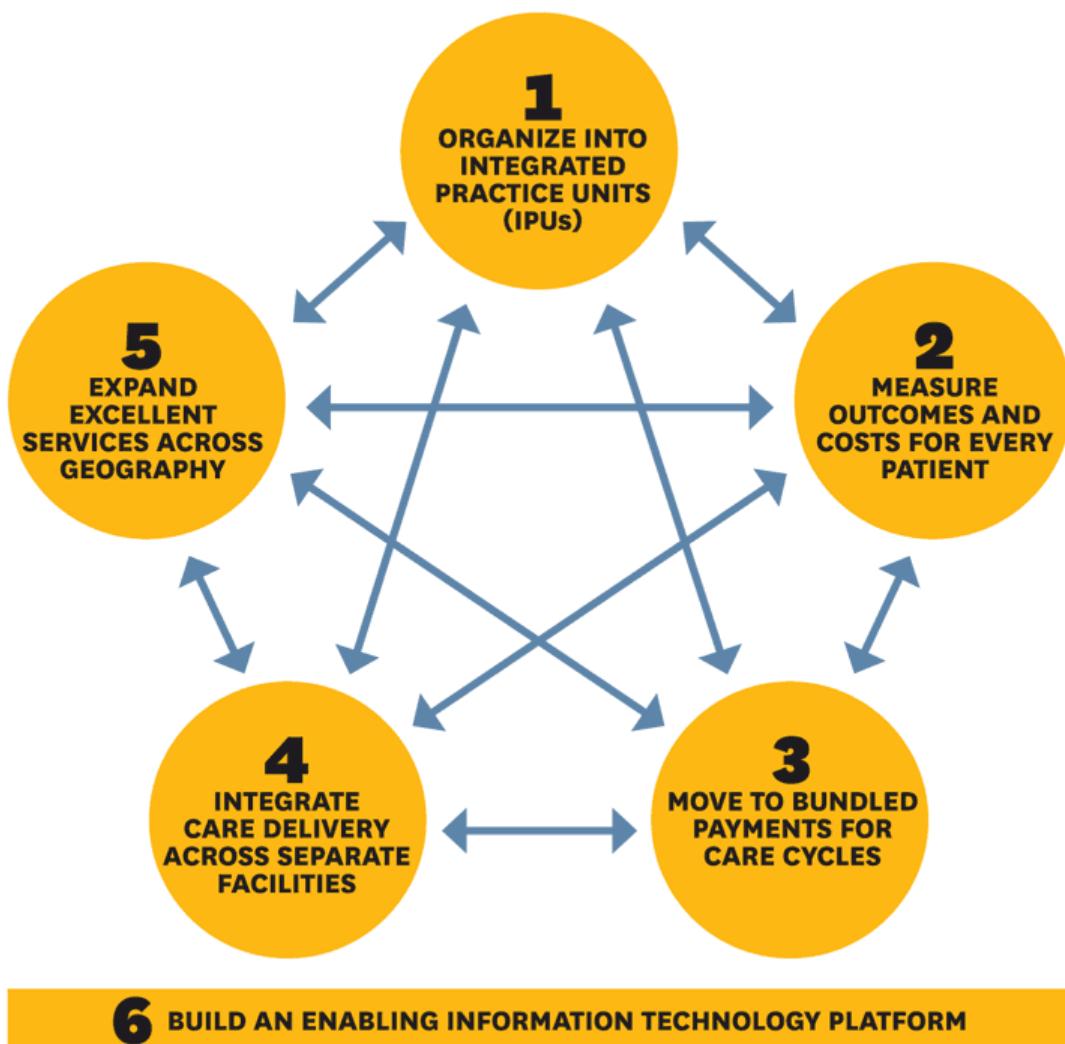


OCTOBER 2013  
REPRINT R13108

THE BIG IDEA

## The Strategy That Will Fix Health Care

Providers must lead the way in making value the overarching goal by Michael E. Porter and Thomas H. Lee



Strong focus on hospitals

Based on M. Porter and T. Lee,  
“The Strategy that will Fix  
Health Care,” *Harvard  
Business Review* (October  
2013)



Value adding  
programs

Care  
trajectories

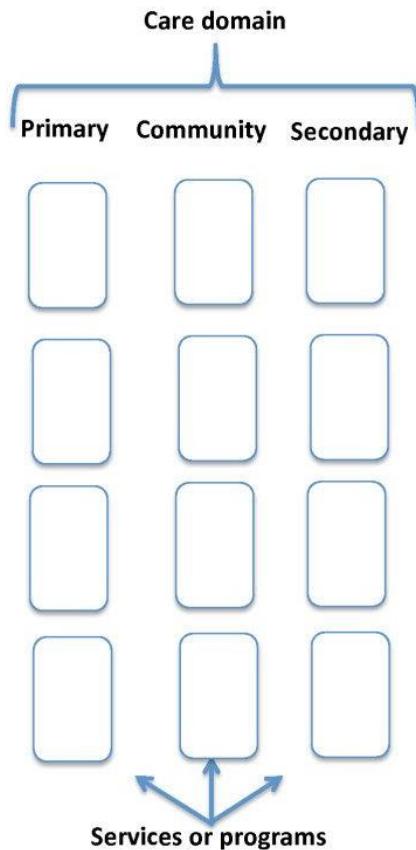
*From product to  
service*

Integrated care

Quality indicators

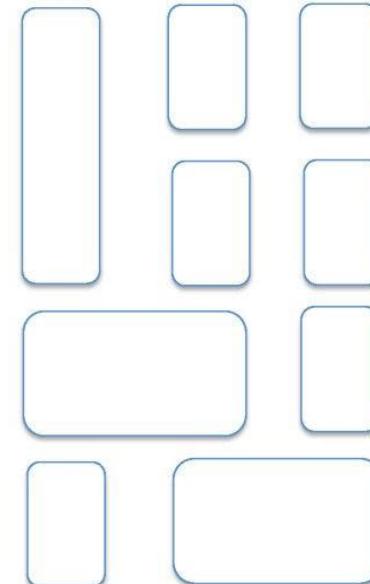


# Horizontal integration across settings



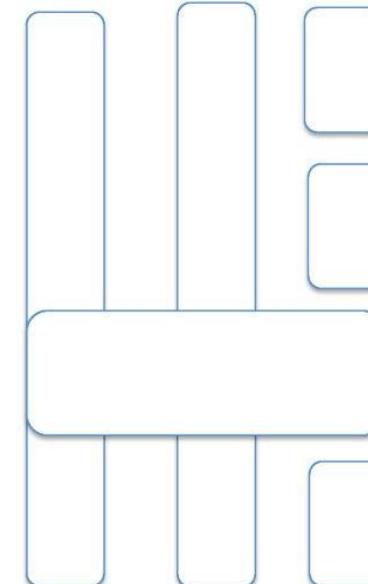
a. Unintegrated

Primary   Community   Secondary



b. Partially integrated

Primary   Community   Secondary



c. Horizontally or vertically integrated

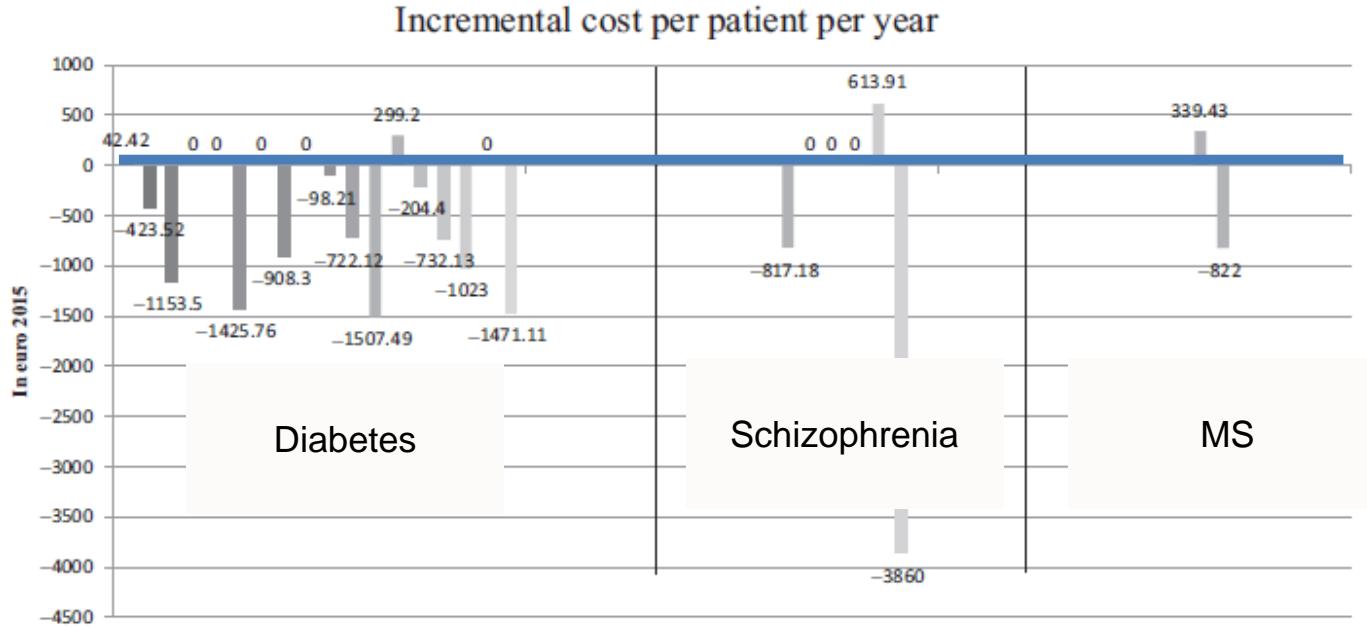
Atun et al.  
BMC Public  
Health 2011  
11:780

# Economic Impact of Integrated Care Models for Patients with Chronic Diseases: A Systematic Review



Melissa Desmedt, MSc<sup>1,\*</sup>, Sonja Vertriest, MSc<sup>1</sup>, Johan Hellings, PhD<sup>1,2</sup>, Jochen Bergs, MSc<sup>3</sup>, Ezra Dessers, PhD<sup>4</sup>, Patrik Vankrunkelsven, PhD<sup>5</sup>, Hubertus Vrijhoef, PhD<sup>6,7,8</sup>, Lieven Annemans, PhD<sup>9</sup>, Nick Verhaeghe, PhD<sup>9</sup>, Mirko Petrovic, PhD<sup>10</sup>, Dominique Vandijck, PhD<sup>1,11</sup>

VALUE IN HEALTH 19 (2016) 892 – 902



# Vertical vs. Horizontal Programs

Disease control programs	People-centered primary care
Focus on priority diseases	Focus on health needs
Relationship limited to program implementation	Enduring personal relationship
Program-defined disease control interventions	Comprehensive, continuous and person-centered care
Responsibility for disease-control targets among the target population	Responsibility for the health of all in the community along the life cycle
Population targets of disease-control interventions	People are partners in managing their own health

World Health Report 2008, "Now, More than Ever", WHO

Gesundes Kinzigtal: fantastic concept; focus on horizontal integration of settings; great results,...!  
But... Still main focus on vertical programs?



## Starkes Herz – Gezielt gegen Herzschwäche

Informationen zum Programm

Mehr

## Rauchfrei in den OP (RiO)

Informationen zum Programm

Mehr

## Psycho-Akut

Informationen zum Programm

Mehr

## Rauchfreies Kinzigtal

Informationen zum Programm

Mehr

## Kindervorsorge (U10, U11, Amblyopie)

Informationen zum Programm

Mehr

## Befreiende Töne – Im Einklang mit Musik

Informationen zum Programm

Mehr

## Starker Rückhalt – Mein gesunder Rücken

Informationen zum Programm

Mehr

## Besser gestimmt – Die Depression im Griff

Informationen zum Programm

Mehr

## Starke Muskeln – Feste Knochen

Informationen zum Programm

Mehr

## Gesundes Gewicht – Jetzt gehe ich es an

Informationen zum Programm

Mehr

## Gut Beraten

Informationen zum Programm

Mehr

## Sozialer Dienst

Informationen zum Programm

Mehr

# PLUS: some issues

- Upfront investment



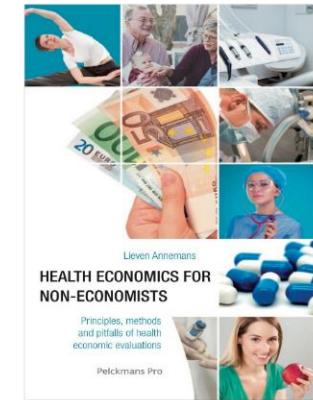
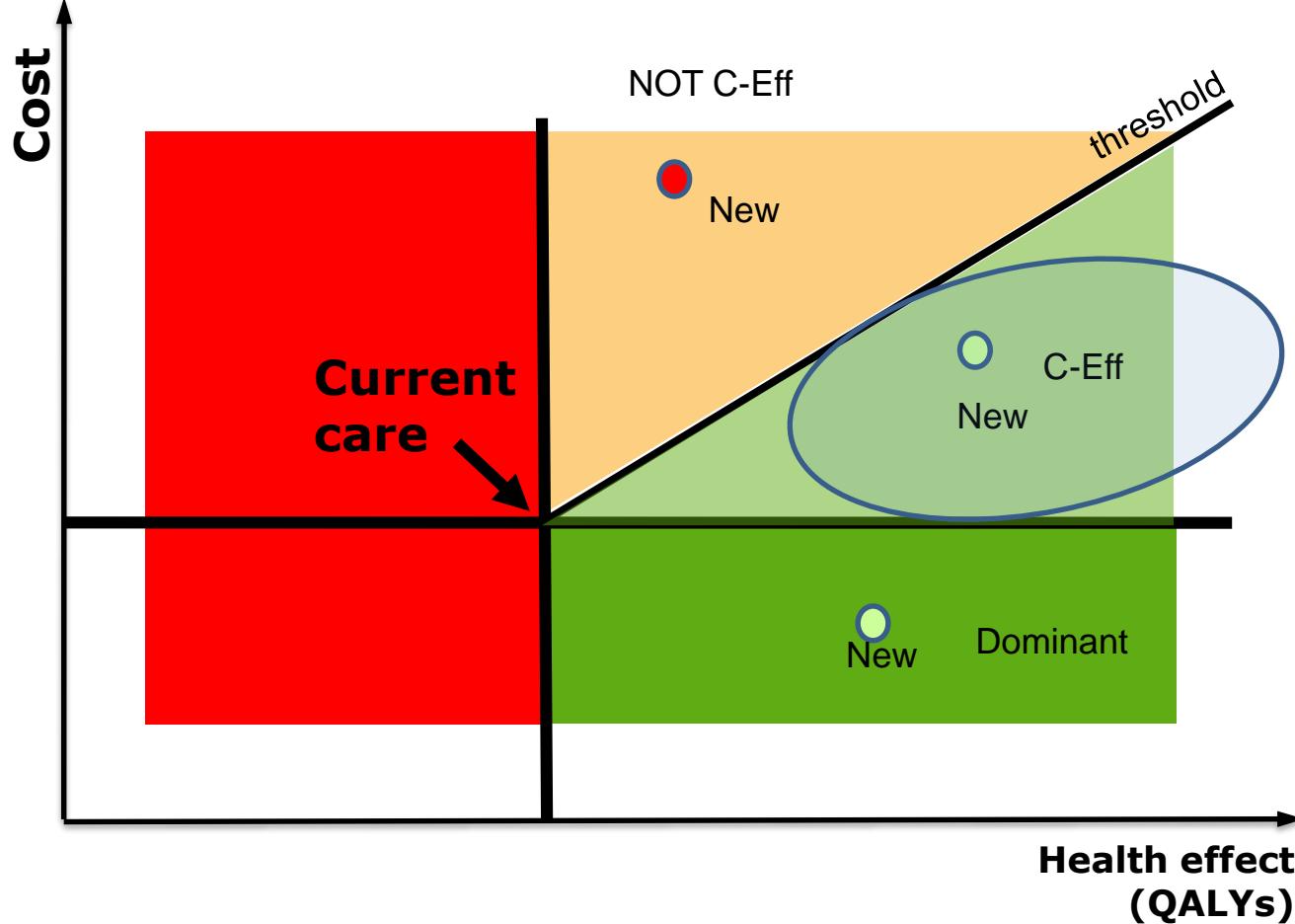
- Trust between Physicians and health insurers



- Shared *savings* paradigm



# Cost-effectiveness: the NE quadrant



Pelckmans Pro 2018

# The alternative: FULL healthcare networks



CORTEXS project [www.cortexs.org](http://www.cortexs.org)



## 1<sup>st</sup> LEVEL

- Health: GP, dentist, pharmacist, nurse, psychologist, physiotherapist, osteopath, dietician, occupational therapist
- Home adaptation, family help, ...

## 2<sup>nd</sup> LEVEL

- Specialist, Hospital Network

Integration of activities + care substitution



# Benefits

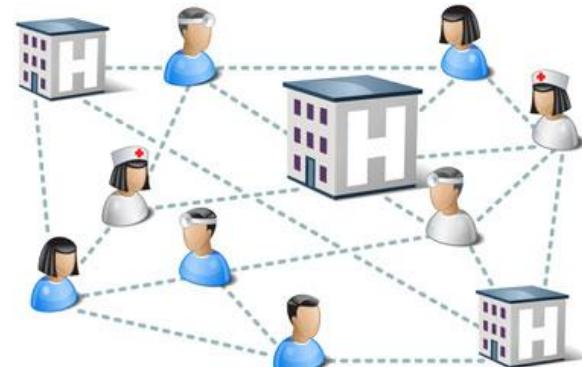
- Less hospital admissions
- Less emergency visits
- Less non-evidence based surgery
- Less readmissions
- More focus on prevention
- ....

Starfield, 2012

# Hospital networks

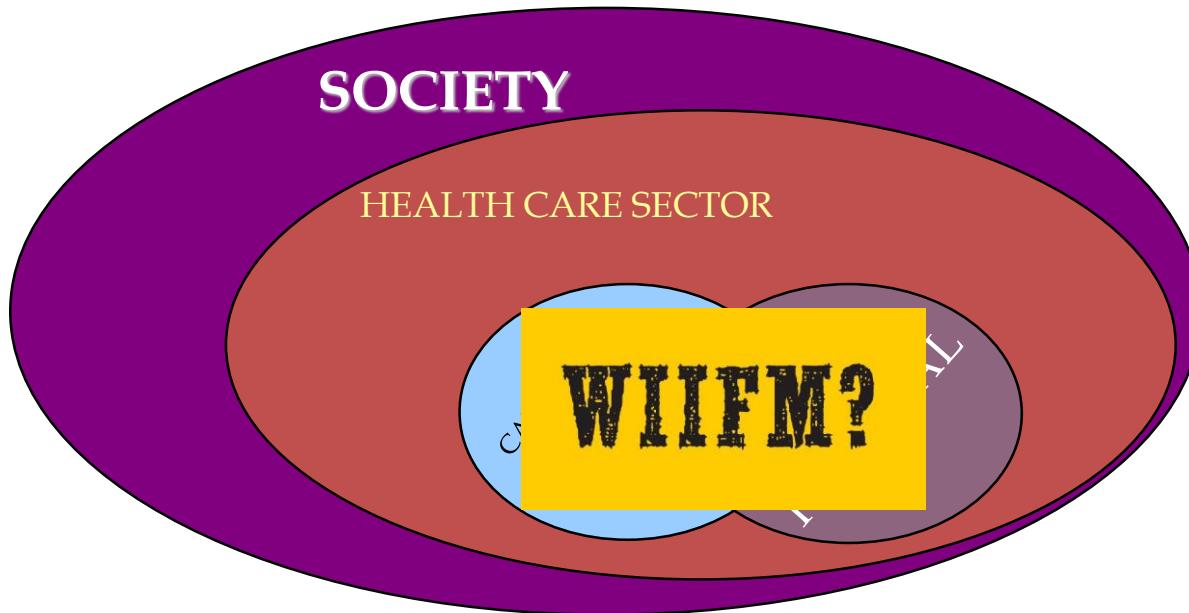
1. Less supply induced demand
2. Decreasing n of beds
3. Higher quality

