

The background of the slide is a blurred image of a car wheel, showing the spokes and the tire. A large green rectangle is overlaid on the left side of the image, containing the BCG logo and the main title.

BCG

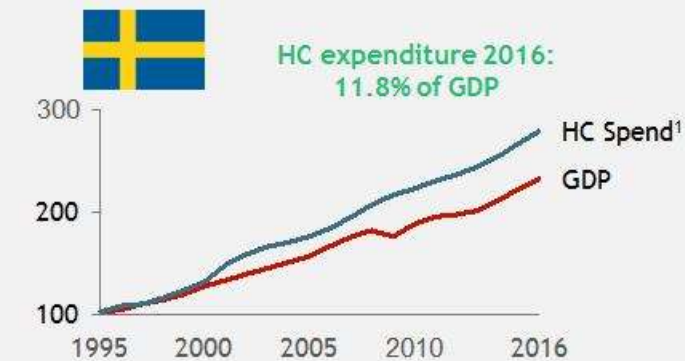
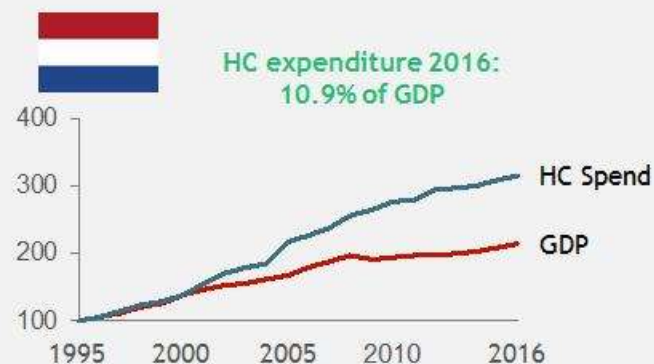
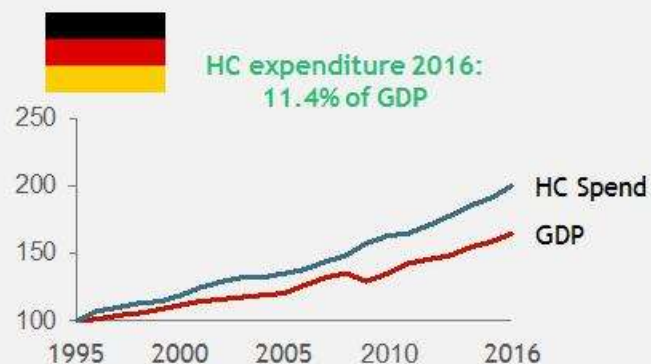
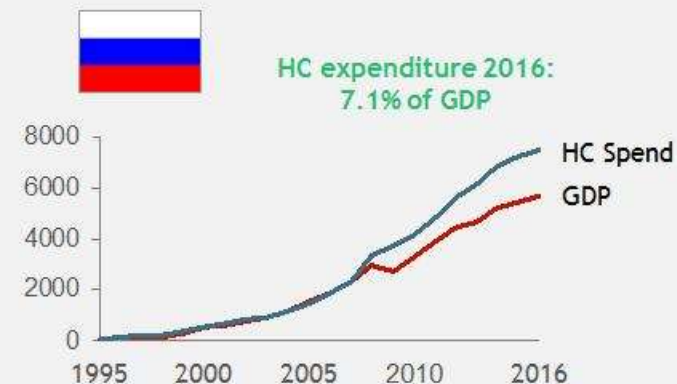
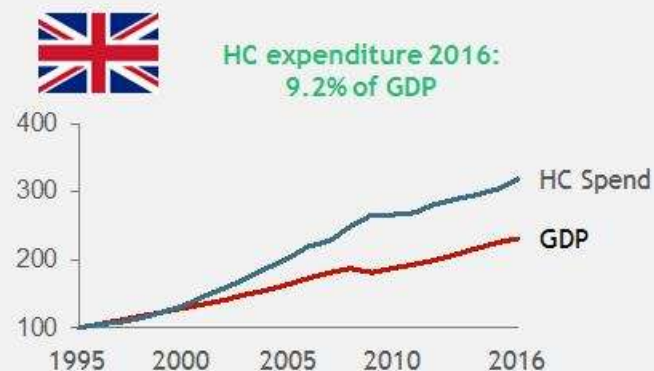
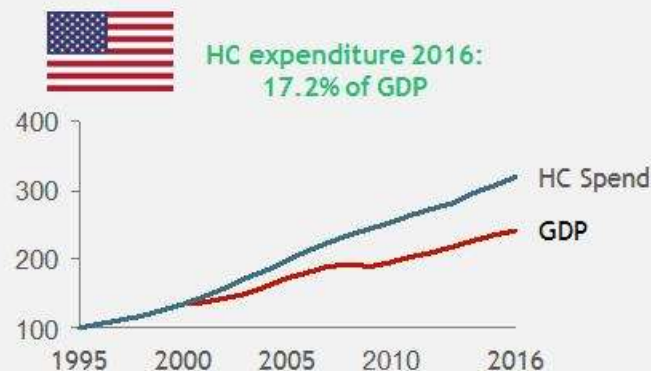
THE BOSTON CONSULTING GROUP

