Health system reforms in times of constraint: experiences from Europe

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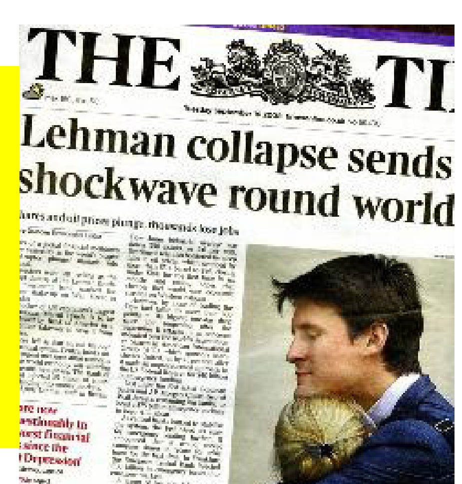
BEFORE THE FINANCIAL CRISIS: WAS EVERYTHING OK WITH EUROPEAN HEALTH SYSTEMS?

NO! IN MANY COUNTRIES EXPENDITURE RISES WERE HIGH, THE POPULATION DISSATISFIED, AND QUALITY SUB-OPTIMAL

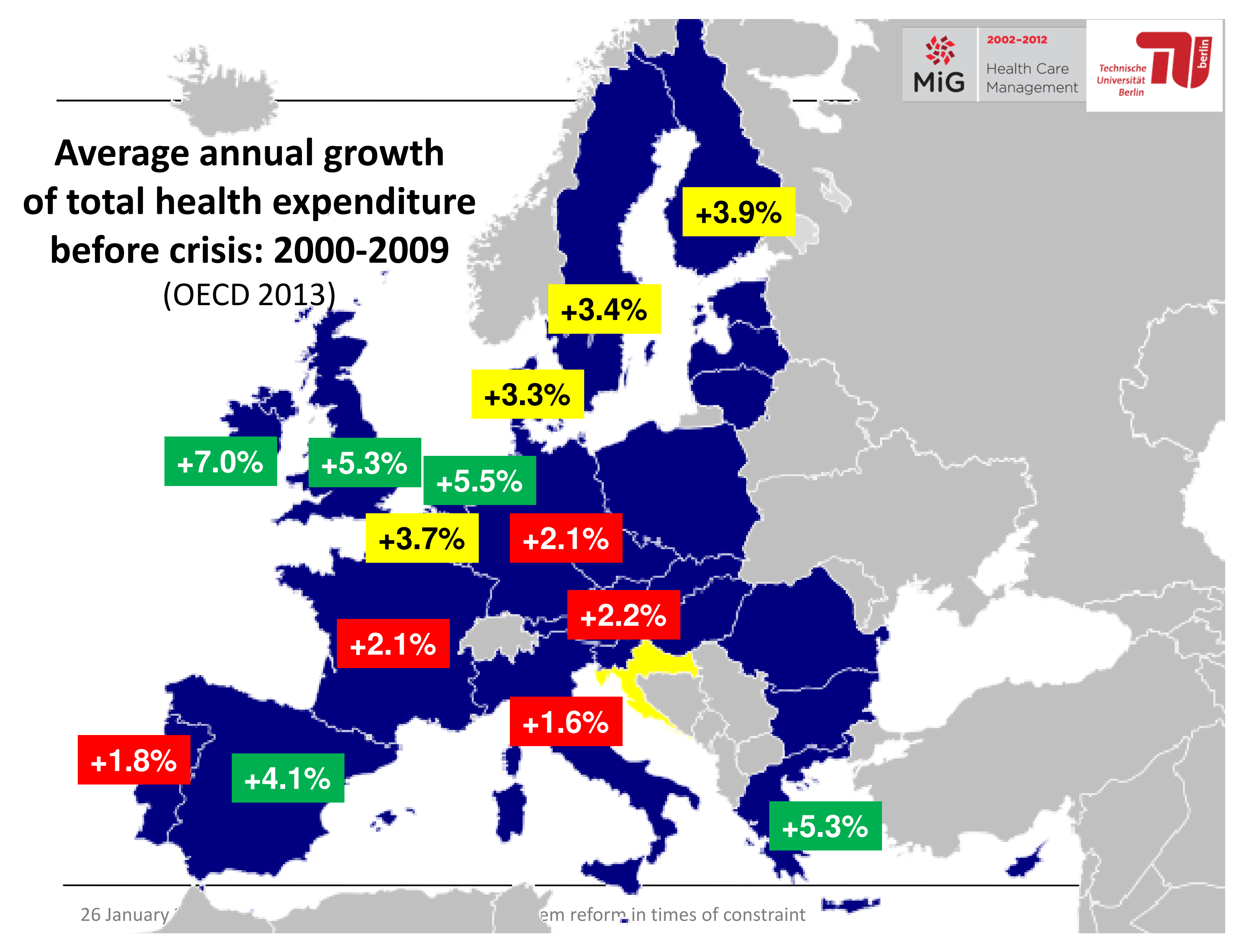
A few bad examples

- **Ireland:** no universal coverage, ca. 50% relying on VHI, ridiculously high and rising costs and salaries
- **Greece:** totally fragmented public system (between “NHS” and health insurance funds) → dissatisfaction → very high private provision and expenditure
- **Portugal:** waiting in public providers → private provision → high rates of out-of-pocket expenditure

The (elected!) politicians in these and other countries were not interested in good and resilient health systems – and totally unprepared for the crisis!


THE TI

Lehman collapse sends shockwave round world


MiG
2002–2012
Health Care
Management
Technische
Universität
Berlin
berlin
Average annual growth
of total health expenditure
before crisis: 2000-2009
(OECD 2013)
+3.9%
+3.4%
+3.3%
+7.0%
+5.3%
+5.5%
+3.7%
+2.1%
+2.2%
+2.1%
+1.6%
+1.8%
+4.1%
+5.3%
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And labour made up an important part of that …

Change in unit labour costs since 2000

Greece
Spain
Italy
Ireland
Portugal
France
Germany
OECD

1,4
1,3
1,2
1,1
1

Source: OECD

2000 2002 2004 2006 2008 2010 2012

… but pharmaceuticals were also an issue

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Pharmaceutical expenditure, PPP$ per capita