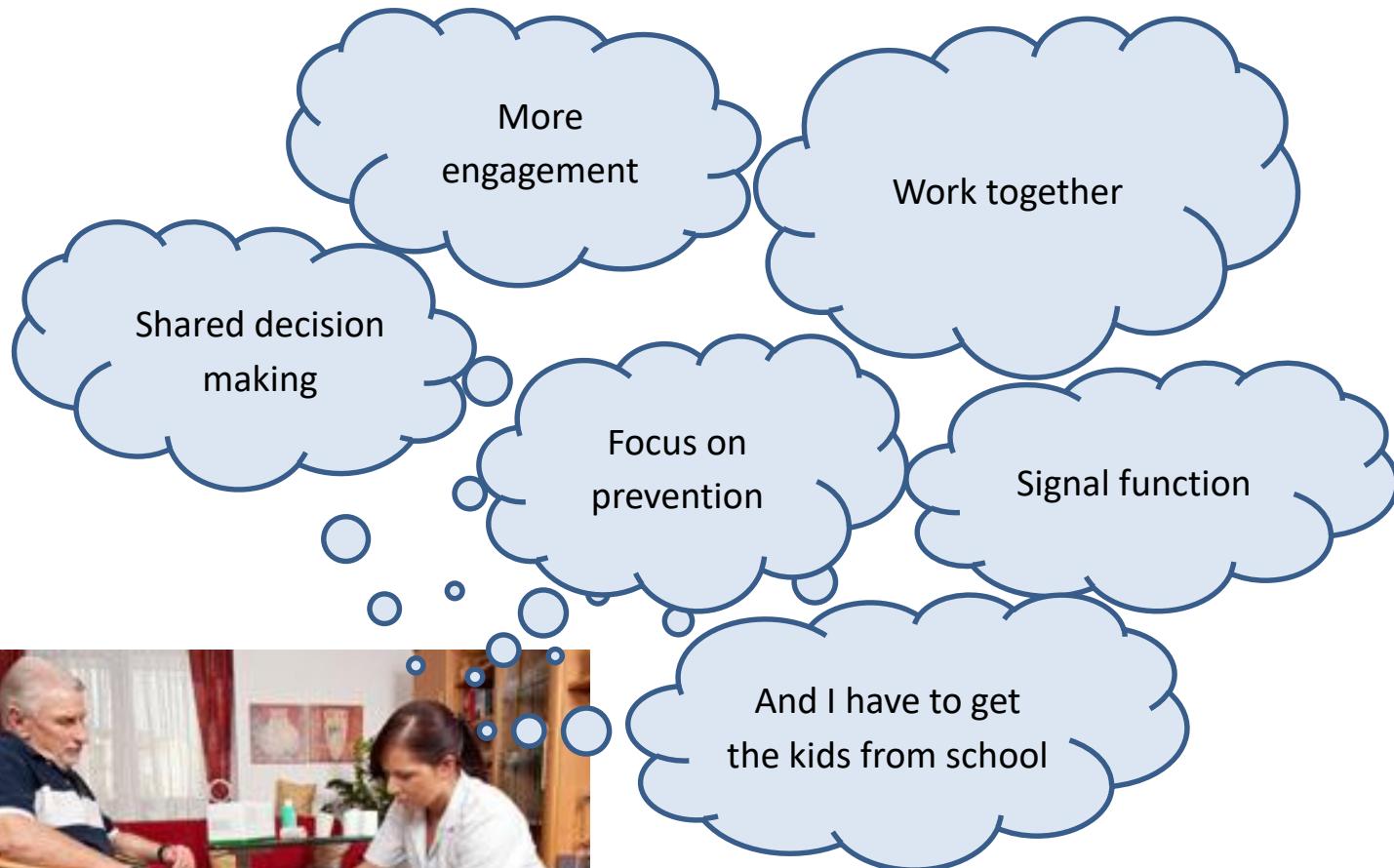
Gouvernemental  
agreement 2014



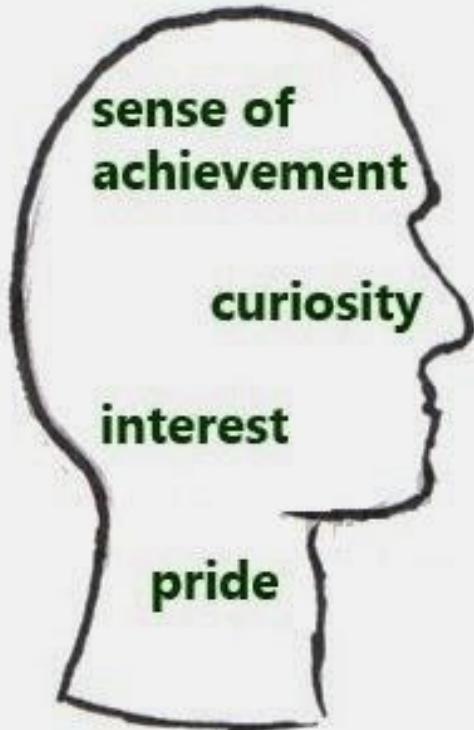
Voor de behandeling van moeilijke of zeldzame aandoeningen of in geval van zeer dure technologie of infrastructuur evolueren we naar gespecialiseerde ziekenhuiszorg, geconcentreerd in gespecialiseerde centra, ingebed in een klinisch netwerk tussen ziekenhuizen.

# Challenge: different perspectives





## Intrinsic Motivation



## Extrinsic Motivation







## Solution 1: introduce more episodic payments

Fixed amount per patient/insured per time period:  
pay to maintain health

- + decreased risk for overconsumption
- + improved access
- + more focus on prevention

# Possible examples

- Cardiologist: telemonitoring in cardio
- Psychiatrist: schizophrenic patient after discharge
- Oncologist: app for early reporting of adverse events





## Solution 2: More Pay for Performance

- ‘the systematic and deliberate use of payment incentives that recognize and reward high levels of quality and quality improvement’. (The Institute of Medicine, 2007)
- Also called ‘Pay for Quality’

From Paying to do things  
to  
Paying to do things right  
and  
Paying to do the right  
things

# Pitfalls of pay for quality (P4Q)

- |   |                   |
|---|-------------------|
| 1. Definition of performance  | <b>BOTH</b>       |
| – Effective or <b>cost-effective?</b>   |                   |
| – Or cost saving? (P2SM)  |                   |
| 2. Size of the financial reward not well studied  | <b>10%</b>        |
| 3. Pay for improvement or for achievement?  | <b>BOTH</b>       |
| 4. Number of criteria to be applied?  |                   |
| – Too few → reduced attention for other care  | <b>VIP2</b>       |
| – Too many → high costs for organizing, audit, engaging physicians <i>continuously</i>                                      |                   |
| 6. Fragmentation (in stead of coordination)   | <b>PAY GROUPS</b> |
| 7. Implementation problems (acceptable, applicable, <b>MIMIQ-model</b> need for adequate <i>information technology</i> ...) |                   |
| 8. Gaming   | <b>EHEALTH</b>    |

# Implementing P4P step by step

Health Policy 102 (2011) 8–17



Contents lists available at ScienceDirect

Health Policy

journal homepage: [www.elsevier.com/locate/healthpol](http://www.elsevier.com/locate/healthpol)



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Review

## Pay-for-performance step-by-step: Introduction to the MIMIQ model

Pieter Van Herck<sup>a,\*</sup>, Lieven Annemans<sup>b</sup>, Delphine De Smedt<sup>b</sup>, Roy Remmen<sup>c</sup>,  
Walter Sermeus<sup>a</sup>

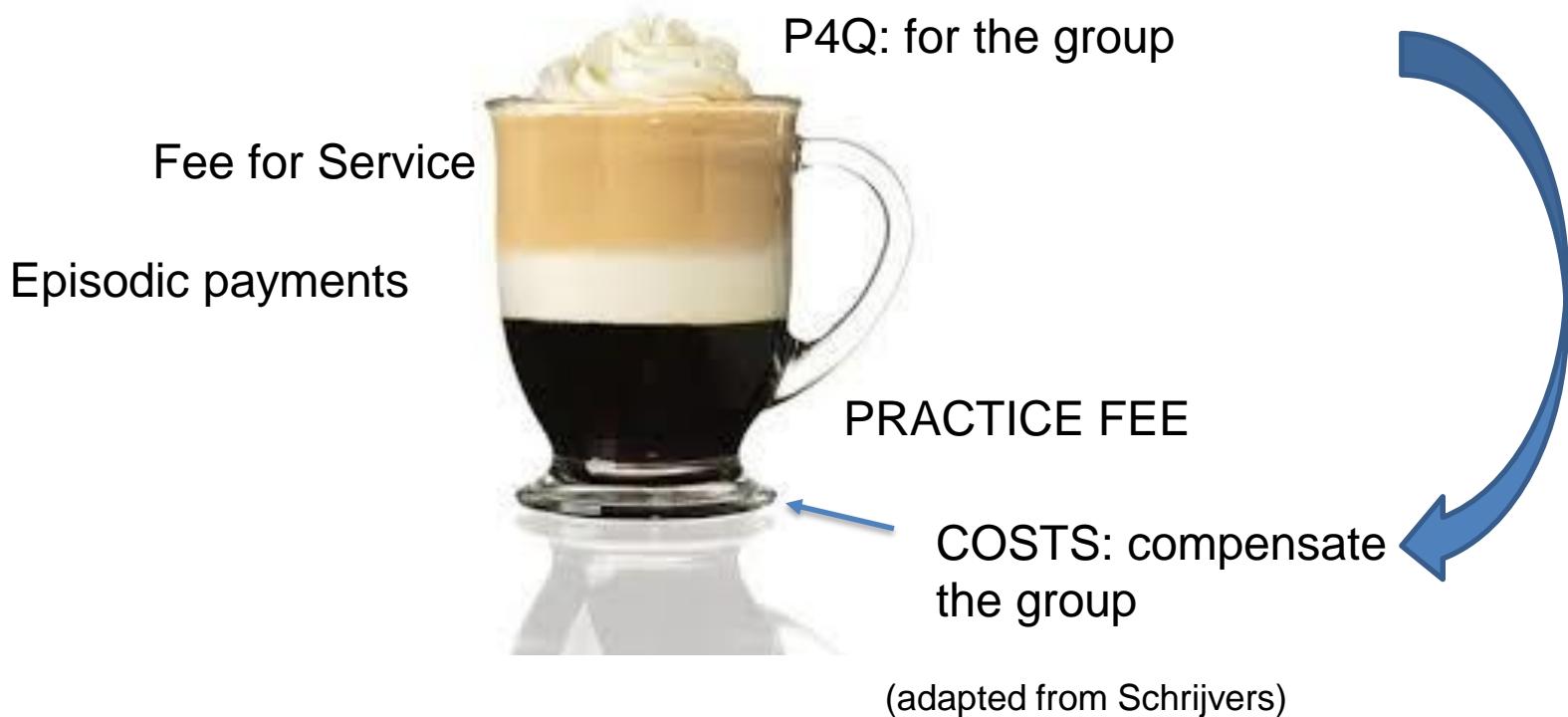
<sup>a</sup> Center for Health Services and Nursing Research, Katholieke Universiteit Leuven, Kapucijnenvoer 35, 4th floor, 3000 Leuven, Belgium

<sup>b</sup> Department of Public Health Ghent University, De Pintelaan 185 Blok A-2, 9000 Ghent, Belgium

<sup>c</sup> Department of General Practice University Antwerp, Universiteitsplein 1, 2610 Wilrijk, Belgium

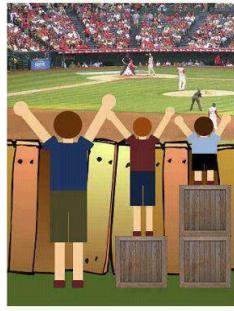
MIMIQ: Model for Implementing and Monitoring Incentives for Quality

# System currently investigated in first line



# Final points of attention

- Equity!



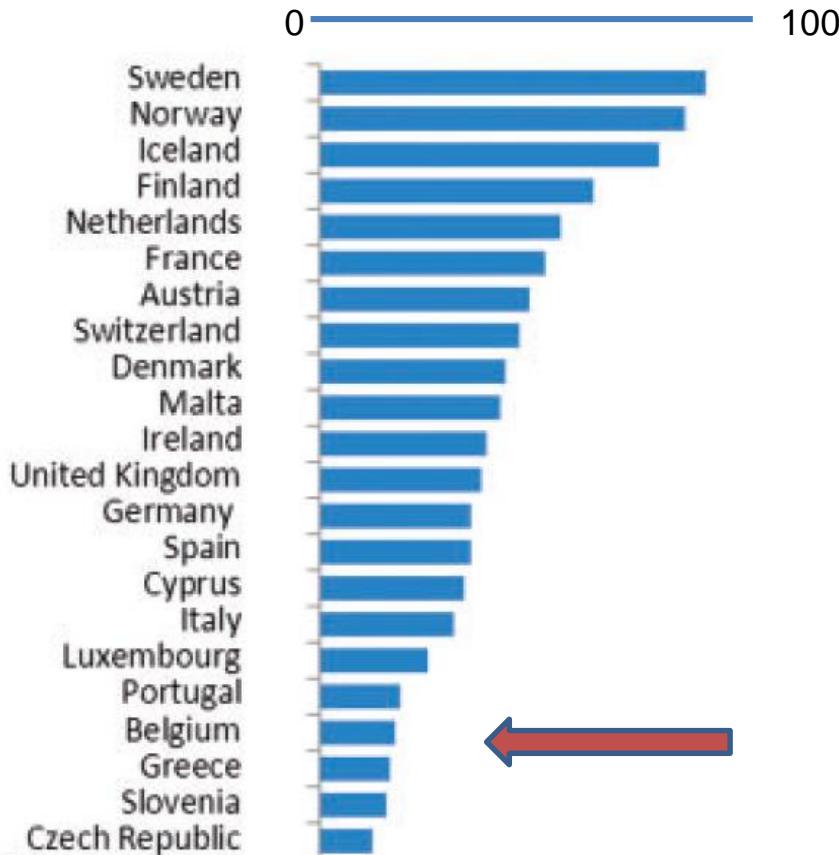
- Health promotion!
- Quality of life health professional!

HEALTH  
PROMOTION  
STRATEGIES



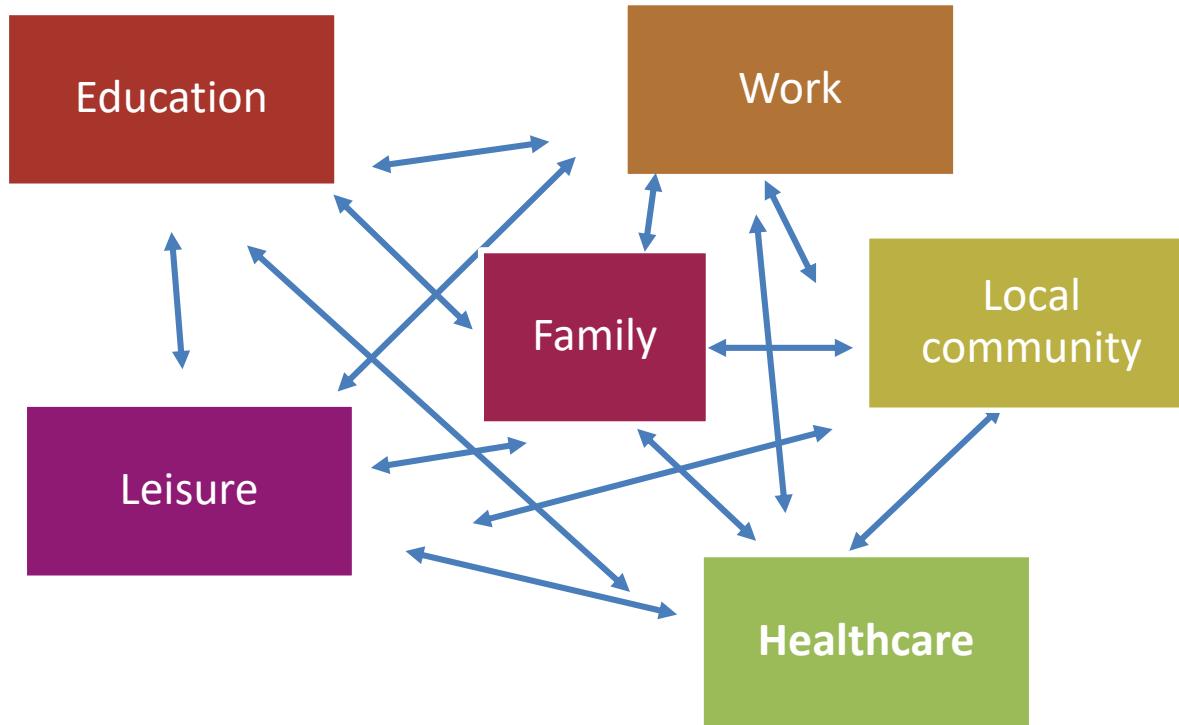
# Prevention performance in Europe

- Tobacco
- Alcohol
- Nutrition
- Fertility
- Mother and child
- Infectious diseases
- Hypertension
- Cancer screening
- Traffic
- Air pollution



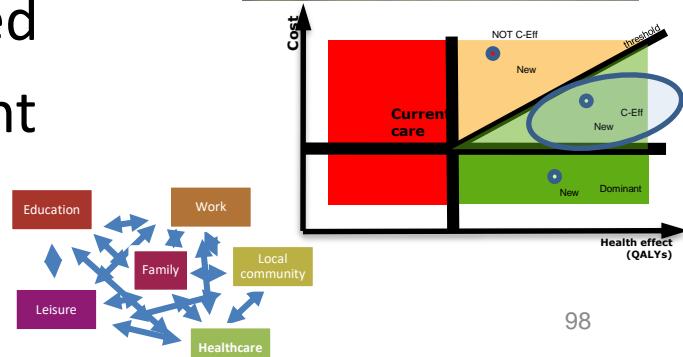
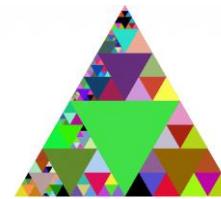
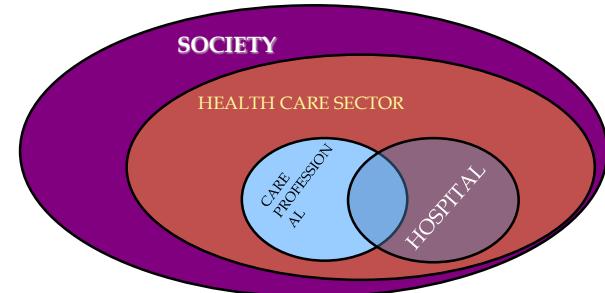
Mackenbach & MacKee. European Journal of Public Health, Vol. 23, No. 2, 195–344, 2013

# Health is in all policies



# In conclusion

1. Truly integrated care requires
  - One large ECO-system
  - Integrated – blended – financing
  - Perfect health information system
2. The true triple aim: quality; solidarity, sustainability
3. Upfront investment (cf. Kinzigtal) required
4. Not only P2SM. Focus on the NE quadrant
5. Supraproportional investment in health promotion



**EVERYTHING WILL  
BE OK IN THE END.  
IF IT'S NOT OK,  
IT'S NOT THE END**

John Lennon

# Pauze

## 16u00 – 16u30

Met de steun van:



Structurale  
partner Voka

# Programma

- **16u30 Digitale transformatie in zorg en welzijn: meer dan technologie alleen**
  - Ann Ouvry, CEO D&A medical group
  - Alexander De Croo, vicepremier en minister van Ontwikkelingssamenwerking, Digitale Agenda, Telecom en Post
- **17u30 Reflectie ‘Een brede blik op zorg en welzijn’**
  - Marc Noppen, CEO UZ Brussel
- **18u00 Netwerkreceptie**

---

Met de steun van:

abbvie

Belfius  
Bank & Insurance

BDO

bens  
bouw en ontwikkeling

InterSystems  
Health | Business | Government

Medtronic



ZorgAnders

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partner Voka  
sdworx  
Result driven HR



## Digitale transformatie in welzijn en zorg: meer dan technologie alleen

Ann Ouvry,  
CEO D&A medical group

Met de steun van:

abbvie

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Solidariteit voor het Gezin

Universitair  
Ziekenhuis  
Brussel

ZorgAnders

Structurale  
partner Voka  
sdworx  
Result driven HR



D&A

# Digitale transformatie in welzijn en zorg

## Meer dan technologie

Ann Ouvry voor  
Health Community Congres 2018



## Ann Ouvry

CEO D&A medical group

- Geboren in Gent
- Sinds 1990 woonachtig in Nederland
- Wiskunde aan de Universiteit Gent
- Opleiding in software engineering en bedrijfskunde
- Pionier bij Philips medical systems op het gebied van IT voor zorgapplicaties
- 2001: oprichter D&A medical group, advies en project management voor digitalisering en procesoptimalisatie in zorg en welzijn



# Digitale transformatie

## Digitale Transformatie — Definitie

**Digitale Transformatie** gaat over de toenemende adoptie van digitale middelen en processen binnen alle aspecten van een organisatie met als doel om de klantwaarde en prestaties van organisaties radicaal te verbeteren.





