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# The Economic and the Health Dividend of the Health Care System

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- 1. A new understanding of health
- 2. The economic dividend of the health economy
- 3. The health dividend of the health economy
- 4. Summary



### 1. Introduction: A new understanding of health

A new understanding of health – Towards an open health society

### **OLD** UNDERSTANDING

### **NEW** UNDERSTANDING

Part of healthcare	$\rightarrow$	is the health economy and its economic footprint
Instead of mainly public financing	$\rightarrow$	second health market; new forms of insurances and paying
Instead of input orientation		better quality, more outcome orientation
Instead of health care as cost factor		growing sectors, increasing work forces, new career opportunities
Instead of healthcare consumption	$\rightarrow$	investment in health to promote growth and productivity
Instead of separate silos, e.g. the Statutory health insurance		health in all areas of life and lifelong; less fragmentation





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#### German Health Satellite Account

- » The technical university of Berlin together with Roland Berger and BASYS / WifOR and in close cooperation with the Federal Statistical Office was commissioned by the Federal Ministry of Economics and Technology (BMWi) to create a satellite account.
- » The following requirements have been described for that purpose by BMWi. The satellite account shows
  - $\rightarrow$  gross value added
  - $\rightarrow$  employment figures
  - $\rightarrow$  interrelationships within the health economy and with other industries
  - $\rightarrow$  imports /exports
  - → and other economic indicators

based on a justifiable definition of the health economy.

» These data are available for 2005 and were completed until 2012



#### System of Health Accounts

» With the help of the Satellite Account it is now possible to identify following economic indicators:

#### On the production side

- » Gross value added
- » Inputs
- » Production cost
- » Imports
- » Supplies of products at manufacturer prices

#### On the expenditure side

- » Final consumption expenditure at market prices
- » Exports
- » Investments
- » Intermediaries use
- » The main result of the Satellite Account is the health input-output table. It was integrated into the National Accounts and allows direct comparison of health expenditure accounts and the internationally used "System of Health Accounts "(SHA). It was first identified in this form for the health economy".

Source: Henke, K.-D., Neumann, K., Schneider, M. et al., Erstellung eines Satellitenkontos für die Gesundheitswirtschaft in Deutschland, Baden-Baden 2010, p. 171



#### The new view: Satellite account

Health products and

The four consumption sectors
in the health economy in real
terms

#### **Compulsory and voluntary financing**

consumption sectors alth economy in real	Compulsory coverage through private or statutory health insurance	Voluntary coverage through out-of-pocket expenditures and voluntary insurance
products and services	Primary sector	Secondary market
Core health sector	<b>e.g.</b> Reimbursable in- and outpatient services	<b>e.g.</b> OTC drugs, individual health care services
Extended health sector	<b>e.g.</b> instrumental assisted daily living (IADL) activity, research, vocational training	<b>e.g.</b> "healthy" spas, relaxation, food, clothing

Source: Henke, K.-D., Neumann, K., Schneider, M. et al., 2010.



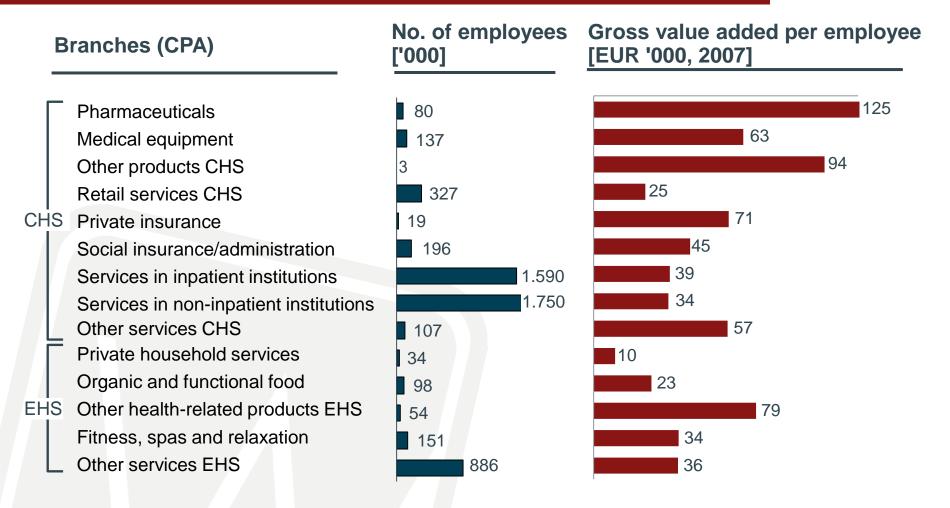
#### Bundling of health products into 14 groups

