

# Role of the hospitals in a Changing Healthcare Paradigm and Ecosystem



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# Global challenges faced by Health Care

- Drivers

- Globalisation

- 10% of the cost of a GM car produced in Belgium = HCcoverage for US GM worker

- Consumerism

- More knowledgeable, demanding citizens

- Changing Demographics & Lifestyle

- Age, BMI,...

- Diseases expensive to treat

- Chronicity

- New technologies and treatments

- Personalized medicine,...

- Inhibitors

- Budget constraints

- Priorities?

- Societal expectations

- Healthcare as a public social right vs a pure market service

- Lack of aligned incentives

- Few incentives for collaboration, service transformation,...

- Inability to balance ST/LT perspectives

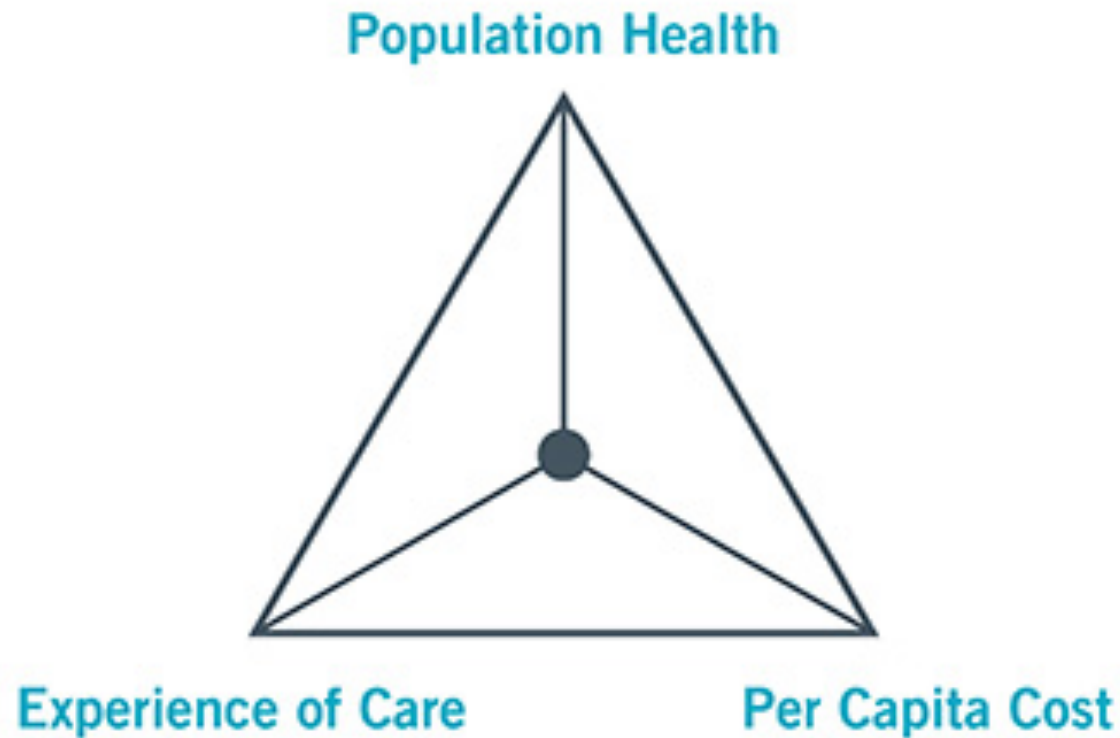
- Focus predominantly on ST

- Inability to access and share information

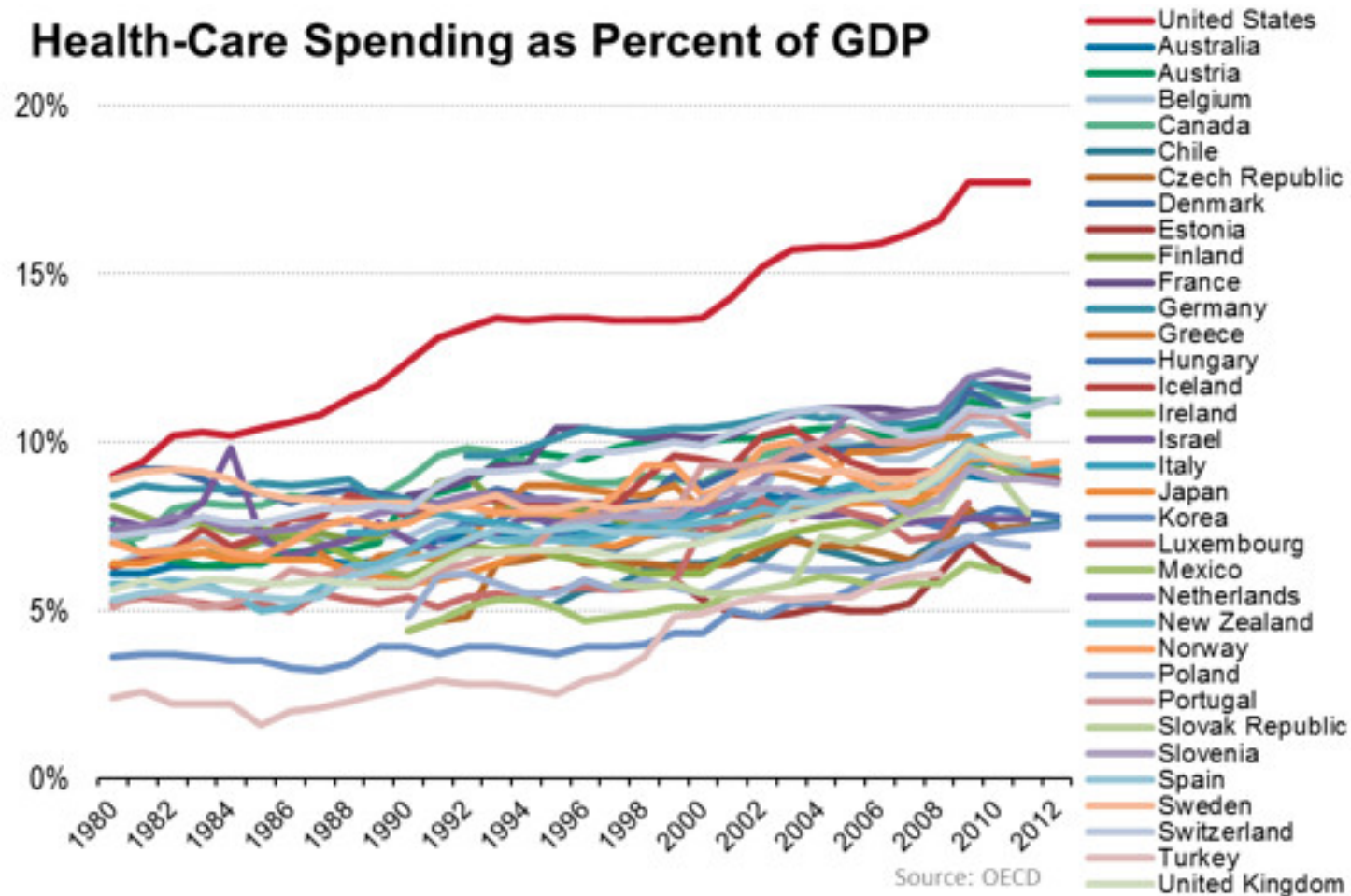
- There is a lot of data outthere, but...

Current “paradigm” of Healthcare Delivery

# The IHI Triple Aim

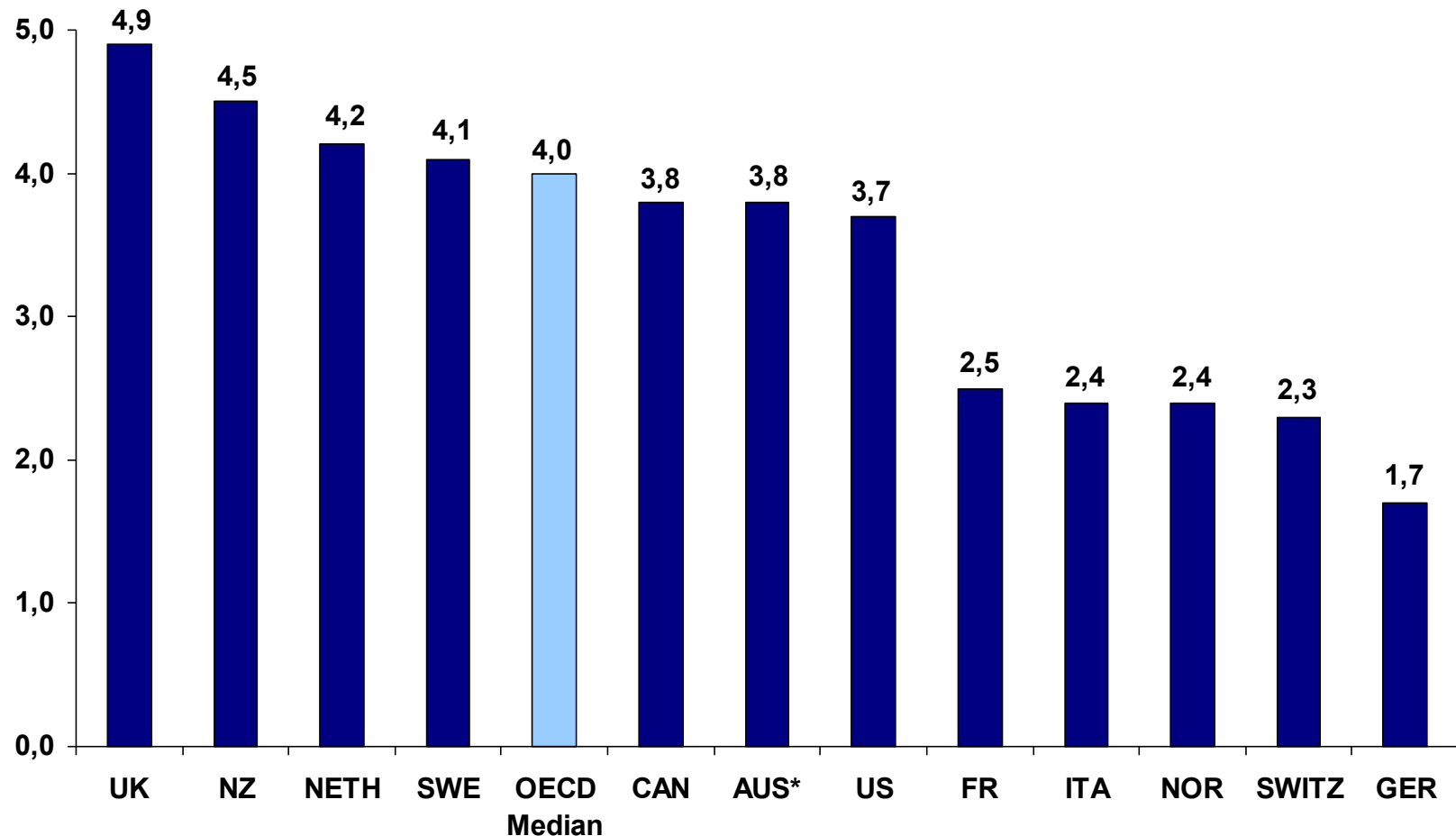


# Health Care expenditure follows GDP ( in the western world )



# Is there a limit on HCE growth?

Average annual growth rate of real Health Care Expenditure, per capita, 1997-2007

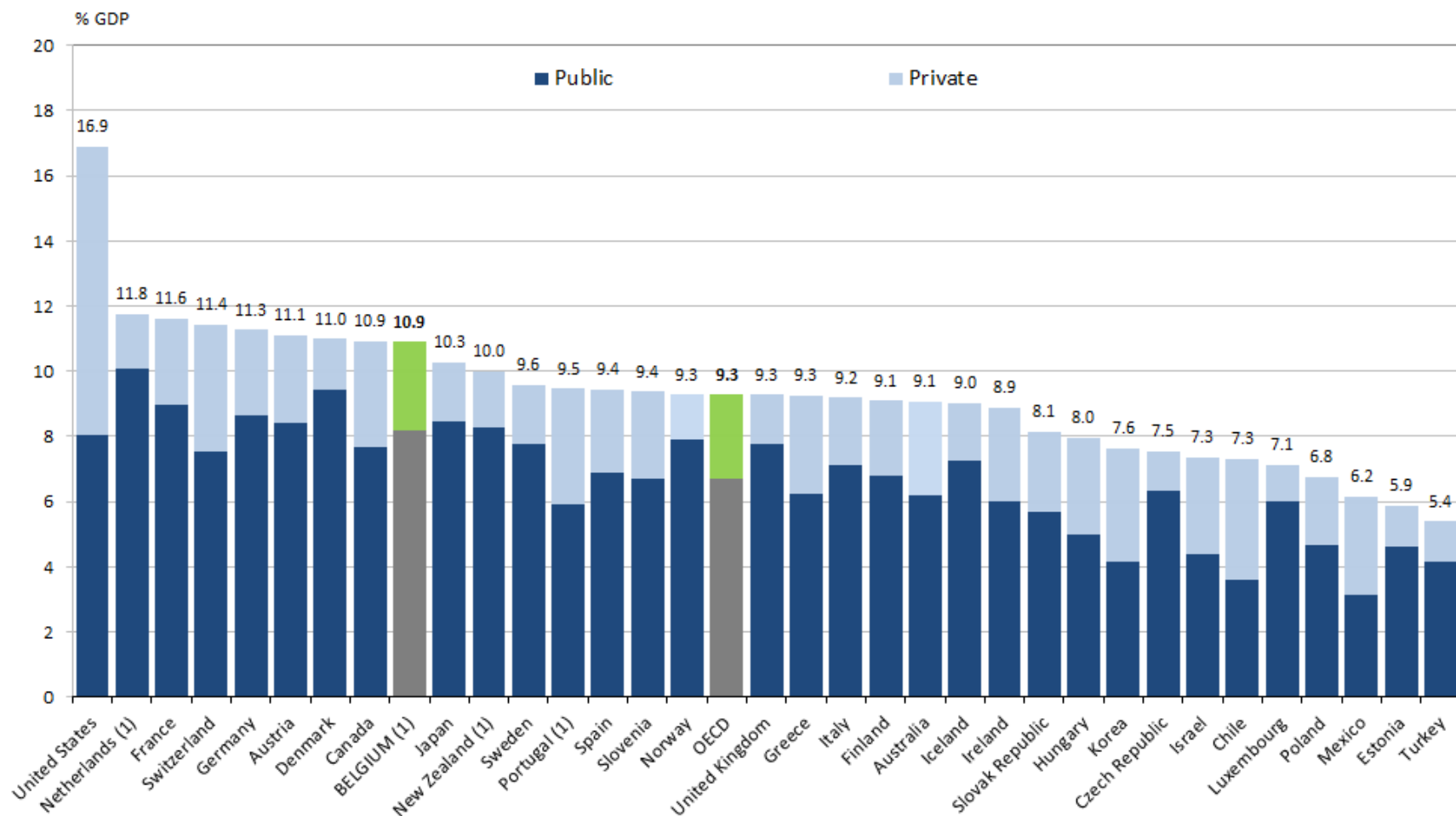


# YES, there is a limit on growth...!

- HCE spending in Europe in 2010 fell for the first time in decades!

