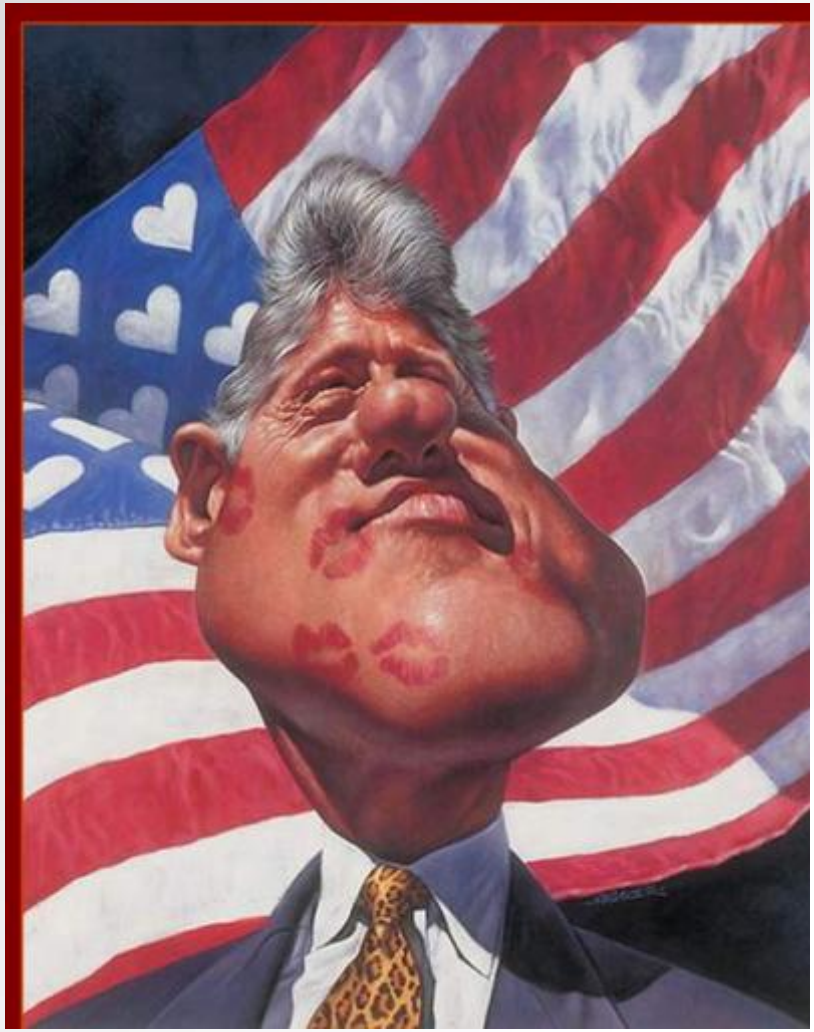
ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ
ΥΓΕΙΟΝΟΜΙΚΗ ΣΧΟΛΗ ΑΘΗΝΩΝ 1929-1994

Οι νέες Ρυθμίσεις Στις Υπηρεσίες Υγείας και την Συνταγογράφηση – Σχεδιασμός, Οφέλη, Προβλήματα

Νίκος Μανιαδάκης

BSc (Athens), MSc (York), PhD (Warwick, Oxford), Fellow (ESC)

Καθηγητής & Διευθυντής
Τομέας Οργάνωσης και Διοίκησης Υπηρεσιών Υγείας
Εθνική Σχολή Δημόσιας Υγείας



Είναι η οικονομία ηλίθε!

ITS THE ECONOMY STUPID!!

Δομή Παρουσίασης

- Διεθνείς Τάσεις στα Οικονομικά και την Οργάνωση του Τομέα της Υγείας
- Συνοπτική Αξιολόγηση του Ελληνικού Συστήματος Υγείας Πριν το Μνημόνιο
- Το Ελληνικό Σύστημα Υγείας και οι Παρεμβάσεις στην Εποχή του Μνημονίου
- Γίνεται να Μετατρέψουμε την Κρίση σε Ευκαιρία? Την Ατυχία σε Καλοτχία?

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

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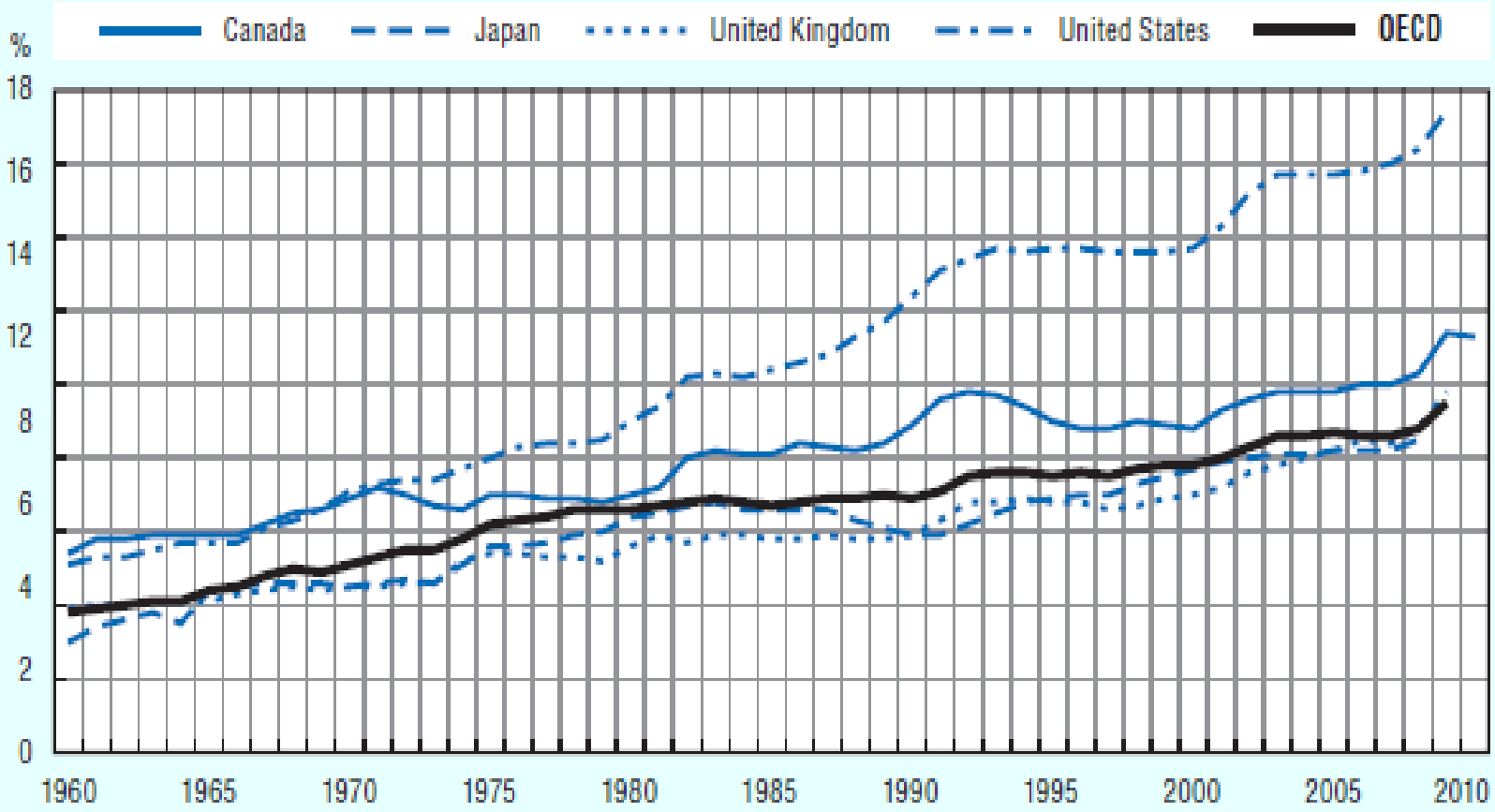
Health expenditure as a share of GDP, 1960-2009, selected OECD countries