# Basic principles of Value-based Health Care

IV INTERNATIONAL CONFERENCE "HEALTH TECHNOLOGY ASSESSMENT":  
THE CONCEPT OF VALUE-BASED HEALTHCARE

MOSCOW, NOVEMBER 23RD, 2017

# Health care costs are rising at unsustainable rates



<sup>1</sup> Long-term care spending included in HC Spend in Sweden after 2011, thus HC spend for Sweden is indexed 1995-2010 and 2011-2016 with HC being same as GDP growth 2010-11

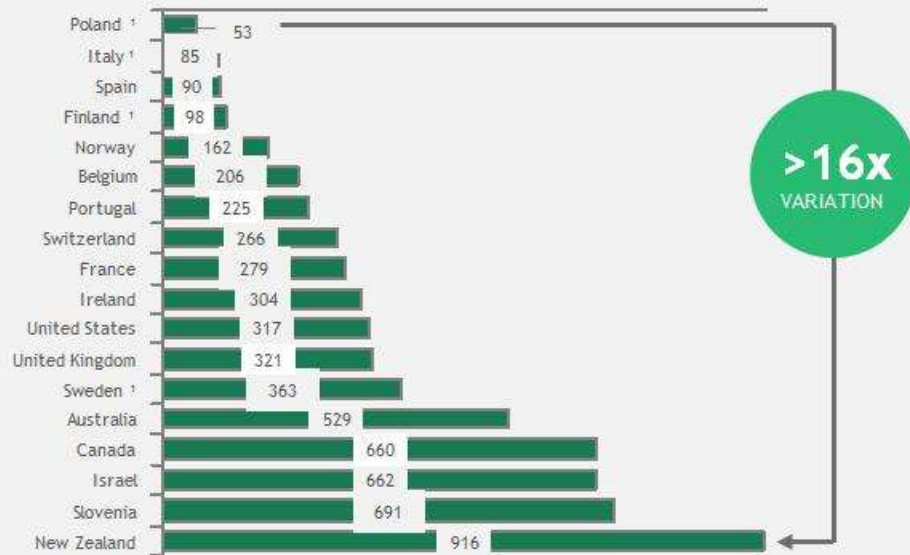
Notes: Index 100 at 1995, based on local currencies

Source: WHO; EIU; BCG analysis

# Outcome variation after hip replacement between countries

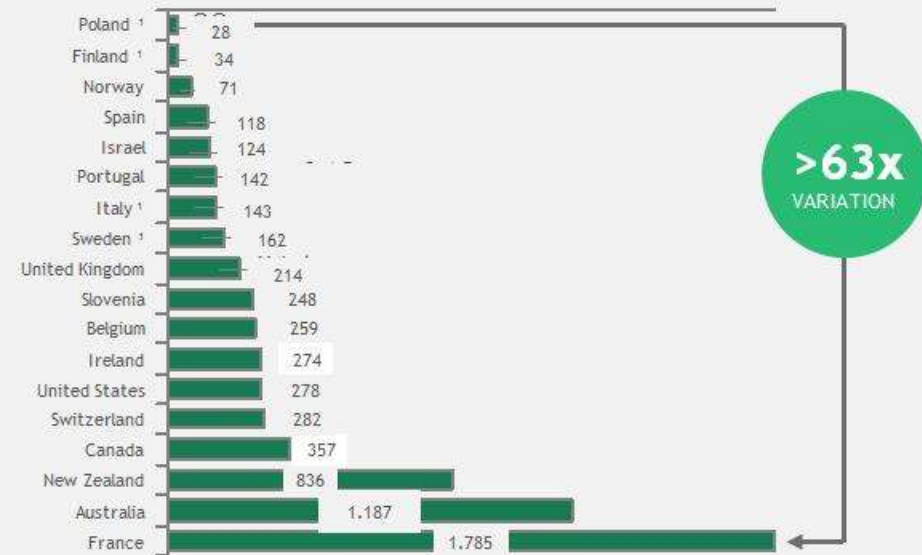
## Deep Vein Thrombosis (DVT)