900
800
700
600
500
400
300
200
2000
2005

Greece +200%

Ireland +170%

Denmark +50%

Austria
Denmark
France
Germany
Greece
Ireland

Total pharmaceutical expenditure
as % of total health expenditure

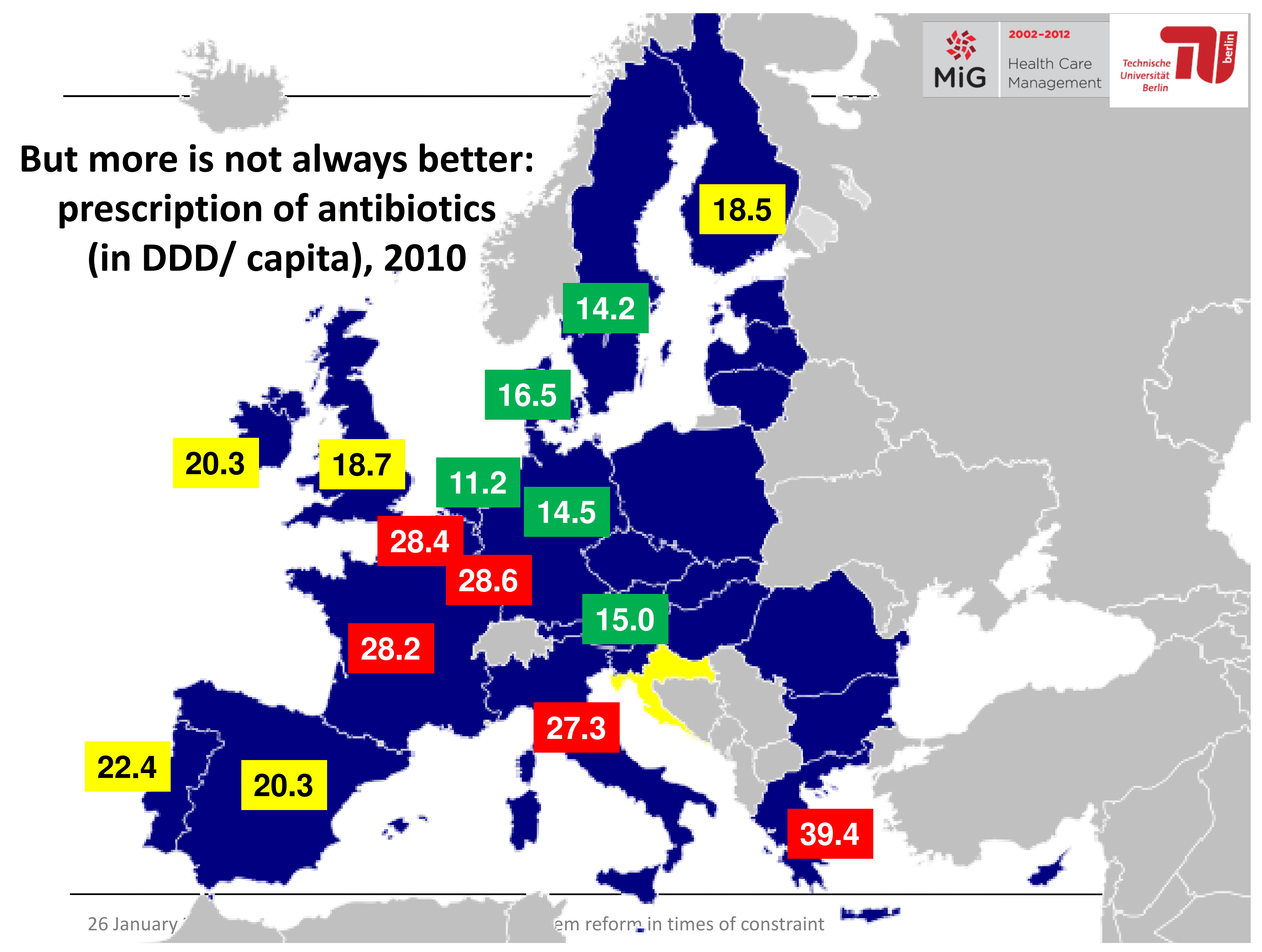
30
25
20
15
10
5
2000
2005

Greece 28%

Portugal 19%

Denmark 7%

Austria
Denmark
France
Germany
Greece
Ireland
Italy
Portugal
Spain
Sweden



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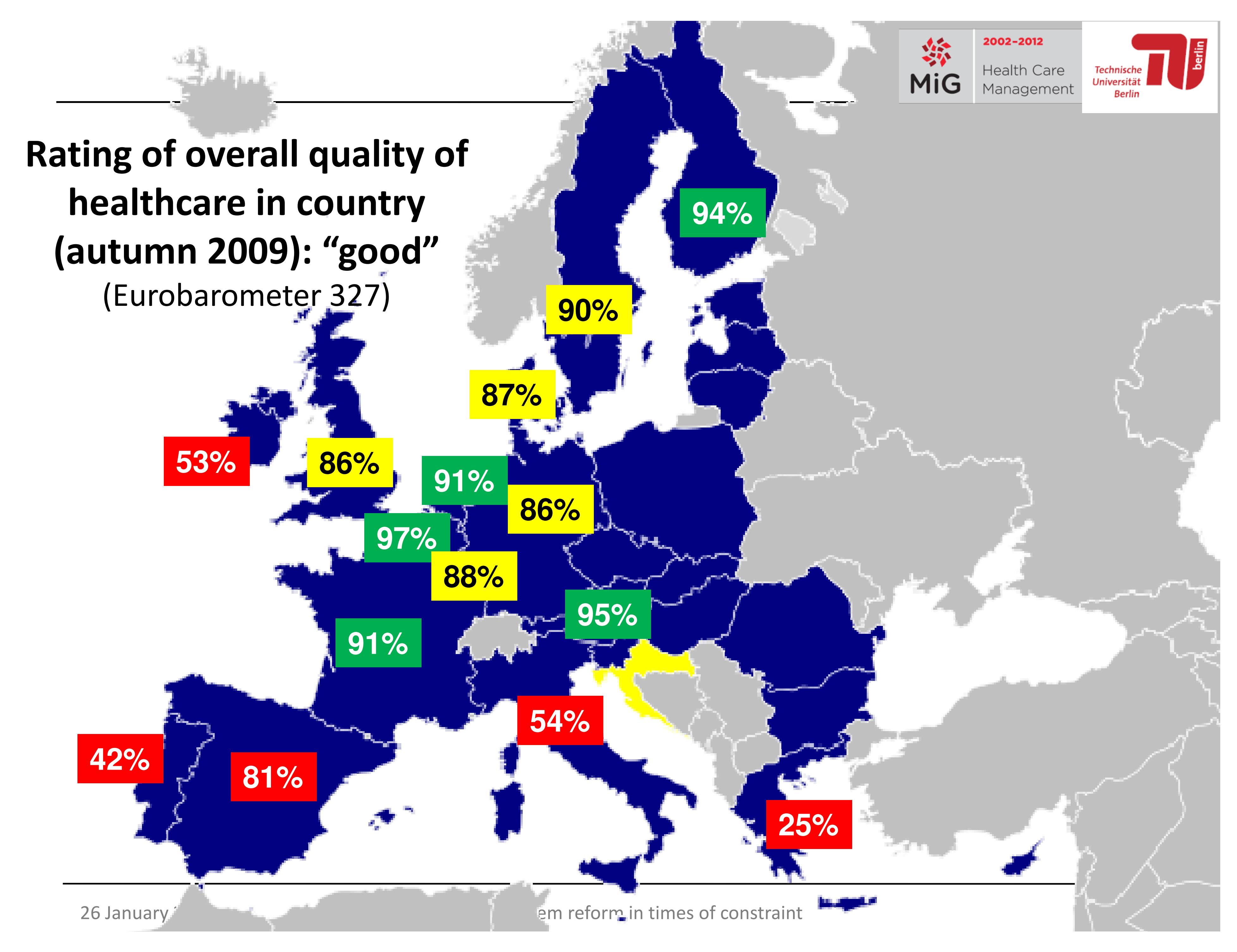
But more is not always better: prescription of antibiotics (in DDD/ capita), 2010
18.5
14.2
16.5
20.3
18.7
11.2
14.5
28.4
28.6
15.0
28.2
27.3
22.4
20.3
39.4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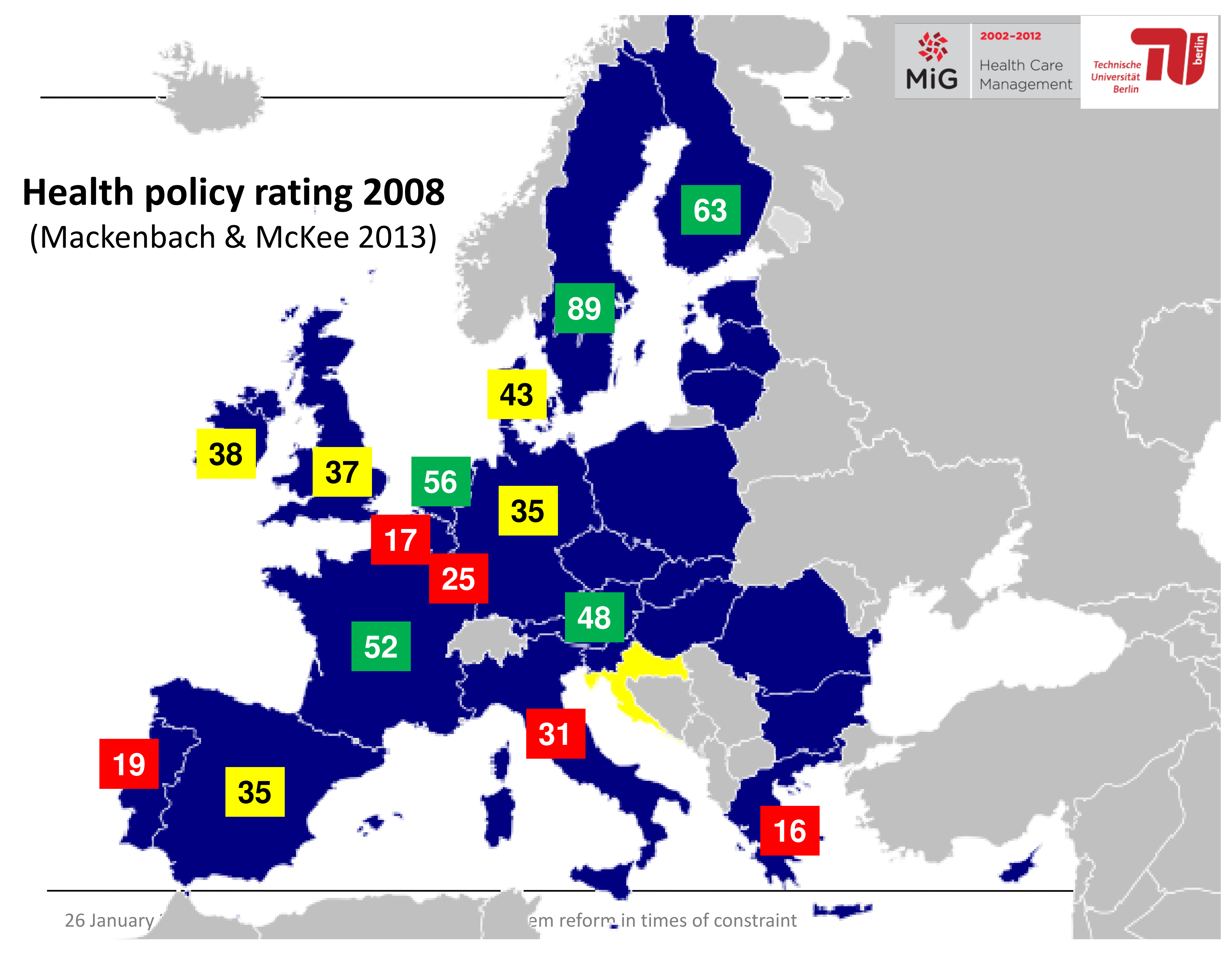
Rating of overall quality of healthcare in country (autumn 2009): “good”
(Eurobarometer 327)
94%
90%
87%
53%
86%
91%
86%
97%
88%
95%
91%
54%
42%
81%
25%