Country	2000-9	2009-10	Country	2000-9	2009-10
Ireland	6,5	-7,9	Portugal	1,8	0,5
Greece	7,2	-7,3	France	2,1	0,8
Czech Rep	6,0	-4,4	Italy	1,3	1,0
Denmark	3,2	-2,1	Sweden	3,4	1,2
Slovenia	3,9	-2,0	Netherlands	5,5	2,0
Spain	4,1	-0,9	Hungary	3,1	2,2
<b>EU 24</b>	<b>4,6</b>	<b>-0,6</b>	Slovak Rep	10,9	2,4
UK	4,9	-0,5	Germany	2,0	2,7
Cyprus	2,7	-0,2	Malta	3,5	3,6
Austria	2,2	0,1	Romania	5,6	4,2
Belgium	3,8	0,2			
Finland	3,9	0,4	Norway	2,9	-2,0
Poland	7,1	0,5	Switzerland	2,0	1,4

# Belgium : not cheap

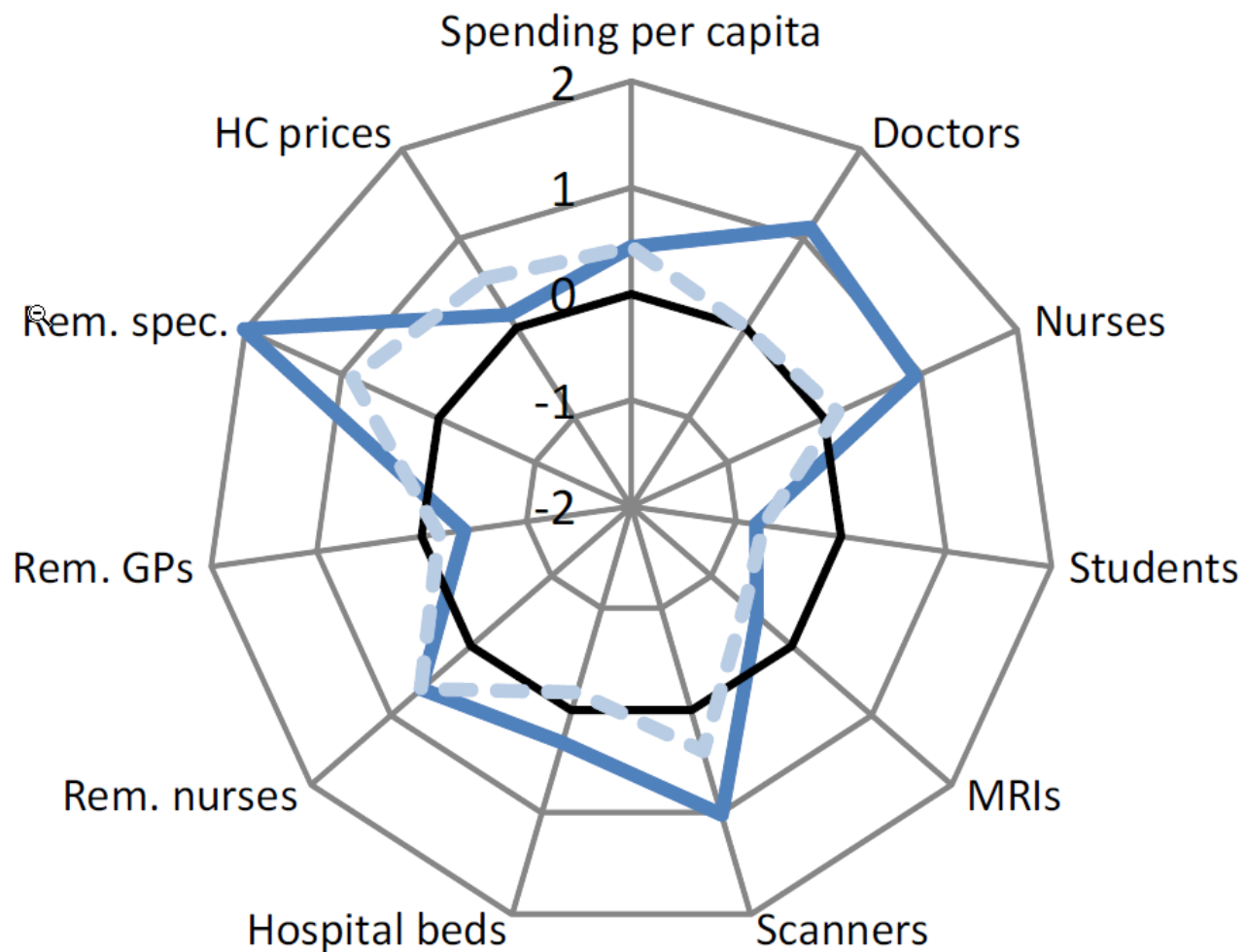


1. Total expenditure excluding capital expenditure.

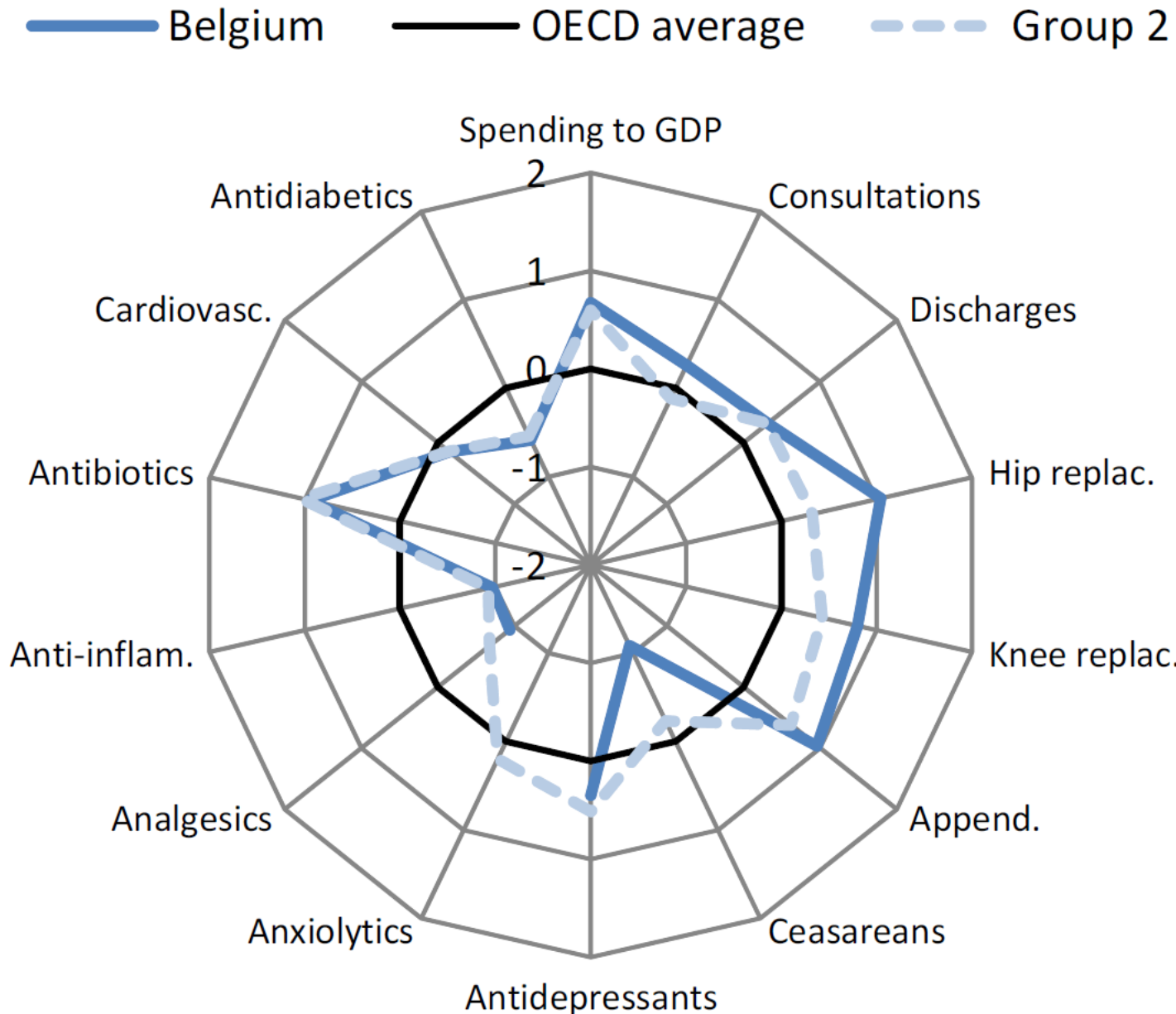
Source: OECD Health Statistics 2014.