Eerste golf

Digitalisering  
operationele  
processen



# Belangrijkste motieven om te digitaliseren

- Complete zorgregistratie en facturatie
- Efficiency, met name op het gebied van logistiek
- Behoefte aan delen van informatie om veilige zorg te kunnen blijven leveren
- Kostenbeheersing

Health expenditure as percentage from GDP										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Country										
United States	14,7	14,9	15,3	16,4	16,4	16,4	16,4	16,4	16,6	16,9
Switzerland	9,8	9,6	9,8	10,4	10,5	10,6	11,0	11,2	11,4	11,5
Germany	10,1	10,0	10,1	11,1	11,0	10,7	10,8	10,9	11,0	11,1
Sweden	8,2	8,1	8,3	8,9	8,5	10,7	10,9	11,1	11,2	11,1
France	10,1	10,0	10,1	10,8	10,7	10,7	10,8	10,9	11,1	11,0
Netherlands	9,3	9,3	9,5	10,3	10,4	10,5	10,9	10,9	10,9	10,8
Belgium	8,9	9,0	9,4	10,1	9,9	10,1	10,2	10,4	10,4	10,4
Canada	9,2	9,3	9,5	10,6	10,7	10,3	10,3	10,2	10,0	10,2
United Kingdom	7,5	7,6	7,9	8,7	8,5	8,4	8,5	9,9	9,9	9,8
New Zealand	8,6	8,3	9,1	9,7	9,7	9,6	9,7	9,4	9,4	9,4
Australia	8,0	8,1	8,3	8,6	8,5	8,6	8,7	8,8	9,0	9,3



# Technologie staat digitalisering zorg niet in de weg

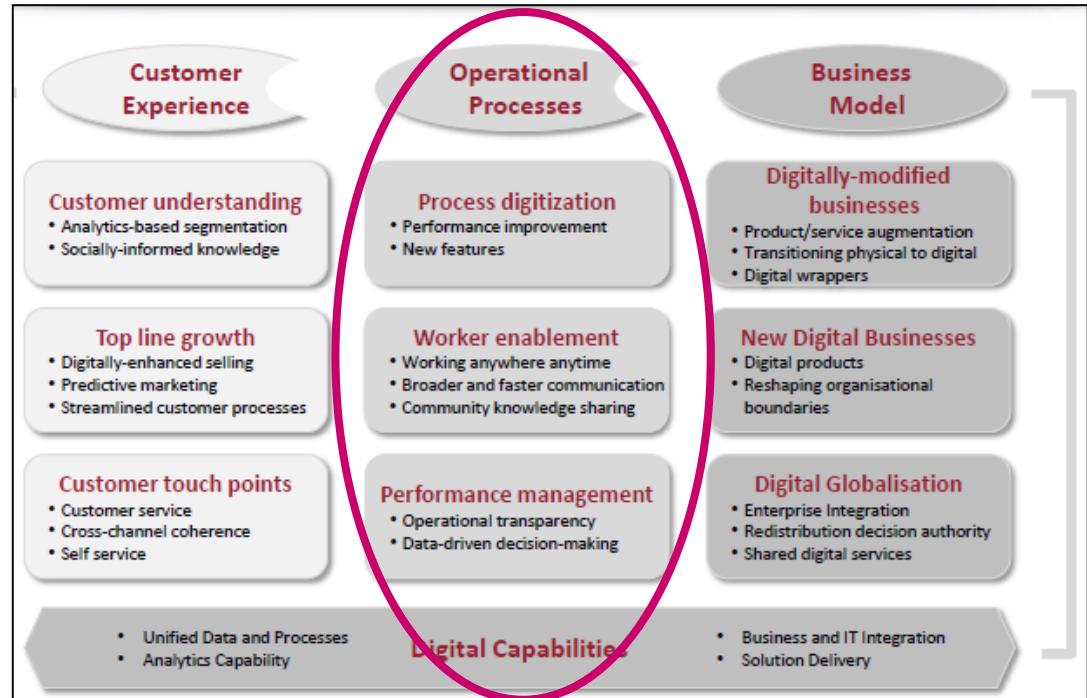




# Lessons learned: digitalisering is 80% zorgtransitie, 20% IT

Implementatie van een EPD vergt:

- Governance en Leiderschap
- Betrokkenheid van professionals
- Opleiding van zorg professionals
- Denken in processen en prestaties
- Professionele implementatie aanpak en project management
- Professionele IT infrastructuur en organisatie

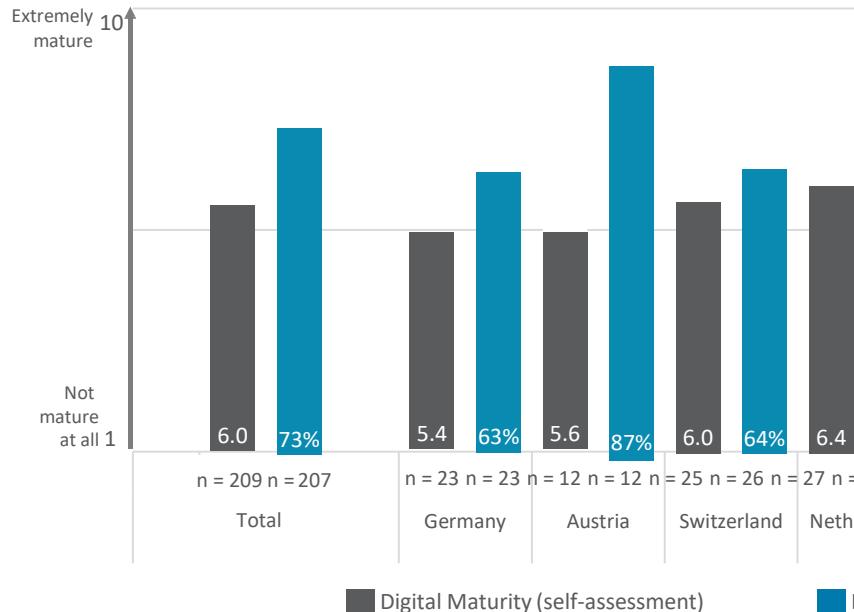




# Patiëntdata in veel Europese landen grotendeels digitaal

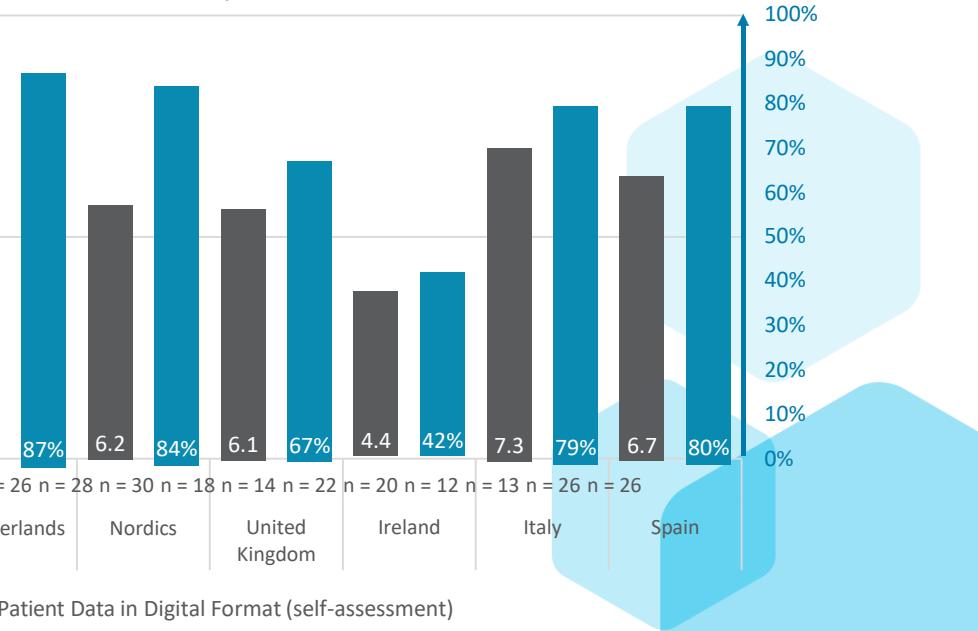
## How would you rate your organisation in terms of digital maturity?

[mean values; scale from 1 "not mature at all" to 10 "extremely mature"; only participants who are working in a health facility]



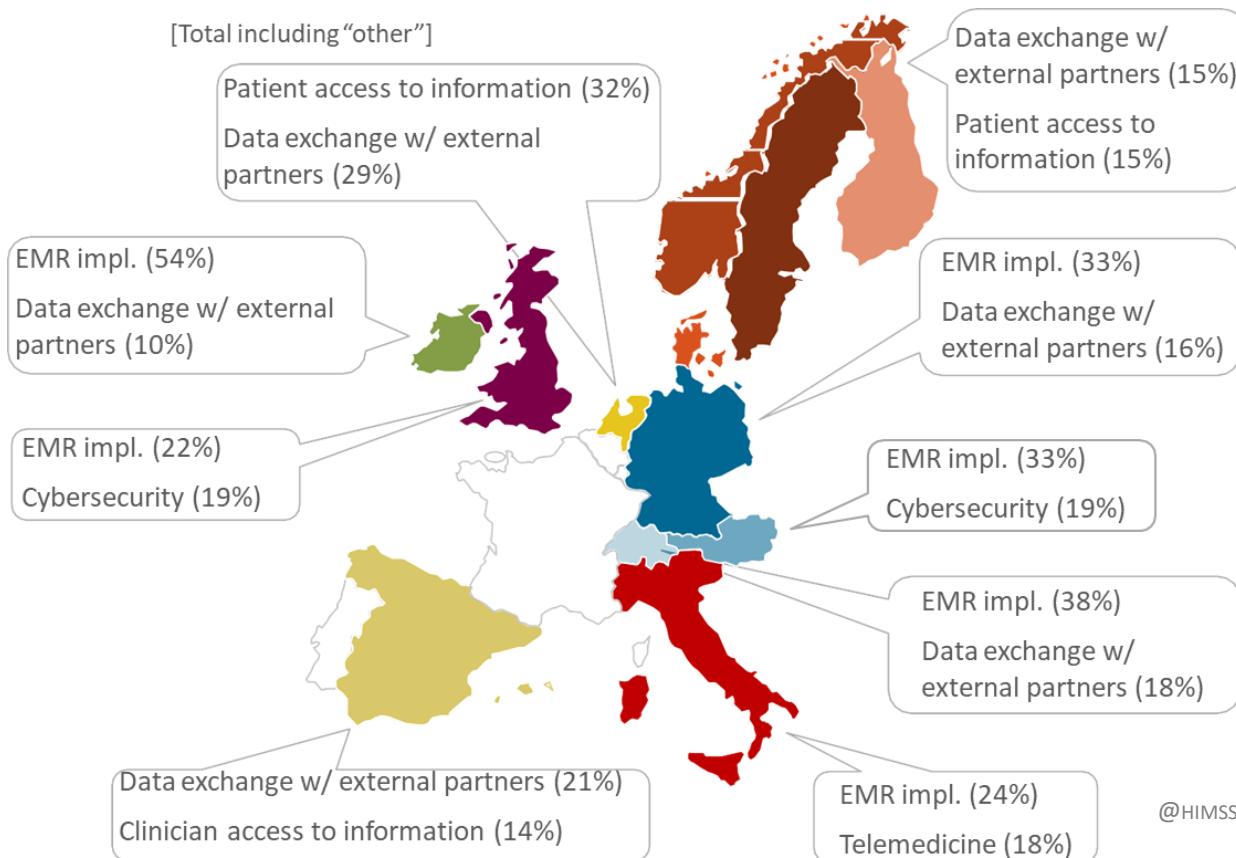
## What percentage of patient data in your organisation is digitised?

[Scale from 0% - 100%; only participants who are working in a health facility]





# eHealth prioriteiten in Europa: implementatie EPD, informatie voor patiënten en informatie uitwisseling





# Digitalisering zorg in NL en België verschillende snelheden

## Nederland

- Alle huisartsen, ziekenhuizen en care instellingen werken met een digitaal patiëntendossier
- Professionele, grootschalige implementaties in ziekenhuizen
- Focus verschuift naar patiënt participatie en informatie uitwisseling
- NL worstelt met delen van informatie tussen zorgpartijen

Ehealth monitor 2017 Vrijwel alle huisartsen kunnen digitaal medische gegevens uitwisselen met ziekenhuizen, laboratoria en huisartsenposten. Verpleegkundigen in de ziekenhuiszorg en ouderenzorg dragen medische gegevens veelal nog op papier over.

## België

- Accelerator programma implementatie EPD in alle Belgische ziekenhuizen
- Beperkte IT budgetten
- EPD nog veel van de IT en te weinig van de zorg
- Nationaal eHealth-Platform voor delen van informatie gaat op punten verder dan NL

**Minister De Block neemt maatregelen na problemen eHealth-platform**



Tweede golf

Participatie  
van patiënten



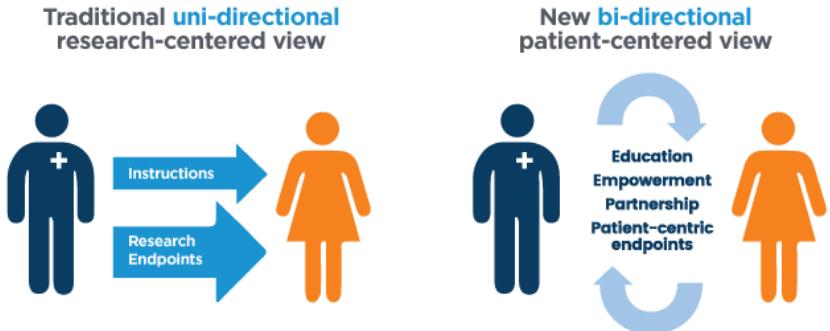
# Patiënt wordt actieve participant in zorgproces



PERSBERICHT Vlaams Patiëntenplatform vzw  
Heverlee, 18 april 2018

Patiënten verwachten veel van de online gezondheidsportalen

66% van de patiënten gelooft dat online inzage in het patiëntendossier de communicatie met zorgverleners zal verbeteren. Dat blijkt uit een bevraging die het Vlaams Patiëntenplatform organiseerde naar aanleiding van de Europese dag van de rechten van de patiënt op 18 april. 68% van de 581 patiënten die deelnamen aan de bevraging gelooft ook dat ze door die online inzage hun zorg meer in eigen handen kunnen nemen.

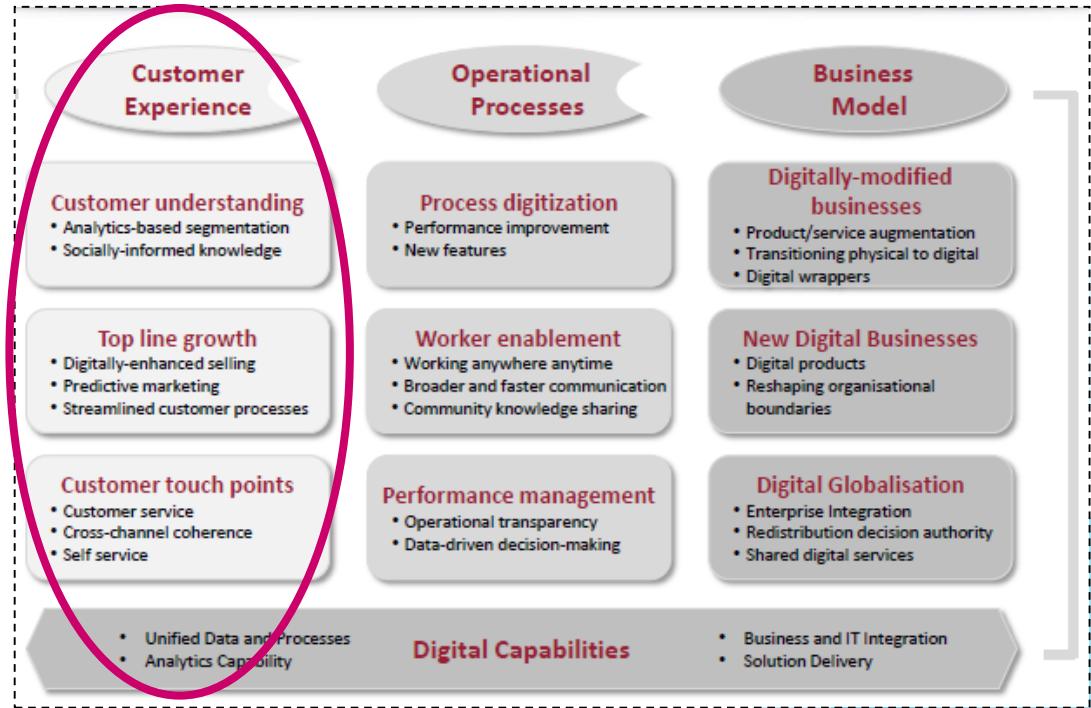




# eHealth is een maatschappelijke innovatie

eHealth vergt een inspanning van alle betrokkenen:

- Zorg: bereidheid om informatie te delen en ontwikkelen van self-service diensten  
cultuurverandering en transparantie
- Overheid: **financiering** en regie op **standaarden**
- Burgers: **gezondheidseducatie**
- Opleidingsinstituten: scholing **eHealth vaardigheden**





# Grote toename van patiëntportalen

Nederland

VIPP



**2/3 ZIEKENHUIZEN MAAKT GEBRUIK VAN PATIËNTENPORTAAL**

**Miljoenenprogramma VIPP uit de startblokken: meer regie voor patiënt**

Doelstelling VIPP: Iedere zorginstelling heeft op 31 december 2019 een beveiligd patiëntenportaal en/of een link naar een Persoonlijke Gezondheidsomgeving waarin de zorginstelling gestandaardiseerd medische gegevens voor de patiënt kan uploaden

**Cliëntportaal** en pgd bezig aan opmars in caresector

België



**Nieuw overheidsportaal 'Mijn gezondheid' bundelt alle gezondheidsgegevens burger**

"Wij zijn na Zweden het volgende land om zo'n portaal aan onze patiënten te geven, en ik denk dat we daar een beetje fier op mogen zijn", besluit De Block.

Bron: Knack mei 2018



# Wat bieden patiëntportalen in NL?

## Welke functionaliteit is het meest te vinden



Bron:  
[hoeonlineisjouwziekenhuis.nl](http://hoeonlineisjouwziekenhuis.nl)

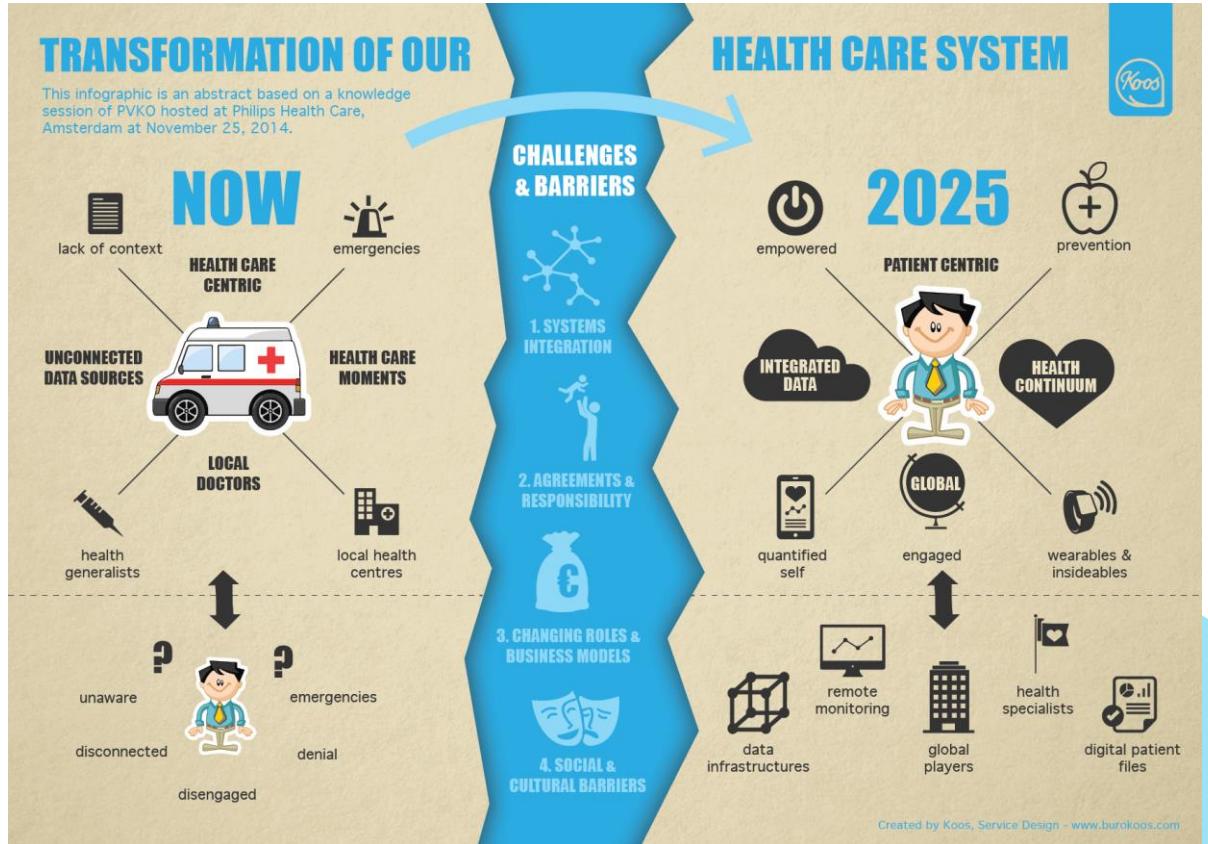


Tweede golf

Integrale zorg

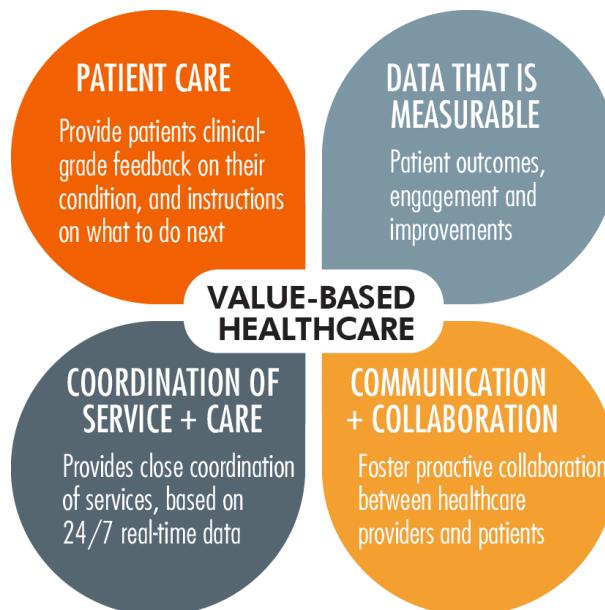
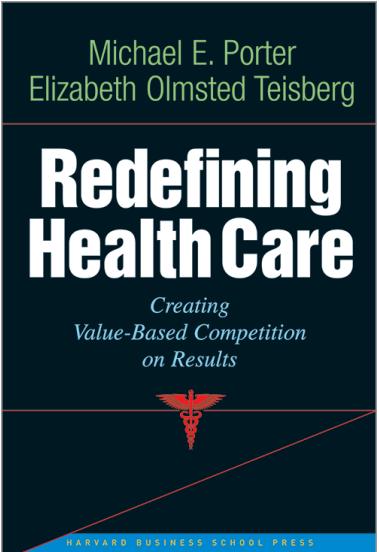


# Organisatie rondom de patiënt ipv rond zorgaanbieder





# Value based healthcare





# Integrale zorg: delen is vermenigvuldigen

Integrale zorg vergt een verandering  
in het zorgstelsel:

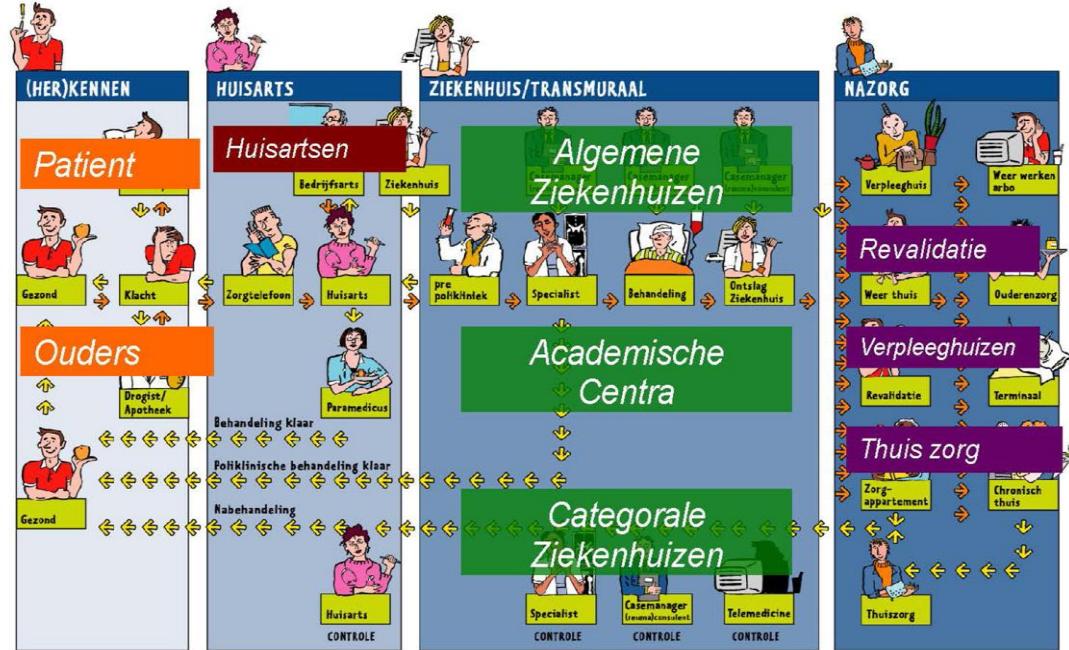
Leiderschap en samenwerking op  
regionaal niveau

Passende financiering

Informatie delen tussen de lijnen  
conform afgesproken standaarden.