#Cases per 100,000 hospital discharges



## Postoperative Pulmonary Embolism (PE)

#Cases per 100,000 hospital discharges



1. Average number of secondary diagnoses <1.5 for all surgeries which may result in an underestimation. Notes: Numbers are not risk-adjusted. Numbers obtained by all episode method. Surgical episode method used for Poland, Belgium, UK, Switzerland, Ireland, USA, Slovenia, Australia, France.

Source: OECD Health Statistics 2015



# Significant health outcome variation within countries



**2x**

variation in 30-day in hospital mortality rate from heart attack in US (25th vs 75th perc.)



**4x**

variation in bypass surgery mortality in the UK



**5x**

variation in reoperations due to complications after knee replacement in Germany



**6x**

variation in emergency readmissions after hip surgery in the UK



**9x**

variation in complication rates from radical prostatectomies in the Netherlands



**18x**

variation in reoperation rates after hip surgery in Germany

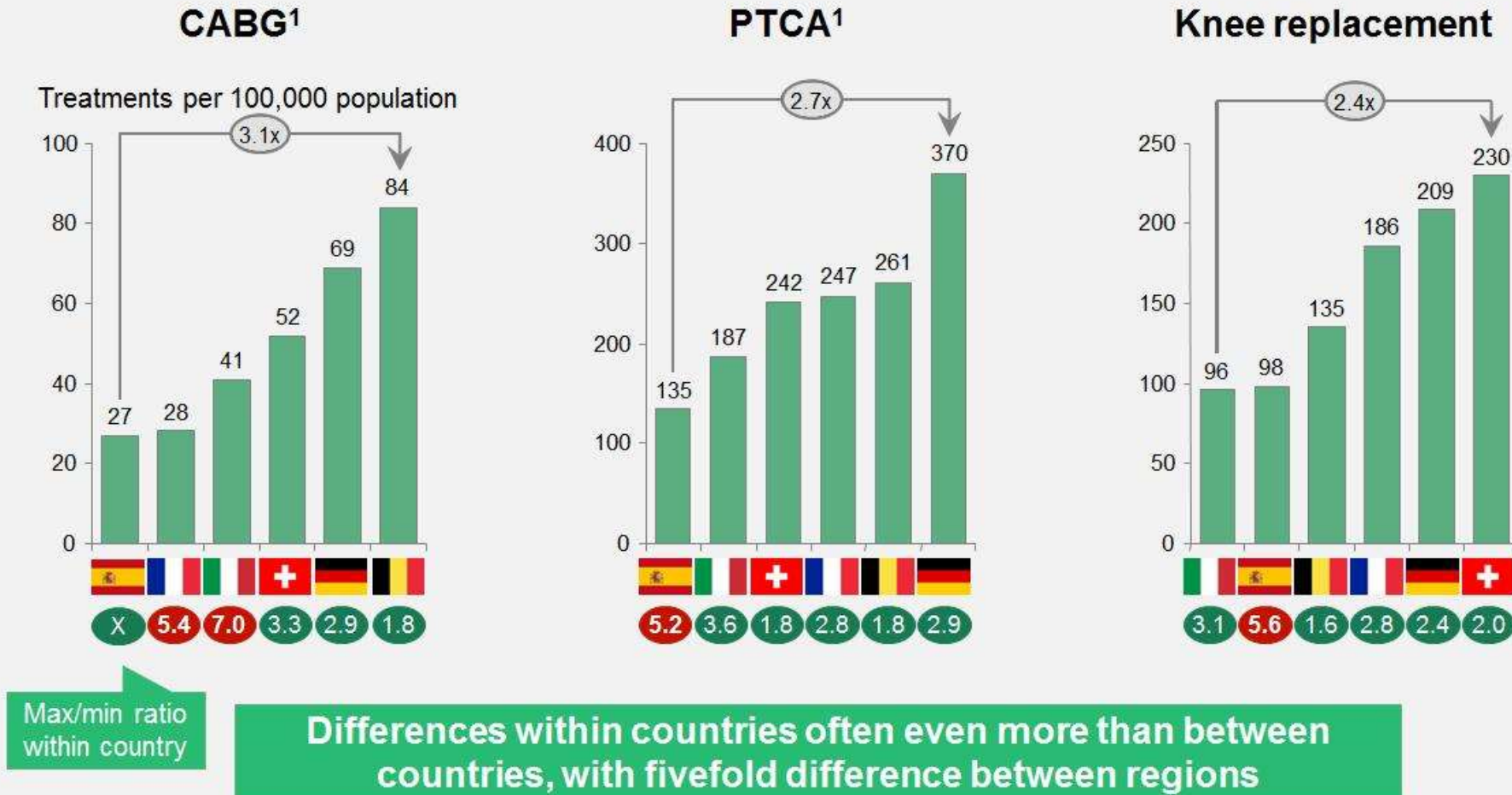


**36x**

variation in capsule complications after cataract surgery in Sweden

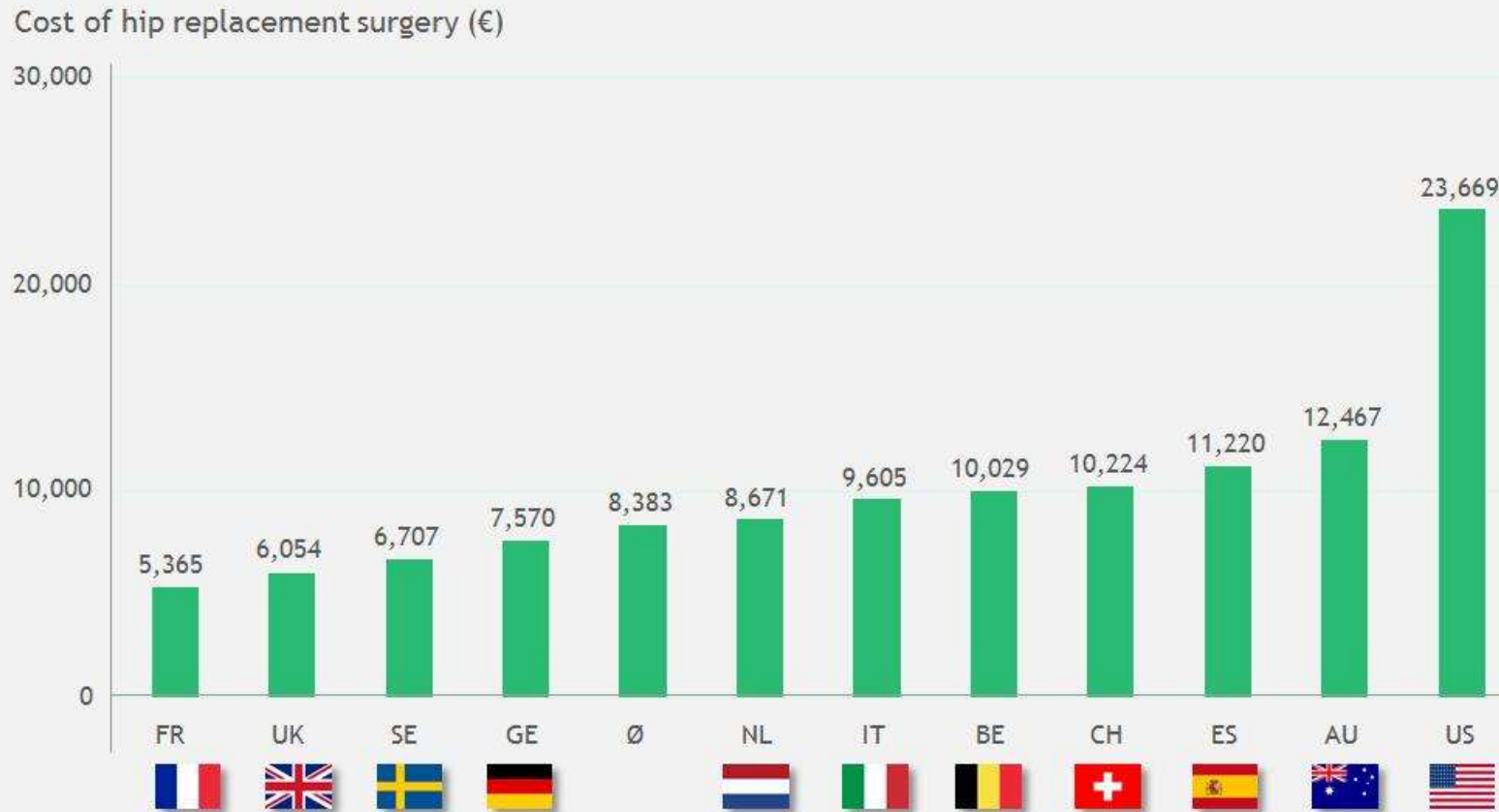
Source: National institute for cardiovascular outcomes research annual report 2010-2011, The Swedish National Cataract Registry, HSCIC, NIS and SID 2011 data, AHRQ IQI SAS Module, Dimick et al. (2009). Composite measures for surgical mortality in the hospital. Health Affairs, 28(4), 1189-98, Health at a Glance 2013, OECD Indicators; Statistisches Bundesamt (DRG\_OPSvier, Stat\_Bev\_EA), eigene Berechnung und Darstellung (IGES 2014) <https://faktencheck-gesundheit.de/die-faktenchecks/interaktive-karten-zu-regionalen-unterschieden/kniegelenk-erstimplantationen/> BCG analysis