Health policy rating 2008
(Mackenbach & McKee 2013)
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63
89
43
38
37
56
35
17
25
48
52
31
19
35
16
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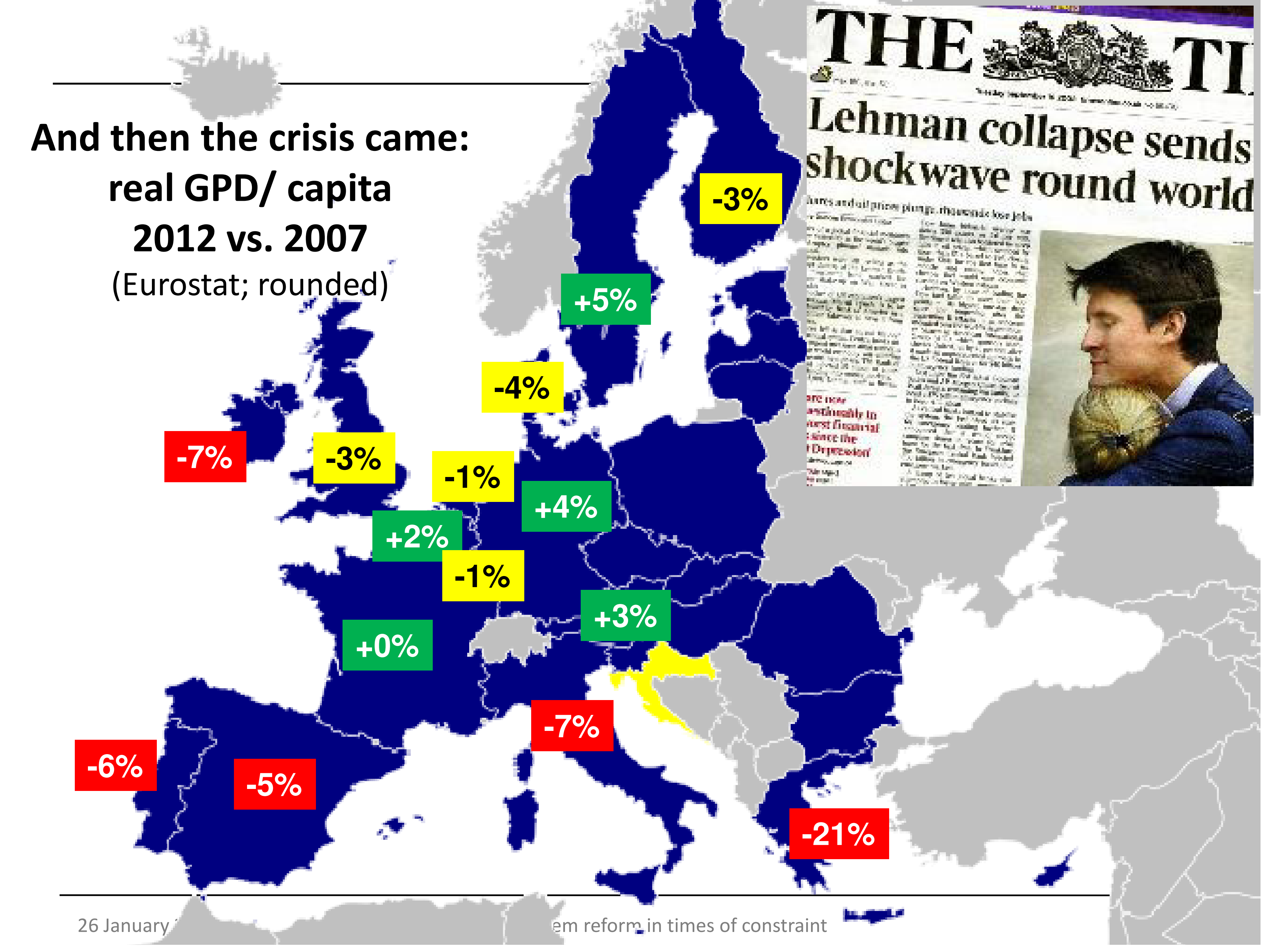
And then the crisis came:
real GPD/ capita
2012 vs. 2007
(Eurostat; rounded)
-3%
+5%
-4%
-7%
-3%
-1%
+4%
+2%
-1%
+3%
+0%
-7%
-6%
-5%
-21%
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Lehman collapse sends shockwave round world
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GDP decrease was accompanied in many, but not all, countries by rising unemployment

Financial Crises Employment Loss

Percent Job Loss from Peak

5%
0%
-5%
-10%
-15%
-20%

Peak
5 Years
10 Years
15 Years
20 Years

Norway '87
Spain '77
U.S. '29
U.S. '07
Japan '92
Sweden '91
Finland '91

Reinhart and Rogoff's Big 5 Financial Crises plus the U.S. Great Depression and Great Recession
Data: OECD, BLS

30
25
20
15
10
5
0

2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

Greece
Spain
Portugal
Italy
EU28
France
United Kingdom
Germany
Austria

Starting with previous experience …

In brief:

- Suicides up
- Road traffic deaths down
- Alcohol-related deaths: depends on how easily alcohol is available
- Infectious disease: almost impossible to predict

Articles

The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis

David Stuckler, Sanjay Basu, Marc Suhrcke, Adam Coutts, Martin McKee

Summary

Background There is widespread concern that the present economic crisis, particularly its effect on unemployment, will adversely affect population health. We investigated how economic changes have affected mortality rates over the past thr…

Lancet 2009; 374: 315–23
Published Online

Articles

Mass privatisation and the post-communist mortality crisis: a cross-national analysis

David Stuckler, Lawrence King, Martin McKee

Summary

Background During the early-1990s, adult mortality rates rose in most post-communist European countries. Substantial differences across countries and over time remain unexplained. Although previous studies have suggested that the pac…

Lancet 2009; 373: 399–407
Published Online

OPEN ACCESS Freely available online
PLoS one

The Impact of Economic Crises on Communicable Disease Transmission and Control: A Systematic Review of the Evidence

Marc Suhrcke[1], David Stuckler[2], Jonathan E. Suk[3], Monica Desai[4], Michaela Senek[1], Martin McKee[4], Svetla Tsolova[3], Sanjay Basu[5], Ibrahim Abubakar[1], Paul Hunter[1], Boika Rechel[1], Jan C. Semenza[3]*

1 Norwich School of Medicine, University of East Anglia, Norwich, United Kingdom, 2 Harvard School of Public Health, Boston, Massachusetts, United States of America, 3 Future Threats and Determinants Section, Scientific Advice Unit, European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden, 4 London School of Hygiene and Tropical Medicine, London, United Kingdom, 5 Department of Medicine, University of California San Francisco, San Francisco, California, United States of America

Abstract

There is concern among public health professionals that the current economic downturn, initiated by the financial crisis that started in 2007, could precipitate the transmission of infectious diseases while also limiting capacity for control. Although studies have reviewed the potential effects of economic downturns on overall health, to our knowledge such an analysis has yet to be done focusing on infectious diseases. We performed a systematic literature review of studies examining changes in infectious disease burden subsequent to periods of crisis. The review identified 230 studies of which 37 met our inclusion criteria. Of these, 30 found evidence of worse infectious disease outcomes during recession, often resulting from higher rates of infectious contact under poorer living circumstances, worsened access to therapy, or poorer retention in treatment. The remaining studies found either reductions in infectious disease or no significant effect. Using the paradigm of the "SIR" (susceptible-infected-recovered) model of infectious disease transmission, we examined the implications of these findings for infectious disease transmission and control. Key susceptible groups include infants and the elderly. We identified certain high-risk groups, including migrants, homeless persons, and prison populations, as particularly vulnerable conduits of epidemics during situations of economic duress. We also observed that the long-term impacts of crises on infectious disease are not inevitable: considerable evidence suggests that the magnitude of effect depends critically on budgetary responses by governments. Like other emergencies and natural disasters, preparedness for financial crises should include consideration of consequences for communicable disease control.