## C. Prices and physical resources

— Belgium — OECD average - - - Group 2

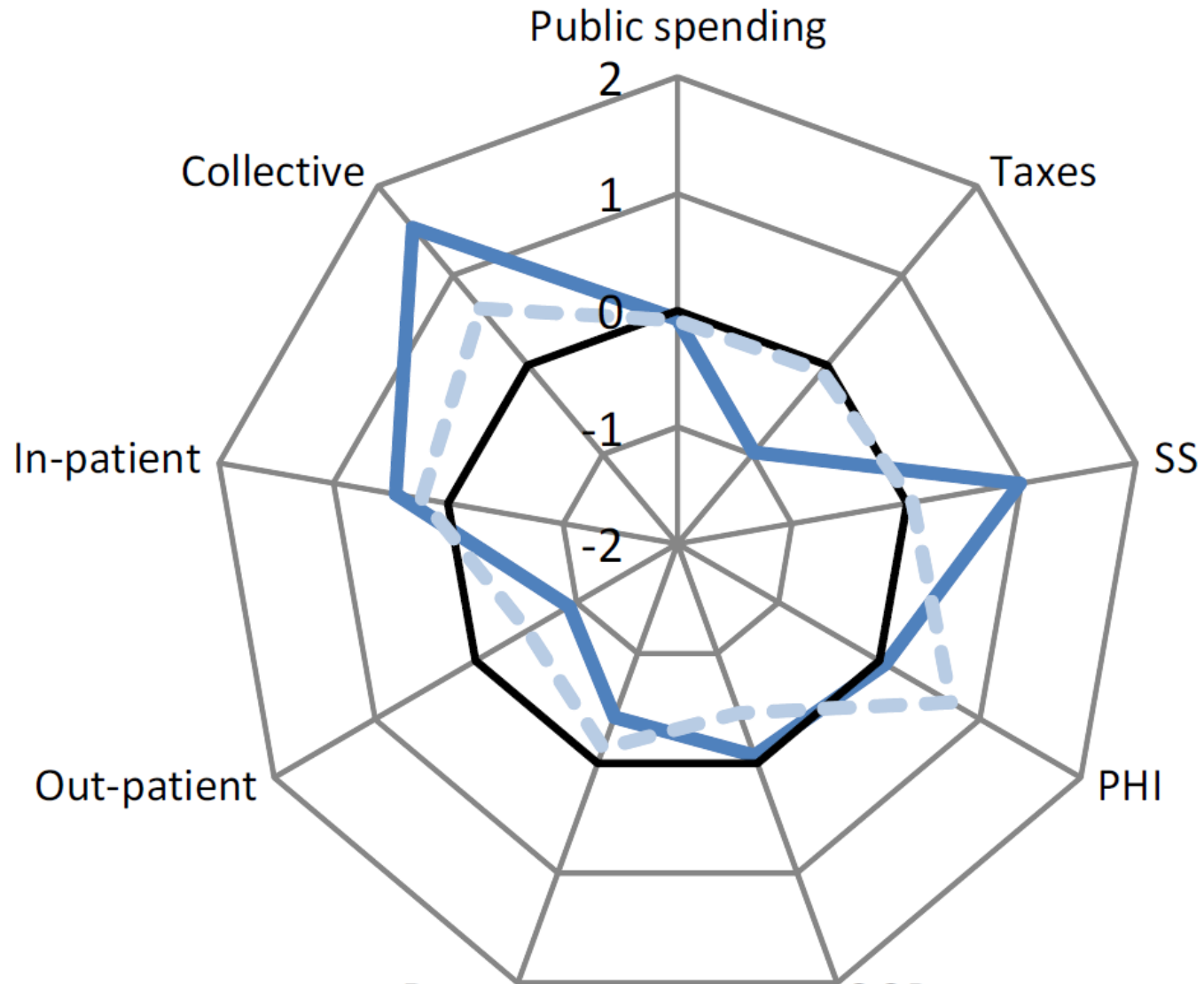


## D. Activity and consumption

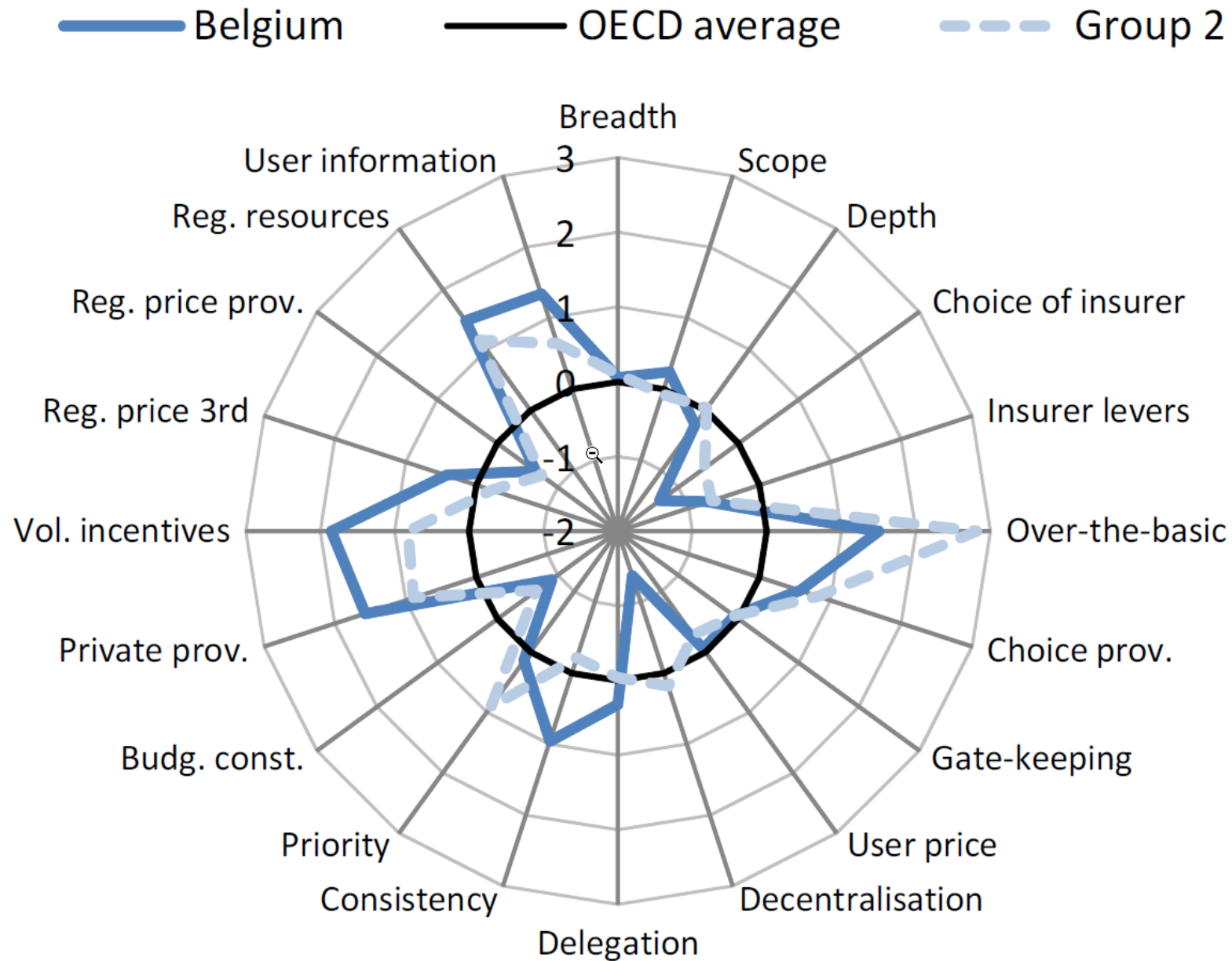


## E. Financing and spending mix

— Belgium — OECD average - - - Group 2



## F. Policy and institutions



## Belgium: Enhancing the Cost Efficiency and Flexibility of the Health Sector to Adjust to Population Ageing

English

Click to Access:  PDF  READStéphane Sorbe<sup>1</sup>

1: OECD, France

25 June 2013

No.: 1066

Pages 36

DOI [10.1787/5k44ssnfdnr7-en](#)[Hide](#) / [Show Abstract](#)

Belgium has a good record in delivering accessible care, but adaptation to population ageing will be complicated by the fragmentation of responsibilities in the healthcare system and a strong reliance on government regulations. The organisation of the system could be rationalised by giving sickness funds a more active role as promoters of cost-efficiency, better aligning the incentives of the different levels of government and focussing on medium-term budgeting. At the level of care providers, better information flows and incentive structures could facilitate addressing practice and efficiency variations and supplier-induced demand. This notably involves completing the shift to pathology-based budgets in hospitals, more capitation in the remuneration of doctors and measures to tackle the high spending on drugs. Once incentives for cost-efficiency are in place, a shift towards a more demand-driven system could be encouraged by phasing out over-prescriptive hospital regulations. In addition, relative remunerations of doctors should be revised regularly to ensure an adequate supply per specialty. In long-term care, home care, which is generally cost-efficient, could be further encouraged by giving more autonomy to patients to organise their care. This Working Paper relates to the 2013 OECD Economic Survey of Belgium ([www.oecd.org/eco/surveys/belgium](#)).

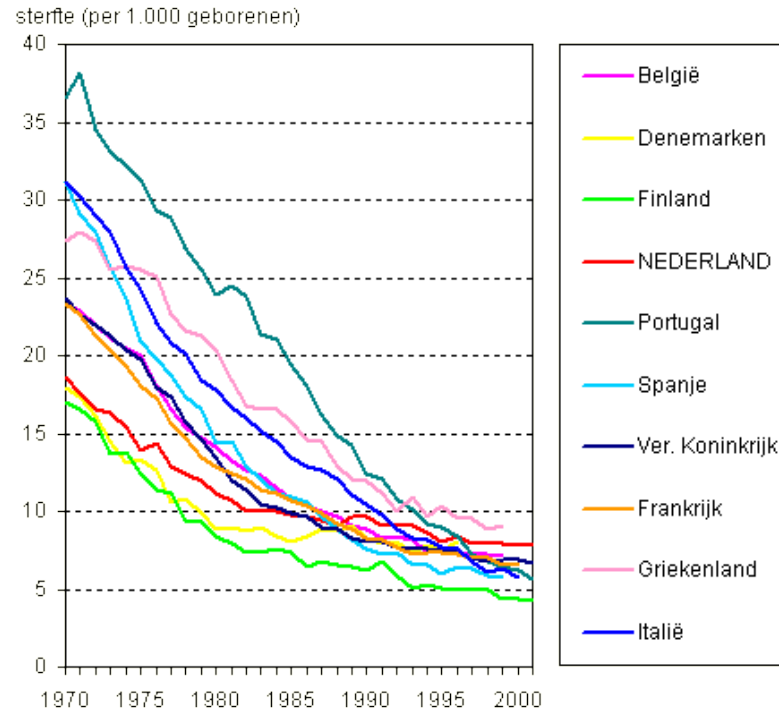
**Keywords:** health, long-term care, pharmaceuticals, Belgium, hospital, sickness funds, population ageing

### JEL Classification:

- H51: Public Economics / National Government Expenditures and Related Policies / Government Expenditures and Health
- I11: Health, Education, and Welfare / Health / Analysis of Health Care Markets
- I13: Health, Education, and Welfare / Health / Health Insurance, Public and Private
- I18: Health, Education, and Welfare / Health / Government Policy; Regulation; Public Health

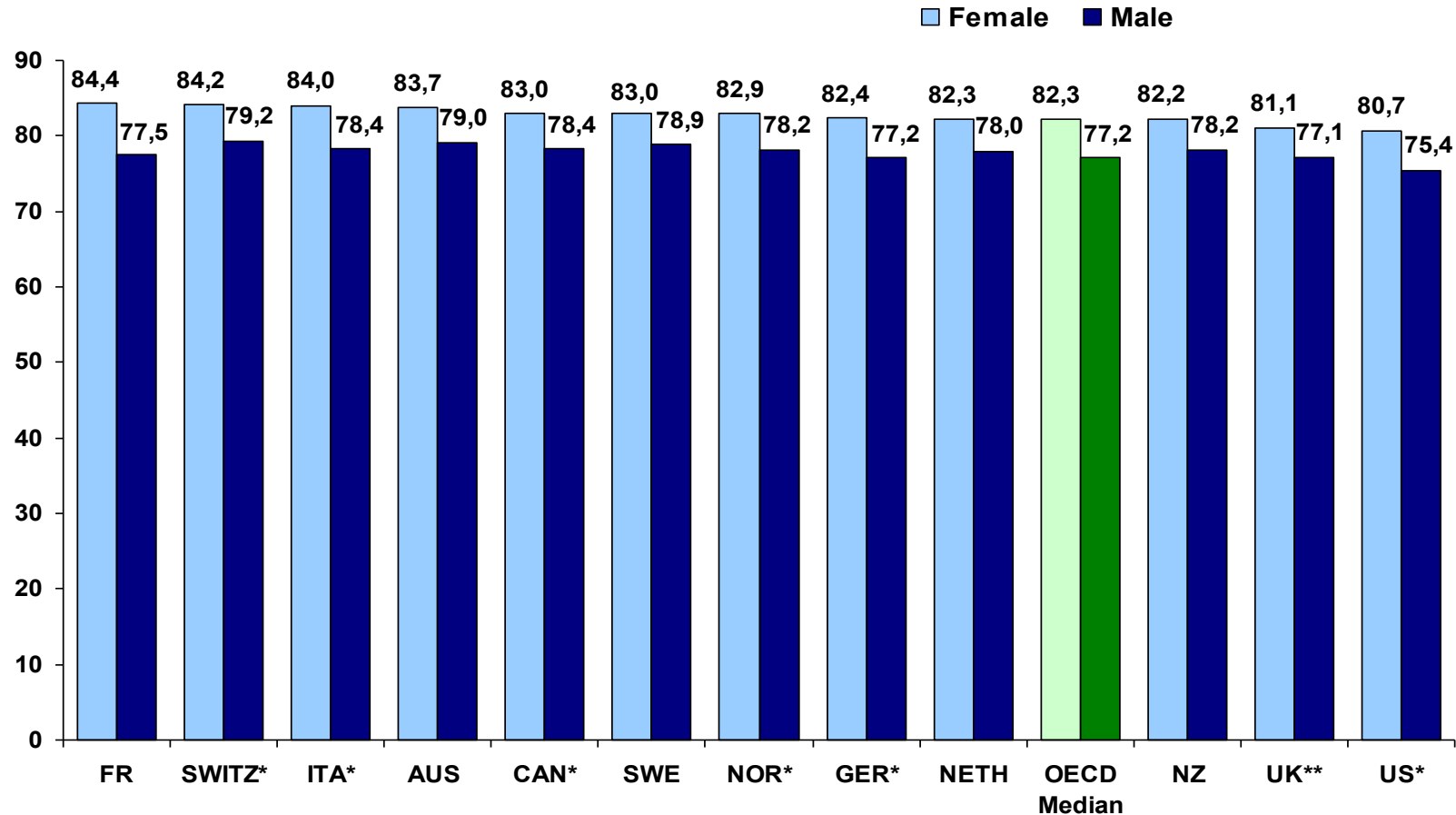
# HCE and Outcome

- HCE are very high, and many needs are met...



- Marginal increases will therefore cost more and more....