No.	Text	CPA71 No.
Core he	ealth sector	
G_1	Pharmaceutical products	24.4
G_2	Medical equipment	33
G_3	Other goods in the core health sector	24R; 35
G_4	Retail sales in the core health sector	52
G_5	Private insurance policies covering health risks	66
G_6	Health-related social insurance and administrative services	75.1-2; 75.3
G_7	Services provided by inpatient institutions	85
G_8	Services provided by non-inpatient institutions	85
G_9	Other services in the core health sector	51; 60.1; 60.2-3; 73; 80; 91
Extend	ed health sector	
G_10	Home help services in private households	95
G_11	Organic and functional foodstuffs	01; 15.1-8; 15.9
G_12	Other health-related goods in the extended sector	17; 18; 19; 22.1; 24R; 25.1; 26.1; 29; 31; 33; 36
G_13	Services for sports, fitness, spas and relaxation	55; 92
G_14	Other health-related services in the extended sector	51; 52; 60.2-3; 63; 66; 72; 74;80; 85; 91; 93



#### 2. High productivity can be found predominantly in the industrial health economy

#### Core and extended health sector





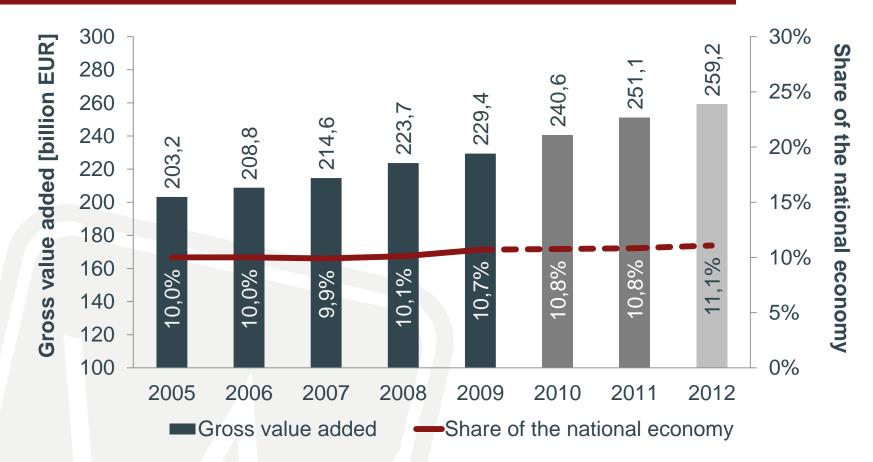
Health economy between 2005 and 2012

Between 2005 and 2012 the health economy was responsible for
around 11% of gross value added,
around 7% of export,
around 20% of final consumption and
around 15% of total employment.

Source: Ostwald, D.A., Henke, K.-D., Kim, Z.-G. (2013).



Development of the health economy's gross value added



Source: GGR, 2013; Database: Destatis; Calculation and figure: WifOR, 2013; Values at current prices.

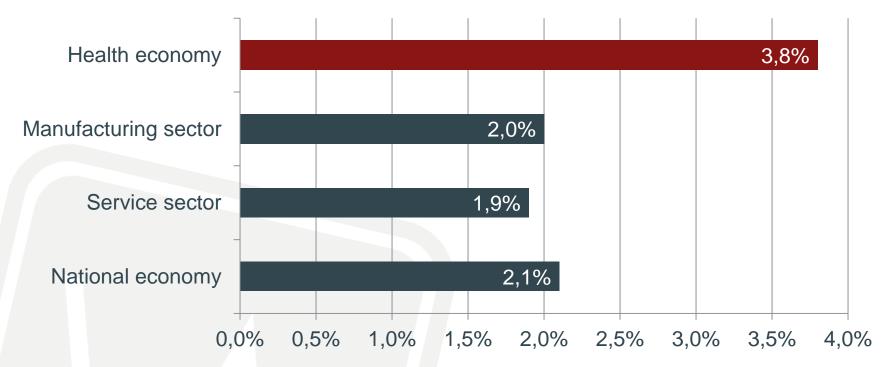
The gross value added increased from 2005 to 2012 by nearly EUR 60 billion. In 2012 the health economy's gross value added amounts to EUR 260 billion.