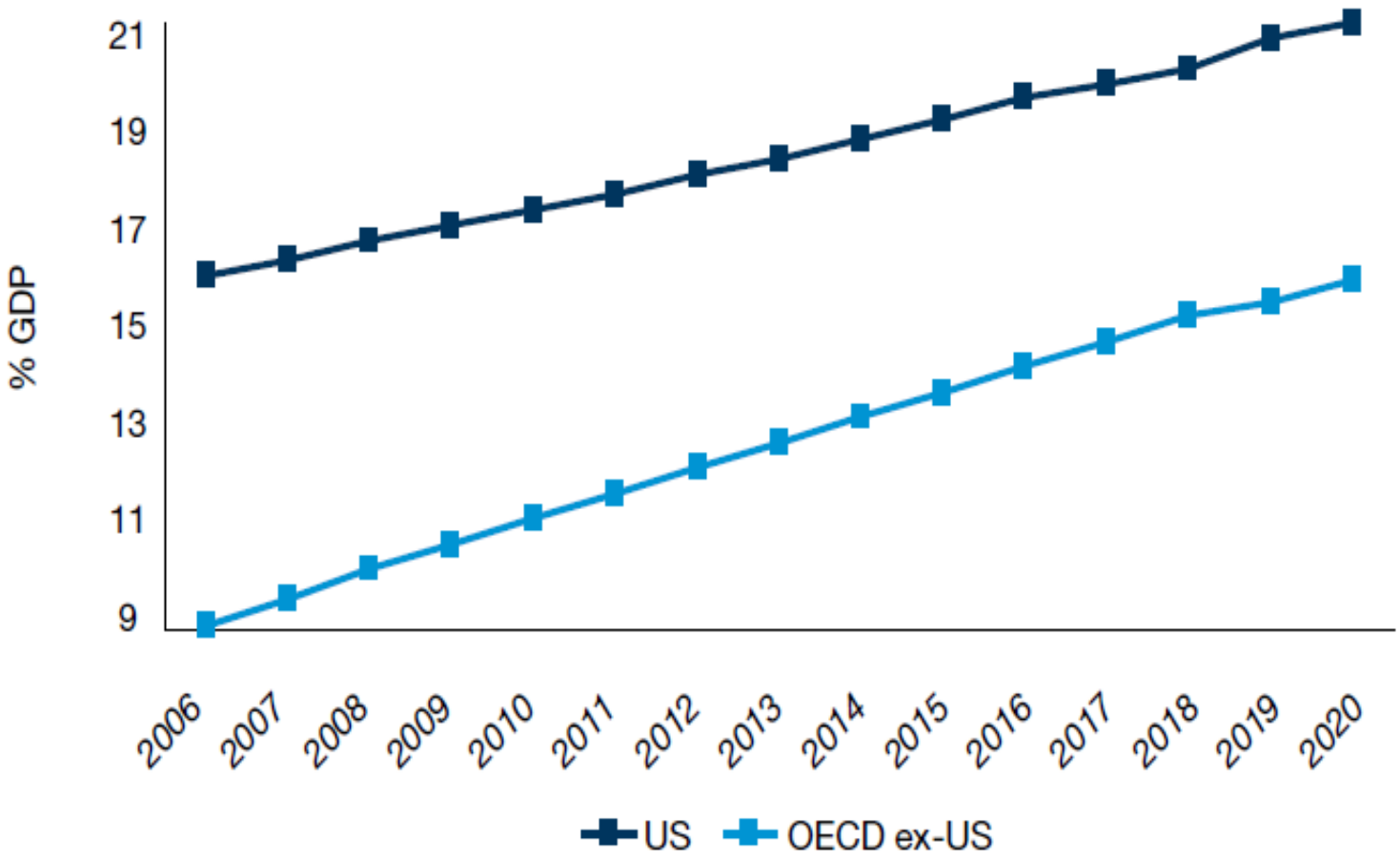


Source: OECD Health Data 2011.

StatLink http://dx.doi.org/10.1787/888932523215

Trends in health care expenditure

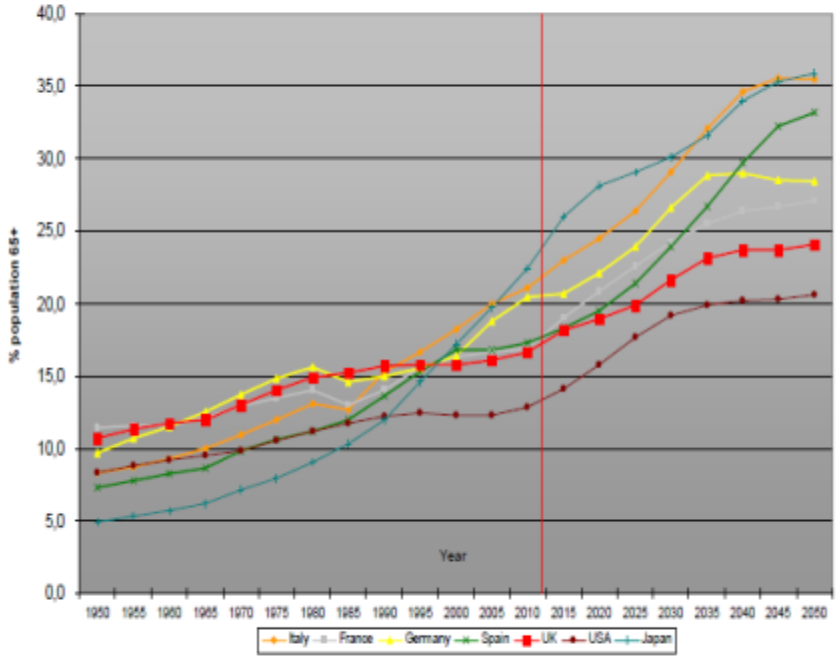
Figure 6: Health expenditure as a percentage of GDP is increasing rapidly in the OECD countries



Source: PricewaterhouseCoopers Health Research Institute

Δημογραφική γήρανση

World population evolution (% of +65)