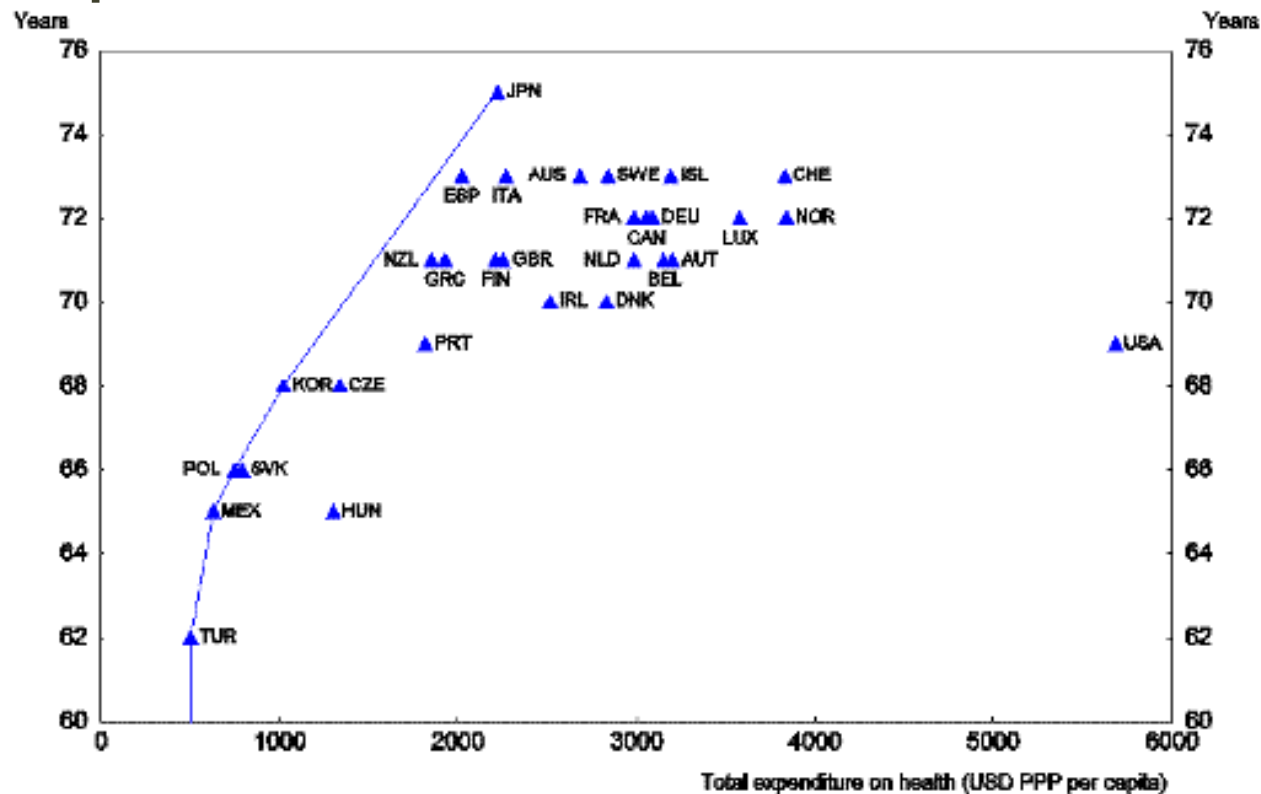
And how on earth will you improve this?  
(and at what cost, and ...do we *want* that?)



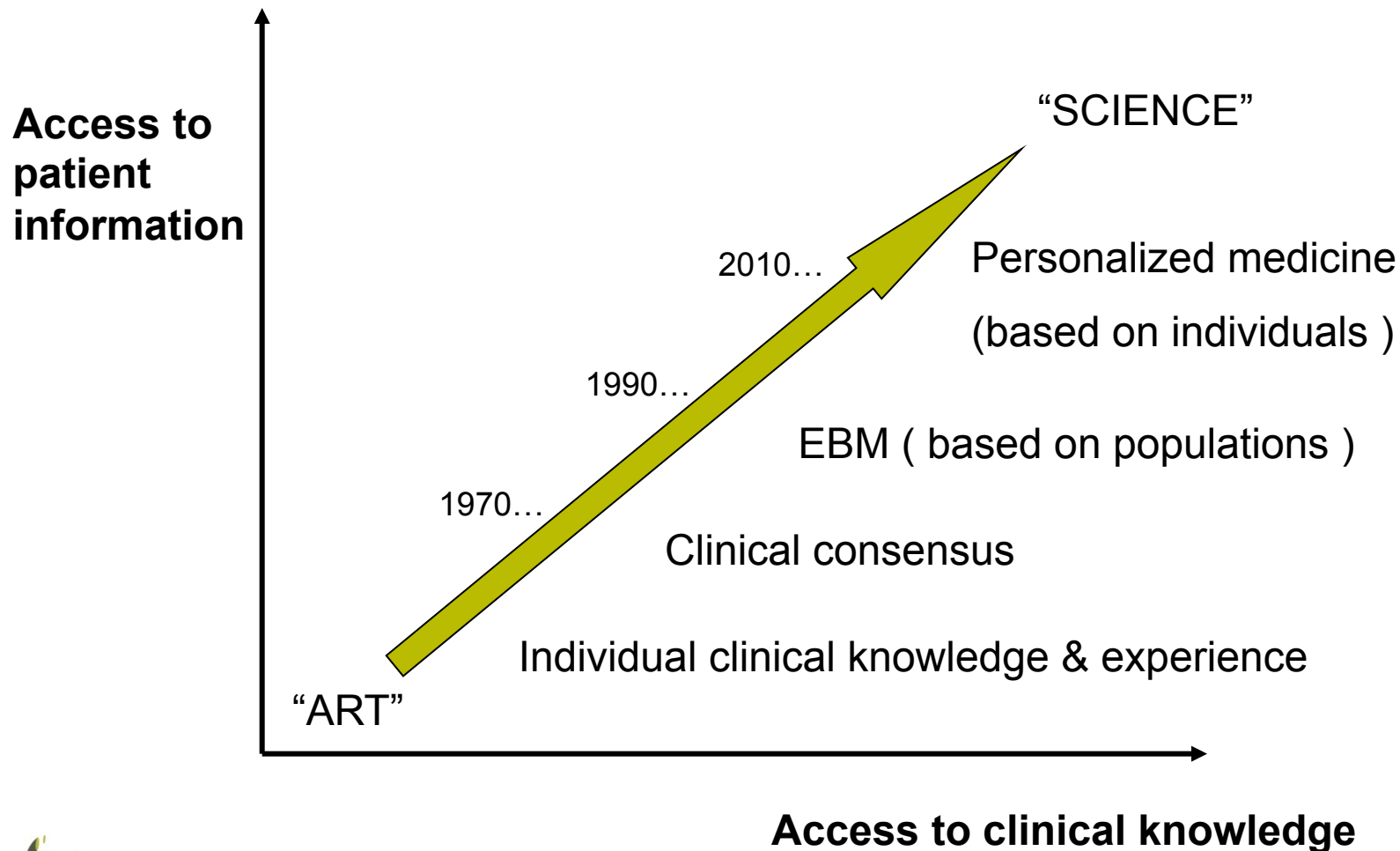
Life expectancy at birth

# Exemple : societal expectations

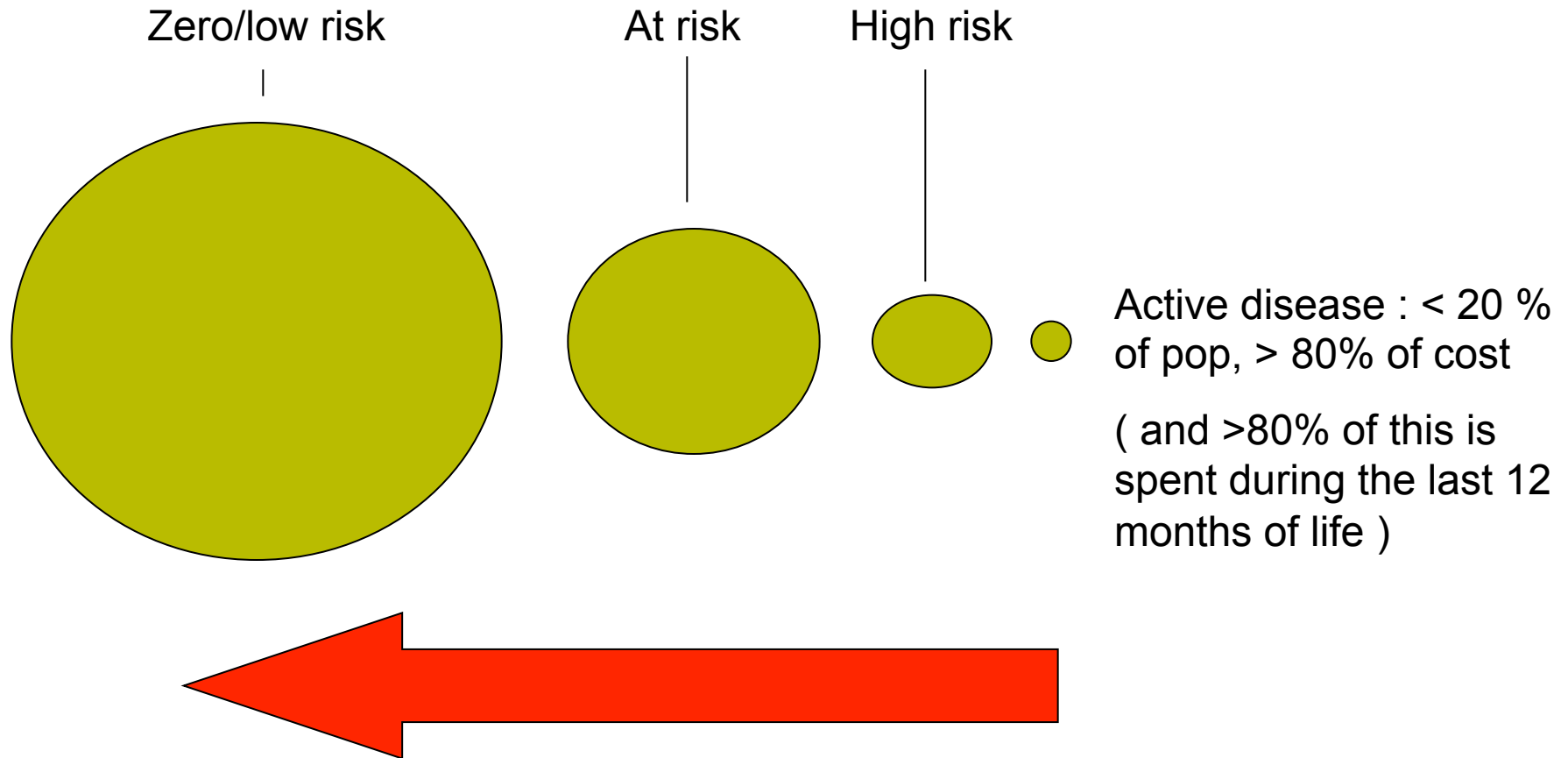
- HC expenditure *vs* max avg age : a buck well spent ???