# Differences in treatment intensity



1. CABG (Coronary Artery Bypass Graft), PTCA (Percutaneous Transluminal Coronary Angioplasty) 2. Other countries include Australia, Canada, Czech Republic, England, Finland, Israel and Portugal; other treatments include hip fracture, C-section and hysterectomy; 3. The lowest amount of treatments was 0, so technically no value can be calculated  
Source: OECD Health Policy Studies: Geographic Variations in Health Care - What do we know and what can be done to improve health system performance? (2014)

# Price variation between countries for hip surgery



Note: All reimbursement rates in EUR (PPP)  
Source: BCG Analysis, country specific DRG databases



# Variation in care practice in knee replacement

	PRE-OPERATIVE CARE	PRE-SURGERY ROOM/ANESTHESIA	OR PREP	OPERATION	POST-OPERATIVE CARE
<b>Hospital A</b>	<ul style="list-style-type: none"> <li>• Outpatient knee consultation</li> </ul>	<ul style="list-style-type: none"> <li>• Spinal anesthesia</li> <li>• Femoral artery block</li> <li>• Additional oral medications</li> </ul>	<ul style="list-style-type: none"> <li>• Patient positioned in pre-surgery room by doctor</li> <li>• Operating room setup</li> </ul>	<ul style="list-style-type: none"> <li>• Implant product A</li> <li>• With cell saver</li> <li>• No hemostasis</li> </ul>	<ul style="list-style-type: none"> <li>• 24h recovery room</li> <li>• No autologous blood</li> <li>• No banked blood checked</li> </ul>
<b>Hospital B</b>	<ul style="list-style-type: none"> <li>• Consultation by appointment</li> <li>• Ward</li> </ul>	<ul style="list-style-type: none"> <li>• Spinal anesthesia + minimal sedation</li> <li>• Femoral artery + sciatic nerve block catheter</li> </ul>	<ul style="list-style-type: none"> <li>• Patient positioned in operating room by assistant</li> <li>• Operating room setup</li> </ul>	<ul style="list-style-type: none"> <li>• Implant product B</li> <li>• With navigation</li> <li>• No cell saver</li> </ul>	<ul style="list-style-type: none"> <li>• ~3h recovery room</li> <li>• No autologous blood</li> <li>• Two banked bloods checked</li> </ul>

Evidence-Based Medicine?

# The problem

## Health care professionals

- *in different countries*
- *or within the same country*
- *or even the same practice or hospital*
- *are providing different care*
- *in different ways*
- *more or less frequently*
- *at better or worse quality*
- *at higher or lower costs and prices*