Citation: Suhrcke M, Stuckler D, Suk JE, Desai M, Senek M, et al. (2011) The Impact of Economic Crises on Communicable Disease Transmission and Control: A Systematic Review of the Evidence. PLoS ONE 6(6): e20724. doi:10.1371/journal.pone.0020724

Editor: Jos H. Verbeek, Finnish Institute of Occupational Health, Finland

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JECH Online First, published on March 24, 2011 as 10.1136/jech.2010.121376
Research report

Banking crises and mortality during the Great Depression: evidence from US urban populations, 1929–1937

David Stuckler,[1,2] Christopher Meissner,[3] Price Fishback,[4] Sanjay Basu,[5] Martin McKee[6]

▸ Additional appendices are published online only. To view these files please visit the journal online (http://jech.bmj.com).

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[2]Department of Public Health and Policy, London School of Hygiene & Tropical Medicine, London, UK

ABSTRACT

Background Previous research suggests that the Great Depression led to improvements in public health. However, these studies rely on highly aggregated national data (using fewer than 25 data points) and potentially biased measures of the Great Depression. The authors assess the effects of the Great Depression using city-level estimates of US mortality and an underlying measure of economic crisis, bank suspensions, at the state level.

Methods Cause-specific mortalities covering 114 US…

coming often from families who never before knew the meaning of want. By all the signs and all the precedents, hard times so seriously prolonged should have brought in their train disease and death. Actually, 1931 was one of the healthiest years in the history of the country. The evidence is overwhelming.—New York Times, 5 January 1932[1]

The 2008 financial crisis has been likened to the Great Depression. Both crises were characterised by the early onset of distress in the banking sector, which spread rapidly to many countries and led to…

The impact of a 1% increase in unemployment on mortality

Cause of Death	Country-Years	Effect Size (95% CI)
External Causes	662	-0.25 (-0.68, 0.18)
Suicide	657	0.49 (-0.04, 1.02)
Suicide (0-64)	657	0.79 (0.16, 1.42)
Homicide	496	0.79 (0.06, 1.52)
Drug Abuse	261	-3.75 (-7.67, 0.17)
Alcohol Poisoning	203	0.81 (-5.93, 7.54)
Accidents	516	-0.45 (-0.88, -0.02)
Drowning	506	-0.16 (-1.34, 1.04)
Poisoning	504	-0.09 (-1.90, 1.73)
Ill-Defined Causes	611	-1.48 (-3.51, 0.54)
Transport Accidents	515	-1.39 (-2.14, -0.64)
Falls	516	0.11 (-0.42, 0.65)
Cardiovascular Disease	662	0.03 (-0.25, 0.30)
Cardiovascular Disease (0-64)	662	0.13 (-0.16, 0.42)
Ischaemic Heart Disease	660	0.31 (-0.15, 0.77)
Cerebrovascular Disease	662	-0.16 (-0.45, 0.14)
Psychiatric Disorders	490	-0.71 (-3.47, 2.05)
Liver Cirrhosis	662	0.12 (-0.78, 1.02)
Ulcer	514	0.24 (-0.44, 0.91)
Neoplasms	662	0.04 (-0.07, 0.16)
Lung Cancer	661	0.05 (-0.14, 0.24)
Alzheimer	500	0.12 (-1.71, 1.96)
Diabetes	655	0.54 (-0.33, 1.40)
Diabetes (15-44)	499	0.46 (-1.68, 2.60)
Maternal Mortality	584	-0.17 (-3.06, 2.73)
Infant Mortality	671	-0.06 (-0.59, 0.47)
Infectious Diseases	660	-0.31 (-1.18, 0.56)
Respiratory Infections	511	1.89 (0.02, 3.76)
Tuberculosis	462	0.18 (-0.58, 0.94)
All-Cause	521	0.05 (-0.19, 0.29)

Suicide

Transport accidents

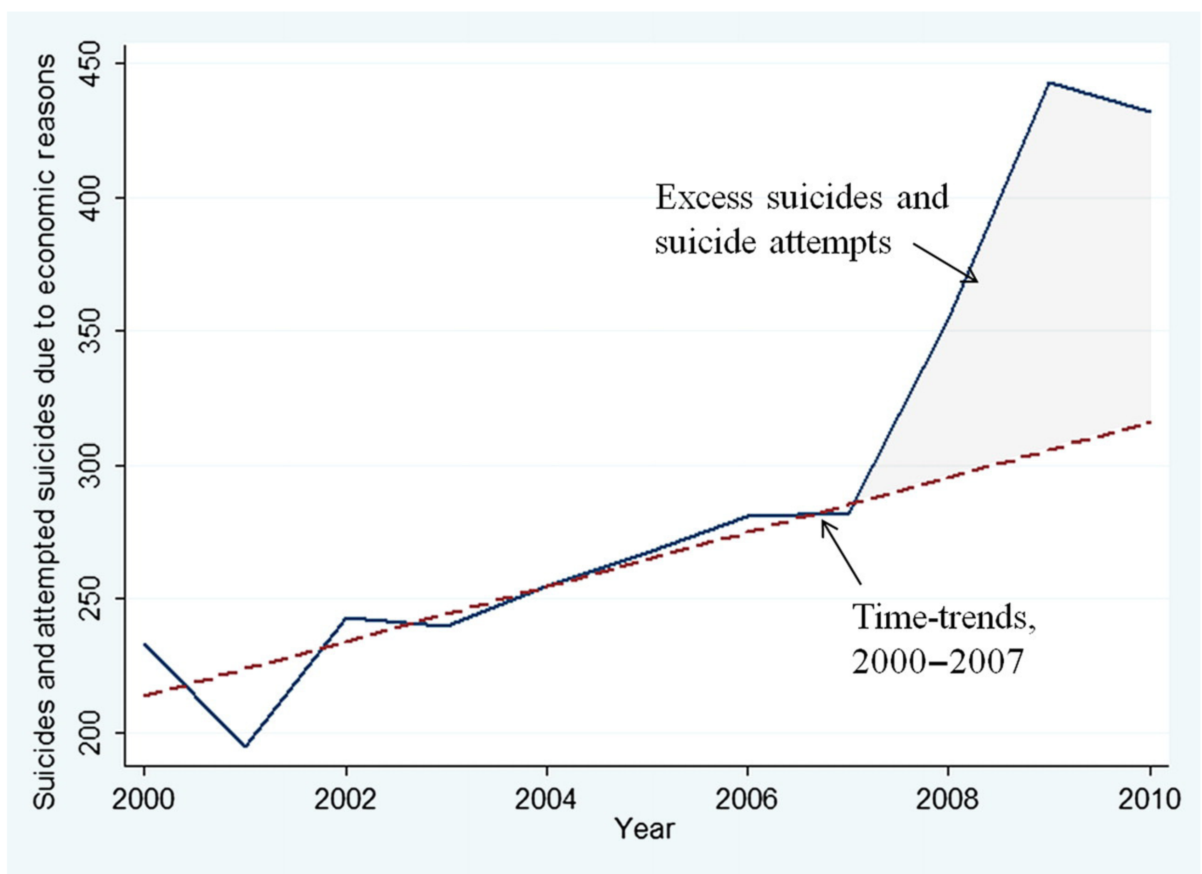
-6 -4 -2 0 2 4 6

Decreases MR Increases MR

Percentage Change

Impact on health – current crisis: Italy

290 (95% CI 112-468) excess suicides and attempted suicides "due to economic reasons" (2008-2010)