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Development of the health economy's gross value added

#### Compound annual growth rate from 2006 to 2011

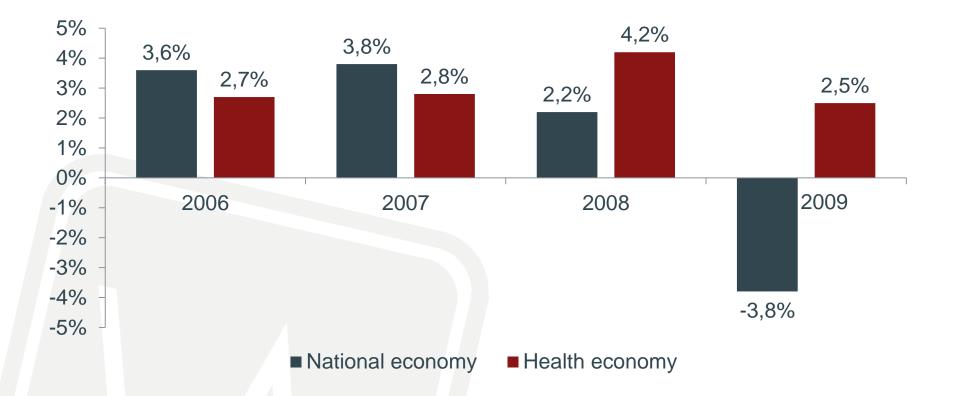


Source: GGR, 2013; Database: Destatis; Calculation and figure: WifOR, 2013; Values at current prices.

From 2006 to 2011 the health economy grew nearly twice as fast as the national economy in Germany.



#### The health economy as stabilizing factor

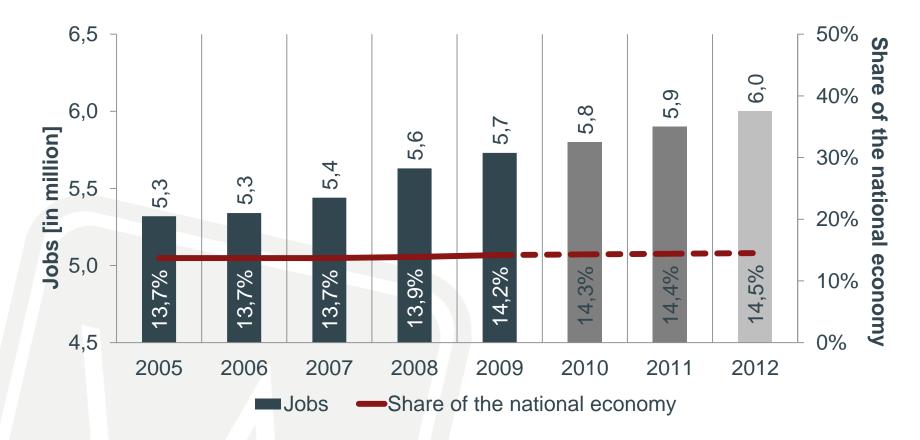


Source: GGR, 2013; Database: Destatis; Calculation and figure: BMWi / WifOR, 2013; Values at current prices.

The health economy is a stabilizing factor during economic slow-downs.