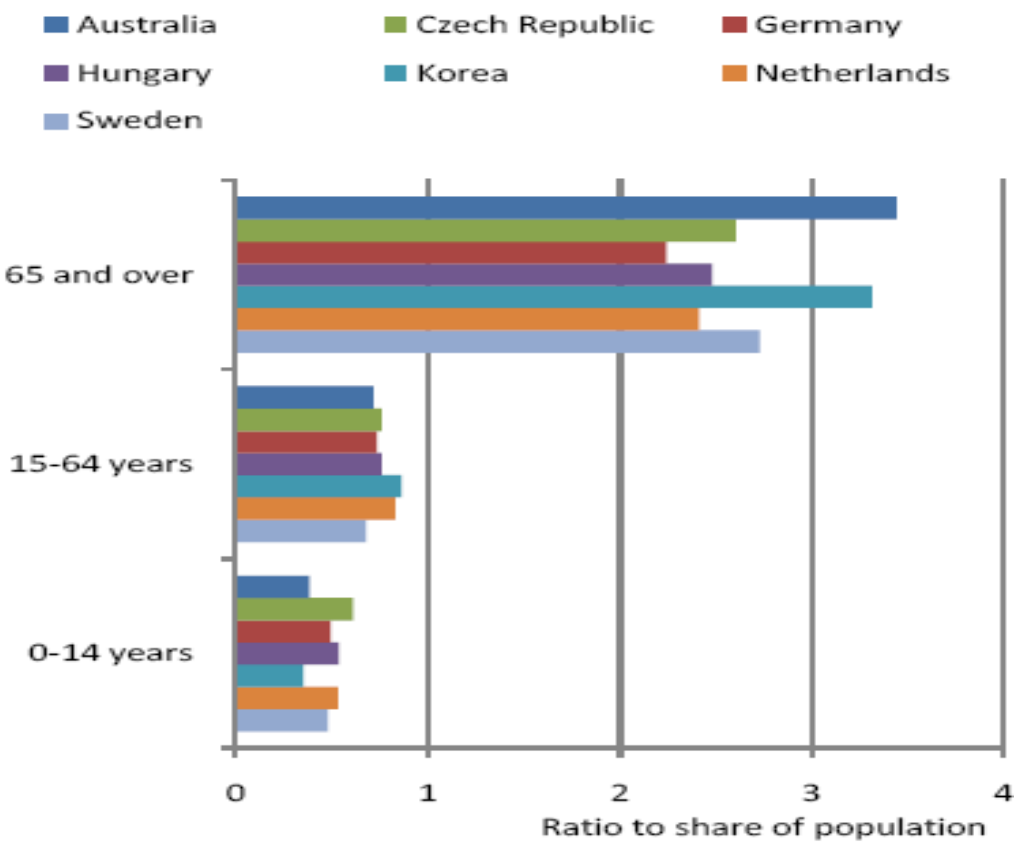


Source: United Nations' Dept Economic & Social Affairs, 2006

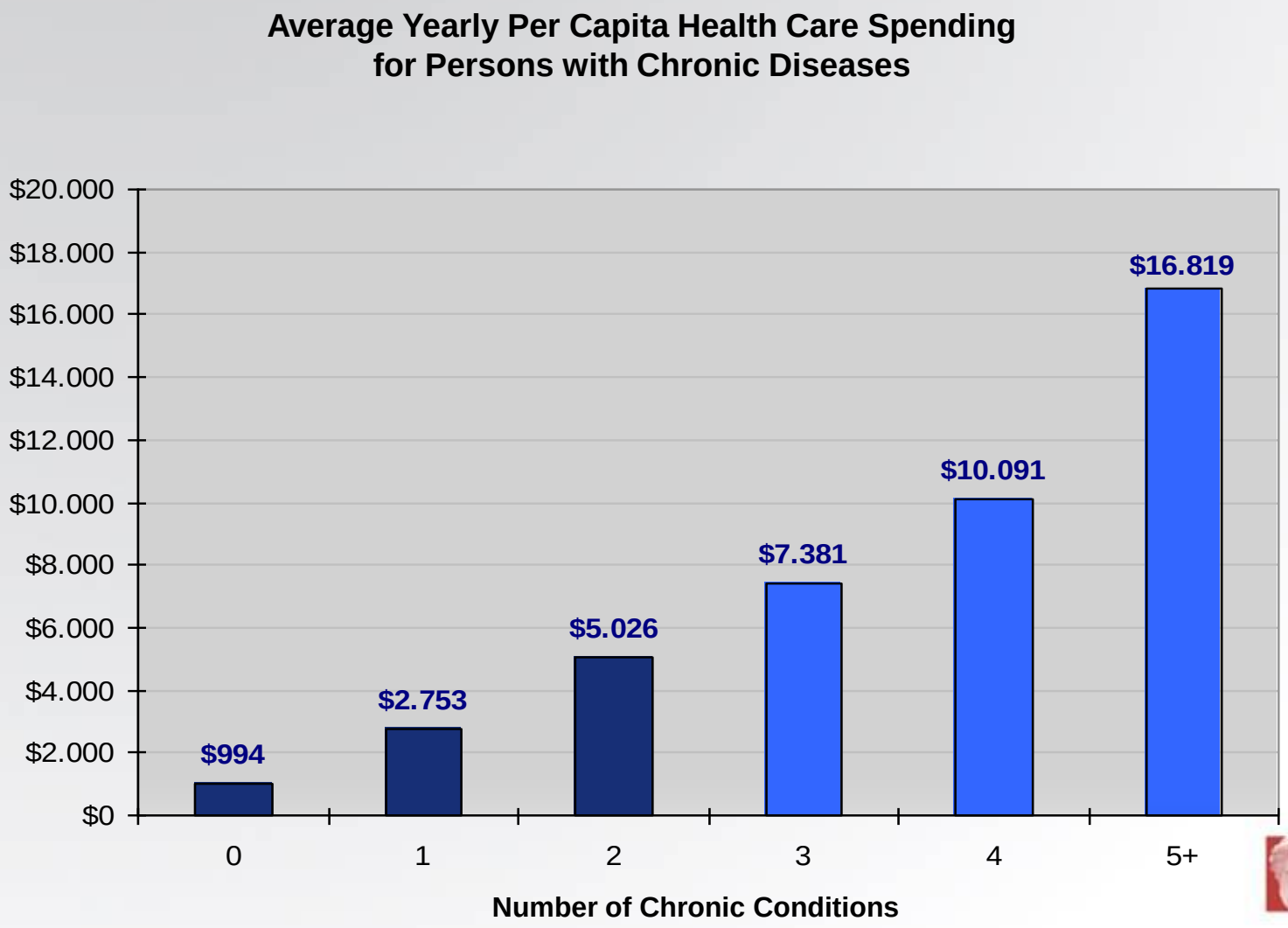
Eucomed

www.eucomed.org

Chart 7.5.2. **Relative hospital in-patient expenditure by age group**



Επίπτωση των χρόνιων παθήσεων



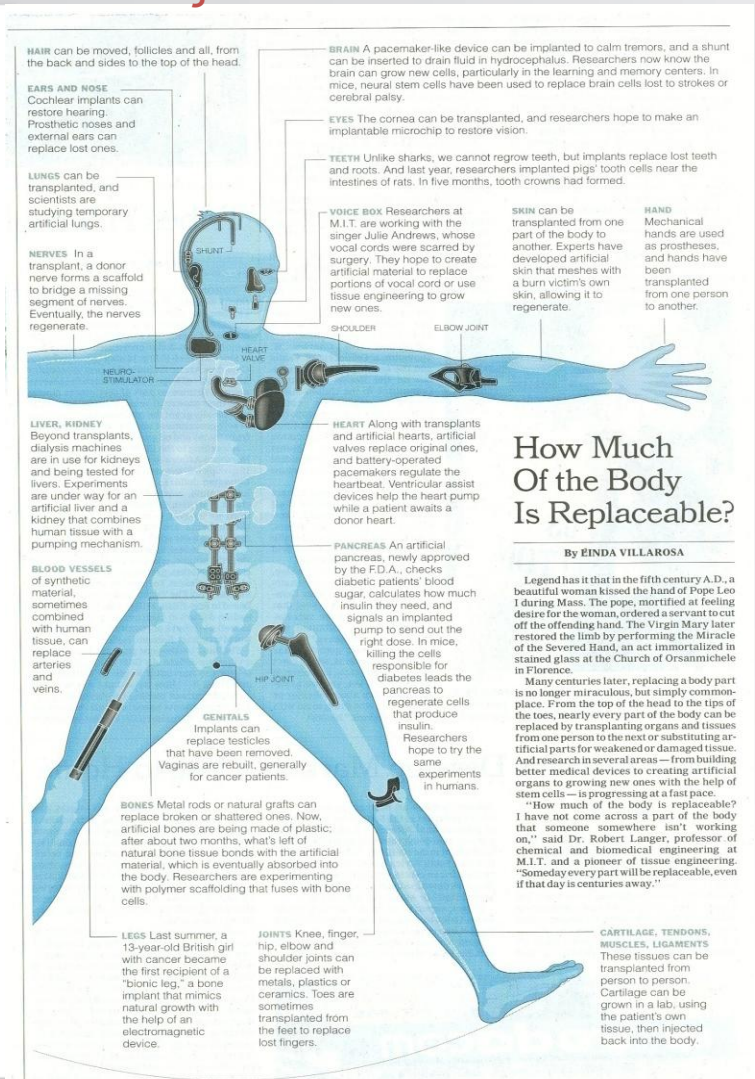