Dit kan op verschillende manieren:

- Regionaal EPD
- Regionaal of landelijk platform
- Directe uitwisseling





# 2011: landelijk EPD sneuvelt in Eerste Kamer

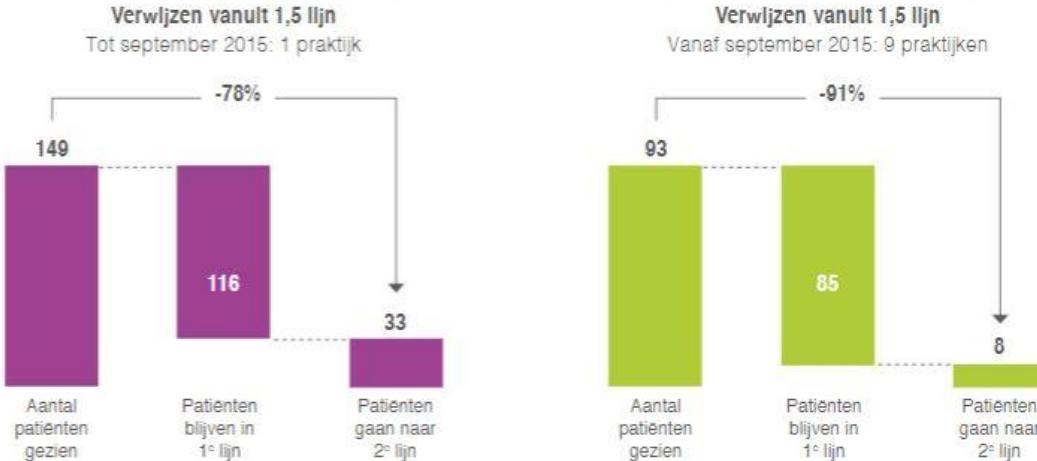


Toen het wetsvoorstel voor een landelijk elektronisch patiëntendossier werd verworpen, gaf het ministerie van VWS de regie over de landelijke uitwisseling van patiëntgegevens uit handen. Artsen en zorgverleners zijn nu afhankelijk van fax, post, WhatsApp en telefoon.



# Integrale zorg: best practice NL

## 1,5 lijnszorg Dermatologie reduceert zorgconsumptie in 2<sup>e</sup> lijn



Toekomstbestendige zorg voor de regio:

Ziekenhuis Bernhoven in samenwerking met huisartsen en de zorgverzekeraar zorgen voor lagere productie in het ziekenhuis

Informatiedeling is een uitdaging.



# Finland Apotti: "We are building the world's first information system that combines social and healthcare services."

An efficient tool for  
**35.000**  
social and health care  
professionals

Better health and  
well-being for  
**1.6 million**  
residents

Annual benefits of  
**over 100  
million euros**

**SUPPORT AND  
GUIDANCE**  
to prevent  
human errors

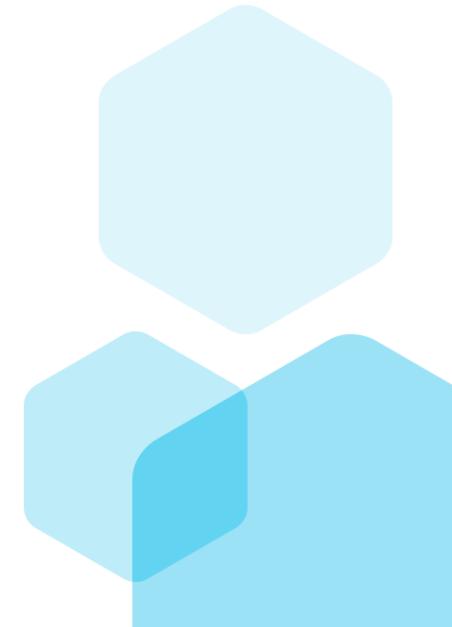
Professionals' location-  
independent access to  
**UP-TO-DATE  
PATIENT DATA**

**OPERATIONAL  
CHANGE**  
e.g. long-distance  
consultations

**INFORMATION**  
to support the  
development of services

**EFFORTLESS**  
online service and  
self-care

**TARGETING  
SERVICES**  
to those most in need





Derde golf

Digitale  
zorg en  
Waarde  
creatie



# Digitale zorg gaat traditionele zorg deels vervangen

Digital Health diensten

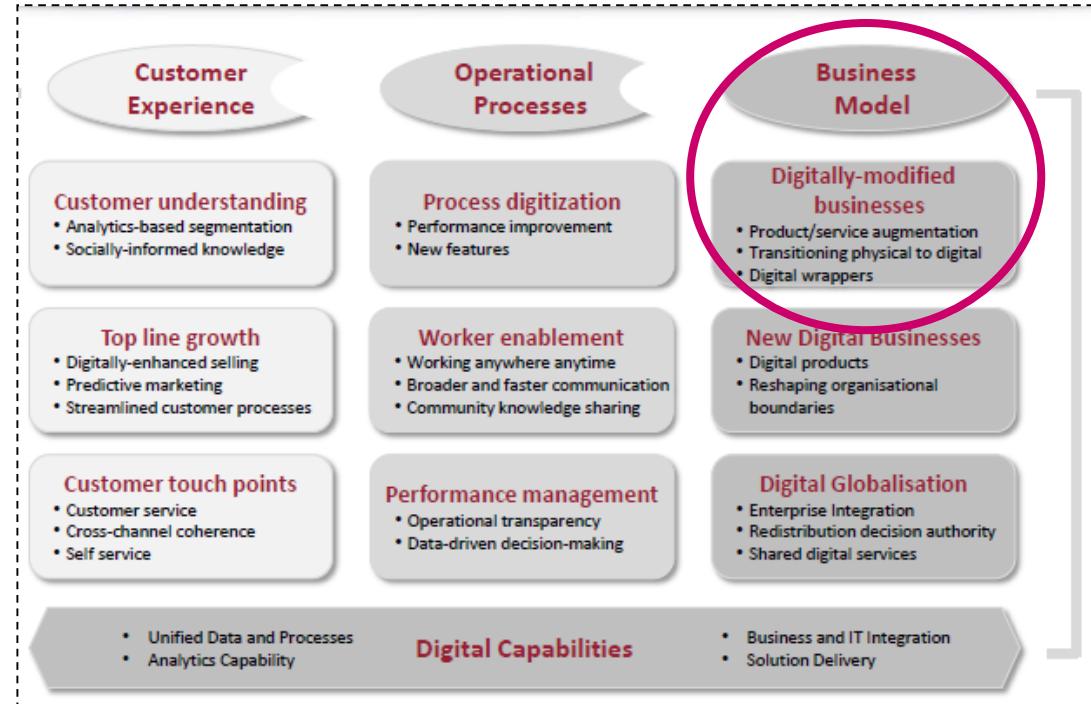
- eConsult
- Telemonitoring
- Zelfmetingen
- Telediagnostiek

Fundamentele verandering van werkomgeving en werkwijze voor zorgverleners

Hoe integreren we digitale diensten in het traditionele zorglandschap?

Kwaliteits- en financieringskader

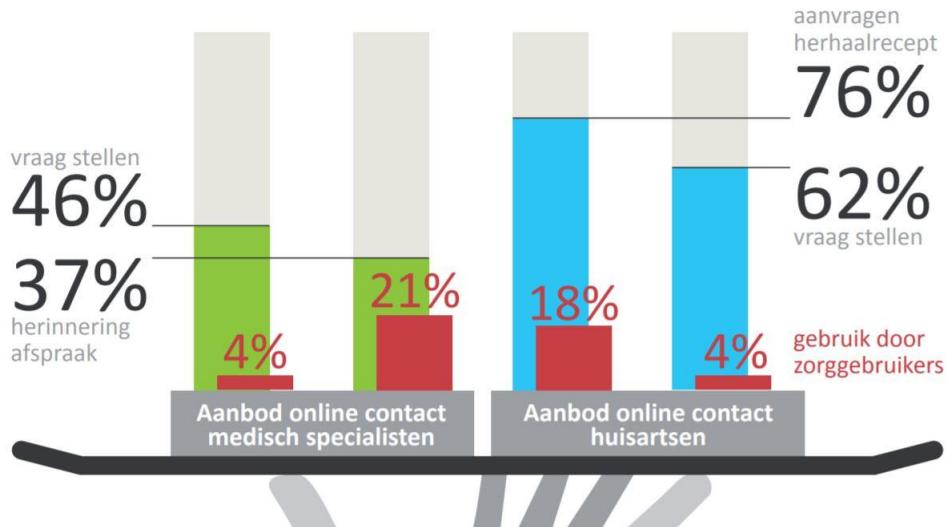
Leiderschap





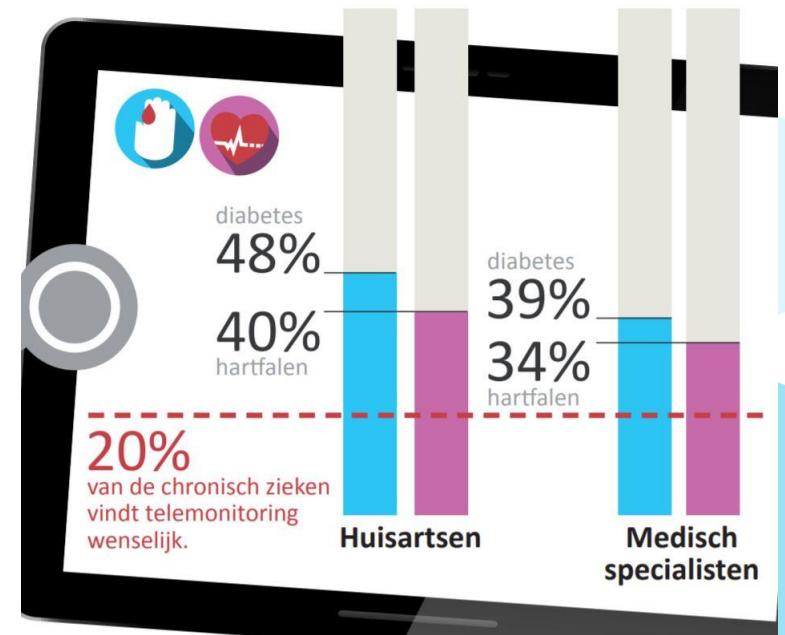
# Digitale zorg in Nederland

## Online contact



Bron: Ehealth monitor 2017

## Telemonitoring





# Best practice: telemonitoring voor COPD patiënten



Via de dienst COPD InBeeld worden patiënten in Oost-Nederland op afstand gemonitord door verpleegkundig specialisten van het Slingeland Ziekenhuis en thuiszorgmedewerkers van zorgorganisatie Sensire. Zorginnovatiebedrijf FocusCura ontwikkelde de technologie. COPD InBeeld leidt tot minder ziekenhuisopnames, zo blijkt uit een analyse die Sensire en het Slingeland Ziekenhuis uitvoerden op basis van de pilot die sinds 2010 loopt. Reden voor zorgverzekeraar Menzis om de financiering van de dienst **COPD InBeeld** vanaf 2017 over te nemen. Menzis, het Slingeland Ziekenhuis en Sensire gaan een samenwerking van drie jaar aan.



# Digitale zorg in België

## POSSIBLE

### 1) Appointments

Booking and managing online appointments with a healthcare provider or group practice

## NOT YET POSSIBLE

### 2) Consultation and patient follow-up

Remote consultation for first contact

Reimbursement code: there is no nomenclature code yet for digital contact and advice

Remote consultation in the context of patient follow-up

Recommending and prescribing apps to your patient (only as a formality) and using them together

Structured reimbursement model for apps (but: on 29/09 [Partena](#) decided to reimburse [Fibricheck](#)-see below)

Reimbursement of prescribed apps has started: on 29/09 Partena was the first to decide to reimburse Fibricheck

Monitoring and patient follow-up using apps for heart rate, blood pressure, wound healing etc.

"App pharmacy" for the healthcare provider



## Aanzet financieringsmodel voor medische apps

⌚ 16 Februari 2018 📸 door P.S.





Is dit straks  
verleden tijd?

Digitale zorg  
bedrijven  
Globalisering



# Digitale zorgbedrijven

Download  
Philips **Healthcare@home app**  
for Doctors and Patients



For more information call our customer care at

1800-419-7979



**KSYOS**  
TeleMedisch Centrum

## Mercy Virtual Care Center

World's First Facility  
Dedicated to Telehealth

Learn More





# Techbedrijven nemen deel van de zorg over

Waarom techbedrijven massaal op medische data azen

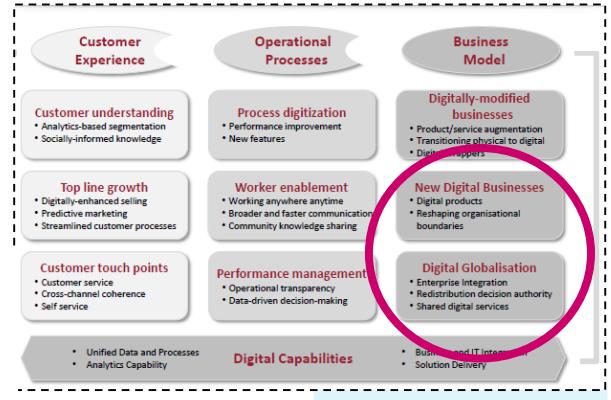
Philips kondigt samenwerking aan met Amazon. Ook Apple en IBM halen banden aan. Hun doel? Gezondheidsdata.



## De toekomst van patiëntloze ziekenhuizen

Ziekenhuizen zonder patiënten. Niet omdat men geen zorg meer nodig heeft, maar omdat patiënten door middel van technologie thuis in de gaten worden gehouden door artsen en verpleegkundigen. Die voorspelling doet Henk Valk, topman van Philips Benelux.

**‘Techreuzen nemen 20 procent ziekenhuiszorg over’**





# Advies

## Zorgaanbieders

1. Organiseer digitaal leiderschap
2. Leid zorgprofessionals op
3. Implementeer digitale technologie en diensten op een professionele manier
4. Betrek uw patiënten
5. Omarm best practices
6. Doe het goede, het betere komt later. Start nu!

## Overheid

1. Stimuleer en faciliteer ehealth educatie van burgers
2. Neem barrières weg
3. Neem ehealth vaardigheden op in de curricula van zorgprofessionals
4. Dwing interoperabiliteit af tussen digitale zorgsystemen
5. Maak een wettelijk kader voor ehealth
6. Stimuleer en faciliteer implementatie



D&A

Ik wens u veel succes op uw  
weg naar betekenisvolle  
digitale zorg

Ann Ouvry

[ann.ouvry@dnagroup.nl](mailto:ann.ouvry@dnagroup.nl)

[www.dnagroup.nl](http://www.dnagroup.nl)



## Digitale transformatie in welzijn en zorg: meer dan technologie alleen

Alexander De Croo,  
vicepremier en minister van  
Ontwikkelingssamenwerking, Digitale Agenda,  
Telecom en Post

Met de steun van:

abbvie

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Structurale  
partner Voka  
sdworx  
Result driven HR



# Alexander De Croo

**Deputy Prime Minister  
Minister of Digital Agenda**



**digitalisation =**

~~threat~~ opportunity



# Life sciences in Belgium rock!



**digital for all**

# digital infrastructure





**digital trust and security**

# digital government



Google+

facebook.

in

doccle

zoomit | z

pom

**TRUST**  
YOUR FILES IN LEGAL TRUST

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**INTERIMSIGN**  
Signez et gérez tous vos  
contrats d'intérim en ligne

**CODA** BOX  
.com

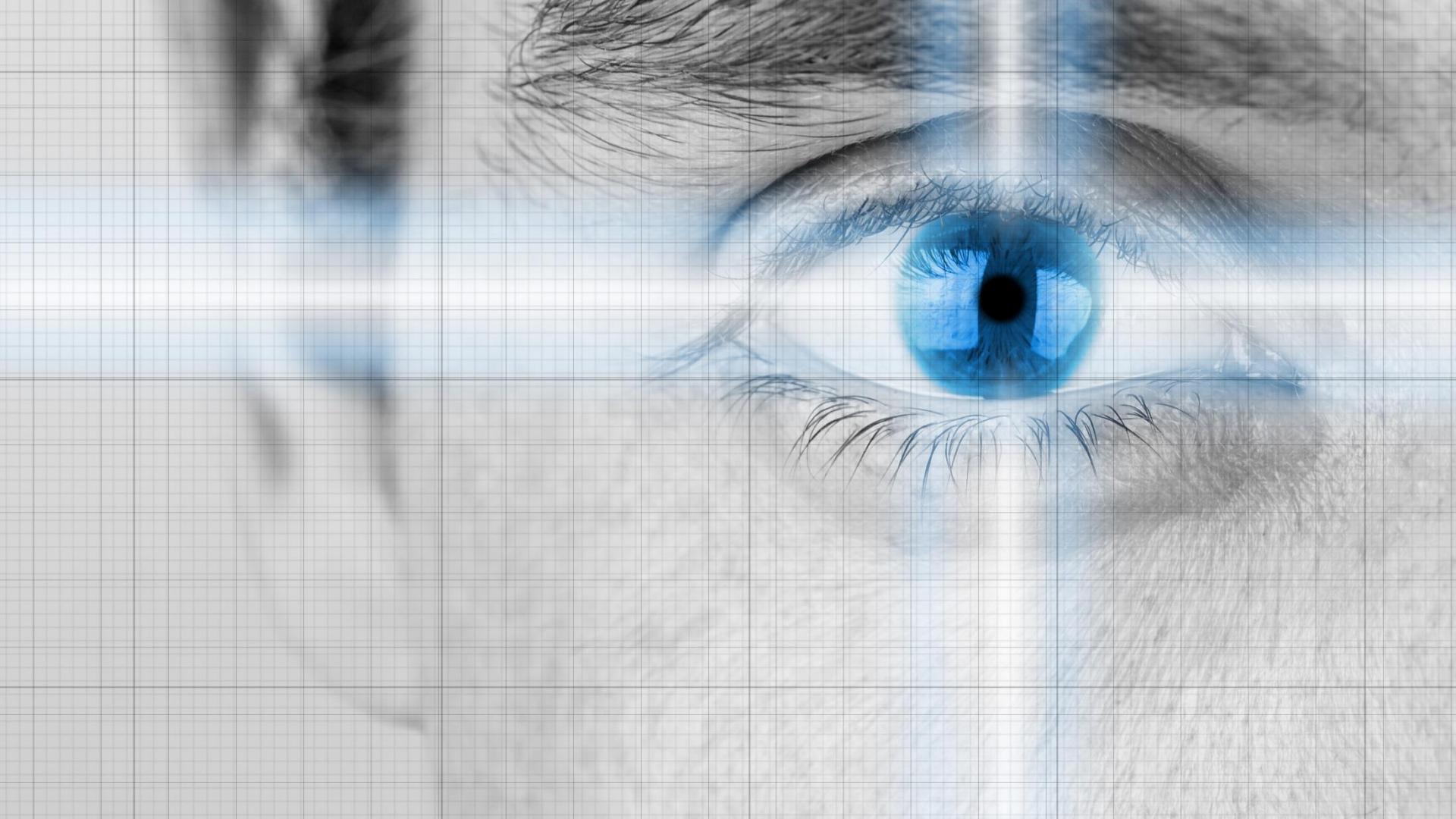
Bill to Box  
Unified by Invoicing

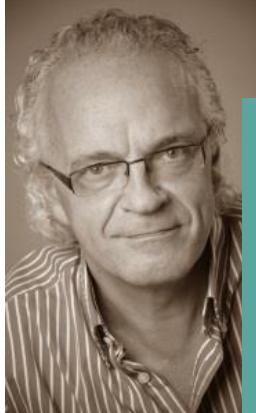
# digital economy





# digital skills





## Reflectie 'Een brede blik op welzijn en zorg'

Marc Noppen,  
CEO UZ Brussel

Met de steun van:

abbvie

Belfius  
Bank & Insurance

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bouw en ontwikkeling

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Solidariteit voor het Gezin

UZ Universitair  
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Brussel

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Structurale  
partner Voka  
sdworx  
Result driven HR