Development of the health economy's employment effects



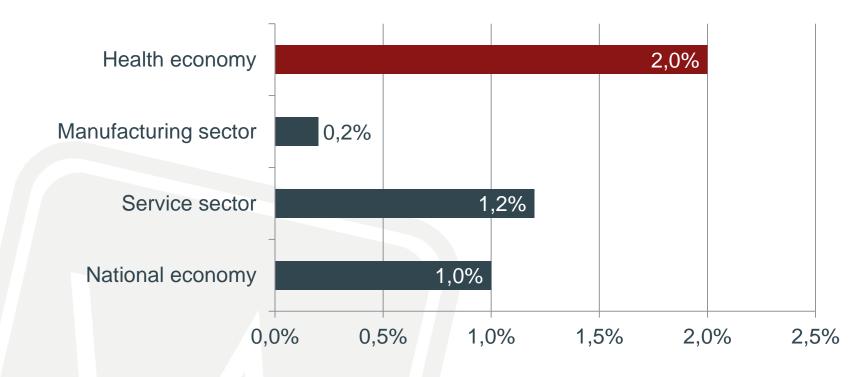
Source: GGR, 2013; Database: Destatis; Calculation and figure: WifOR, 2013.

More than 6 million jobs in 2012, i.e. every 7th German is working in the health economy. In the health economy 700,000 new jobs were created since 2005.



Development of the health economy's employment effects

#### Compound annual growth rate from 2006 to 2011



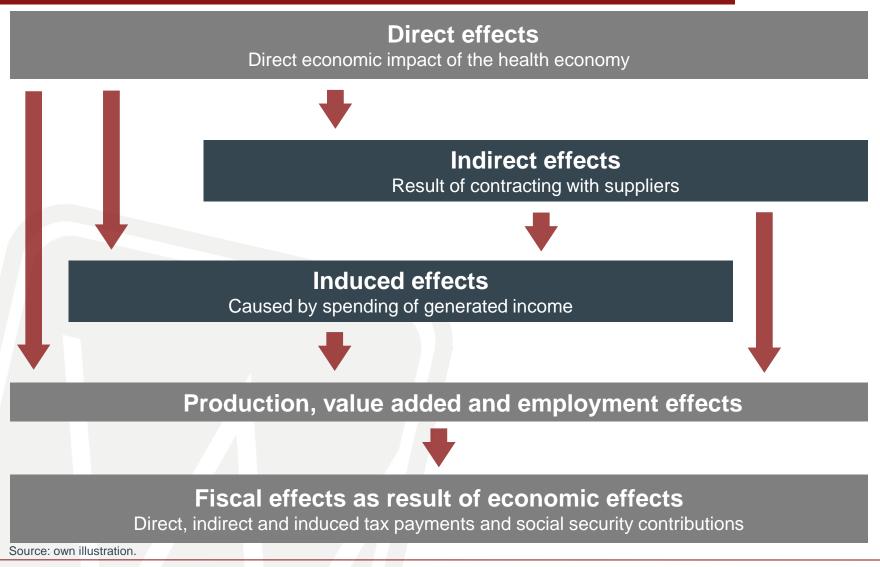
Source: GGR, 2013; Database: Destatis; Calculation and figure: WifOR, 2013.



From 2006 to 2011 annually 2% additional jobs were created, i.e. 10 times more than in the manufacturing sector.

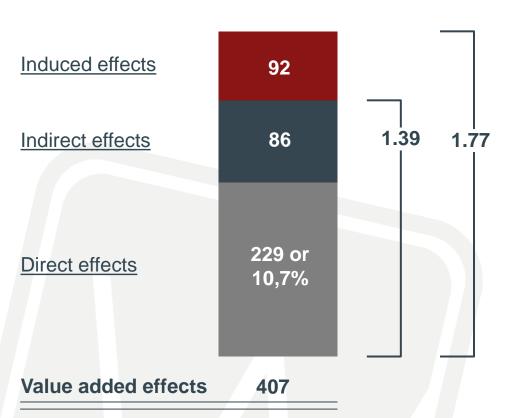


Simplified illustration of the formation of spillover effects





Generation of considerable indirect and induced effects (2009)