Source: G. Anderson, analysis of the 2004 MEPS (prepared for PhRMA

Τεχνολογική επανάσταση

Φάρμακα

Source: Boston Consulting Group

Συσκευές

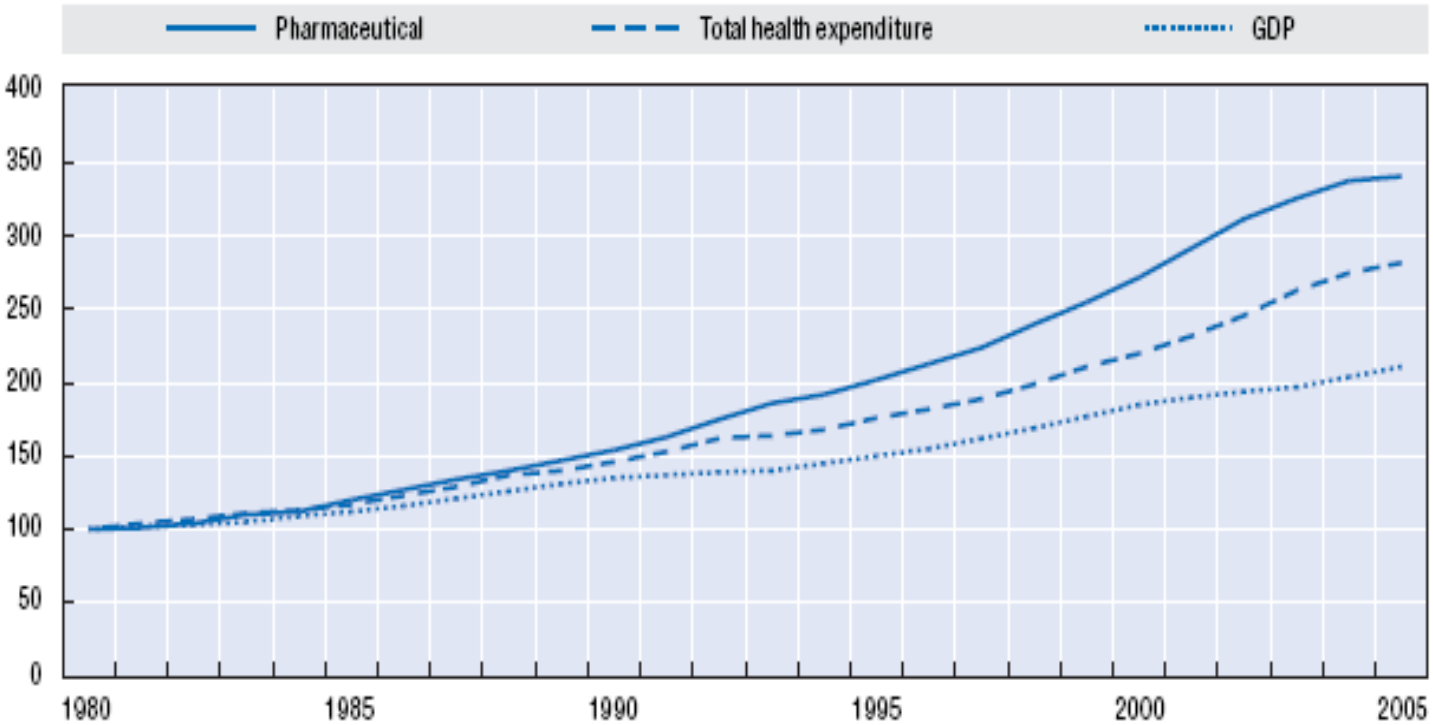


Εξοπλισμός

Εξέλιξη των Φαρμακευτικών Δαπανών

Figure 1.7. **Trend growth in pharmaceutical and total health expenditure for 15 OECD countries, and GDP, 1980-2005**