# Disclaimer

- This presentation represents the personal views and opinions of Marc Noppen, MD, PhD, the doctor, academic, and concerned and involved citizen.
- It does NOT represent the views of Marc Noppen, Chief Executive Officer of UZ Brussel



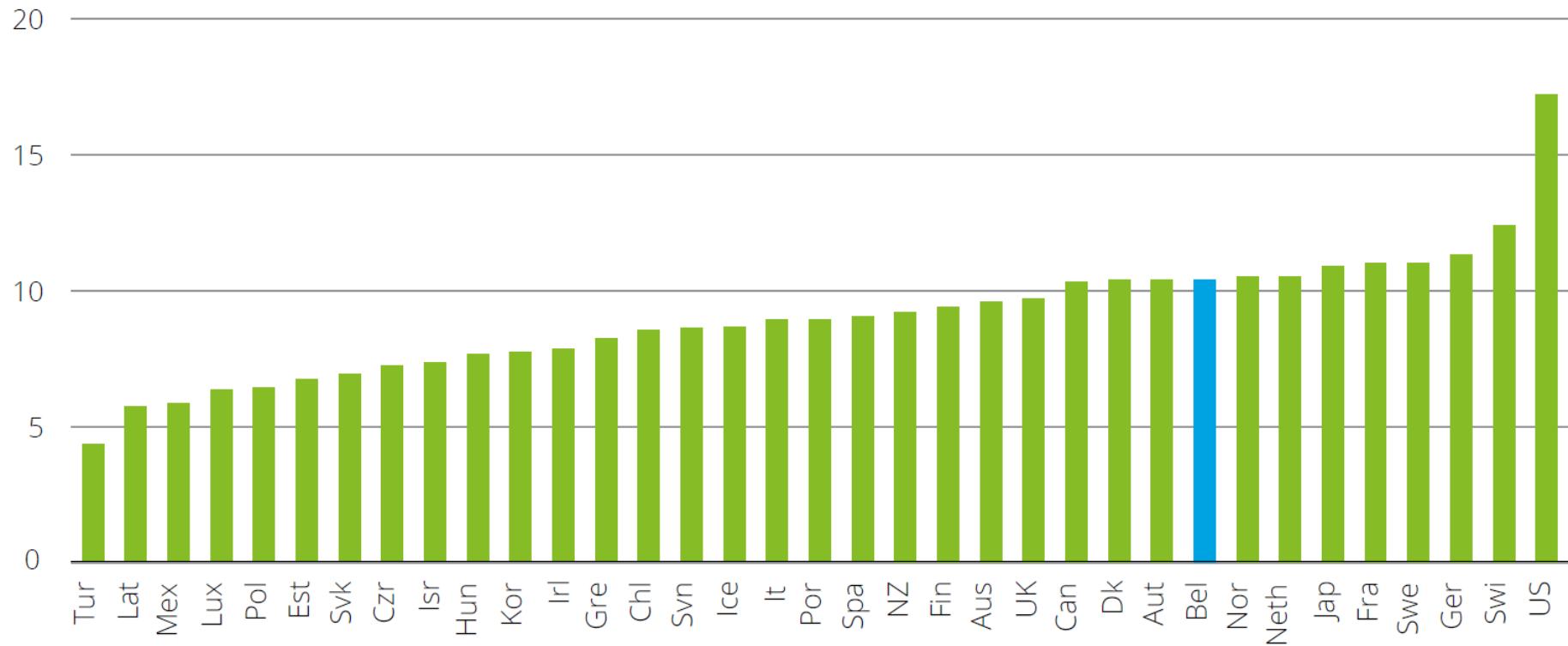
“Everything you  
always wanted to know  
about sex\*

\*But were afraid to ask”





### Figure 3. Total healthcare spending as percentage of GDP, 2016 (OECD)



Home > Nieuws > Beroepsnieuws > Lieven Annemans: "Groeinorm gezondheidszorg moet 2% blijven"

## Lieven Annemans: "Groeinorm gezondheidszorg moet 2% blijven"

25 Mei 2018



Lieven Annemans

# GEZONDHEIDSECONOMIE VOOR NIET-ECONOMEN



Bij uitgeverij Pelckmans verscheen een bijgewerkte versie van "Gezondheidseconomie voor niet-economen" van Prof. dr. Lieven Annemans (1). We overlopen met de auteur enkele principes, nieuwe methoden en valkuilen van de gezondheidseconomische evaluaties vandaag. En we staan stil bij de

ZOEKOPDRACHT



### SNELNIEUWS

Neutrale pakjes tabak: kogel door de kerk

07 September 2018 - 17:51

Bachi mee in FAGG

07 September 2018 - 17:27

Bijna 70 scholen voeren ook in het nieuwe schooljaar actie voor schone lucht

07 September 2018 - 12:25

De Block eist "nultolerantie" voor alcohol tijdens zwangerschap

07 September 2018 - 10:41

Chirurgen en gastro-enterologen moeten verbroederen

07 September 2018 - 10:12

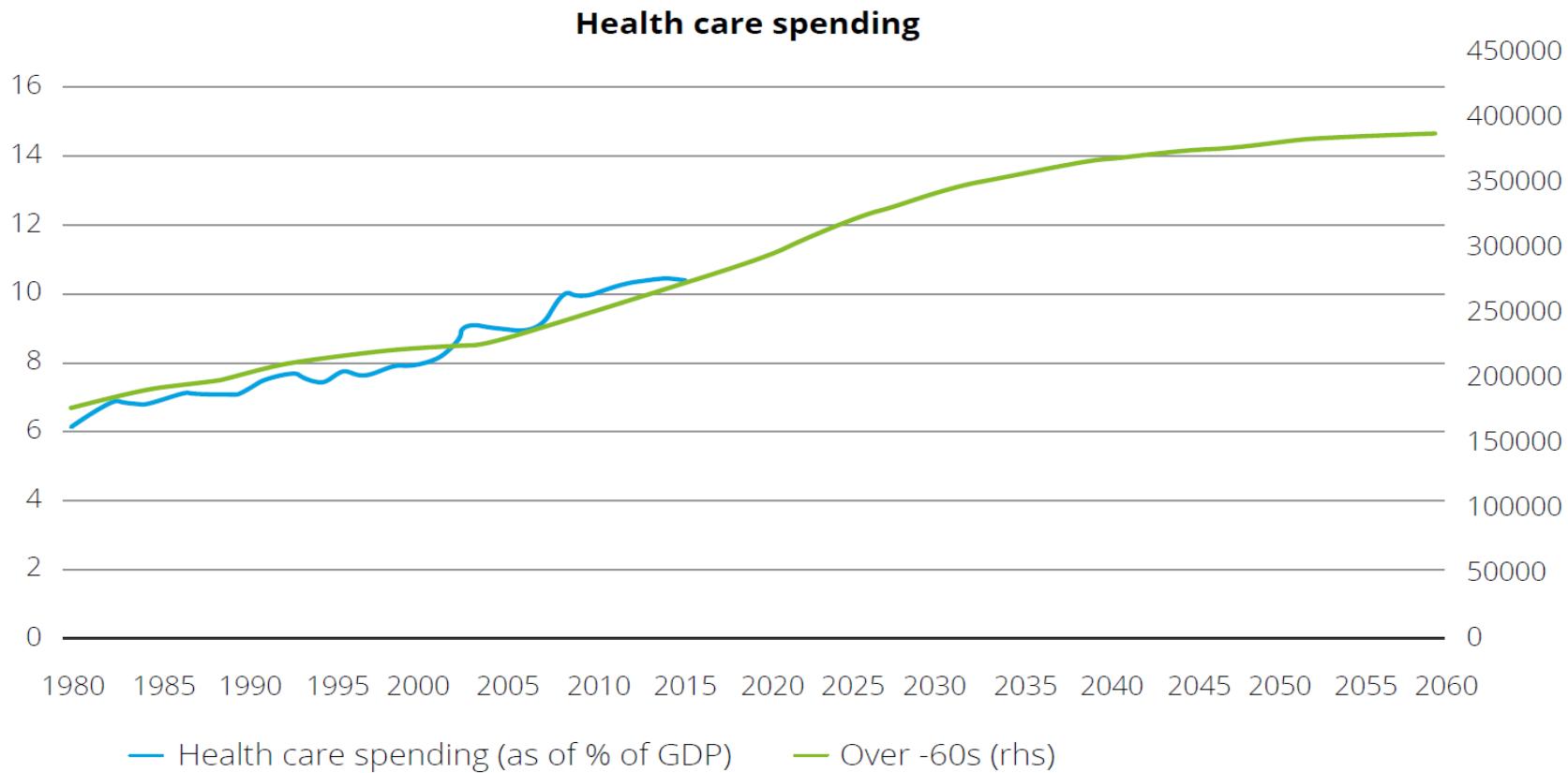
Bart Dehaes stapt in schoenen Marc Brosens (VBS)

07 September 2018 - 09:15

Pedro Brugada: "Schrap BTW op alle medische kosten en maak zo middelen vrij!"

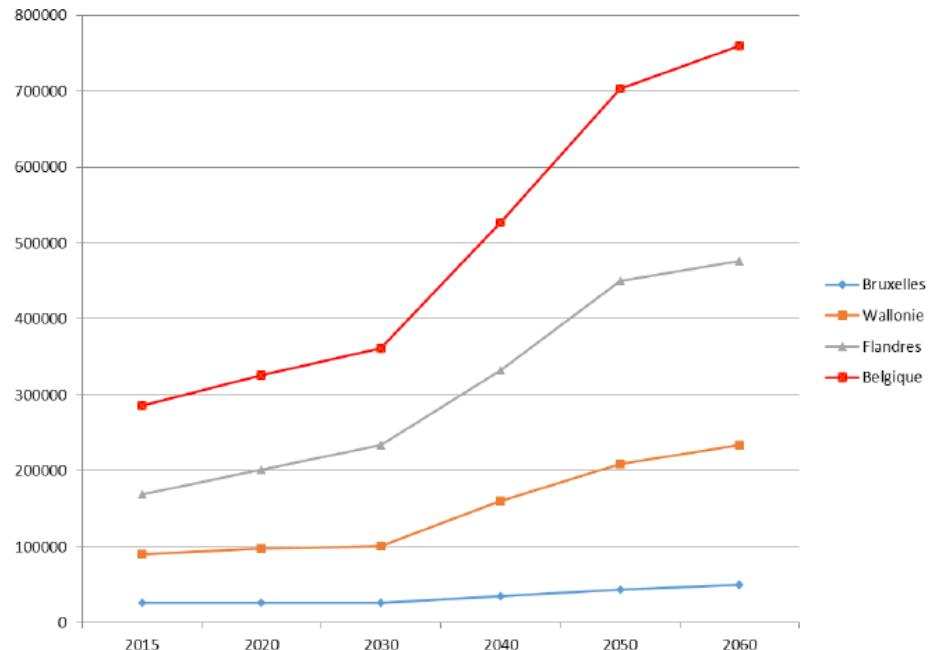
ONS LAATSTE NUMMER

**Figure 1. Ageing population pushes up health spending: healthcare spending as percentage of GDP and projection of population aged over 60.**

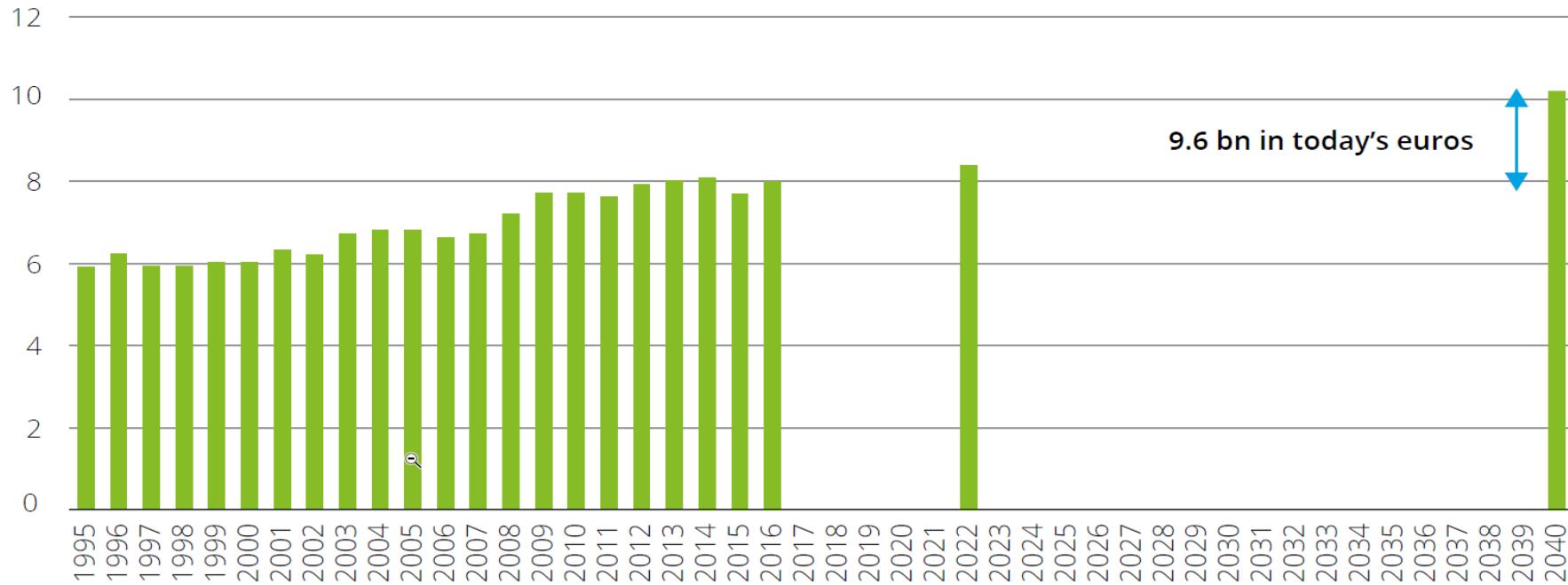


Source: OECD, FOD Economie

# The Greying Patient



**Figure 5. Government spending on healthcare as percentage of GDP  
(NBB, Ageing commission)**



**Figure 7. Budgetary challenges for the Belgian Government**

**2.0%**  
**GDP**

Current  
structural deficit

**3.4% - 5.2%**  
**GDP**

Ageing

**1 to 2%**  
**GDP**

Need for more  
investment

**1%**  
**GDP**

Additional defense  
spending

**Budgetary effort of 38 billion in today's euros**

# Financial implications Belgium

- Current financial situation of Belgian hospitals is worrying:
- 1 in 3 was loss-making in 2016
- 1 in 7 has insufficient cash flow to cover maturing debts
- And the real pressure on resources still has to come
- Without significant reform, the health care sector will have to cut one quarter of spending over next 20 years

# Financial implications Belgium

- Current financial situation of Belgian hospitals is worrying:
- 1 in 3 was loss-making in 2016
- 1 in 7 has insufficient cash flow to cover maturing debts
- And the real pressure on resources still has to come
- Without significant reform, the health care sector will have to cut one quarter of spending over next 20 years

**WAAR HALEN WE DAT GELD ?**

## 'We Will' Campaign surpasses \$4 billion with gift from Bon and Holly French

POSTED ON THURSDAY, SEPTEMBER 6, 2018

A major new commitment from Northwestern University trustee and alumnus T. Bondurant ("Bon") French '75, '76 MBA and his wife, Hollis ("Holly") S. French, has pushed fundraising for We Will. The Campaign for Northwestern past the \$4 billion mark and well beyond its original goal of \$3.75 billion, nearly two years ahead of schedule.

The "We Will" Campaign was launched publicly in March 2014 with the joint goals of raising \$3.75 billion from at least 141,000 supporters. Now, thanks to 149,094 Northwestern alumni, parents and friends, Campaign fundraising stands at a record \$4.06 billion.

"I am immensely grateful to Bon and Holly, who epitomize the Northwestern spirit through their long-time generosity and volunteerism, and to so many others who have helped us get where we are today," Northwestern President Morton Schapiro said. "Their generosity has enabled us to reach our goals faster than we ever imagined—and raised our expectations for the future of the University."



Holly and Bon French

# Options to deal with rising costs

1.

Patient pays for a larger share

2.

Additional government funding

3.

Increased efficiency: do more with current budget

- Annual cost cutting exercise
- Structural overhaul of health care sector

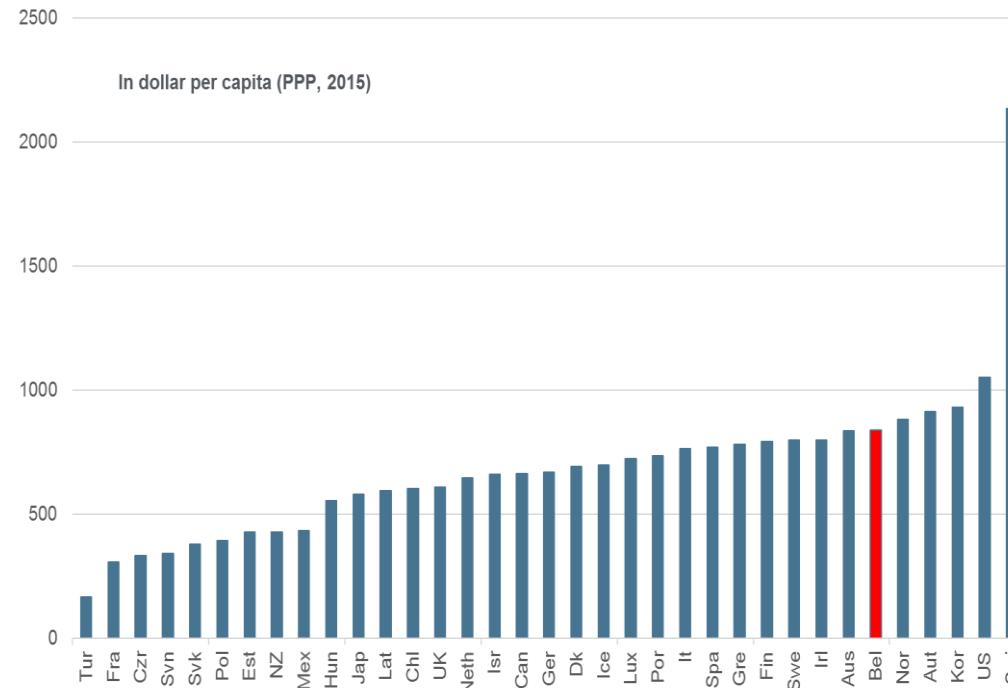
# Options to deal with rising costs

1.

Patient pays for a larger  
share

# Larger bill for patients doesn't seem to be a viable option

Out-of-pocket spending on health care



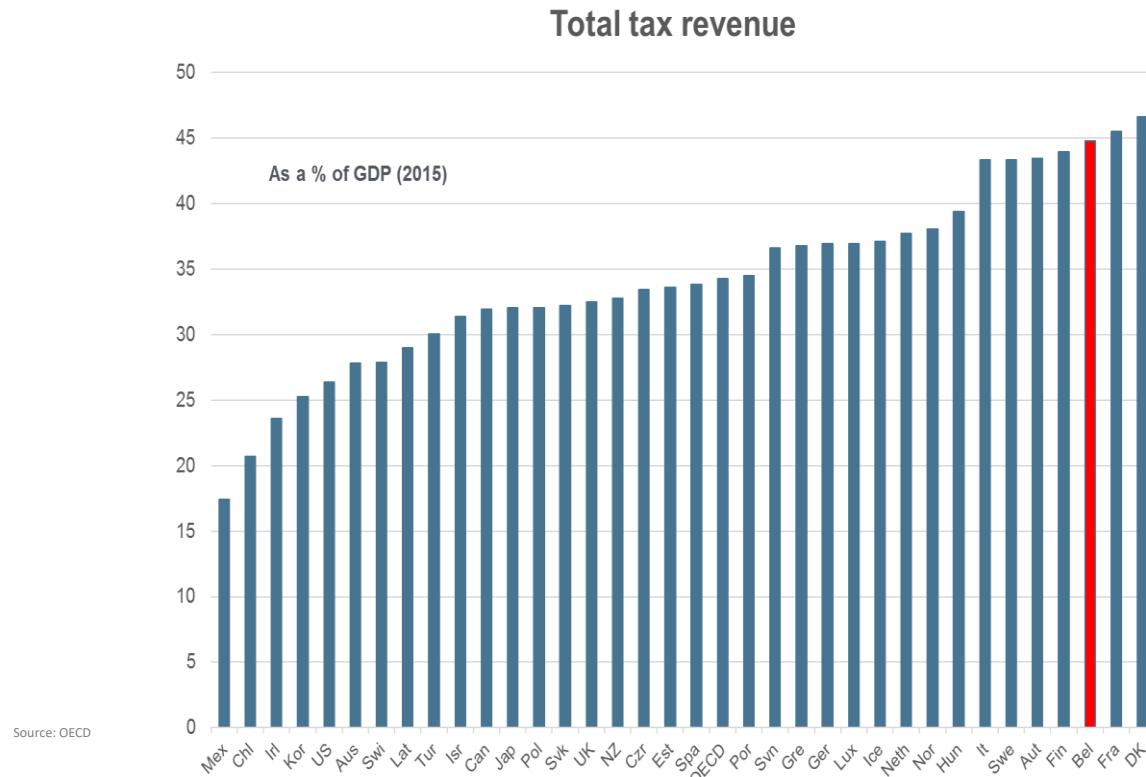
Source: OECD

# Options to deal with rising costs

2.