De Vogli, R., M. Marmot, and D. Stuckler, *Excess suicides and attempted suicides in Italy attributable to the great recession. J Epidemiol Community Health, 2012.*

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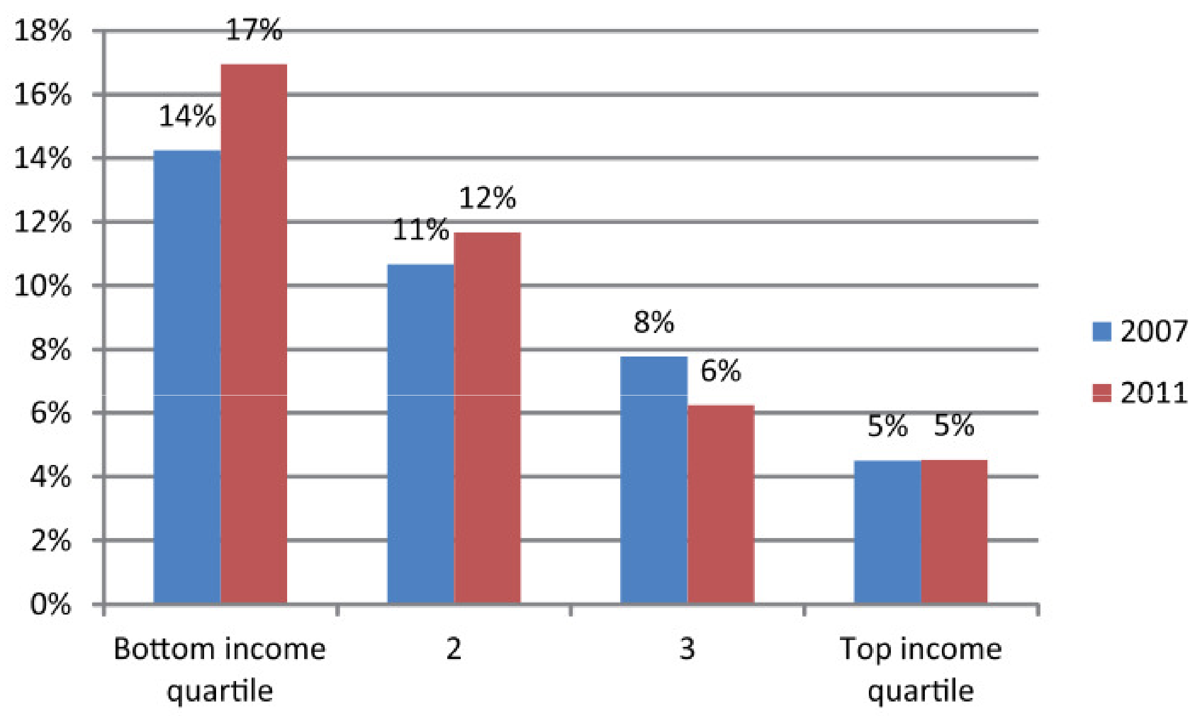
Impact on health – current crisis: the poor report worse health status

Figure 1: *Poor health status and income in the EU28, 2007 and 2011*



Note: Based on responses to Question 42: 'In general, would you say your health is very good, good, fair, bad or very bad?' (Other responses included 'don't know' or refusal to answer.) The figures refer to the proportion of people who reported 'bad' or 'very bad' health.
Source: *Eurofound's analysis of EQLS micro-data.*

Health care: overview of responses

- Many countries largely unaffected by financial crisis, so no need for a response
- Many changes in health systems part of pre-existing plans, so difficult to attribute to the financial crisis (but plans were often enforced through crisis)
- Only a few examples of major budget cuts (some imposed by the international community)
- But in many countries
  - decreasing expenditure by price *(pharma!)* and salary cuts/ freezes
  - increasing income by tax/ contribution increases and co-payments
- However, fewer examples of clever restructuring, strengthening HTA or using “sin taxes” wisely *(many missed opportunities of the crisis!)*

Troika Memorandum of Understanding with Greece

- Public health expenditure at 6% of GDP
- €2 bn savings in pharmaceuticals between 2010 and 2012 (through pricing mechanisms and prescribing monitoring)
- 25% decrease in expenditure for purchase of medical services and goods (by end 2011)
- Introduction of single Health Insurance Fund (EOPYY), with 50% reduction in admin staff and 25% reduction in contracted doctors
- 10% + 5% reduction in hospital costs in 2011 and 2012
- 10% + 15% reduction in compensation costs (doctors wages and fees) in 2011 and 2012
- Introduction of hospital computerisation and monitoring systems

Impact on health and health care: mental health and health services in Greece

- 2.5 times increase in major depression between 2008 and 2011 (Economou et al., 2012)

- 29% increase in suicidal ideation and 36% increase in attempted suicide between 2009 and 2011 (Economou et al., 2013)

- 120% increase in mental health service use over 3 years (Anagnostopoulos & Soumaki, 2013)

- State funding for mental health decreased by 20% in 2011 and another 55% in 2012

2. Recent health policy in Portugal

Health system in the MoU

Scope of measures:
- NHS and public subsystems financing
- Pharmaceuticals and the pharmacies' sector
- Prescription and monitoring of prescription
- centralised purchasing and procurement
- Primary care services
- Hospital services
- Cross services

Financing

- NHS user fees increased and indexed to inflation; exemption scheme revised
- Reduction of budgetary cost of health-benefits schemes for civil servants

Pharmaceuticals

- Revision of distribution margins and decrease in prices following changes in reference countries

Prescription

- Additional legislation on electronic prescription
- Prescription guidelines are being established by DGS OM and OMD
- Incentives for use of generic medicines

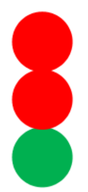
- New legal framework for private services contracting by the NHS just published (Oct.13)

Primary care services

- Increase in patients assigned to NHS family doctor (from 85.2% in 2010 to 95.1% in 2012)
- Number of USF increased 9% in 2011 and 11% in 2012

Hospital services

- Clearing NHS hospitals' arrears
- Reorganisation/rationalisation of hospital network
- Reducing operating costs of hospitals



Health system reforms: public funding

Policy area	Number of countries reporting:	
	direct responses	*partial responses*
Reducing (or slowing the growth of) health budgets		
Cutting ministry of health budgets	8	[illegible]
Reducing government budget transfers to the health sector	4	[illegible]
Introducing or tightening controls on public spending on health	4	[illegible]
Introducing or tightening controls on public spending in general	5	[illegible]
Mobilizing revenue		
Deficit financing	3	1
Increasing government budget transfers	12	8
Drawing down reserves	7	0
Introducing countercyclical formulas for government budget transfers to the health sector	0	1
Increasing social insurance contribution rates	9	3
Raising or abolishing ceilings on contributions	3	1
Applying contributions to non-wage income	4	1
Enforcing collection	1	1
Centralizing collection	1	0
Introducing new taxes/earmarking for the health system	2	3
Targeting		
Abolishing tax subsidies and exemptions	2	1
Reducing contribution rates to protect poorer people	2	0
Reducing contribution rates to protect employment	5	0

Direct = as a result of crisis

Partial = planned before, but implementation enforced

Max. 47

Source: Thomson et al. (2014).

Health system reforms: public funding

Policy area	Number of countries reporting:	
	direct responses	*partial responses*
Reducing (or slowing the growth of) health budgets		
Cutting ministry of health budgets	18	1
Reducing government budget transfers to the health sector	4	0
Introducing or tightening controls on public spending on health	4	1
Introducing or tightening controls on public spending in general	5	1
Mobilizing revenue		
Deficit financing	3	1
Increasing government budget transfers	12	8
Drawing down reserves	7	0
Introducing countercyclical formulas for government budget transfers to the health sector	0	1
Increasing social insurance contribution rates	9	3
Raising or abolishing ceilings on contributions	3	1
Applying contributions to non-wage income	4	1
Enforcing collection	1	1
Centralizing collection	1	0
Introducing new taxes/earmarking for the health system	2	3
Targeting		
Abolishing tax subsidies and exemptions	2	1
Reducing contribution rates to protect poorer people	2	0
Reducing contribution rates to protect employment	5	0

Source: Thomson et al. (2014).

Health system reforms: health coverage

Policy area	Number of countries reporting:	
	direct responses	*partial responses*
Population entitlement		
Expanded entitlement	8	7
Restricted entitlement	6	0
Benefits package		
Added new benefits	4	9
HTA-informed reduction in benefits	4	9
Ad hoc reduction in benefits	14	3
User charges		
Reduced user charges (or improved protection)	14	10
Increased user charges	13	11

Source: Thomson et al. (2014).