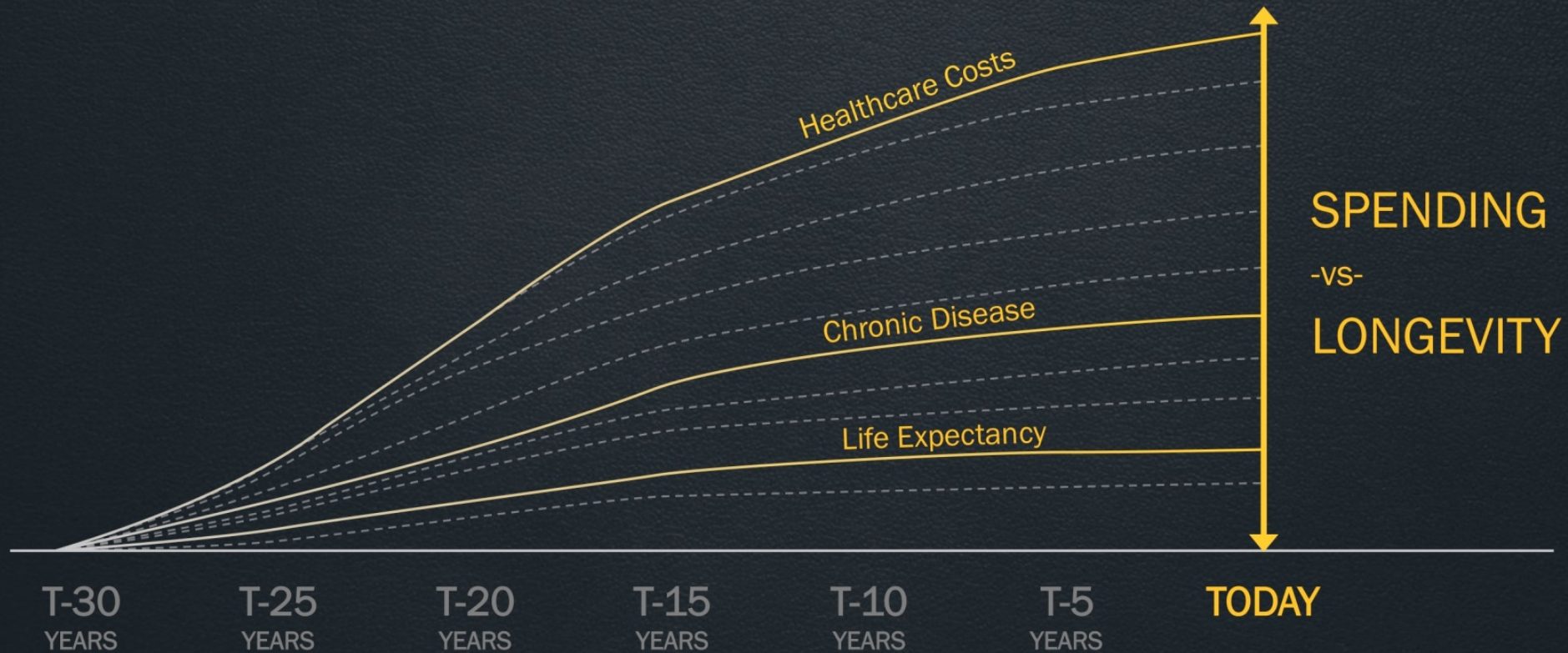
# Example : changing paradigms // cost



# “Strange business model”...: Health-care or Sick-care ?

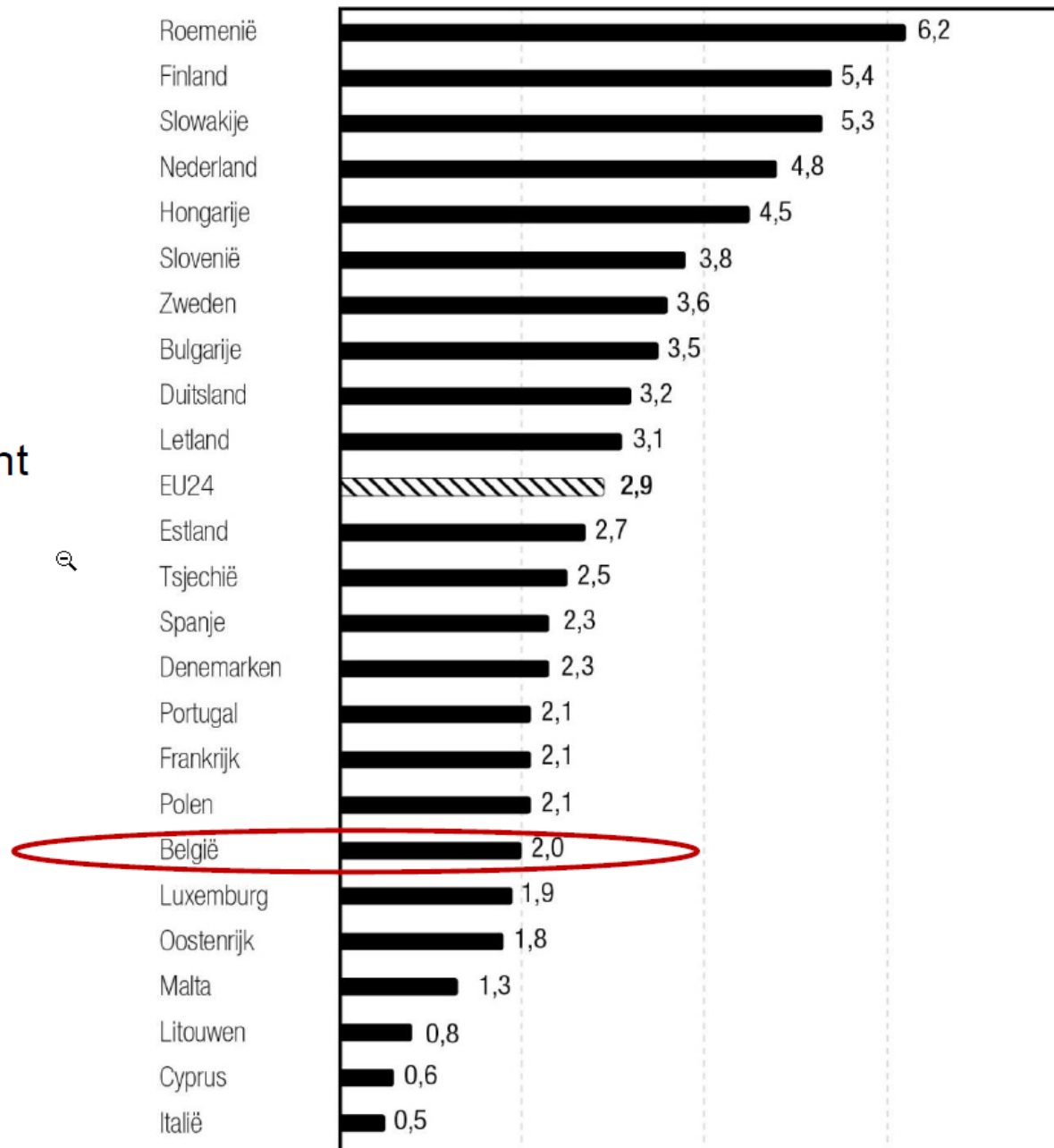


# The Healthcare Reality



# te weinig geld voor preventie!

% of the total  
healthcare  
expenditure spent  
on prevention  
(EU 27)



# Life expectancy USA

- An average American reaches the age of 80, if...
  - He wears his seatbelt
  - Doesn't have guns at home
  - Doesn't smoke
  - Eats fresh veggies and fruits on a daily basis
  - Moves for 30 minutes three times a week

# Life expectancy USA

- An average American reaches the age of 80, if...
  - He wears his seatbelt
  - Doesn't have guns at home
  - Doesn't smoke
  - Eats fresh veggies and fruits on a daily basis
  - Moves for 30 minutes three times a week

...but only 5 % of all Americans fulfill all five criteria.....

# One third of all cancers can be avoided if...

- You don't smoke
- Eat healthy ( daily fresh fruits and veggies)
- Move enough
- Moderately drink alcohol
- Don't lie in the sun too much
- Keep your weight

# Behaviour is the major contributor to your health

## Impact



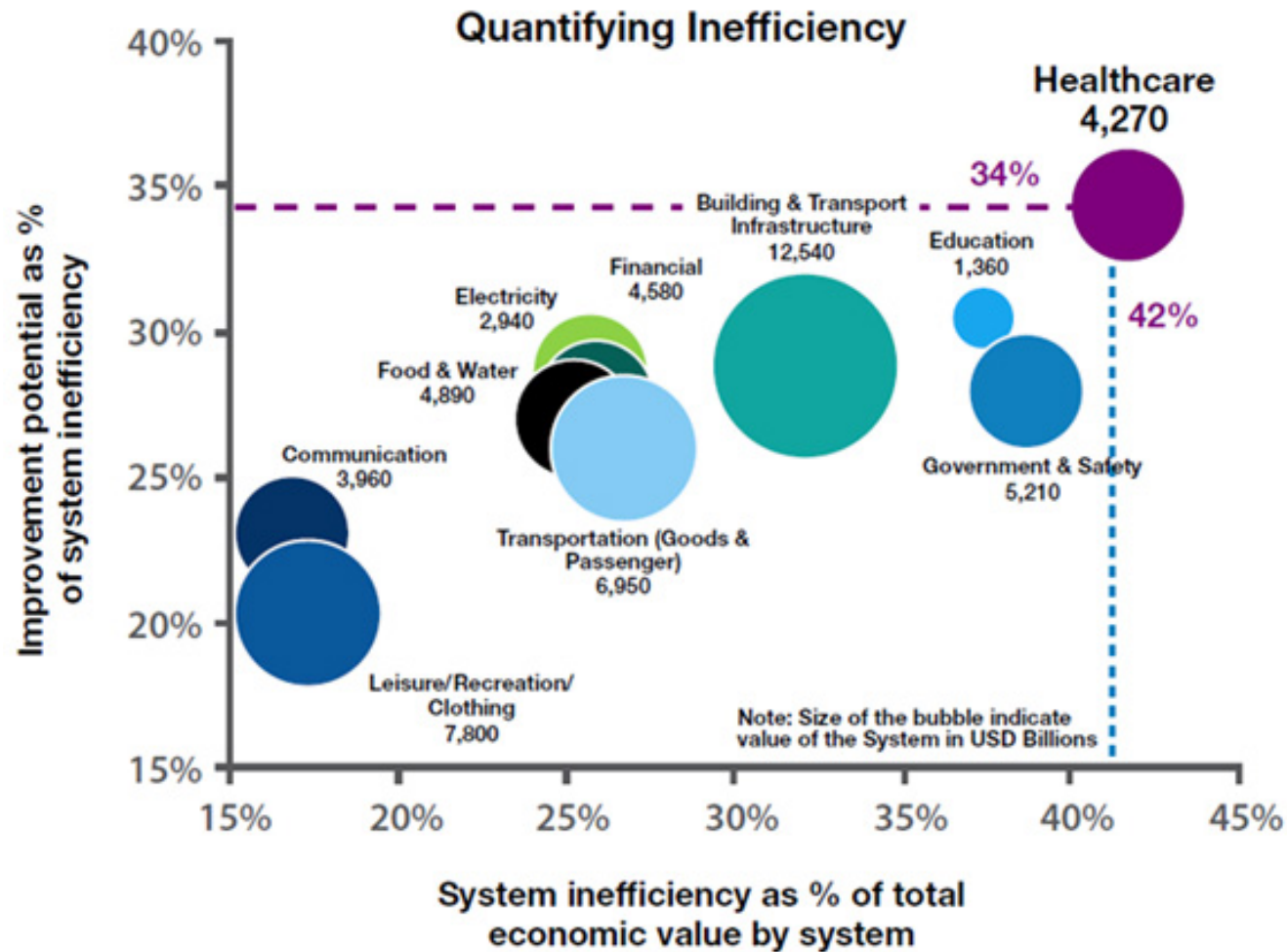
# Health Care and (in)efficiency

- Deficiencies in contemporary health care
  - Upto 45% of patients do not receive recommended evidence-based care
  - Treatments are targeted to low-moderate risk patients rather than high-risk of preventable clinical events ( risk-treatment paradox)
  - Upto 30% of administered tests, procedures and medications are unnecessary
  - Upto 50% of health care spending goes toward unnecessary bureaucracy, duplicative tests, and other waste
  - Upto 20% of patients are harmed by healthcare (which costs 30c/dollar to correct)
  - There are large and unexplained variations in quality and safety of care

Scott et al, Int Med J 2009;39:389-400

Bohmer R, Harvard Business Rev 2010;apr:63-73

# Leading the Pack in Inefficiency

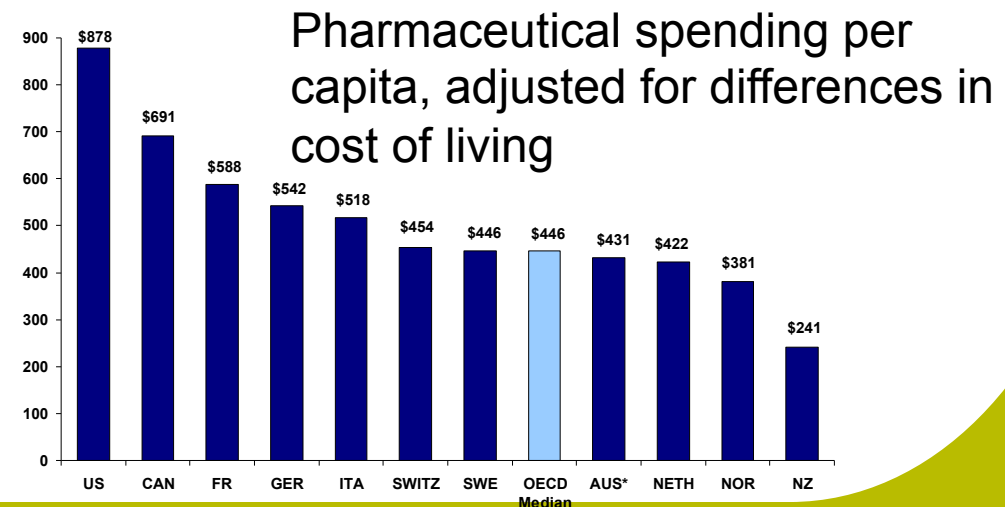
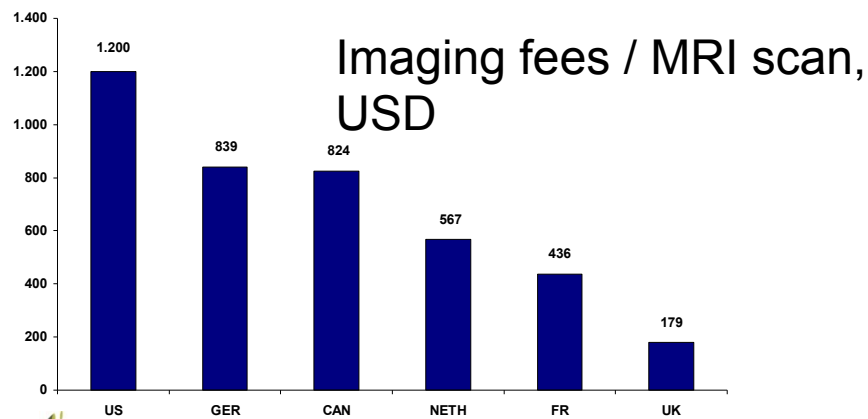
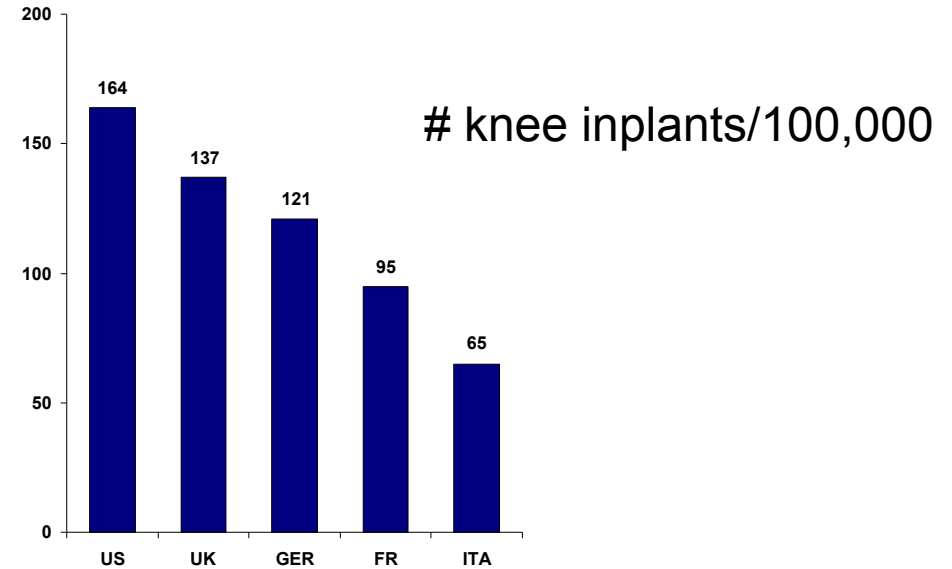
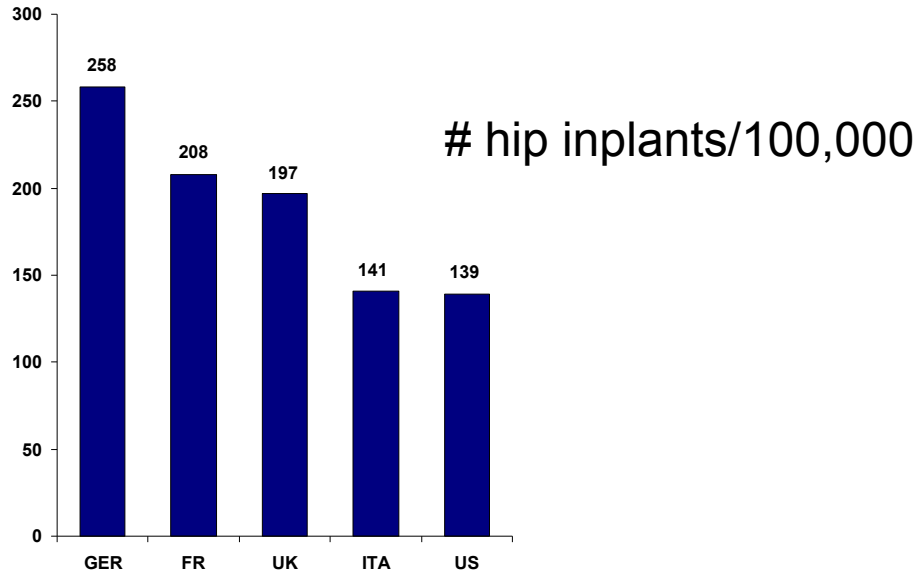