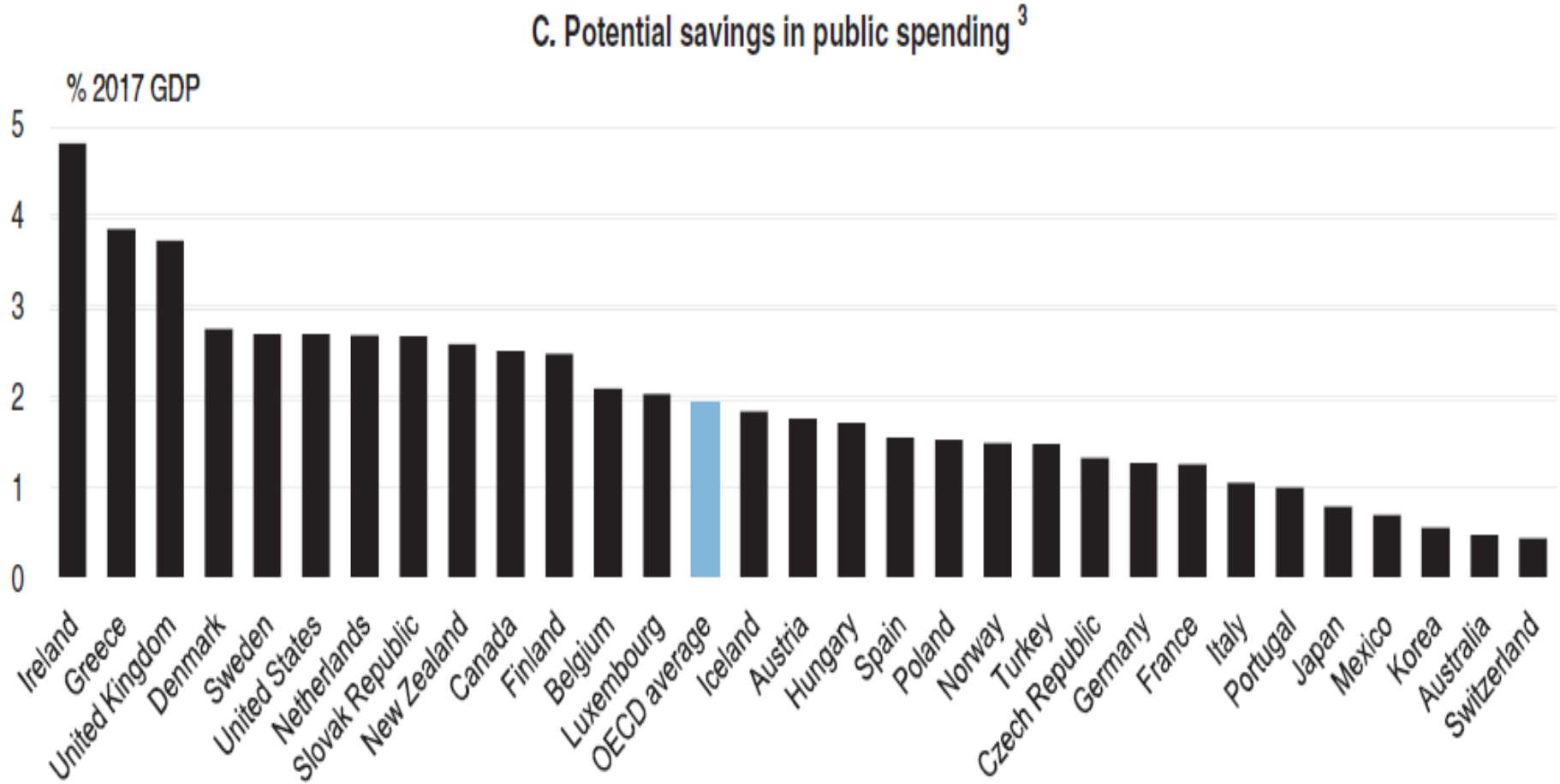
1980 = 100



Note: Indexes were calculated using national currency units at 2000 GDP prices. Pharmaceutical expenditure is excluded from total health expenditure.

Source: OECD Health Data 2007.

Αναποτελεσματικότητα σε μακρο-οικονομικό επίπεδο



3. Potential savings represent the difference between a no-reform scenario and a scenario where countries would become as efficient as the best performing countries.

Source: OECD Health Data 2009; OECD calculations.

Αναποτελεσματικότητα σε επίπεδο ασφάλειας

Workforce MANAGEMENT

News i

SITE CONTENTS
- Home Page
- Research Center
- Community Center
- Vendor Directory
- Conferences, Commentary & More
- The Hot List
- Blogs

CHANNELS
- Compensation, Benefits & Rewards
- HR Management
- Legal Insight
- Recruiting & Staffing
- Software & Technology
- Training & Development

W = Member Only

WorkforceHRJobs
- Find A Job
- Post A Job

PRINT EDITION

News in Brief: Preventable Medical Errors Still Kill Thousands, Cost Billions as Employers Foot Bill

Preventable Medical Errors Still Kill Thousands, Cost Billions as Employers Foot Bill

Despite a landmark report a decade ago detailing the deadly nature of the U.S. health care system, a consumer group finds that little has been done to prevent errors that cost the nation $17 billion to $29 billion and kill as many as 100,000 patients annually.

Comments 0 | Recommend 12

May 20, 2009

Preventable Medical Errors Still Kill Thousands, Cost Billions as Employers Foot Bill

Despite a landmark report a decade ago detailing the deadly nature of the U.S. health system, a consumer group said Tuesday, May 19, that little has been done to prevent the errors that still kill as many as 100,000 patients each year—a number that the group said is a conservative estimate.

Consumers Union, which publishes the magazine *Consumer Reports*, published what it called a "review of the scant evidence" of the health system's efforts to reduce preventable errors that cost the country $17 billion to $29 billion annually, a cost borne by the employers that pay for shoddy care.

If flying Lufthansa were associated with the same rate of preventable fatalities that we currently see in hospitals…