Note: HTA = health technology assessment.

More ad hoc than HTA-based

Each 1/2 of countries; partly both (e.g. Spain)

Increased means-tested threshold (Ireland); removing coverage from unemployed (Greece → 79% coverage in 2013)

TOTAL HEALTH EXPENDITURE

reduce cost-sharing

include other benefits

extend to uninsured

PUBLIC EXPENDITURE ON HEALTH

Depth: what proportion of the benefit cost is covered?

Scope: which benefits are covered?

Breadth: who is covered?

The effect of higher means-testing thresholds and higher user charges in Ireland

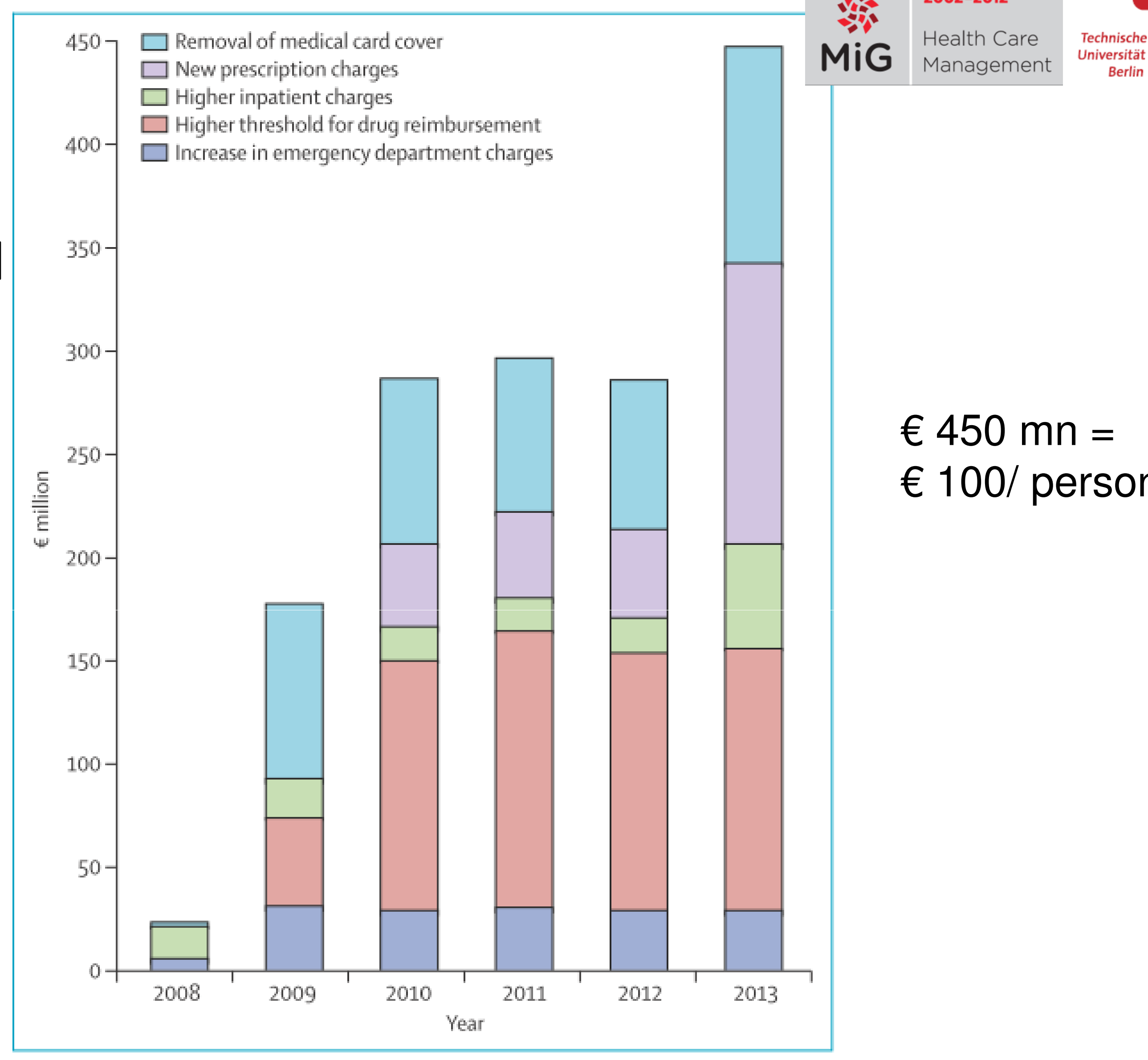
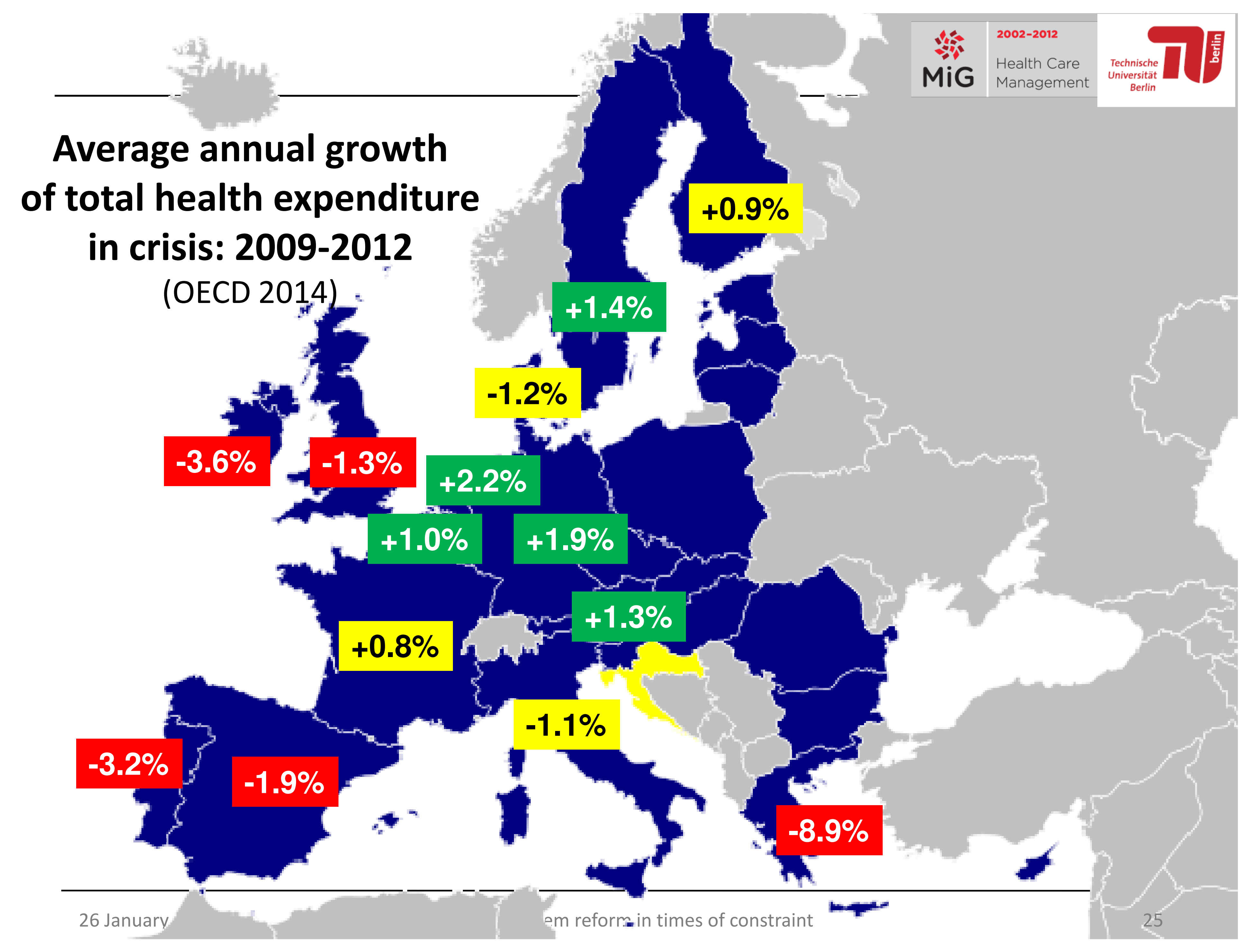


Figure: **Estimates of cost-shifting from the government to households, 2008–13**
We used data from Health Sevice Executive Performance reports,[2,3] Primary Care Reimbursement Services Annual reports, and government budgets.