# Main reasons :

- 1. Overemphasis on expensive advances in medical technology that yield incremental improvements in outcomes with inadequate consideration to cost
- 2. Myopic focus on capacity for acute care to the detriment of wellness, prevention and population health strategies
- 3. the use of volume-based reimbursement models

Smarter Healthcare and Life Sciences,  
IBM, 2012 Corporation, [www.ibm.com/healthcare](http://www.ibm.com/healthcare)

# Discrepancies between models, expenditures, and outcomes : room for improvements!



# 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

# Current paradigm of HC delivery

- Sustained for decades, based on its own set of mutually reinforcing elements:

- “vertical” organisation by specialty with independant private-practice physicians
- Measurement of “quality” defined as process compliance
- Cost accounting driven not by cost but by charges
- FFS by specialty with rampant cross subsidies
- Delivery systems with duplicative service lines and little integration
- Fragmentation of patient population with no critical masses of patients with a certain condition
- Siloed vertical IT systems around specialties



**RIISING COSTS & UNSATISFACTORY AND UNEVEN QUALITY  
DESPITE THE HARD WORK OF WELL-TRAINED, WELL-  
INTENTIONED CLINICIANS**

# And furthermore...

## Patients Are Expecting More

- Expecting more treatment options
- Demanding faster delivery
- Want it personalized
- Digital everything

**PERSON**  
CENTRIC  
APPROACH  
TO CARE



**GREATER RELIANCE**  
on data and information technology

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

ME PORTER, TH LEE  
HBR 2013

# It is time for a fundamentally new strategy

- Core: maximizing Value for Patients  
= achieving the best health outcomes ( that matter to patients) at the lowest cost
- Move away from a supply-driven HC system organized around what physicians do toward a patient-centered system organized around what patients need
- Shift the focus from the volume and profitability of services provided, to the patient outcomes achieved

# How to maximize value for patients in the HC system

	Volume-based	Value-based
Payment	FFS	Outcome based
Incentive	Volume	Value
Focus	Acute episodes	Populations
Role of provider	Single episodes	Care continuum
Information	Retrospective	Real-time & predictive
Leadership style	Managerial divisional/ departemental thinking	Thinking across organisation

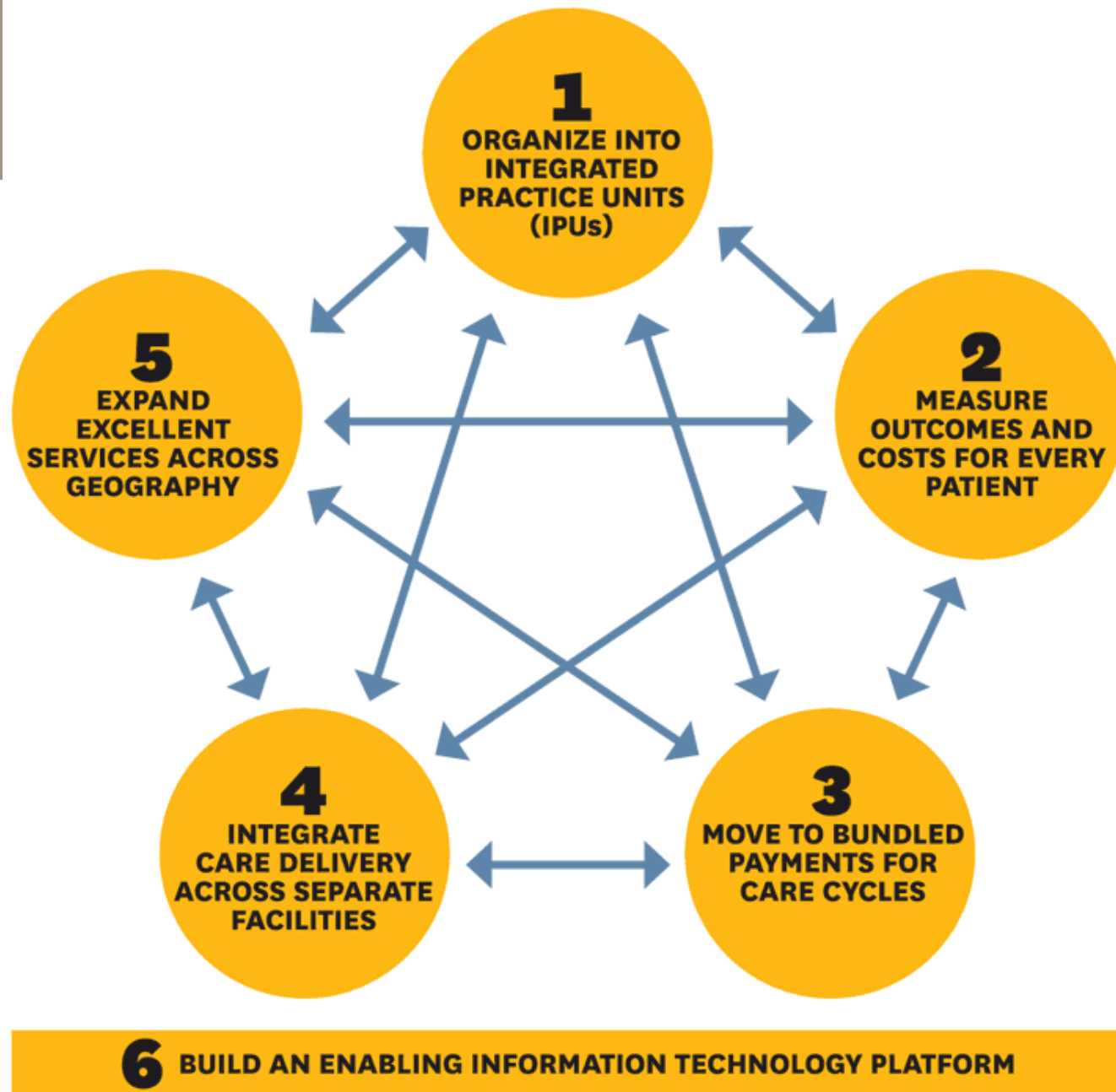
IBM's Health and Economic Value Pyramid  
Moving From Volume to Value



Source: Redefining value and success in healthcare: Charting the path to the future. IBM Healthcare and Life Sciences, February 2012

# How to maximize Value for Patients in HC delivery ( hospitals)( Porter & Lee)

- Organize into **Integrated Practice Units (IPUs)**
- **Measure Outcomes and Costs** for every patient
- Move to **bundled payments** for Care cycles
- **Integrate Care delivery systems**
- Expand **geographic reach**
- Build an **enabling ICT platform**



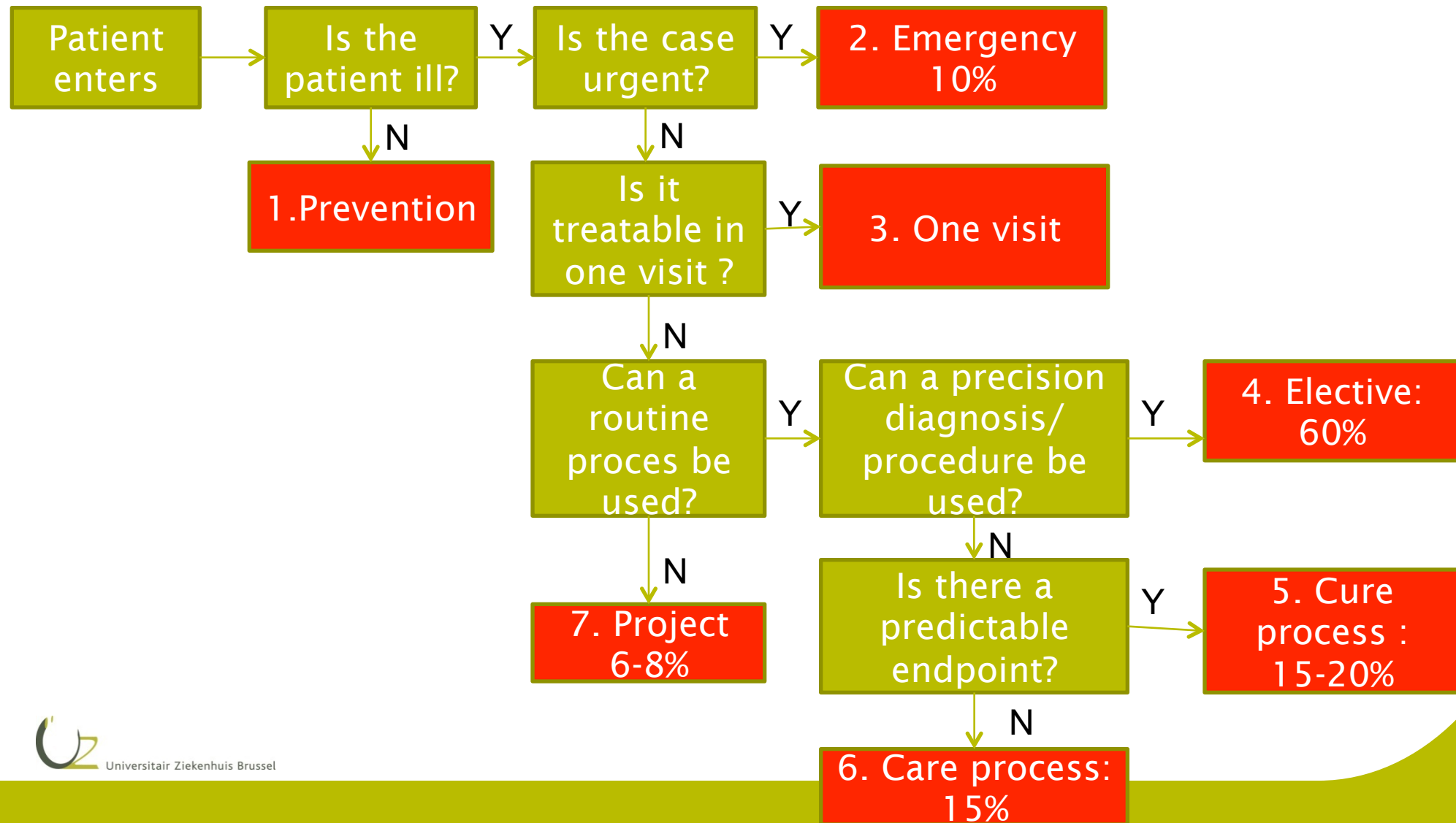
# Organize into Integrated Practice Units (IPUs)

- Organize around the patient's medical condition with ALL related conditions ( "horizontalization")
- ALL personnel work as a team toward one goal: maximizing patient's overall outcome as efficiently as possible
- Ideally co-located
- The team takes responsibility for the full cycle of care
- The unit has a single administrative and scheduling structure
- A physician team captain or a clinical care manager oversees each process
- The team measures outcomes, costs and processes for each patient using a common measurement platform
- Joint team meetings, joint team accountability

# “Extreme” example of IPU : “Focused factory”

- “Focused Factory” = an integrated health delivery system organised around, and focused on, a specific patient need
- It is one of the various possible “operating modes” of healthcare organisation
- Different modes require different management

# Operating modes in Healthcare : “Taxonomy of the patient” ( % hospitalisations in the average Belgian hospital )



# Is it possible to run a hospital effectively which operates all these modes ?

Mode	Time	Management	Industry model
Prevention : monitoring, advice, managed networks, transmurality	Cost now, time long, outcome?, savings postponed	Risk management	Insurance business
Emergency : time-critical, random access demand, save-and-stabilize	Immediate	Rapid response, flexibility, prioritisation	Fire dept, army
One visit : discrete, non-urgent, end-to-end treatment	On-demand or on-schedule	Easy access, scheduling	Large volume retail
Elective : requires precision diagnosis & procedure, preparations, scheduling, mobilisation of resources, after care	Predictable	Resource mobilisation, processing, efficiency	Automobile
Cure : patient will recover, quality assessment, sequential steps, coordination of flow, cycle-time, value-added & non value-added time	Sequential cycle-time	Throughput time, process management	Technical development
Care: chronic/terminal state, regular monitoring, disease mgt	Long	Patient status, rhythm	Maintenance
Project : unusual, very complex/costly, multidisciplinar	Poorly predictable	Outcome, throughput time, resource optmization	NASA, ship building

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# “Need to separate solution shop hospital from value adding process hospital” *C.M. Christensen*

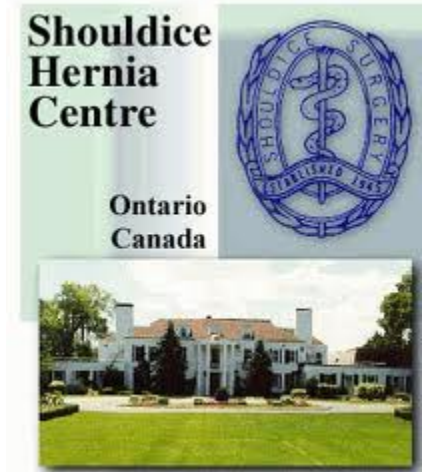
n jeugd	B2	Kaakchirurgie
ekten / Pulmonologie	A2	Kind en jeugd
ogie	C2	KNO-heelkunde
gie	B2	Logopedie, Ergotherapie
edie	F0	Longziekten / Pulmonologie
trie	B2	Mammapoli / N.P.-mammacare
		Medische psychologie
		Neurologie
		Oogheelkunde
		Opname
		Orthopedie
		Pijnbestrijding
		Poliklinisch Behandelcentrum
		Psychiatrie
		Radiologie
		Reumatologie
		Revalidatie
		Urologie
		Vaastonderzoek

**GE DIENSTEN**

ke verzorging	B1
bemiddeling	A1
everpleegkundige	D3
	<b>CENTRALE HULP</b>
st	J0
a meting	J0
erpleegkundige	B0
dig Centrum Waterland	A3
um	C3



and/or ?