Additional government  
funding

# Limited room for additional funding



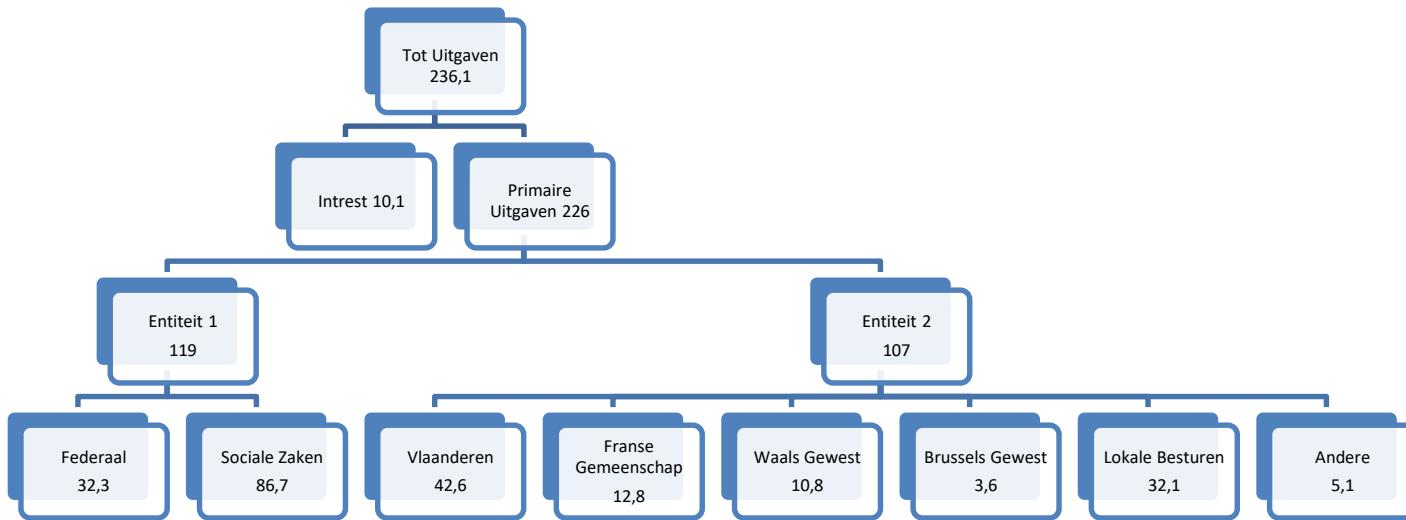
# Options to deal with rising costs

3.

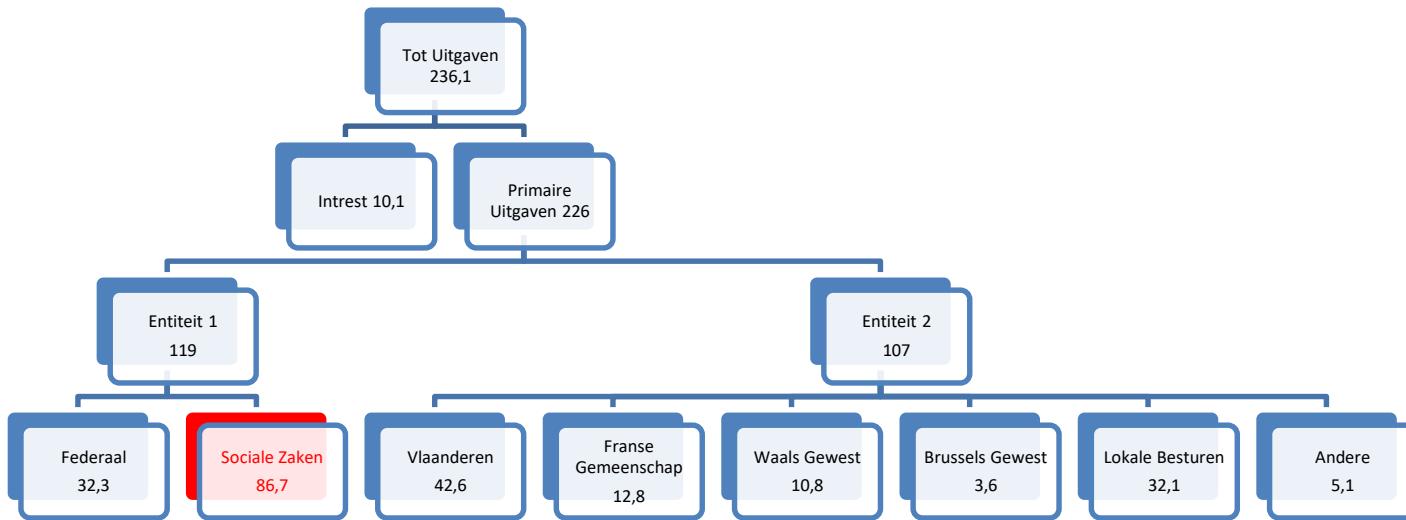
Increased efficiency: do more with current budget

- Annual cost cutting exercise
- Structural overhaul of health care sector

# Besparen...? Wààr denkt U...?



# Besparen...? Wààr denkt U...?

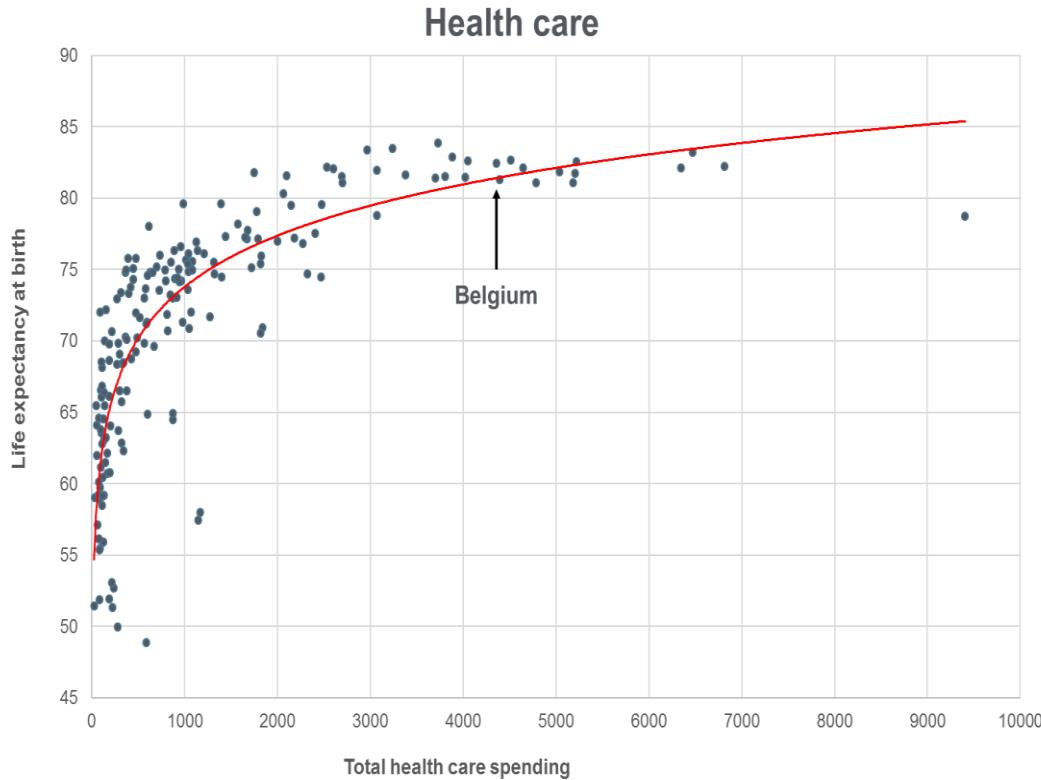


# Structural Overhaul of HealthCare Sector..?

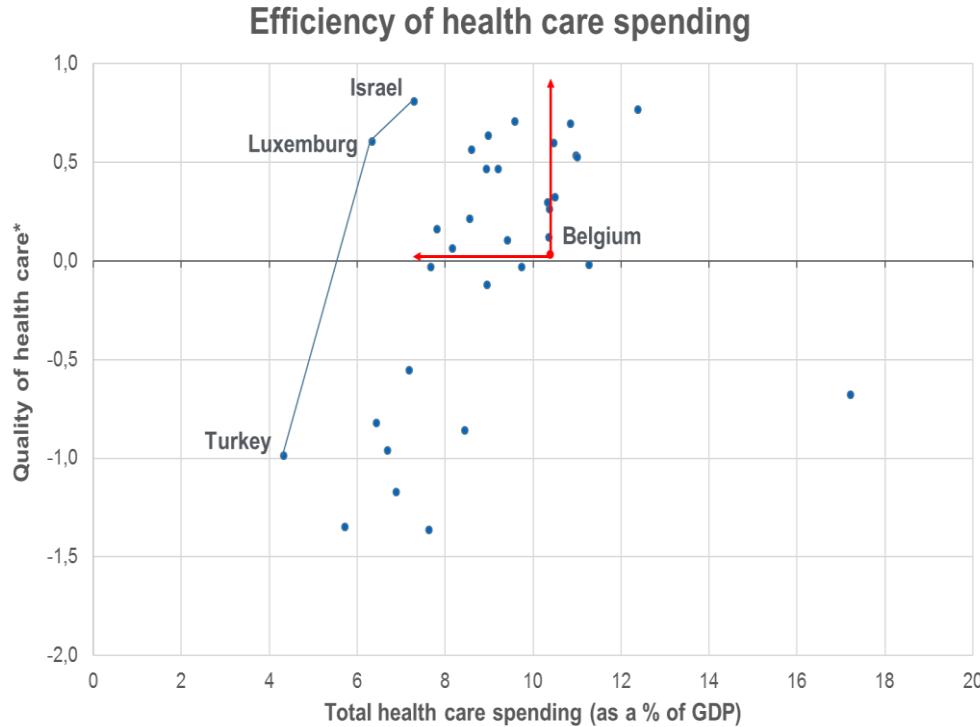
“In Healthcare, the days of  
*business as usual* are over.”

ME PORTER,TH LEE  
HBR 2013

# At first sight we get what we pay for...



# But there's plenty of room to do more with less



Source: World Bank, OECD

(\*) Combined standardised indicator based on life expectancy, healthy life, child mortality, years of life lost, perception of health, gap in perception of health between rich and poor

# Awkward questions about the current system

Health care or sick care?

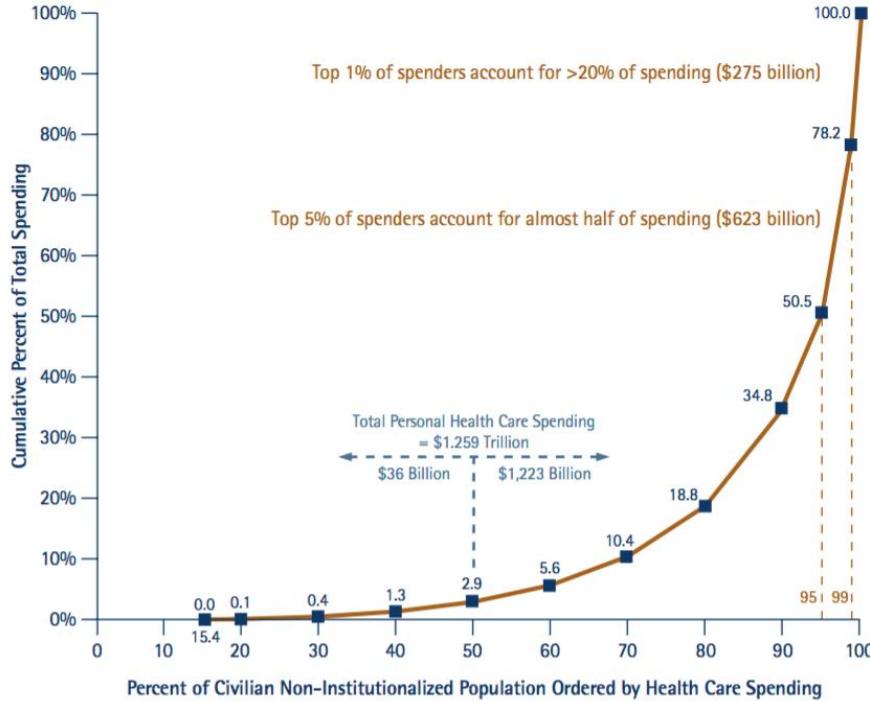
What about prevention?

Which incentives in fee-for-service?

Do we need to organise our hospitals differently?

# Do we choose sick care over health care?

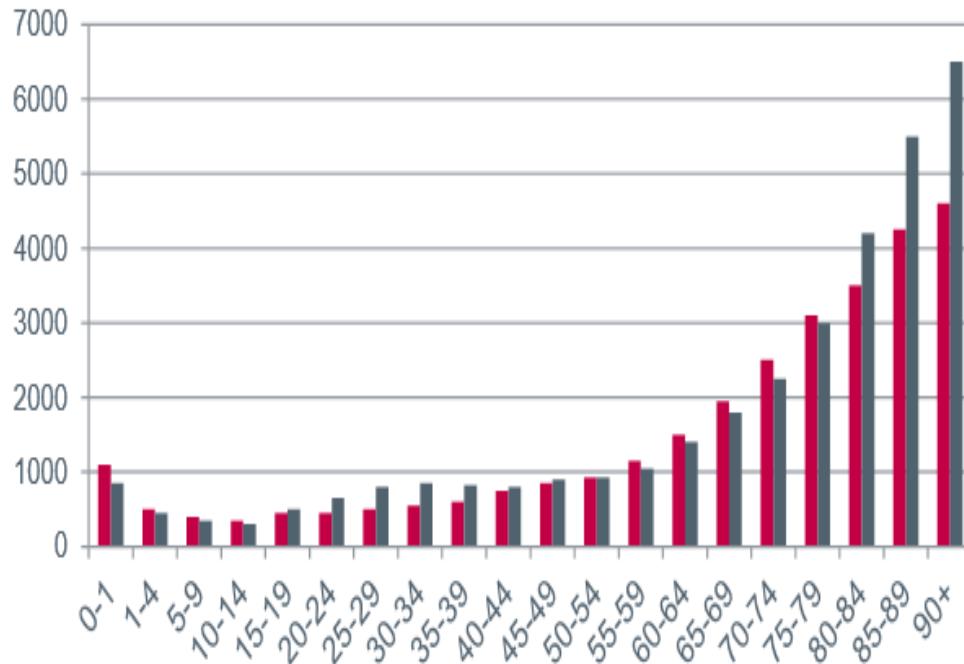
Cumulative distribution of personal healthcare spending in the U.S. in 2009



Source: Schoenman, Julie A. "The concentration of health care spending." NIHCM Foundation Data Brief, National Institute of Health Care Management, Washington, DC (2012). (Formatted by [www.OurWorldInData.org](http://www.OurWorldInData.org))

# Health care spending just to prolong life?

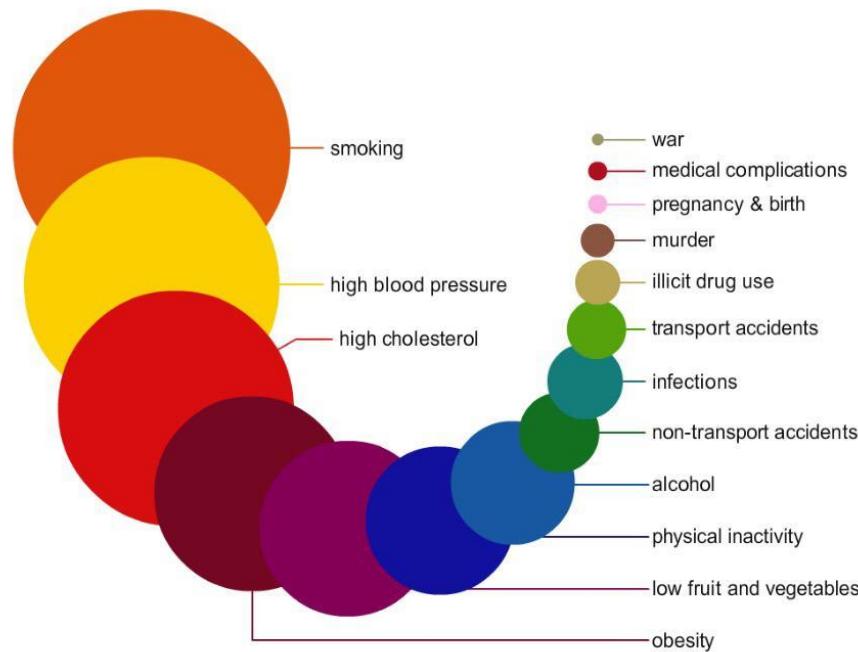
Health care spending in function of age



Source: Ageing Commission

# The Lifestyle Epidemic

## Risks leading to death in perspective

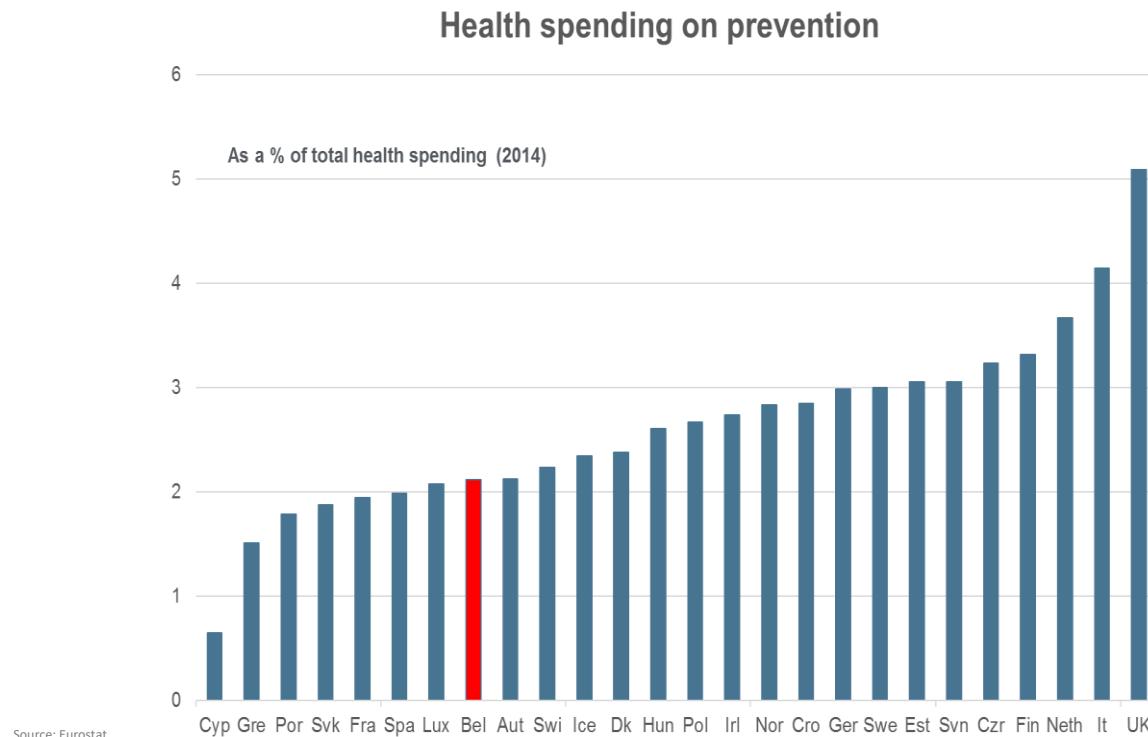


## EXAMPLES OF RETURN ON INVESTMENTS FOR PREVENTION EFFORTS

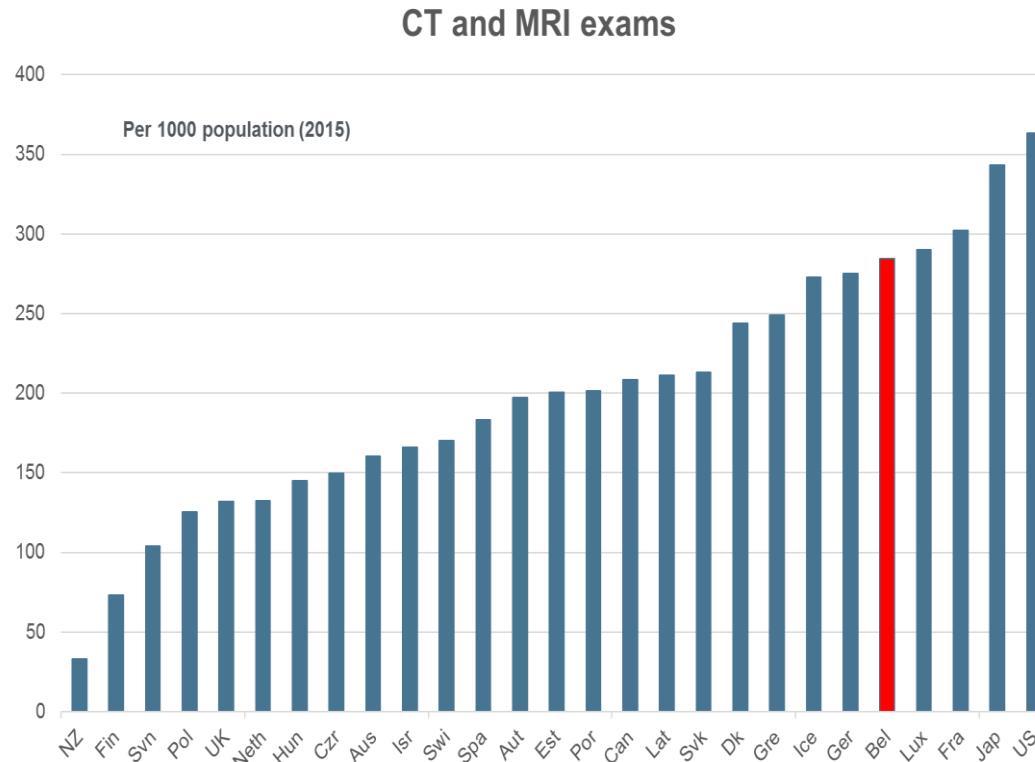
(Analyses/formulas indicate healthcare and/or societal dollars saved for every \$1 invested.)