€ 450 mn =
€ 100/ person

Health system reforms: planning, purchasing, delivery

Policy area	Number of countries reporting:	
	direct responses	*partial responses*
Health system planning and purchasing organizations		
Measures to lower administrative costs	22	9
Public health services		
Cuts to public health budgets	6	0
Measures to strengthen promotion and prevention	12	18
Primary care and ambulatory care		
Cuts to funding	5	0
Increased funding	3	2
Changes to payment	1	4
Delivery: closures	2	0
Delivery: shifting care out of hospitals	11	3
Delivery: skill mix	3	0
Delivery: access	5	1
The hospital sector		
Cuts to funding and reduced investment	28	8
Increased investment	3	6
Changes to payment	8	12
Delivery: closures, mergers	11	7
Drugs and medical devices		
Lower prices	22	20
Evidence-based use	10	8
Health workers		
Lower payment and numbers	22	5
The role of health technology assessment (HTA)		
Greater use of HTA to inform coverage decisions	7	8
Greater use of HTA to inform care delivery	9	6



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Average annual growth
of total health expenditure
in crisis: 2009-2012
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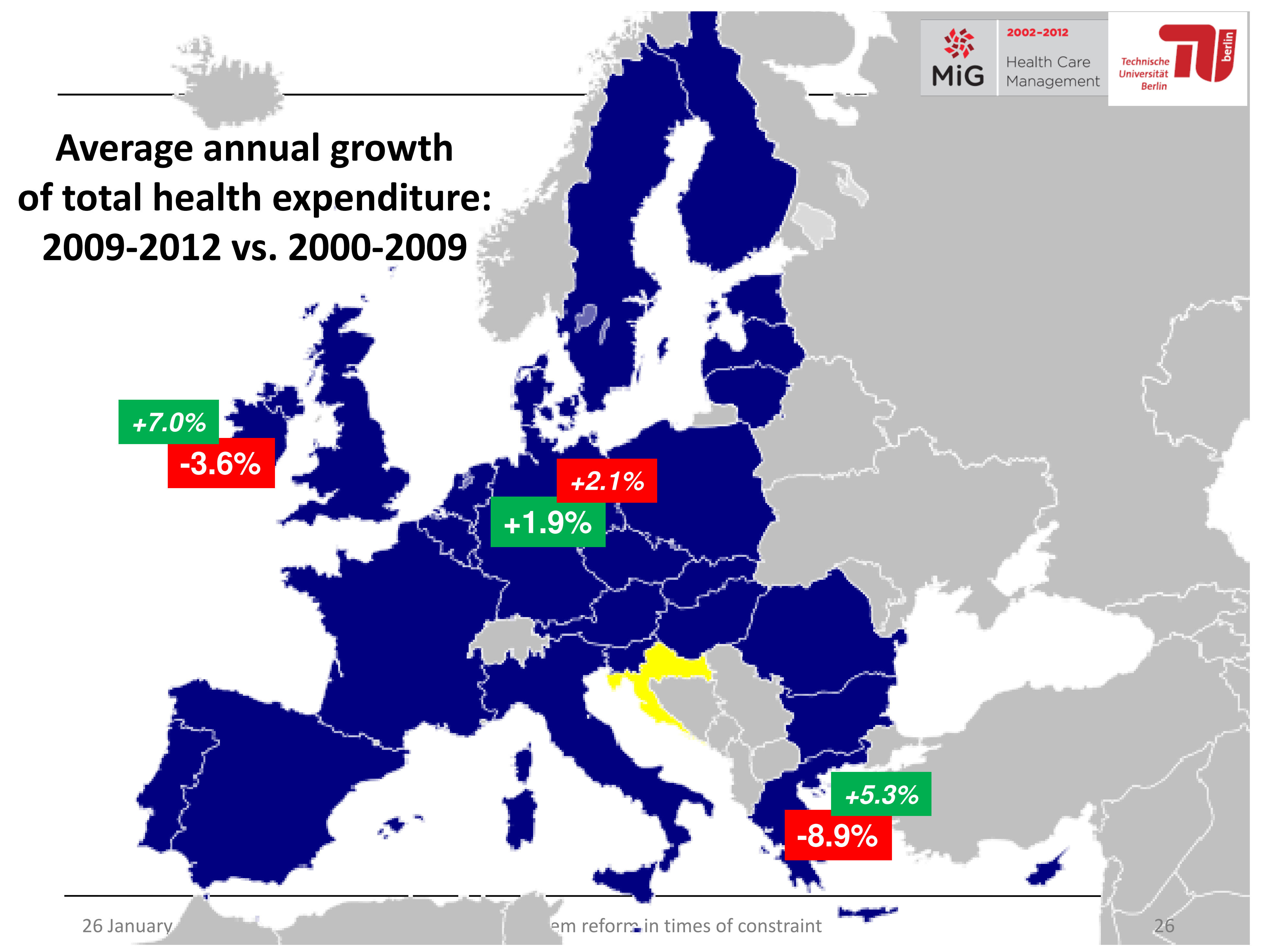
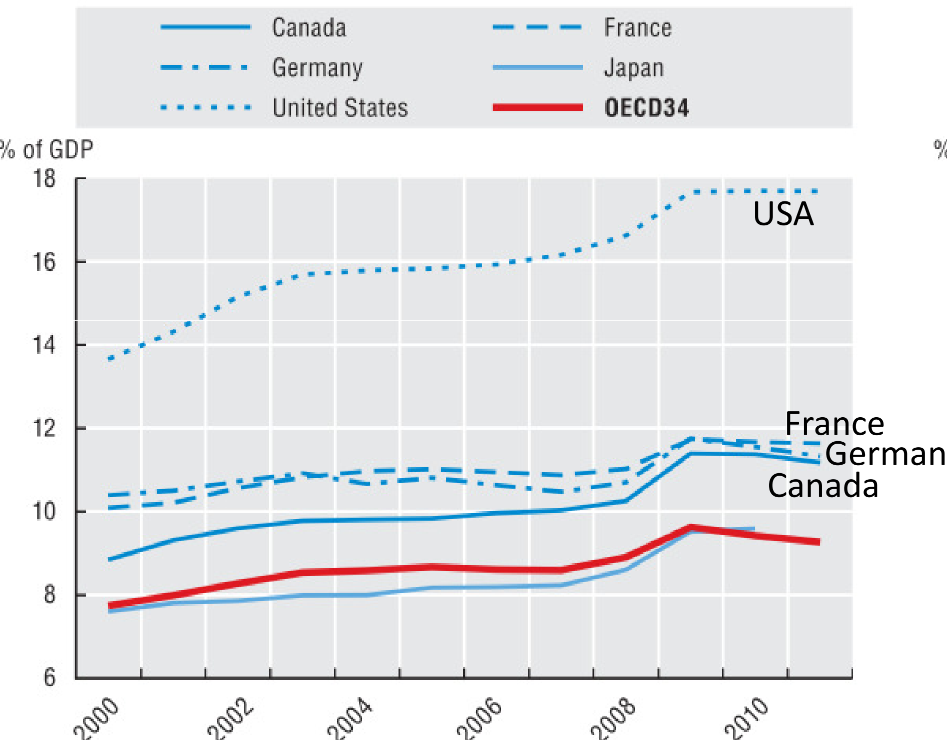
+0.9%
+1.4%
-1.2%
-3.6%
-1.3%
+2.2%
+1.0%
+1.9%
+1.3%
+0.8%
-1.1%
-3.2%
-1.9%
-8.9%


MiG
2002-2012
Health Care Management
Technische Universität Berlin
berlin
Average annual growth of total health expenditure: 2009-2012 vs. 2000-2009
+7.0%
-3.6%
+2.1%
+1.9%
+5.3%
-8.9%