# Examples

- Shouldice Clinic, Canada  
→ Hernia surgery
- Martini Klinikum, Germany  
→ Prostate surgery
- COXA Clinic, Finland  
→ Hip & knee joint replacement
- The Lundback Fast-track centre for knee and hip surgery, Denmark  
→ Hip & knee joint replacement
- ( CRG, Belgium )  
→ Infertility treatment

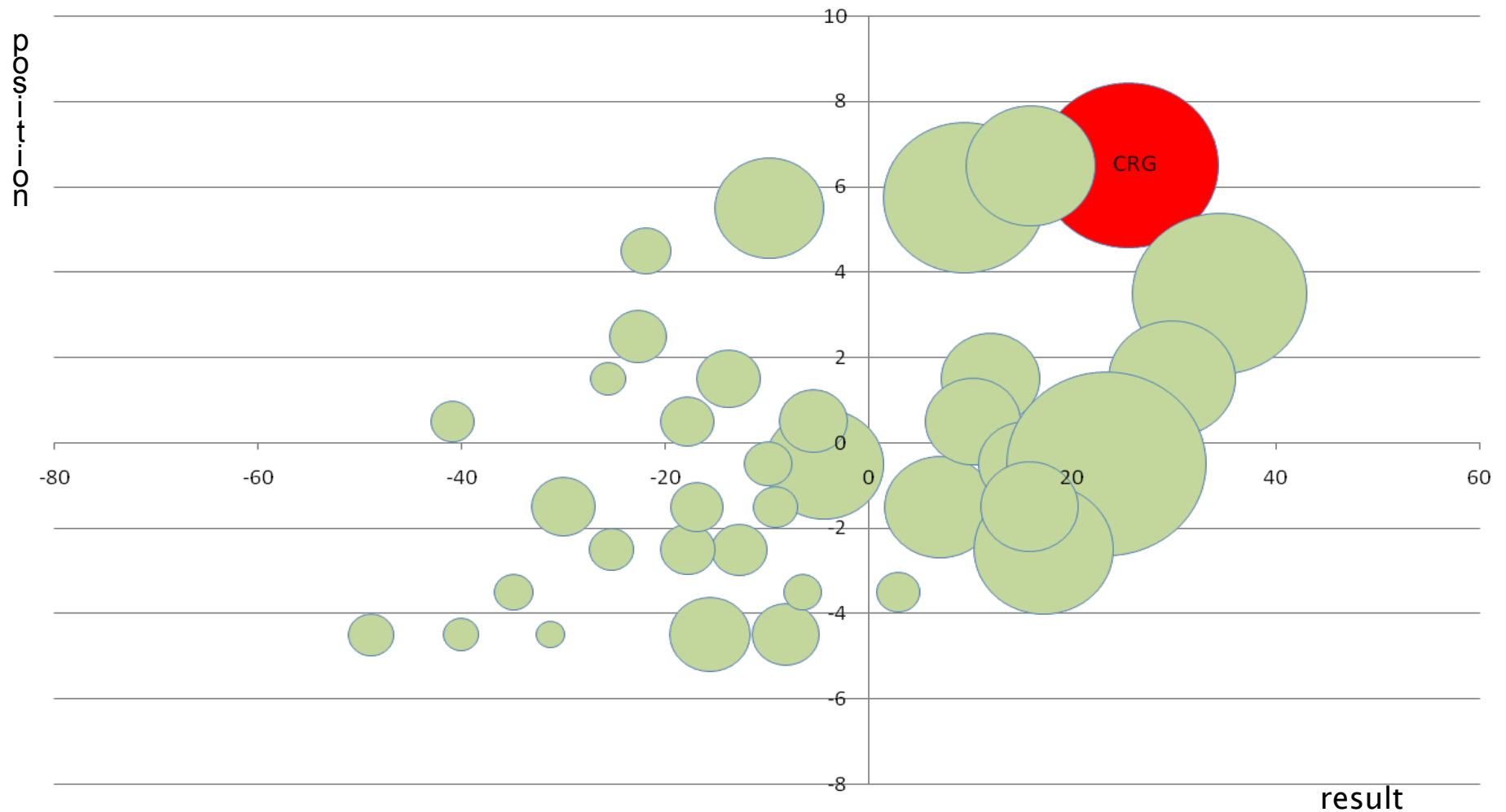
# COXA Clinic ( Tampere University Hospital )

- TUH is designing a hospital concept around “focus clinics”
  - 1st( 2002) : COXA clinic for hip & knee joint replacement
  - Seperate legal entity ( ! ) within university hospital walls, started as PPS ( 26% private ), now 100% “public”
  - Followed by TUH Heart Centre, TUH Lab Centre, TUH Eye Centre, TUH Traumatology Centre,...

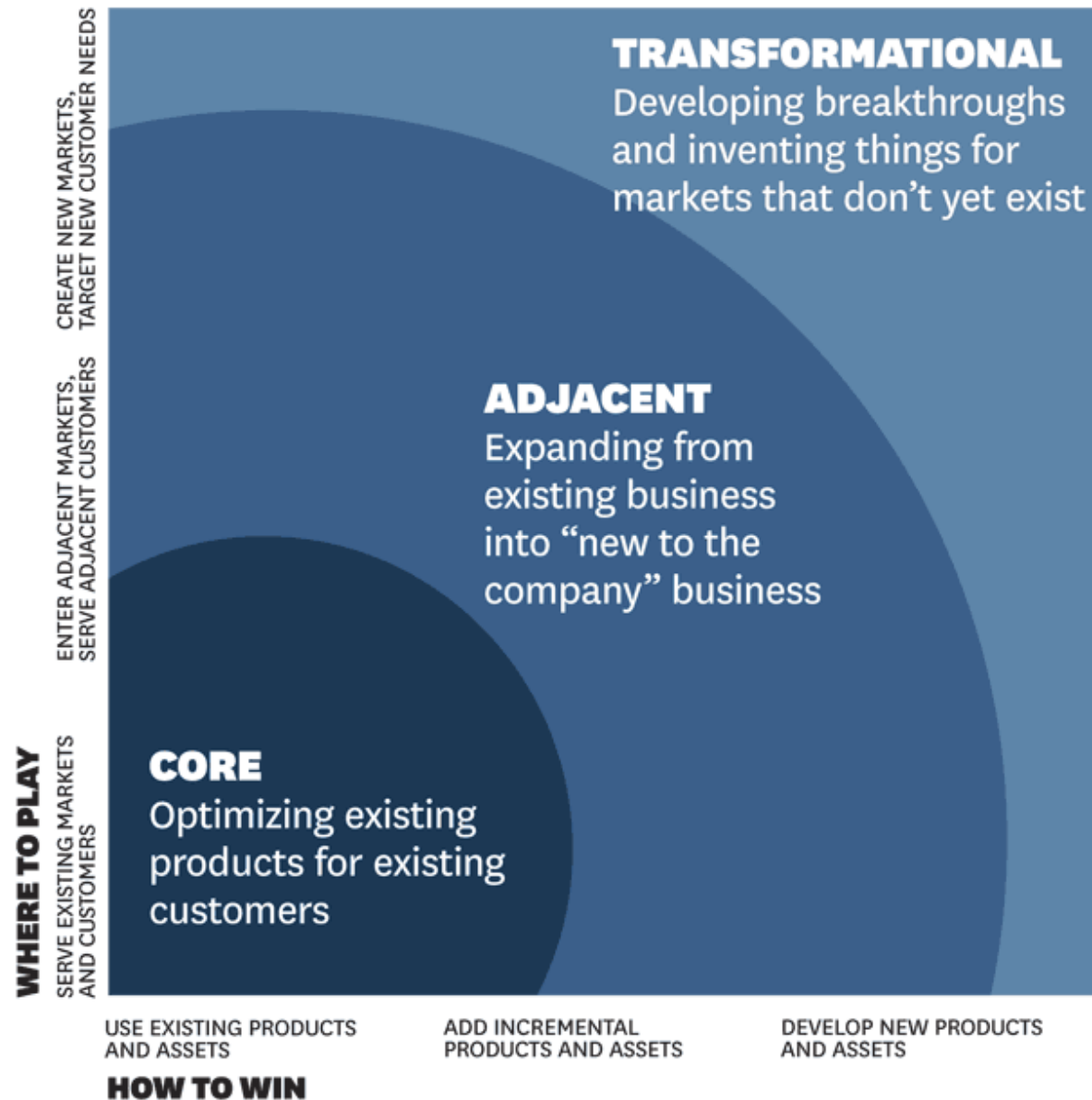
# COXA Clinic ( Tampere University Hospital ) : facts, as compared to rest of Finland

- Increased & increasing quality  
→ 50% less revisions & dislocation rates
- Pricing  
→ 45% cheaper!
- Patient satisfaction  
→ 15-20% higher
- Staff satisfaction & retention  
→ Around 80%  
→ Higher salaries

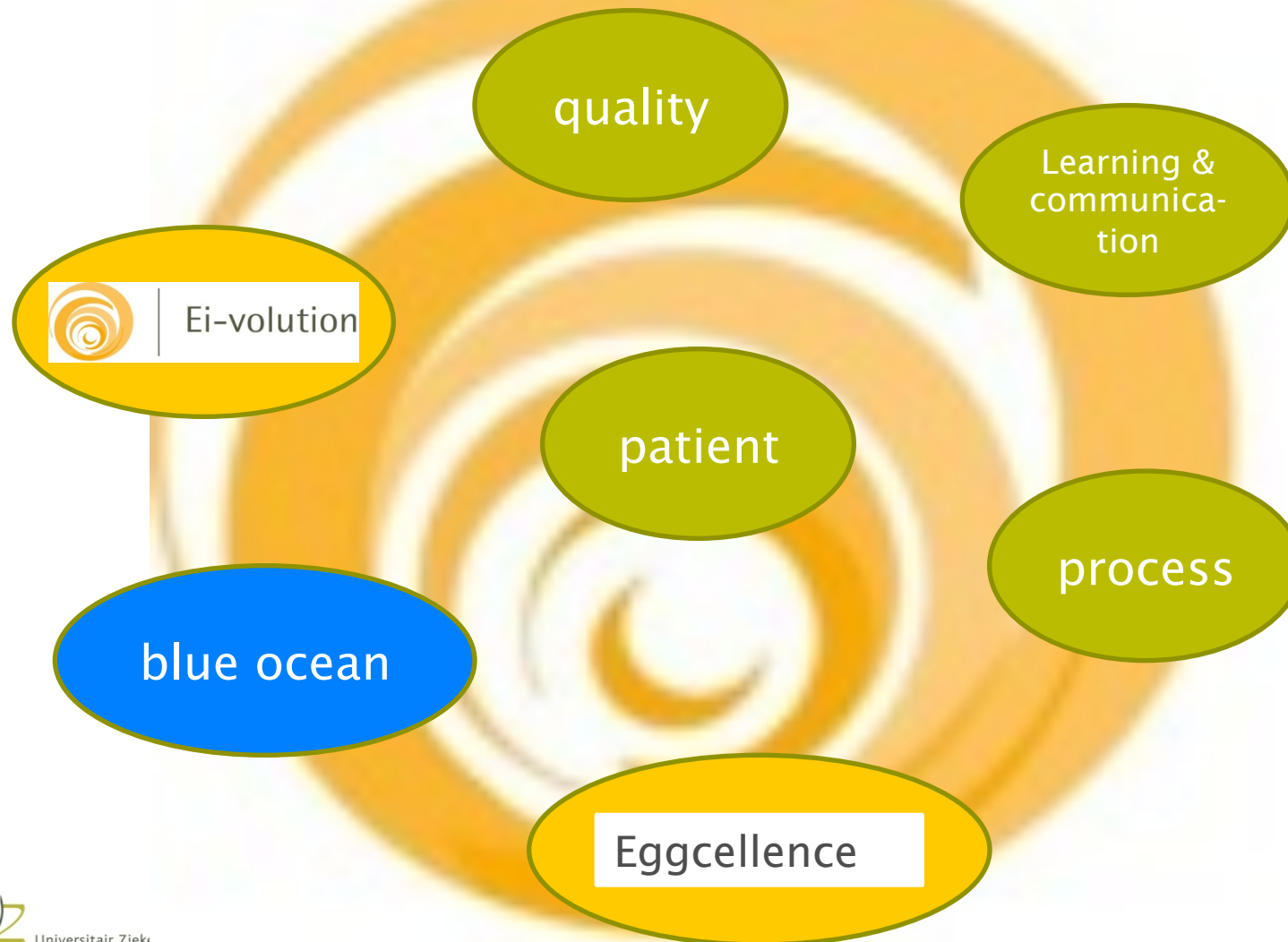
# CASE : UZ Brussels' Centre for Reproductive Medicine