Five Strongest School-based Substance Misuse Prevention Programs <sup>26, 27, 28, 29</sup>	<b>3.80:1 to 34:1</b>	Community-based Nutrition, Activity and Tobacco Prevention Programs <sup>30</sup>	<b>5.60:1</b>	Lead Abatement Programs <sup>31</sup>	<b>17:1 to 221:1</b>
Supportive Housing Programs for High-Need Patients <sup>32</sup>	<b>2:1 to 6:1</b>	Diabetes Prevention Program <sup>33, 34</sup>	<b>2:1</b>	Early Childhood Education Programs <sup>35</sup>	<b>4:1 to 12:1</b>
		Child Asthma Prevention Programs <sup>36, 37</sup>	<b>1.46:1 to 7:1</b>	Nurse Home Visiting for High Risk Infants <sup>38</sup>	<b>5.70:1</b>

# Why don't we care more about prevention?

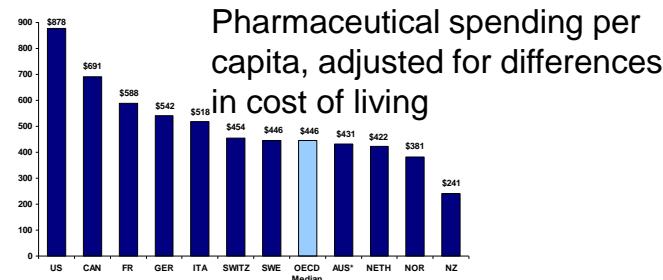
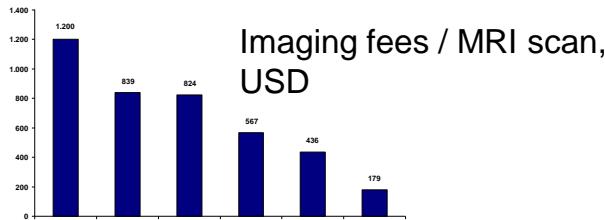
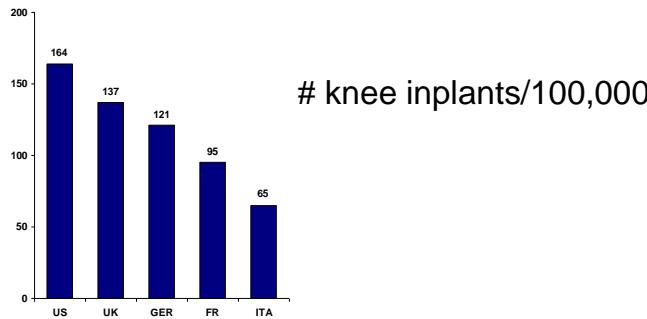
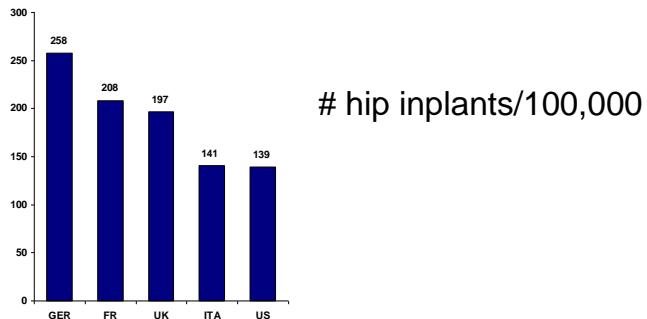


# What is the impact of fee-for-service?

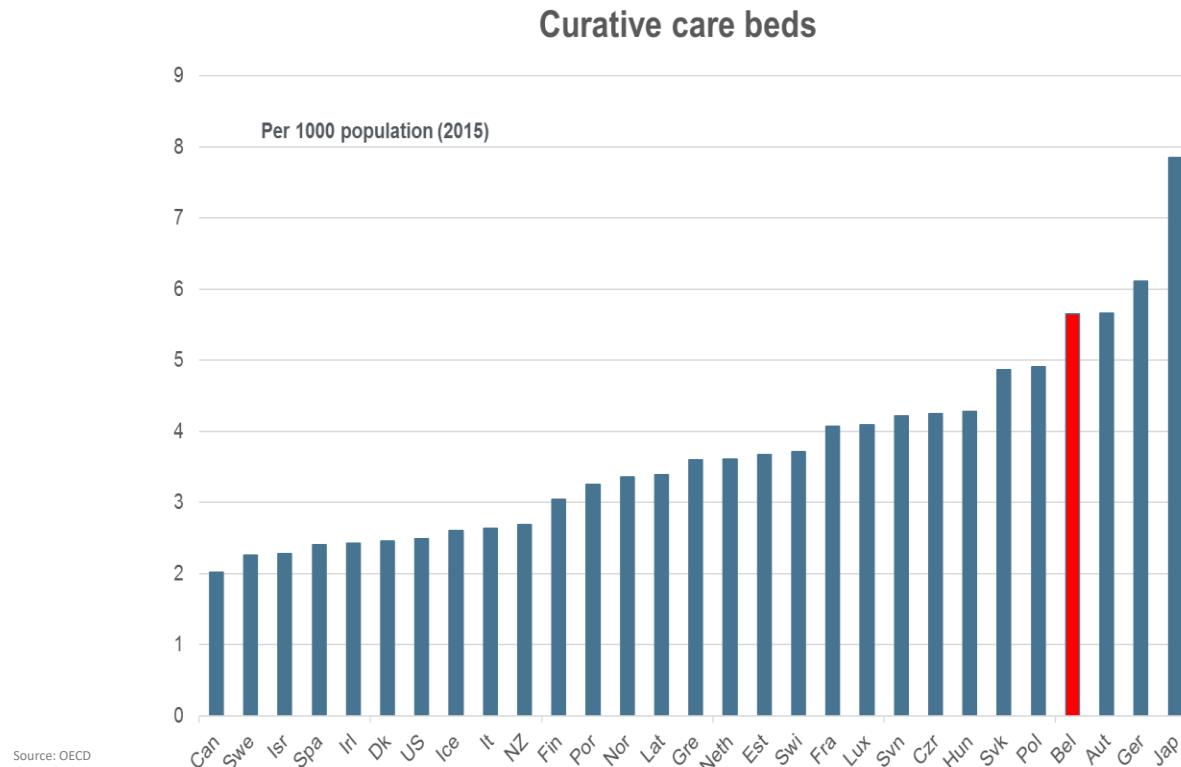


Source: OECD

# Medical Practice ... follows the money !



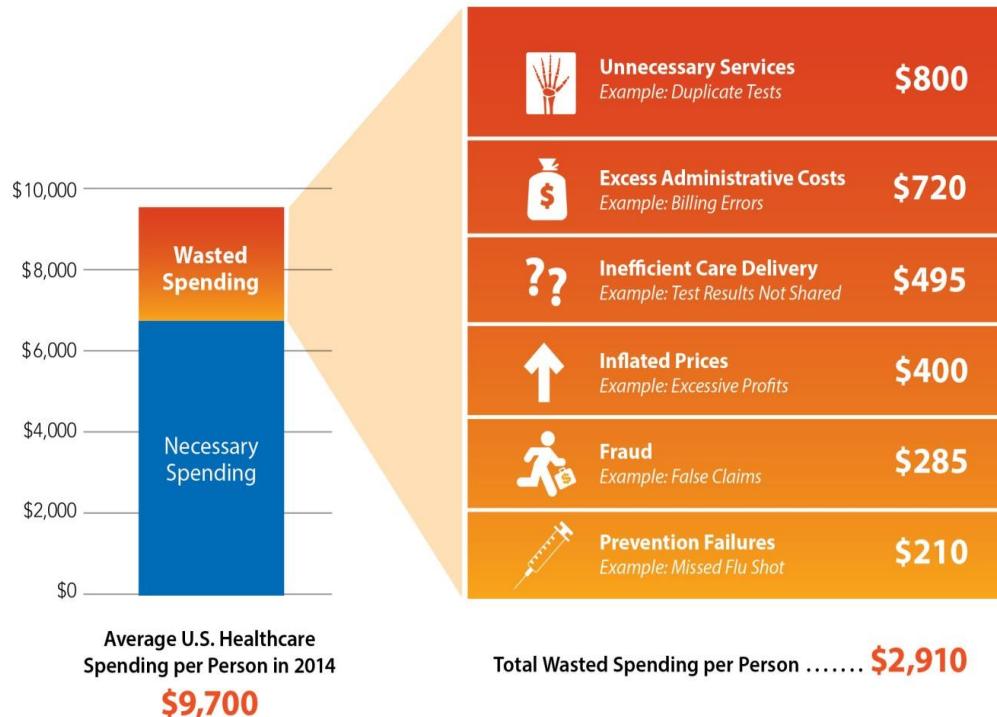
# Do we need to organise our hospitals differently?

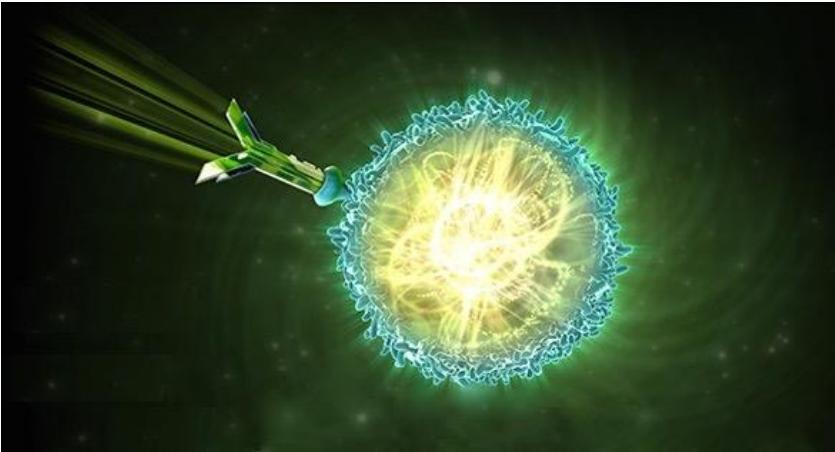


# Belgium today : the “ average hospital” inefficiencies (Portella, 2014 )

- 5% of beds occupied by chronic diseases
- 7% of beds occupied by readmissions < 10 days
- 19% of beds have a LOS > 30 days ( 27% > 20 days )
- Hence, more than 30% of bed occupancy is inappropriate for an “acute hospital” ( and 70% of these patients are 80+ years old )
- Hence, current acute hospital bed offer and usage is poorly adapted to the demand

# Why do we keep a system in place where 1 out three dollars/euro's spent is pure waste...

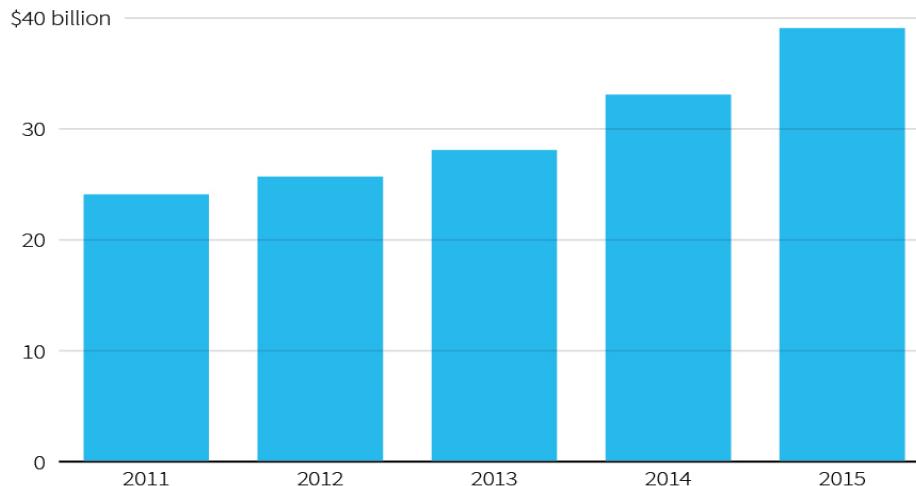




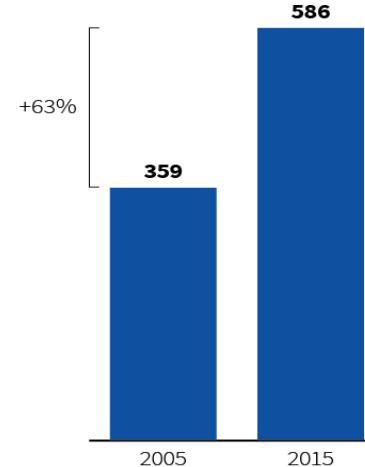
# Oncology drug prices

Scientific progress, pricing power, drive pharmaceutical companies to emphasize oncology research.

## U.S. SPENDING ON ONCOLOGY MEDICINES



## NUMBER OF CANCER DRUGS IN CLINICAL DEVELOPMENT



## PD1/PDL1 CHECKPOINT INHIBITOR PRICES

Estimated average per month\*



\* Drug price is based on the milligrams of medicine used and varies with the weight of the individual patient.

\*\* Bavencio's price is the wholesale acquisition cost for an average patient.

Sources: QuintilesIMS Institute ; Reuters



US approves first cancer drug to use patient's own cells – with \$475,000 price tag





Luxturna© 850,000 \$



## Challenging financial outlook

- Ageing + innovation/technology + volume incentives push health care spending
- Outlook for public finances suggest there is no room for additional spending
- Aim for higher efficiency in health care: do more with less

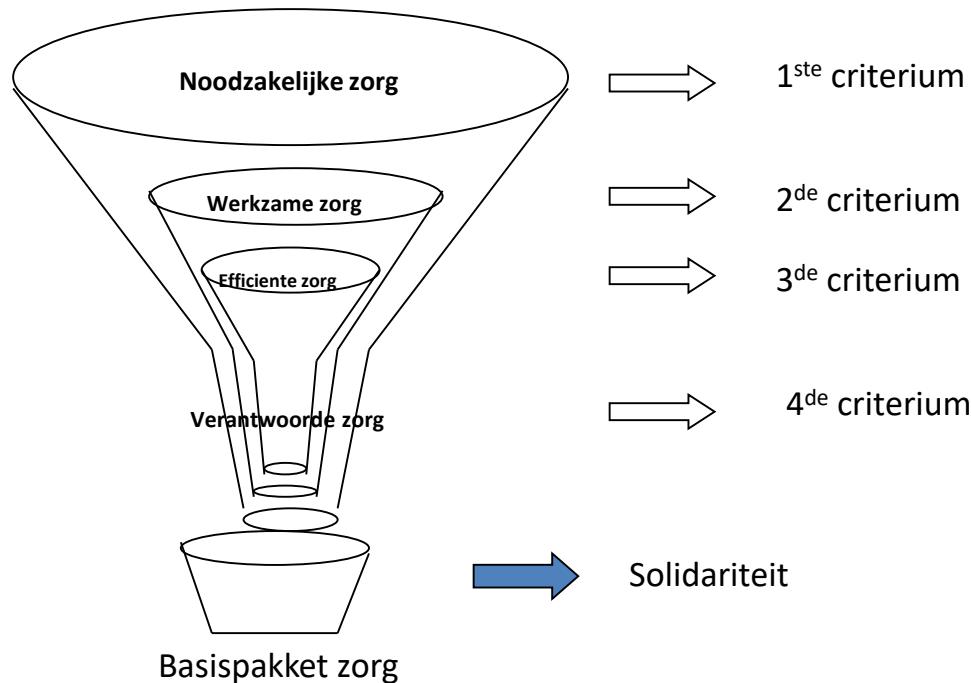
..... Let's go for *Good Medicine*...

# Which trade-off's will have to be made to liberate the cash for *Good Medicine* ?

- Absolute freedom of choice *vs* Managed Care
- Dunning's Funnel *vs* "total reimbursement"
- "Unconditional Reimbursement" *vs* "no cure no pay"
- Being paid to cure the sick ( "cost") *vs* to foster health ( "investment")
- Absolute Privacy *vs* Data Sharing
- Volume Based *vs* Value Based
- Soloism & siloing *vs* Teamplay & interdisciplinarity
- Talking *about* patients *vs* talking *with* patients

# Budget beperkingen EN efficientieverbetering

- NI : 20% budget beperking in UG EN efficientieverbetering
- “Dunning’s Trechter” ( MC 2010;65(2):60-3 )



# Which trade-off's will have to be made to liberate the cash for *Good Medicine* ?

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# What is missing here...?

- People
- Technology

# People...!



**Bodenheimer C, Simsky C.** From triple to quadruple aim : care for the patients requieres care of the provider. *Annals Fam Med* 2014;12:573-6

# # and hair-colour of the Providers

	Totaal				Mannen		Vrouwen		Leeftijdspiramide			
	N	RIZIV	%RIZ	% van totale aantal	N	%RIZ	N	%RIZ	% van totale aantal			
.. < 30	500	273	54,6		127	59,1	373	53,1				
30 < 35	952	663	69,6		325	75,4	627	66,7				
35 < 40	1.240	794	64,0		424	74,3	816	58,7				
40 < 45	1.552	1.035	66,7		589	77,1	963	60,3				
45 < 50	1.498	1.019	68,0		751	77,9	747	58,1				
50 < 55	2.486	1.851	74,5		1.563	80,5	923	64,2				
55 < 60	2.780	2.113	76,0		2.052	80,1	728	64,4				
60 < 65	2.307	1.789	77,5		1.948	80,4	359	61,8				
65 < 70	1.048	679	64,8		956	66,6	92	45,7				
70 < 75	584	274	46,9		549	48,8	35	17,1				
75 < ..	1.197	247	20,6	05 10 15	1.152	20,9	45	13,3	10 05	05	05	10
	16.144	10.737	66,5		10.436	69,8	5.708	60,4				



Mis en ligne le 17/09/2018 à 18:43

# France: le numerus clausus en études de médecine supprimé à la rentrée 2020

Le gouvernement entend ainsi pallier au manque de médecin sur l'ensemble du territoire français.



Sur le même sujet

**L**e numerus clausus, qui limite le nombre d'étudiants admis en deuxième année de médecine, sage-femmes, dentaire ou pharmacie, sera supprimé à la rentrée 2020 dans le cadre du plan santé présenté mardi par Emmanuel Macron, a-t-on appris lundi de

-50% sur tous vos abonnements

**FIFF**

Partager le cinéma. En vrai. En grand.  
PROGRAMME & TICKETS  
EN LIGNE

**28.09 - 05.10.2018**23<sup>me</sup> Festival International du Film  
Francophone de Namur - Belgique

## Le fil info

**Formule 1** 14:48

Max Verstappen prend la défense de Stoffel Vandoorne: «Il n'a jamais eu sa chance face à Fernando Alonso»

**France** 14:33

Marine Le Pen n'ira pas à l'examen psychiatrique ordonné par la justice

**Athlétisme** 14:32

L'Agence mondiale antidopage réintègre l'agence antidopage russe

**Ligue des Champions** 14:28

Thomas Meunier pris pour cible par un consultant français

**LUSA** 14:09



## VGSO: 'Toekomst van groot aantal Waalse studenten onzeker'



**Veerle Caerels**  
Adjunct-hoofdredacteur

20/09/18 om 10:16 - Bijgewerkt om 10:17

Het Vlaams Geneeskundig Studentenoverleg (VGSO) betreurt dat men onder de taalgrens het contingent naast zich neerlegt door meer dan dubbel zoveel studenten dan voorzien toe te laten tot de geneeskundestudies.

Lees later



© updates

1.138 studenten kunnen in Franstalig België aan de opleiding tot arts en tandarts beginnen. Dat bleek eerder deze week toen de resultaten van de tweede sessie van het Franstalige ingangsexamen bekend raakten.