#### Value added effects<sup>1)</sup> [EUR bn.]

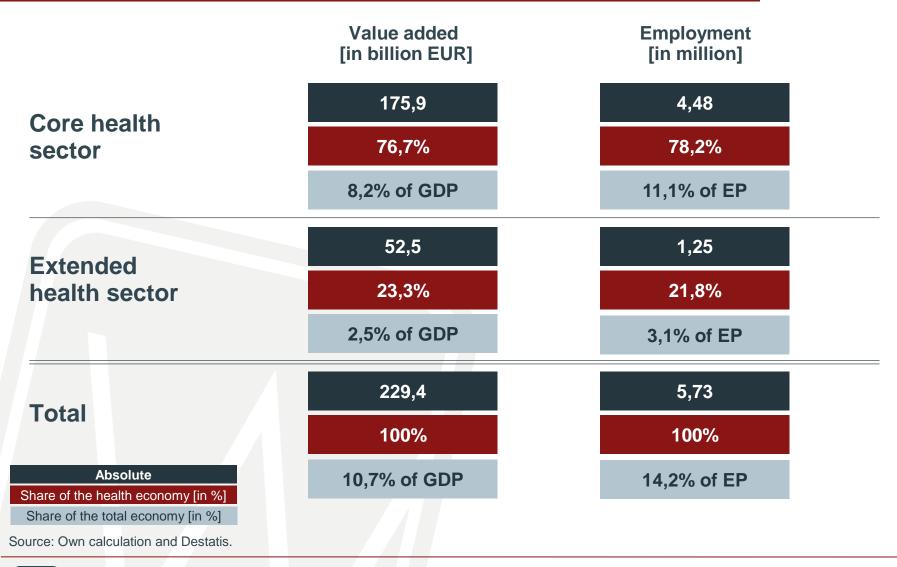
- » Through the value added of the health economy, additional indirect and induced effects are generated
- » The multiplier for the indirect value added effects (including the direct ones) is 1.39, i.e. one Euro produced in the health economy generates an additional production of 0.39 EUR in the upstream industries
- By taking the consumption of generated incomes into account the multiplier rises to 1.77

1) Model calculations based on the 2007 HIOT domestic production (excluding imports and processing of production)

#### Source: HETA



Value added and employment of the health economy (2009)







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a) From the economic benefits of the health economy

b) to a better health status of the population and

 c) from the healthier population to individual, collective, social and economic benefits.



# 3. The health dividend of the health economy

#### And its advantages

- » The health dividend is the value added through the health economy by reducing morbidity, invalidity and mortality.
- Through a new therapy, a new drug or a new technical device,
  i.e. through innovation in health care, the level of health of
  the population can be improved.
- » A healthier population will improve the productivity and the efficiency of the workforce.



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## 3. The health dividend of the health economy

A positive correlation between health and growth

#### Three key hypotheses



Healthy aging raises productivity and thus gives a supply-side boost to quality of life and growth



Healthy aging gives a demand-side boost by increasing private demand for non-reimbursable health-related goods and services (Second health market)



A healthy society saves money on treatment, rehabilitation and nursing care

The fiscal impact of the secondary health market requires further investigation





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» Shift in the understanding of health care: Instead of a cost factor, the health economy is seen as a growing market and a macroeconomic driver.

» The economic dividend of the health economy (value added, employment, export, consumption, etc.) should be measured regularly on the basis of the National Accounts.



# 4. Summary and future research

#### On the way to a European health economy



#### German health economy

- » Research project of the Federal Ministry of Economics and Technology: Analysis of the economic effects of the health care industry
- » Database: Extensive data by the Federal Statistical Office (Destatis)
- » Result: Direct, indirect, induced economic and fiscal effects and development of a health input-output table



#### European health economy

- » Database: Eurostat (input-output tables), OECD etc. → Open questions:
- Which scope is required to calculate the European health economy
- Analysis of the health economy in selected markets (e.g. UK, France etc.
- Analysis of the health economy in the entire EU



Summary: The health economy as a leading economic / industrial sector

#### What is the health economy after all?

In the National Accounting Systems it is an economic sector as many others.

- » The health economy is the biggest industry in Germany
- » The so-called first health "market" is characterized by legally fixed prices
- » The second health market is ruled by market prices and supports the first health "market" financially

#### Critics and open questions.

The macroeconomic figures of the contribution to employment and growth don't say much about the efficiency/outcome of the health economy.

But this is true for other economic sectors as well.



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Health impact assessment (HIA) as a major scientific challenge

An HIA helps policy-makers to identify the likely health impacts of a decision in other fields – such as

- » building a major roadway,
- » planning for a city's growth, or
- » developing a school curriculum.

HIAs can help decision-makers identify

- » unintended health risks,
- » reduce unnecessary costs,
- » find practical solutions and
- » leverage opportunities to improve the well-being of the community.





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