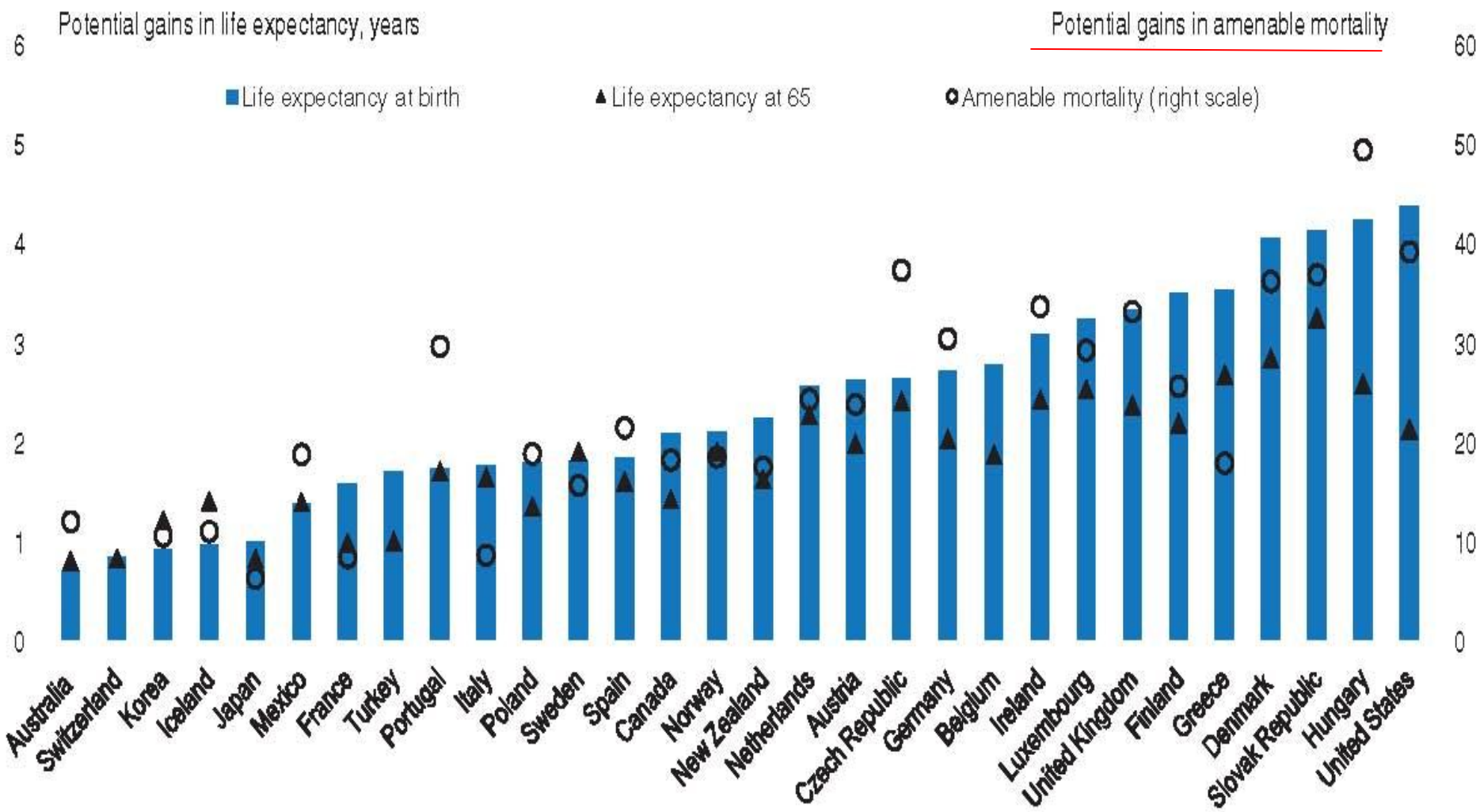
Monitor

Independent Regulator of NHS Foundation Trusts

1. Flying would be much safer
2. There would be a crash every week
3. There would be 100,000 passengers killed per year
4. **There would be 17 crashes per day and 600,000 deaths per year**

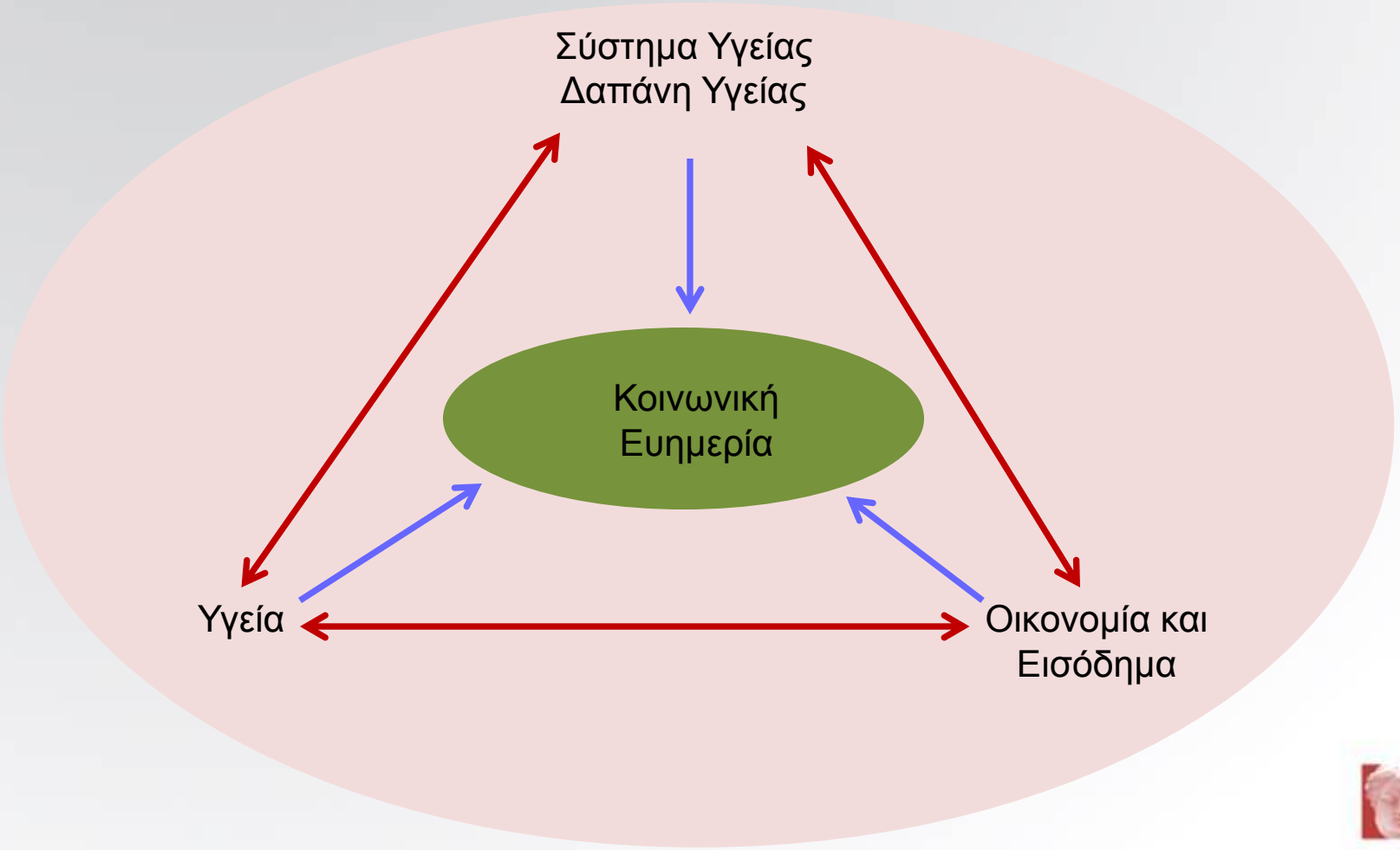
ΘΝΙΚΗ ΧΟΛΗ ΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Αναποτελεσματικότητα στην βελτιστοποίηση των υγειονομικών αποτελεσμάτων



Source: OECD Health Data 2009; OECD calculations.

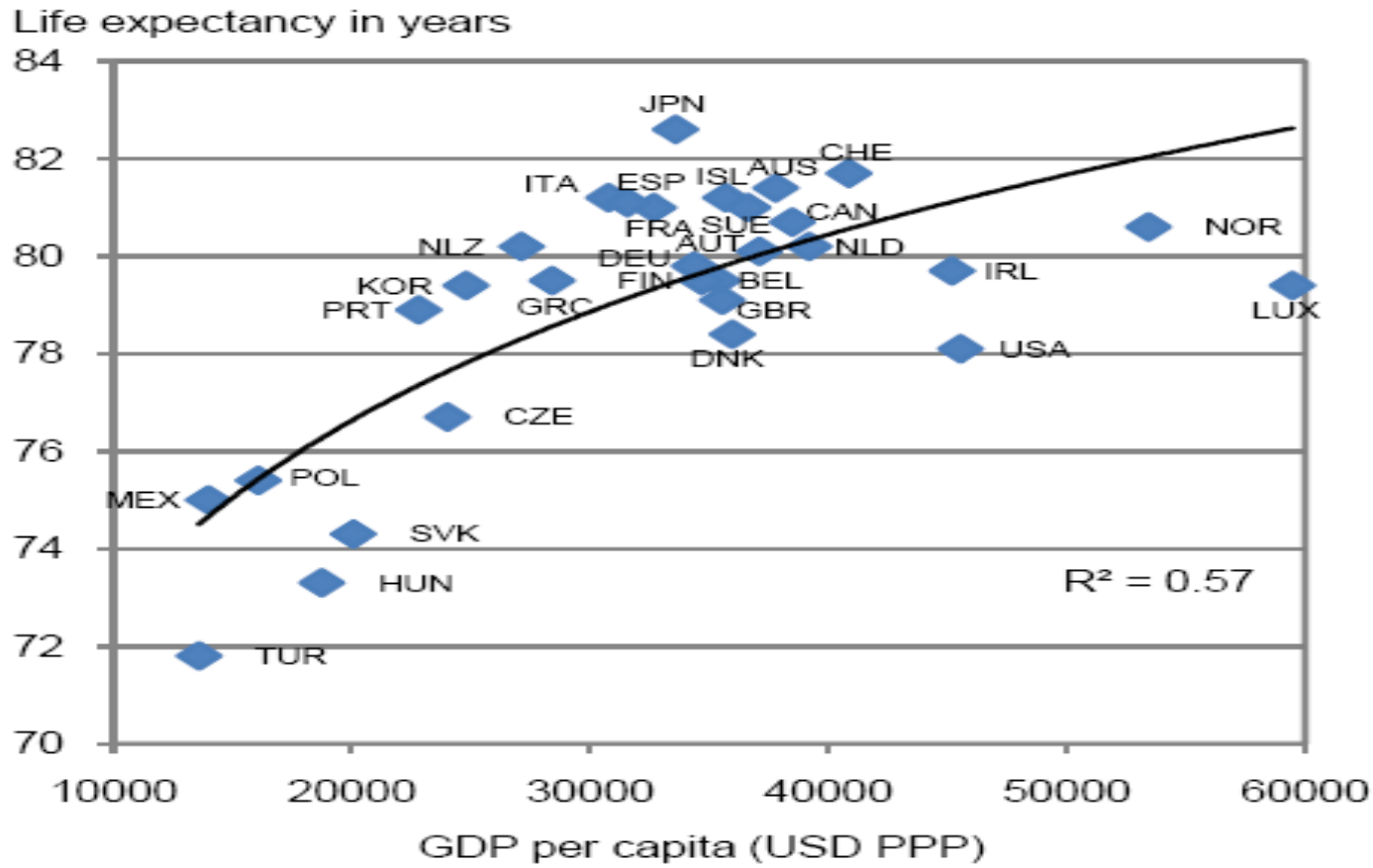
Η σχέση ανάμεσα στο σύστημα υγείας, τον πλούτο, την υγεία και την κοινωνική ευημερία