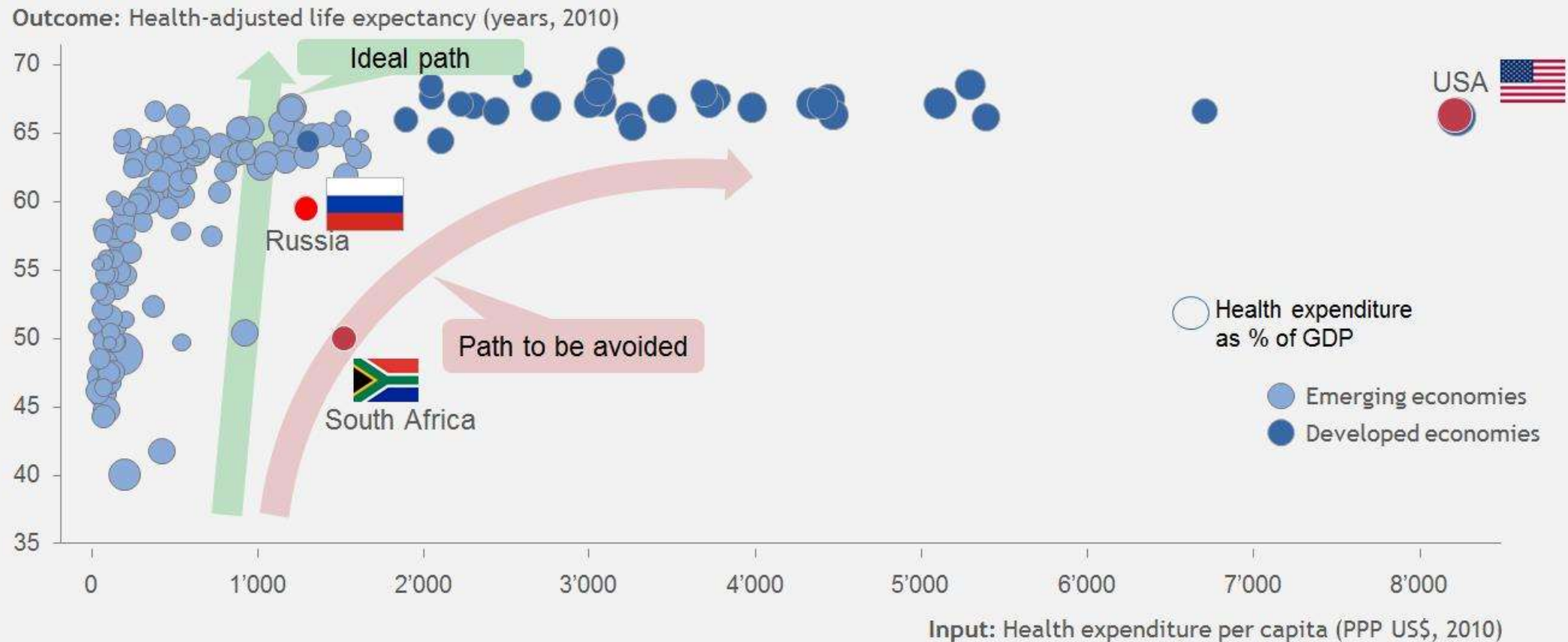
Differences in outcomes and costs are not transparent

Care delivery is not organized for maximizing value

Value for patients and financial success are not linked



# Russia needs to avoid the dangerous path of others



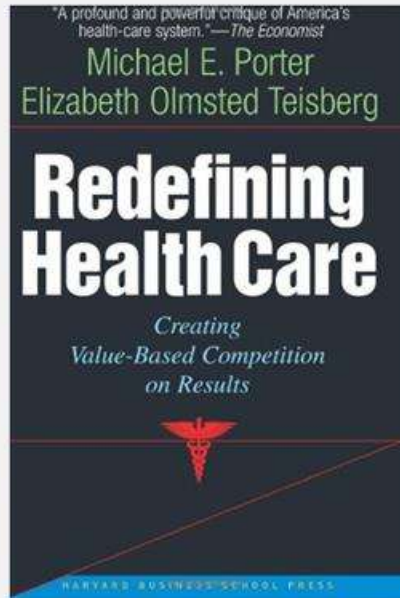
Health-adjusted life expectancy: Estimates the number of years in full health an individual is expected to live at birth by subtracting the years of ill health (weighted according to severity) from overall life expectancy