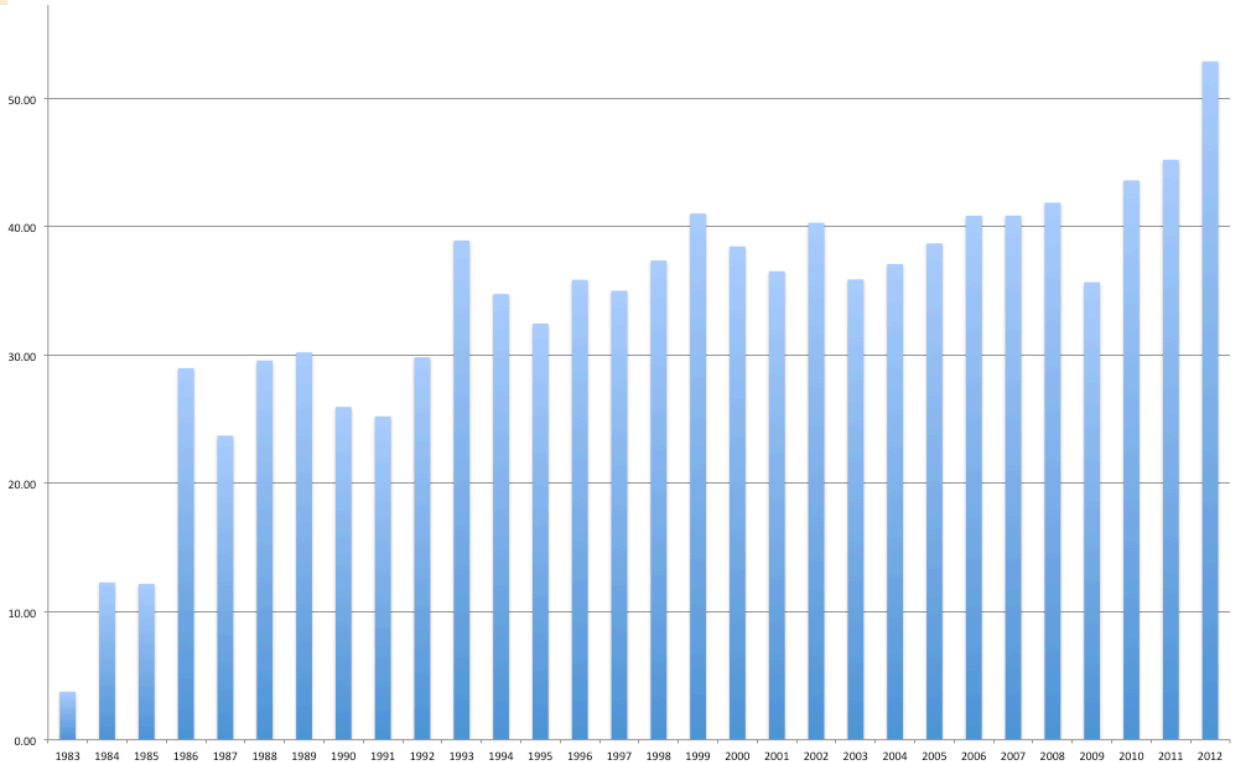
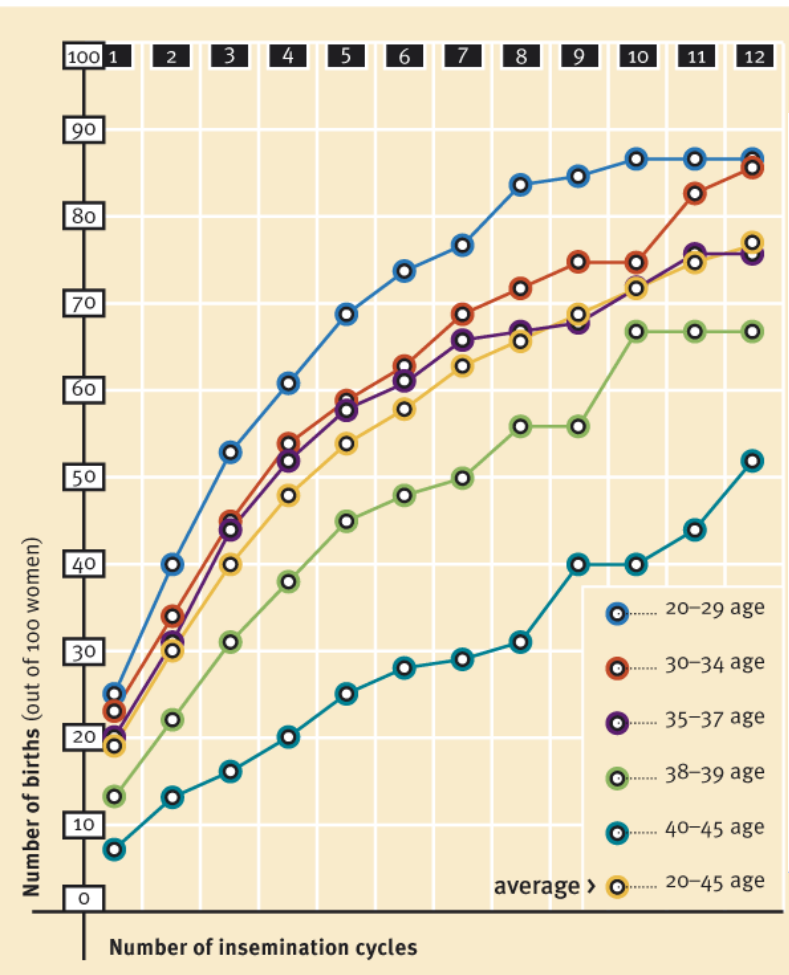
# CRG@work : defined innovation strategy



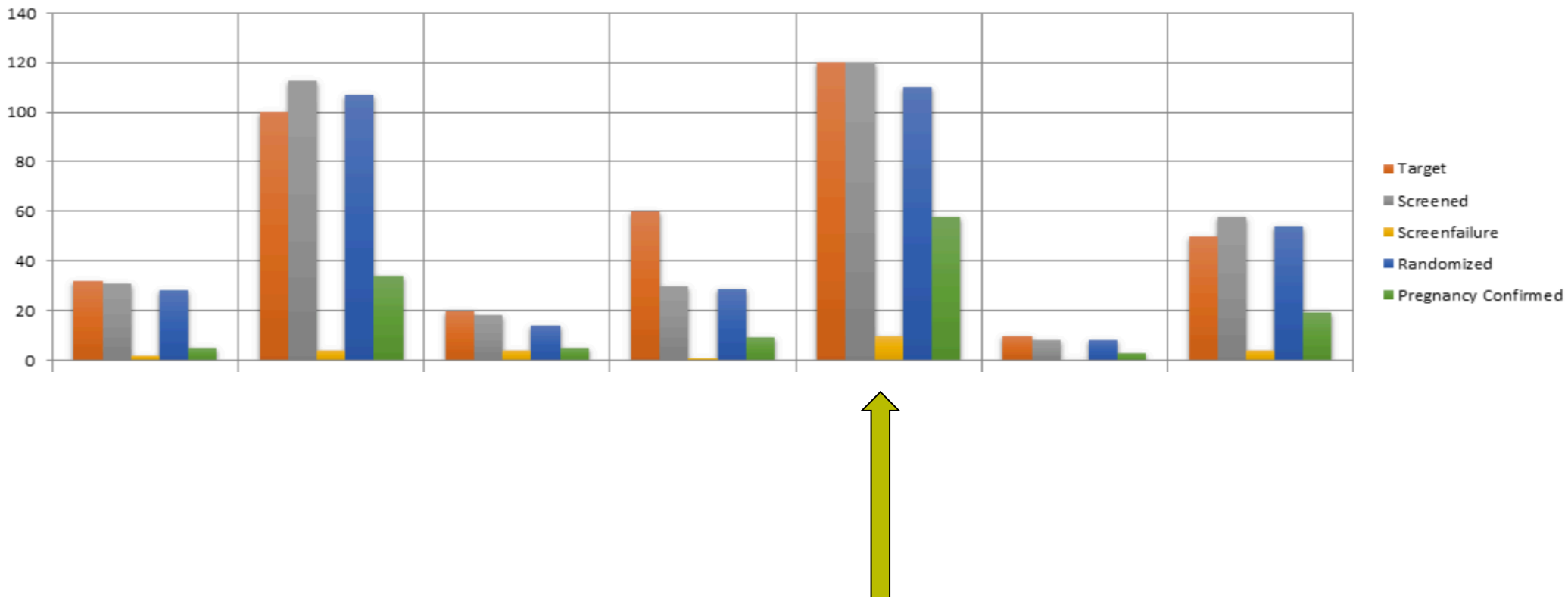
# CRG@work : Innovation Strategy e.g., also in Operational Excellence



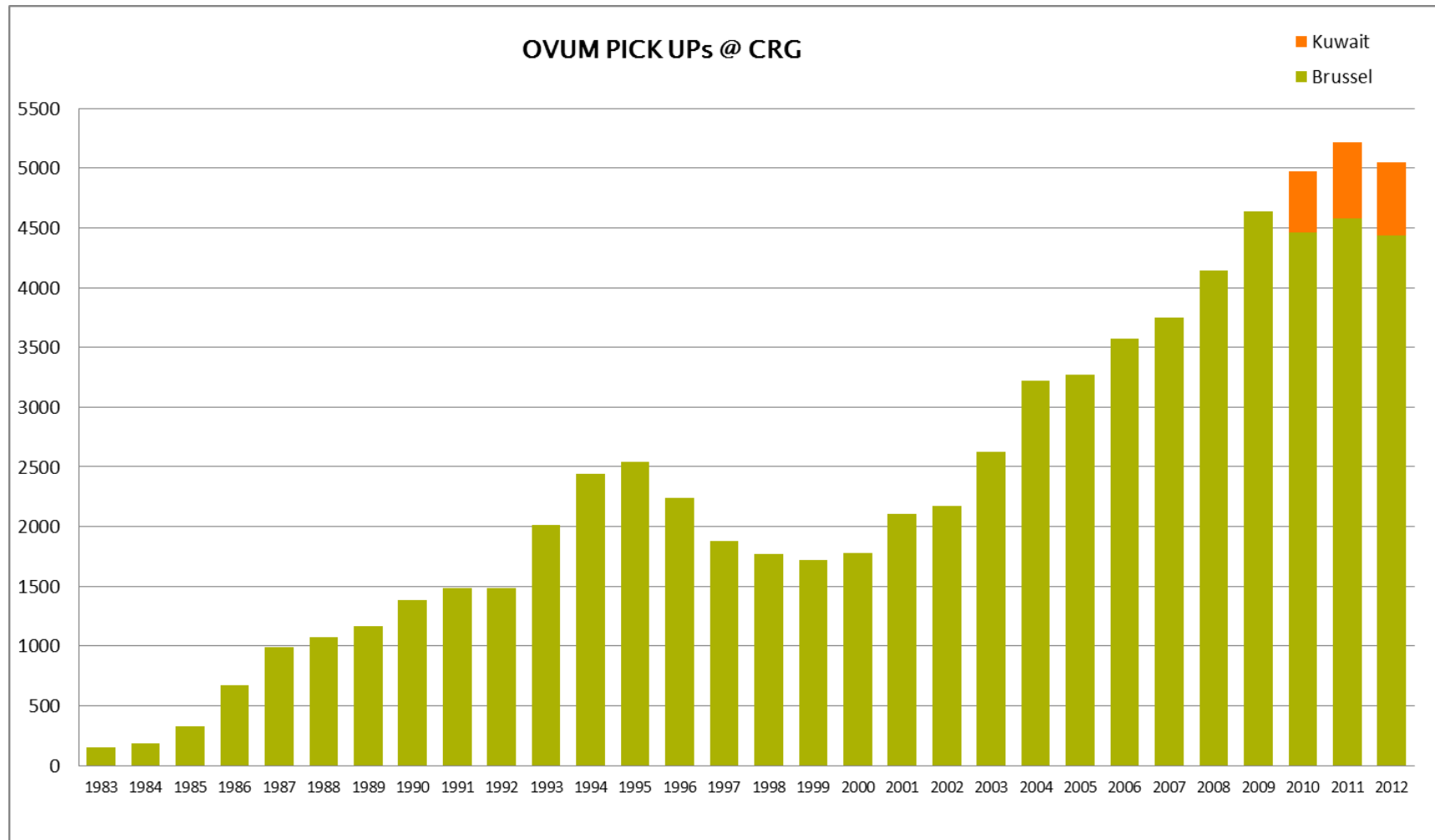
# Results : Objectively superior pregnancy results



# National Benchmark 7 largest centres



# Results : The largest academic ART centre in Europe



# 3 Things to do

1. You cannot predict the future
2. First decide *who* you are and *why* you are doing what you are, then *how* you want to do that, than *what* you are actually going to do ( then “strategy” will be automatic and good...;-)
3. Become something else

# 3 rules

1. Better before cheaper
2. Revenue before cost
3. There are no other rules



...and : never forget The Human Factor...