Πηγή: The European health report 2009: Health and health systems. WHO Regional Office for Europe. Scherfigsvej 8, DK-2100 Copenhagen Ø, Denmark. ISBN 978 92 890 1416

Ή σχέση ανάμεσα στο Εισόδημα και την Υγεία (προσδόκιμο ζωής)

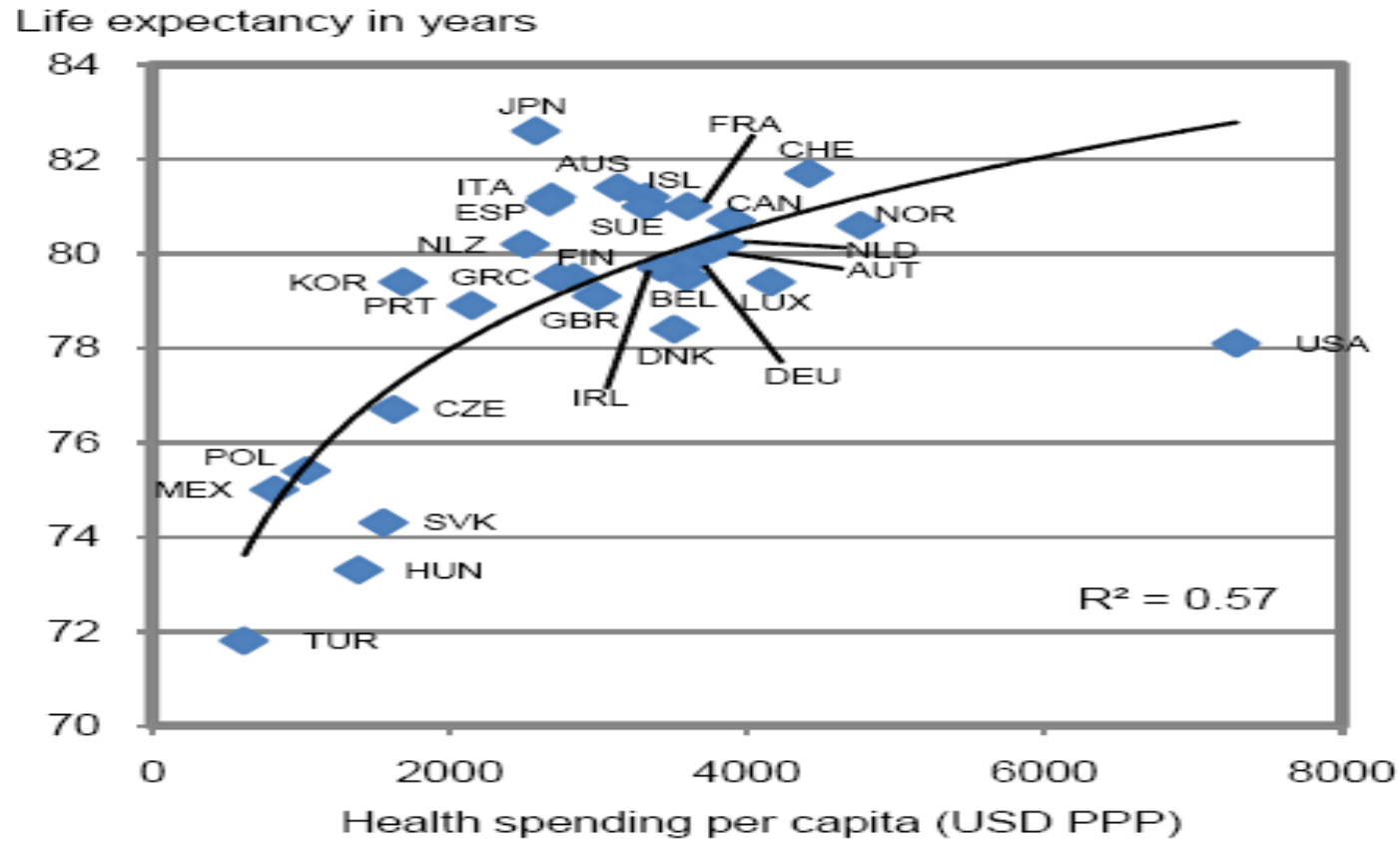
1.1.3. Life expectancy at birth and GDP per capita, 2007 (or latest year available)



Source: OECD Health Data 2009.