Source: World Bank, WHO, The Lancet, BCG

# Value-based health care is the emerging paradigm

Focus on both costs and outcomes to improve value for the patients

## Initial description



## Concept

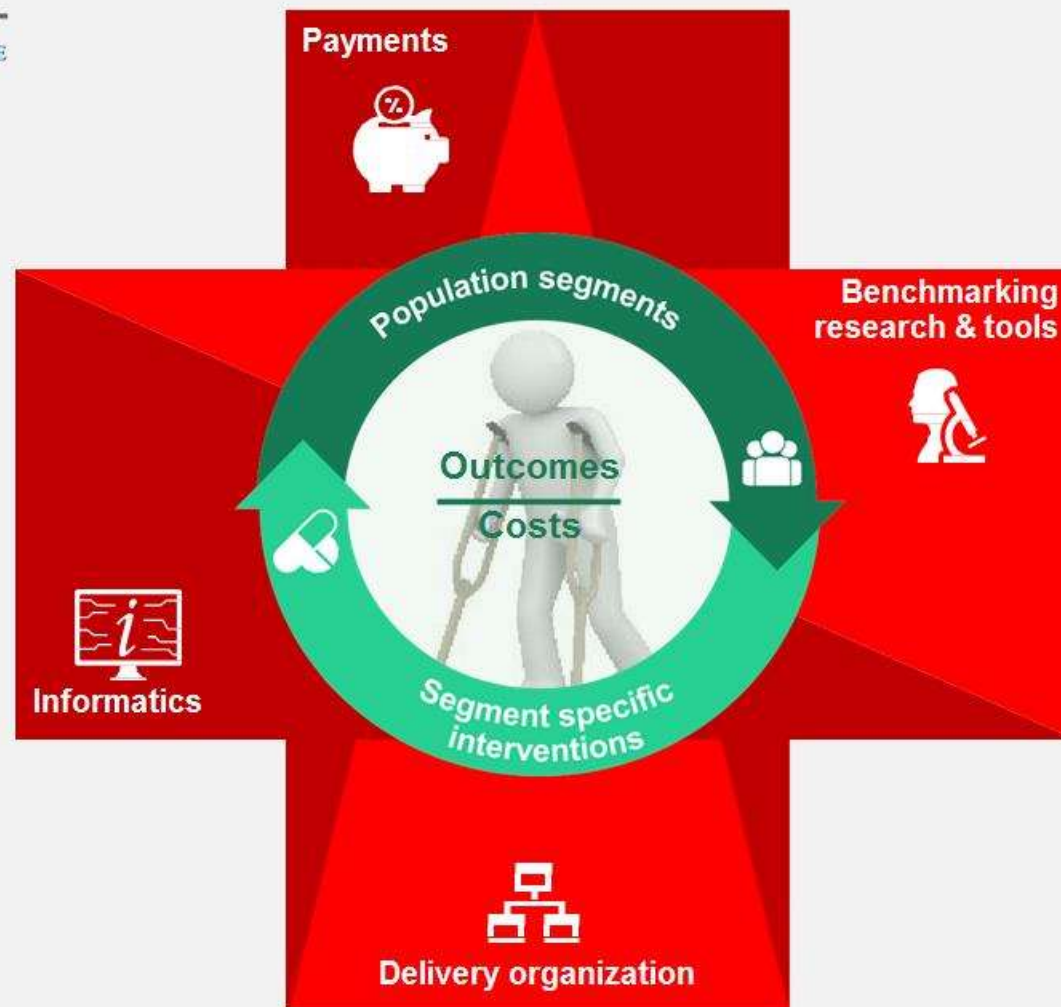
$$\text{Value}^1 = \frac{\text{Health outcomes that matter to patients} \uparrow}{\text{Cost of delivering the outcomes} \downarrow}$$

Central goal in health care becomes value for the patient, not volume, cost containment or meeting single medical parameters

Achieving  
meaningful  
improvement in  
health outcomes  
requires holistic  
perspective on  
system set-up



COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD





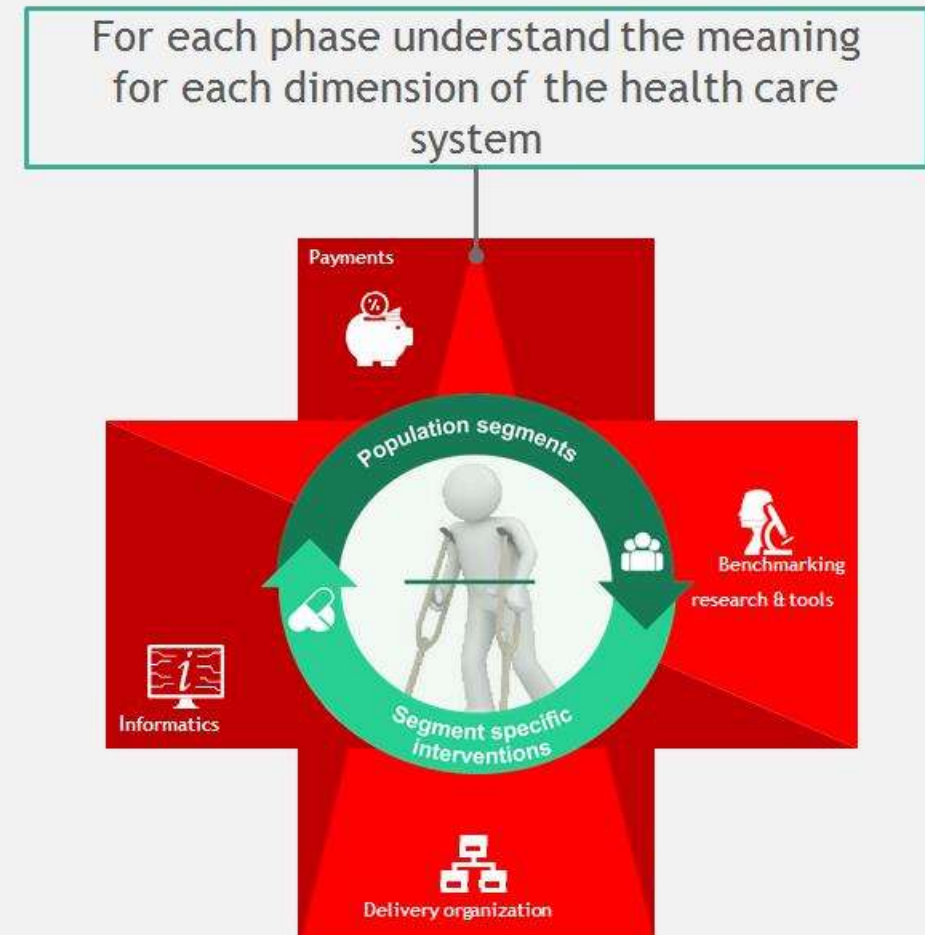
# VBHC is applied through three key levers

VBHC lever	Description	Rationale
1 Measure outcomes	<ul style="list-style-type: none"><li>Identify <b>outcomes that matter</b> to patients for a given condition</li><li><b>Track</b> outcomes and <b>share results</b> with physicians, patients, payers</li><li>Identify outcome drivers in <b>practices</b></li></ul>	<ul style="list-style-type: none"><li>Accelerate <b>on-going improvement</b> through perf. tracking, comparisons, best practice sharing &amp; innovation</li><li>Allow selection of best providers</li></ul>
2 Integrate practices	<ul style="list-style-type: none"><li><b>Operate as Integrated Practice units</b> around medical conditions and target population (e.g., frail elderly, diabetic population)</li></ul>	<ul style="list-style-type: none"><li>Better <b>coordinate</b>, avoid silos &amp; lack of accountability in organization</li><li>Increase <b>volume</b> and level of <b>specialization</b> of care teams</li></ul>
3 Develop incentives	<ul style="list-style-type: none"><li>Measure costs and develop bundled payment <b>covering the right care cycle</b><ul style="list-style-type: none"><li>Full care cycle for acute conditions</li><li>Overall care for a defined period for chronic conditions</li></ul></li></ul>	<ul style="list-style-type: none"><li>Align <b>incentives</b> for providers to deliver high value care that is:<ul style="list-style-type: none"><li>Appropriate &amp; timely</li><li>Of high quality</li><li>Correctly integrated / followed on</li></ul></li></ul>

# Diagnosis of current situation is the first step towards a successful VBHC transformation in Russia

## Characteristics of the phases in the Transformation Roadmap

- Phase I** Individual organizations begin measuring quality and reducing variation of patient outcomes resulting from treatment/products
- Phase II** Standardization of outcome metrics enables anonymous comparisons across and within health systems
- Phase III** Public reporting creates incentives (financial and non-financial) to improve value
- Phase IV** Health system are optimized for continuous improvement in value delivered to each population segments





# Benefits achieved at all levels of the healthcare system

## VBHC benefits

### Patients

- **Ability to select** the best providers based on transparent information
- **Understanding** of expected outcomes of treatment
- **Self-management** of condition

### Providers

- **Comparison data** motivating practitioners to improve and roll-out **best practices**, ultimately allowing to improve both **effectiveness & efficiency**
- Increased room for **innovation**

### Supplier

- Increased room for **innovation**
- Opportunity to **demonstrate value** to payers through documented value proposition

### Payers

- **Ability to direct patients** to high value providers
- Better **alignment of incentives** to pursue both effectiveness and efficiency

### Regulators

- Ability to monitor performance and create **value driven policy** recommendations



# BCG has been supporting VBHC for many years

We contribute to thinking on VBHC through our publications and research



We engaged in establishment of ICHOM to drive standardized measurement of health outcomes



- Standard Sets for 21 medical conditions available
- Ongoing plans for another 13 conditions

We work with clients to develop their VBHC roadmaps, change their organisations and transform health systems





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