### Geen Riziv-nummer

"Vorig jaar is er echter op federaal niveau vastgelegd dat er maar voor 505 studenten die dit academiejaar starten aan de opleiding in Wallonië een plaats in het contingent is voorzien", schrijven de VGSO-bestuursleden in een reactie. "Wij betreuren dan ook het feit dat er aan de andere kant van de taalgrens, ondanks duidelijke afspraken en de beslissing om met een toelatingsexamen als werkzame filter het contingent te bewaken,



*In mijn  
opleiding*

**geneeskunde zie en ervaar ik zeer  
weinig diversiteit**

Serhat Yildirim



*Hopelijk is  
een*

**goedbedoelde vraag als "of word je  
maar huisarts?" straks verleden tijd**

Anouk Buelens-Terry

**Lees alle opinies & analyses...**

### Nieuwsbrief

**Schrijf u in op onze nieuwsbrieven**

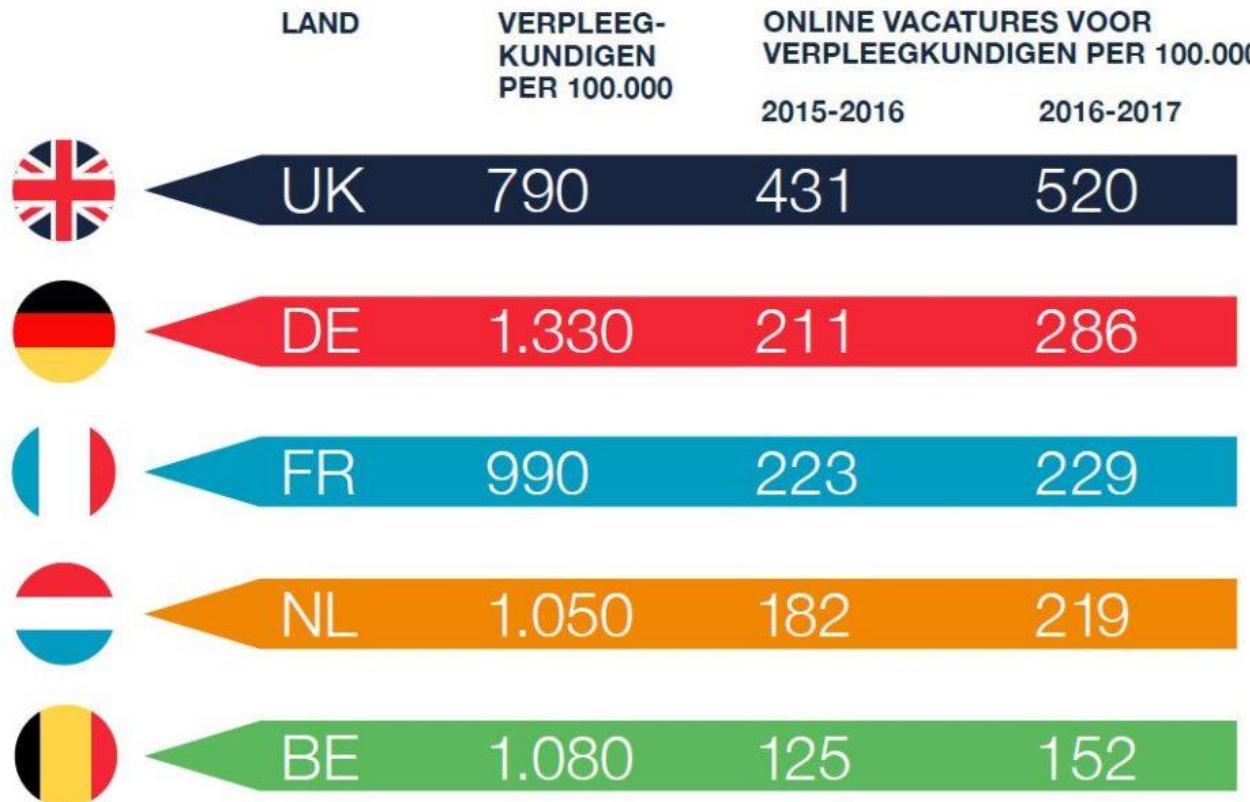
### Deze week in Artsenkrant



De  
geneeskundecurricula  
naast elkaar gelegd  
Is er leven naast de  
studies?  
Een slimme meid kiest  
een jonge partner

Lees Ak online

# Vacatures voor verpleegkundigen per 100.000 inwoners



# The New Healthcare Provider

Talking a different language						
Formative experiences	Maturists (pre-1945) Wartime rationing Rock'n'roll Nuclear families Defined gender roles - particularly for women	Baby boomers (1945-1960) Cold War 'Swinging Sixties' Moon landings Youth culture Woodstock Family-oriented	Generation X (1961-1980) Fall of Berlin Wall Reagan/Gorbachev/ Thatcherism Live Aid Early mobile technology Divorce rate rises	Generation Y (1981-1995) 9/11 terrorists attacks Social media Invasion of Iraq Reality TV Google Earth	Generation Z (Born after 1995) Economic downturn Global warming Mobile devices Cloud computing Wiki-leaks	
Attitude toward career	Jobs for life 	Organisational - careers are defined by employees	"Portfolio" careers - loyal to profession, not to employer	Digital entrepreneurs - work "with" organisations	Multitaskers - will move seamlessly between organisations and "pop-up" businesses	
Signature product	Automobile 	Television 	Personal computer 	Tablet/smartphone 	Google glass, 3-D printing	
Communication media	Formal letter 	Telephone 	E-mail and text message 	Text or social media 	Hand-held communication devices	
Preference when making financial decisions	Face-to-face meetings	Face-to-face Ideally but Increasingly will go online	Online - would prefer face-to-face if time permitting	Face-to-face	Solutions will be digitally crowd-sourced	

# Arts-assistenten kiezen resoluut voor deeltijdse opleiding

21/09/18 om 04:50 - Bijgewerkt op 20/09/18 om 19:33  
Bron: Artsenkrant

Vier op vijf artsen in opleiding staan '(zeer) positief' tegenover het principe van een deeltijdse opleiding. Dat blijkt uit een enquête onder 250 assistenten aan de UZ Gent waarover Artsenkrant vrijdag schrijft. De resultaten gelden moeiteloos voor alle universiteiten.



1  
Keer gedeeld

Lees later



© iStock

Sinds begin 2018 bestaat wettelijk de mogelijkheid om een deeltijdse opleiding tot arts-specialist te volgen. Uit een bevraging onder 250 Gentse assistenten blijkt dat 200 onder hen (80%) positief staan tegenover het principe van de deeltijdse opleiding. In casu gaat het dan over een vier vijfde opleiding - lees: 48 uur in plaats van het meer gebruikelijke 60 uur.

Een voorbeeld aantal bezorgdheid en voorstellen die pro een deeltijdse opleiding:





# (Information)Technology

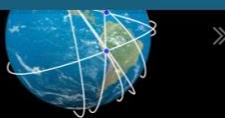
# The Information Revolution

http://uk.businessinsider.com/vijay-pande-a16z-on-the-future-of-tech-and-healthcare-2016-11?r=US&IR=T

Favorites Tools Help

BUSINESS INSIDER UK

TECH



## Why an investor at Andreessen Horowitz thinks software is the future of healthcare



Lydia Ramsey Nov. 12, 2016, 8:30 PM 405



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EMAIL



PRINT

It's not exactly surprising that a partner of a venture capital firm with a tagline that "software is eating the world" thinks the same could be said for the drug industry.

Vijay Pande, a general partner at Andreessen Horowitz, runs the firm's bio fund. So far, the fund's made investments in companies including Freenome, which is developing a blood test that screens for the earliest signs of cancer, and Q, a startup that wants to quantify the human physiology.



Vijay Pande, General Partner at Andreessen Horowitz  
Andreessen Horowitz

213

Pande's argument, as he explained to Business Insider, is that as health-technology gets better,

Sketch

3:33 PM

100%

Vitals

Day

Week

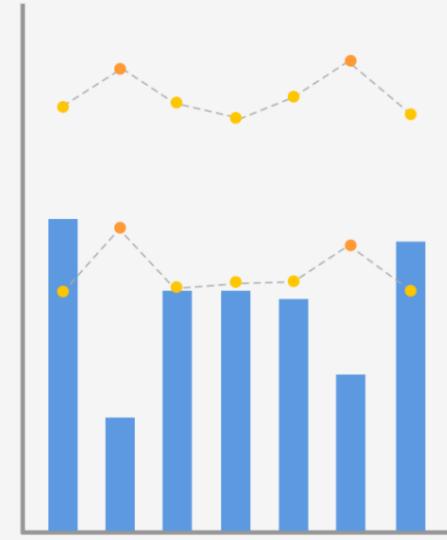
Month

Year

Steps

Sleep

Goals



Mining Internet searches yields clues to lung cancer diagnosis - MedCity NewsMedCity N... Page 1 of 6



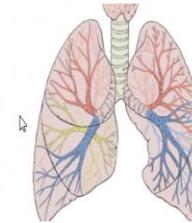
HEALTH IT, DIAGNOSTICS

## Mining Internet searches yields clues to lung cancer diagnosis

By NEIL VERSEL

Post a comment / Nov 11, 2016 at 7:20 AM

25 SHARES



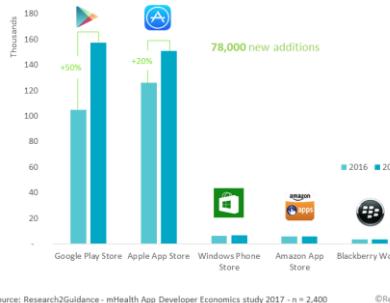
Are people ever more honest about their health concerns as they are when they type health questions into Internet search engines?

Two top Microsoft health researchers think it's a fair question, and set out to mine search logs to identify risk factors for the nearly 20 percent of cases of lung cancer found in non-smokers. Their work also could help diagnose lung cancer earlier, since 75 percent of patients are diagnosed at Stage III or IV of the disease, according to an article published online Thursday in JAMA Oncology.

This is a follow-up to a study that appeared in the August edition of the Journal of Oncology Practice. That study found that search engines – in this case, Microsoft's Bing – could yield clues to help diagnose pancreatic adenocarcinoma.

**325,000 mHEALTH APPS AVAILABLE – GOOGLE PLAY STORE IS NOW NUMBER ONE FOR HEALTHCARE APPS, OVERTAKING APPLE APP STORE**

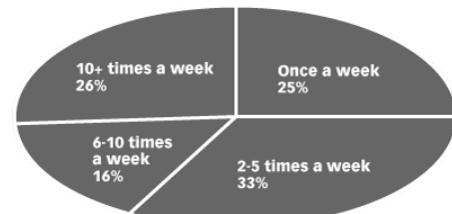
Number of mHealth apps displayed in App Stores



Source: Research2Guidance - mHealth App Developer Economics study 2017 - n = 2,400

©Research2Guidance 2017

**Frequency with Which Health & Fitness App Users Worldwide Use Health & Fitness Apps, Aug 2017**  
% of total



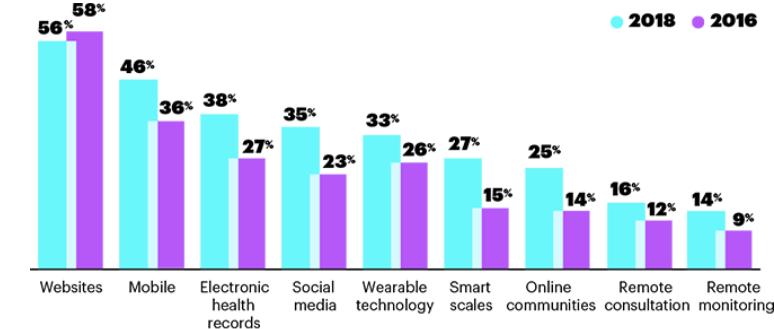
Note: represents activity on Flurry's platform, broader industry metrics may vary

Source: Flurry Analytics as cited in company blog, Sep 7, 2017

230707

www.emarketer.com

Healthcare consumers are increasingly using technology to manage their health



Source: Accenture 2018

# Consumers do it!

## Healthcare spending shifts toward preventive care

Preventive Healthcare Market: Healthcare Spending by segment, U.S. 2007-2025



Global consumers spent \$9.6 trillion on wellness





# **THE DOCTOR WILL SEE YOU NOW**

**HOW AI IS GOING  
TO CURE OUR SICK  
HEALTH CARE  
SYSTEM**



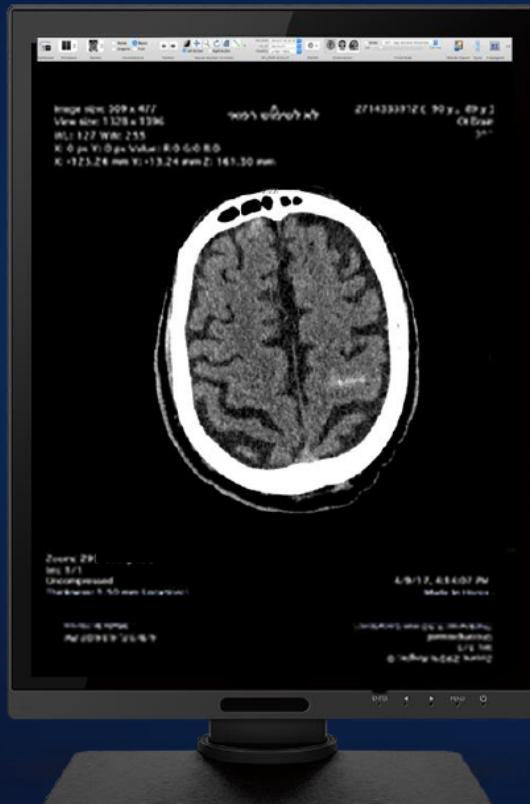
A collage of various X-ray images including a skull, lungs, spine, and joints.

Artificial Intelligence will not  
replace radiologists.

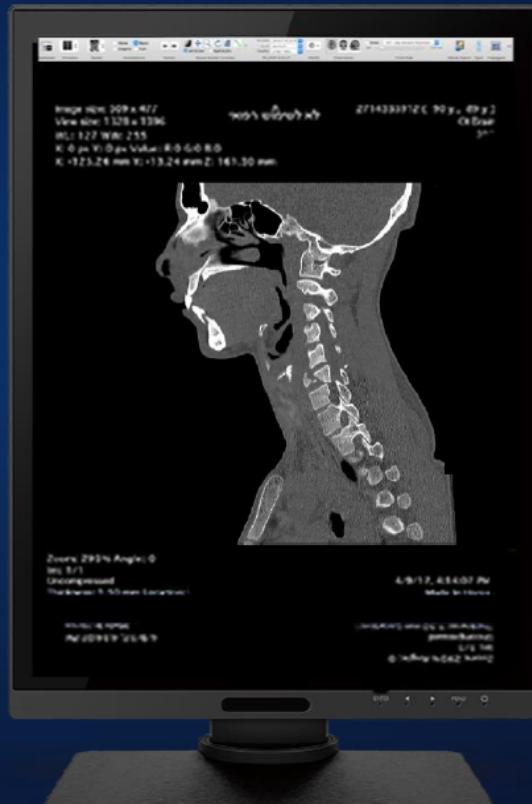
However, radiologists who  
use AI will replace those  
who don't.

# First algorithms being deployed in UZB

Brain hyperdense



C-spine hypodense



T O N I C

টিনিক ক্যাশ

৫০০ টাকা

বছরে সর্বোচ্চ  
২০০০ টাকা

বছরে সর্বোচ্চ  
৪ বার



কল করুন  
**789**

হসপিটিল ত্যাগের  
৩০ দিনের মধ্যে  
ক্যাশ ফ্রেইম করুন

ফ্রেইম করার ৩০  
কর্মদিবসের মাঝে  
পেয়ে যাবেন  
টিনিক ক্যাশ

Then follow the instructions given to you by the Tonic Customer Service Agent

# IBM's Watson Hasn't Beaten Cancer, But A.I. Still Has Promise

The company made bold claims that haven't yet panned out. But someday artificial intelligence could crack the code of individualized diagnosis and treatment.

By Faye Flam



24 augustus 2018 17:00 CEST



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## Innovating Health for Tomorrow Case Study: Karolinska Heart Failure Day Care Clinic

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# Innovating Health for Tomorrow Case Study: Karolinska Heart Failure Day Care Clinic

## CAN YOU TRANSFORM HEALTHCARE WHEN YOU HAVE LITTLE BUDGET AND OPPOSITION FROM KEY STAKEHOLDERS?

How Stefan Vlachos and Nina Lahti, past participants of Innovating Health for Tomorrow, took their learnings and applied them to drive innovation in the workplace.



In 2014, Stefan Vlachos attended the Innovating Health for Tomorrow (IHT) at INSEAD with the ambition to innovate healthcare, but facing a tough new job. Vlachos had recently been appointed head of The Center for Innovation at Karolinska University Hospital, the prestigious Stockholm-based hospital, but as an engineer he had little political weight to change ways of working in the prestige-heavy university hospital run largely by high profile physicians. How could he transform the organisation for the better from his unique, low-power position?

While in the IHT programme, Vlachos learned about innovation techniques that can be applied to quickly test and validate new ideas in many industries, including health. Vlachos went home, bought the book discussed in class (*The Innovator's Method*) for his entire team, and then together they started to apply the ideas – also to innovation projects already under way.

One of the early puzzles he and his team tried to tackle in an ongoing project was the limited outcomes in heart failure care. Despite significant advances in care and new treatments over the past decade, patient outcomes had not improved regarding advanced heart failure treatment. When the hospital started to investigate, the team recognized that the broader organization was falling into the "solution-first" trap that had been covered at IHT—applying solutions without first understanding what problem you are solving. In this case, medical device manufacturers argued that Karolinska was installing far fewer left ventricular assist devices than comparable hospitals and thus proposed the solution would be to use more devices with patients. But how to identify patients in need of those devices? The physicians inside Karolinska argued that the problem was an information and communication problem, and that they needed to be better at educating staff about heart failure care. In response, Karolinska launched an information campaign, but the results were still disappointing.

“When everything else fails, I just talk  
to the patient”

Bernard Lown, MD, Harvard Medical School  
“Playing doctor with Watson”, Der Spiegel, march 2018

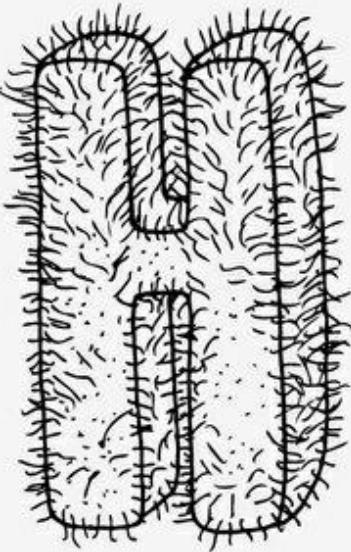
# Dus...

- Het is tijd
- Het is zelfs vrij hoog tijd
- Laat ons niet meer te lang wachten
- Laten we de dingen veranderen
- En niet bang zijn van nieuwe ideeën
- En laten we dit samen doen
- ...en durven...

# 4 Werven naar *Good Medicine*

- Visie
  - Van volume naar value
  - Totale integratie & aligniëring
- Geld
  - Als reden
  - Als hefboom
- Technologie
  - Als middel
  - Als integrator
- Mensen
  - Als gever
  - Als ontvanger

B



A

G

It's BIG, It's HAIRY, It's AUDACIOUS - And It's A GOAL!



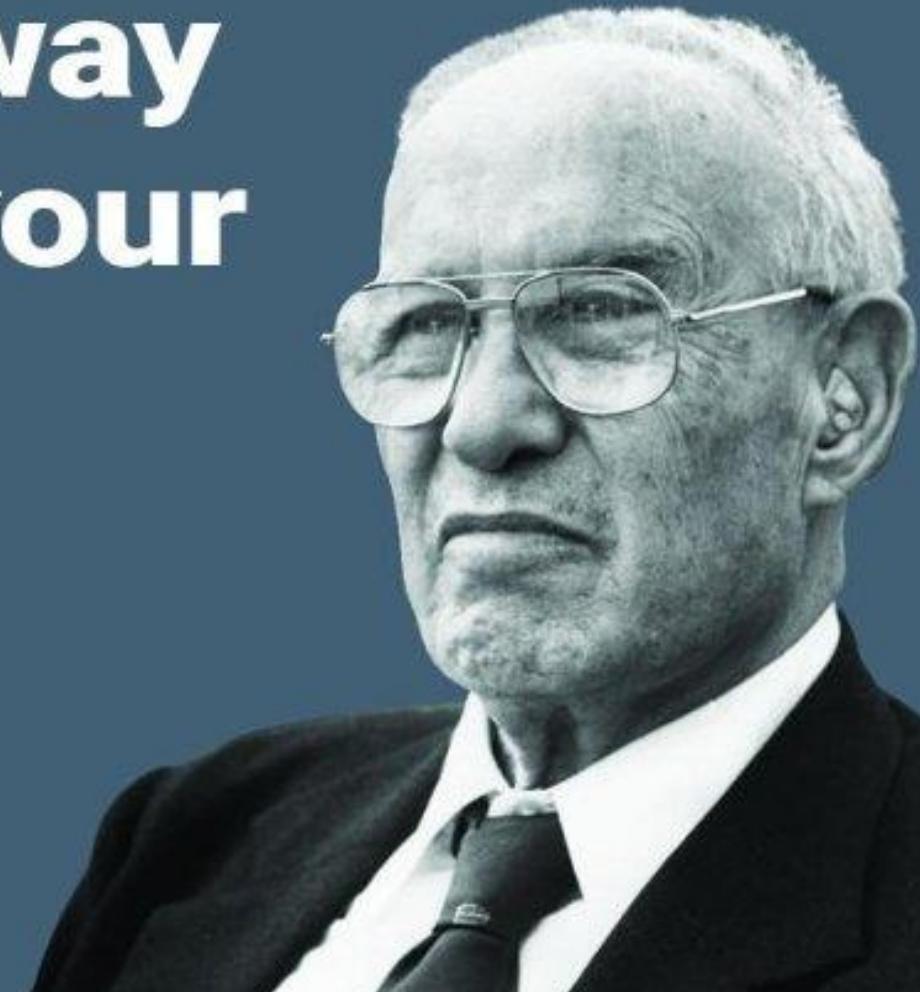


# 4 Werven naar *Good Medicine*

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  - Als gever
  - Als ontvanger

**“The best way  
to predict your  
future is to  
create it.”**

– Peter F. Drucker





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I can't understand why people are frightened of  
new ideas. I'm frightened of the old ones.

(John Cage)

One more thing...





# Receptie

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Structurale  
partner Voka

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abbvie

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partner Voka

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Result driven HR