Effect of cutting expenditure on expenditure/GDP

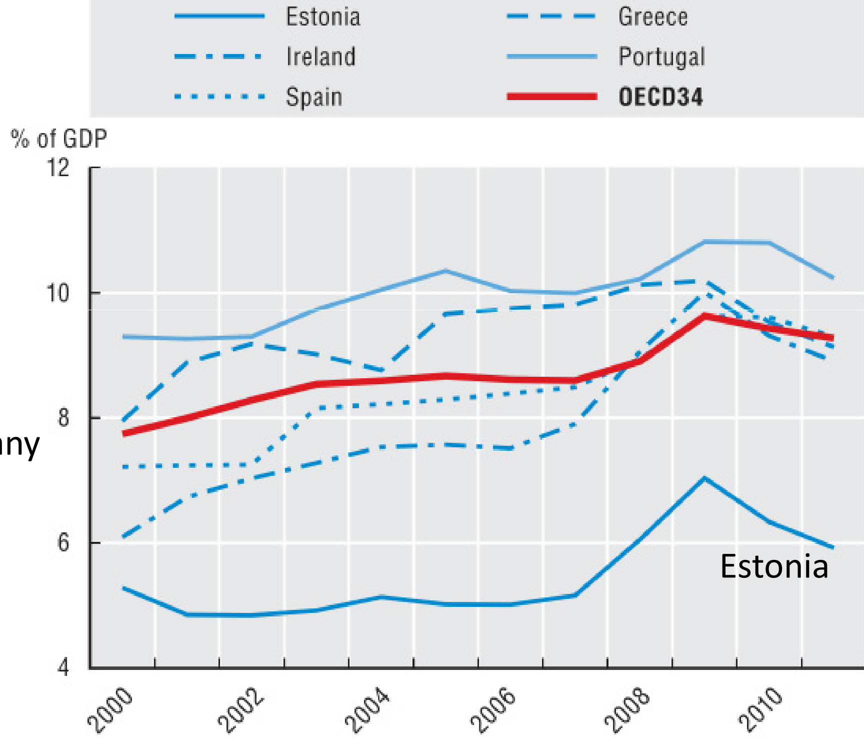
Crisis countries

7.2.2. Health expenditure as a share of GDP, 2000-11, selected G7 countries



Source: OECD Health Statistics 2013, http://dx.doi.org/10.1787/health-data-en.
StatLink http://dx.doi.org/10.1787/888932918890

7.2.3. Health expenditure as a share of GDP, 2000-11, selected European countries



Source: OECD Health Statistics 2013, http://dx.doi.org/10.1787/health-data-en.
StatLink http://dx.doi.org/10.1787/888932918909

Changes in unmet medical need during crisis

(%) (data from SILC)

% reporting unmet need

18,0
16,0
14,0
12,0
10,0
8,0
6,0
4,0
2,0
0,0

2008
2011

Slovenia
Netherlands
Austria
Spain
Luxembourg
Denmark
Malta
Czech Republic
United Kingdom
Portugal
Sweden
Belgium
Norway
Germany
Ireland
Slovakia
France
Hungary
Lithuania
EU-27
Iceland
Cyprus
Finland
Italy
Estonia
Greece
Poland
Bulgaria
Romania
Latvia

Increases in unmet need due to costs

20
15
10
5
0

All quintiles 2008
Poorest quintile 2008
All quintiles 2012
Poorest quintile 2012

Netherlands
UK
Denmark
Spain
Norway
Malta
Ireland
Luxembourg
Slovakia
Estonia
EU27
Belgium
France
Portugal
Cyprus
Hungary
Poland
Iceland
Italy
Greece
Latvia

Source: Thomson et al. (2014), based on Eurostat (2014).

Note: Between 2008 and 2012, unmet need for cost reasons did not increase in Austria, Bulgaria, Croatia, Finland, Germany, Lithuania, Romania, Slovenia, Sweden and Switzerland. Data for Ireland are for 2011.

Some conclusions

- Countries do not only differ in how good their health systems are, but also how resilient (how prepared for financial constraints/ crises)
- Besides good (or bad) politicians, several factors markedly increase resilience:
  - Strong social networks: membership of trade unions, churches, social clubs
  - A strong welfare state: especially active labour market programmes that get people back into work (or at least give them the message that someone cares)
- Crisis can be bad for health, but its primarily up to us (health politicians & academics) to prepare our health systems better – let's start before the (next) constraint!

Short-term solutions are important
to keep the system running during crisis, but…

…aim for sustainable, resilient & high-quality systems!

If not, we may see a vicious circle

GDP ↓ → financial constraint

Unemployment ↑

Taxes/ insurance contributions ↓

Health status of poor ↓/ health needs ↑

Taxes/ contribu-tions ↑

Health budget ↓

Protection mechanisms necessary

Danger of unmet needs

European Observatory on Health Systems and Policies | Andalusian School of Public Health - EASP

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The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health care systems in Europe.

ABOUT THE EASP

The Andalusian School of Public Health (EASP) is a publicly-owned entity that offers services in training, consultancy, research and international co-operation in the fields of public health and health services management.

ABOUT THE HFCM

The Health & Financial Crisis Monitor (HFCM) has been established by the European Observatory on Health Systems and Policies in collaboration with the Andalusian School of Public Health.

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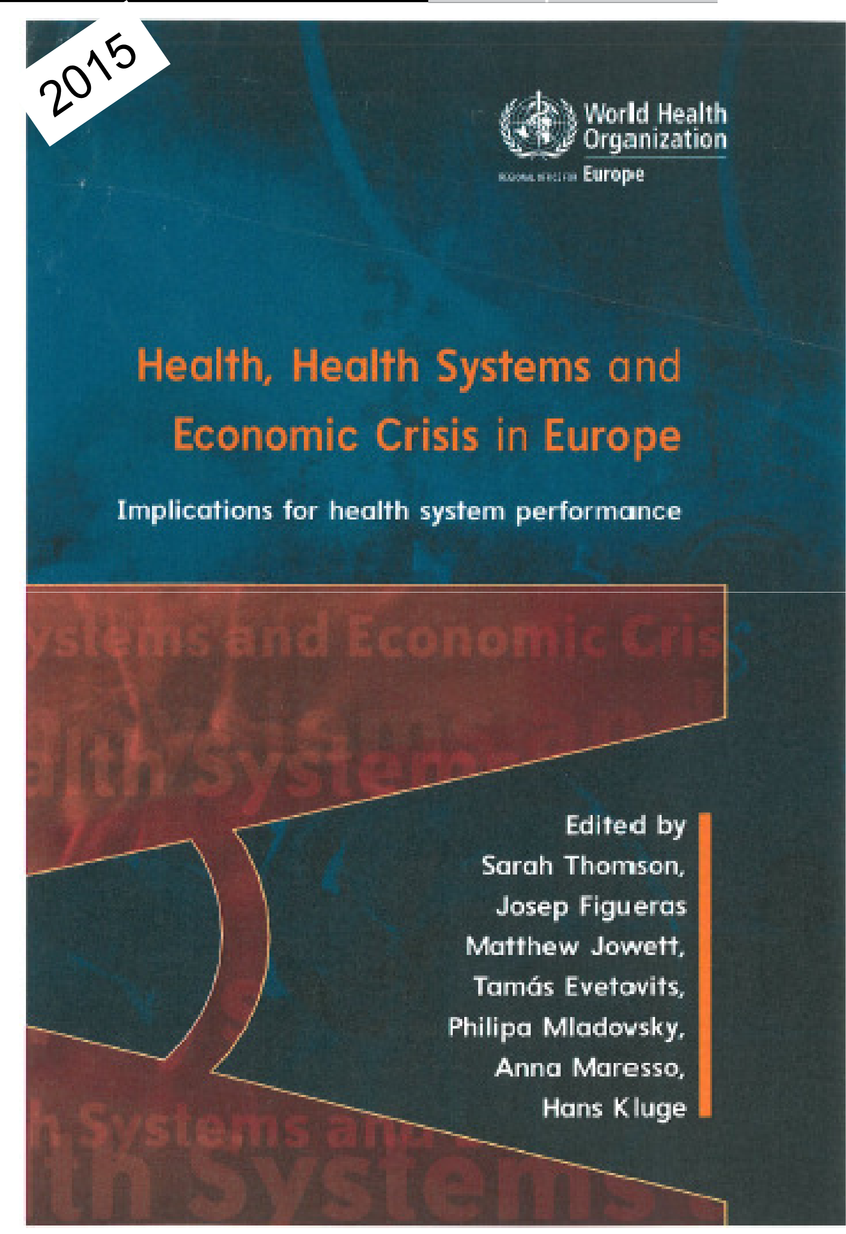
Economic crisis, health systems and health in Europe: impact and implications for policy
Sarah Thomson, Josep Figueras, Tamás Evetovits, Matthew Jowett, Philipa Mladovsky, Anna Maresso, Jonathan Cylus, Marina Karanikolos and Hans Kluge
World Health Organization
Europe
European Observatory on Health Systems and Policies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Health, Health Systems and Economic Crisis in Europe
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Edited by
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