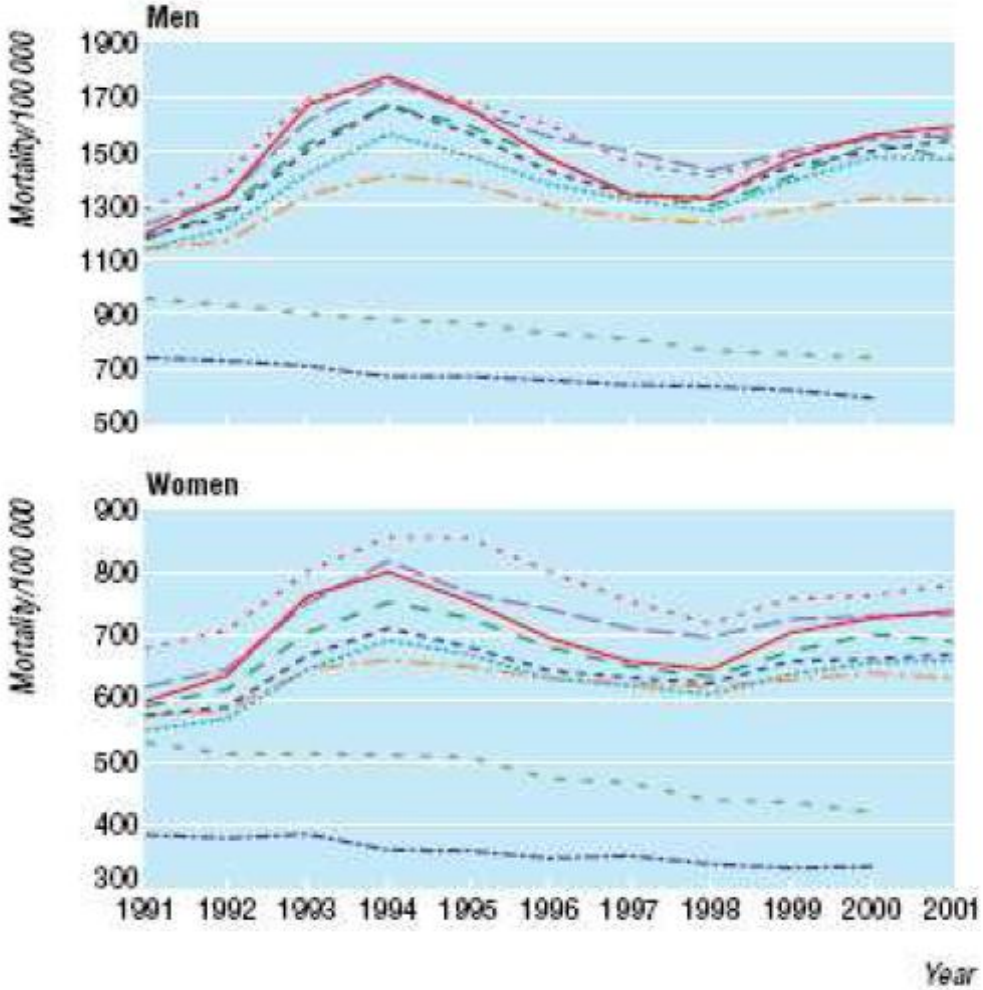
Η σχέση ανάμεσα στις δαπάνες υγείας και την υγεία (προσδόκιμο ζωής)

1.1.4. Life expectancy at birth and health spending per capita, 2007 (or latest year available)



Source: OECD Health Data 2009.

Οικονομική κρίση και δείκτες υγείας



Θνησιμότητα στην Ρωσία 1991-2001 ανά φύλο

(στη βάση των διαγραμμάτων η θνησιμότητα της Τσεχίας και Φινλανδίας)

T Men, BMJ 2003.

Greek Tragedy?

-52% rise in HIV infections

- 10-fold rise in HIV from injection drug use

-15% rise in people not going to the doctor despite feeling it was necessary

- 39% less likely to access to sickness benefits

-20% rise in heroin use

-~100% rise in homicides and theft rates

-~60% reported increase in suicides

Correspondence

Health effects of financial crisis: omens of a Greek tragedy

Greece has been affected more by the financial turmoil beginning in 2007 than any other European country. 15 years of consecutive growth in the Greek economy have reversed. In adults, unemployment has risen from 6·6% in May, 2008, to 16·6% in May, 2011 (youth unemployment rose from 18·4% to 40·1%),[1] as debt grew between 2007 and 2010 from 105·4% to 142·8% of gross domestic product (GDP; €239·4 billion to €328·6 billion) compared with the average change in the EU-15 (the 15 countries that were EU members before May 1, 2004) from 66·2% to 85·1% of GDP in this same period (€6·0 trillion to €7·8 trillion).[1] Greece's options were limited, since its Government ruled out leaving the Euro, precluding them from one of the most common solutions in such circumstances: devaluation. To finance its debts, Greece had to borrow €110 billion from the International Monetary Fund and Eurozone partners, under strict conditions that included drastic curtailing of government spending. Whereas other countries in Europe (eg, France, Germany) now show signs of economic recovery, the crisis continues to evolve in Greece; industrial production fell by 8% in 2010.[2]

Richard Horton[3] has asked whether anyone is looking at the effect of the economic crisis on health and health care in Greece, in light of the adverse health effects of previous recessions.[4] Here, we describe changes in health and health care in Greece on the basis of our analysis of data from the EU Statistics on Income and Living Conditions,[5] which provide comparable cross-sectional and longitudinal information on social and

were recruited in 2007 and 2009, respectively, by use of consistent methods, of which a total of 26 689 had complete sociodemographic data (see webappendix p 1 for more details). We also drew on reports from medical research institutes, health prefectures, and non-governmental organisations (NGOs). These reports include epidemiological indicators, data on hospital admissions, and reports on mental health problems and the status of vulnerable groups.

Compared with 2007—ie, before the crisis—2009 saw a significant increase in people reporting that they did not go to a doctor or dentist despite feeling that it was necessary (odds ratio 1·15, 95% CI 1·00–1·30 for doctors' visits; 1·14, 1·01–1·28 for dentists' visits [figure; webappendix p 2-3]), after correcting for differences in survey respondents including age, sex, marital status, educational attainment, and urban or rural residence. The main reasons for not seeking medical care did not seem significantly linked to an inability to afford care (0·82, 0·74–1·02), but to long waiting times (1·83, 1·26–2·64), travel distance to care (2·50, 1·75–4·63), waiting to feel better (1·93, 1·26–2·96), and other reasons not captured by the survey (1·54, 1·05–2·27; webappendix p 4).

Since Greece's universal public health-care system entitles citizens and those with social insurance to visit general practitioners (GPs) free of charge and to attend outpatient clinics of hospitals for 40–5, these noted reductions in access probably reflect supply-side problems: there were about 40% cuts in hospital budgets,[7] understaffing, reported occasional shortages of medical supplies, and bribes given to medical staff to jump queues in overstretched hospitals.[8]

Although people were less likely to visit GPs and outpatient facilities, there was a rise in admissions to public

although comprising a smaller proportion of care delivery than public providers, were also hit by pressure on personal budgets and registered losses after the onset of the crisis. A 2010 study reported a 25–30% decline in admissions to private hospitals.[10]

There are signs that health outcomes have worsened, especially in vulnerable groups. We noted a significant rise in the prevalence of people reporting that their health was "bad" or "very bad" (1·14, 1·02–1·28; figure). Suicides rose by 17% in 2009 from 2007 and unofficial 2010 data quoted in parliament mention a 25% rise compared with 2009.[11] The Minister of Health reported a 60% rise in the first half of 2011 compared with the same period in 2010.[12] The national suicide helpline reported that 25% of callers faced financial difficulties in 2010[13] and reports in the media indicate that the inability to repay high levels of personal debt might be a key factor in the increase in suicides.[14] Violence has also risen, and homicide and theft rates nearly doubled between 2007 and 2009.[15,16] The number of people able to obtain sickness benefits declined (0·61, 0·38–0·98) between 2007 and 2009,

Published Online October xx, xxxx DOI:xx.xxxx/lancet.xxxxxxxxxxxx-x

See Online for webappendix

Unmet dental care

Unmet medical care

Self-reported health

Odds ratio, 2007=1·0

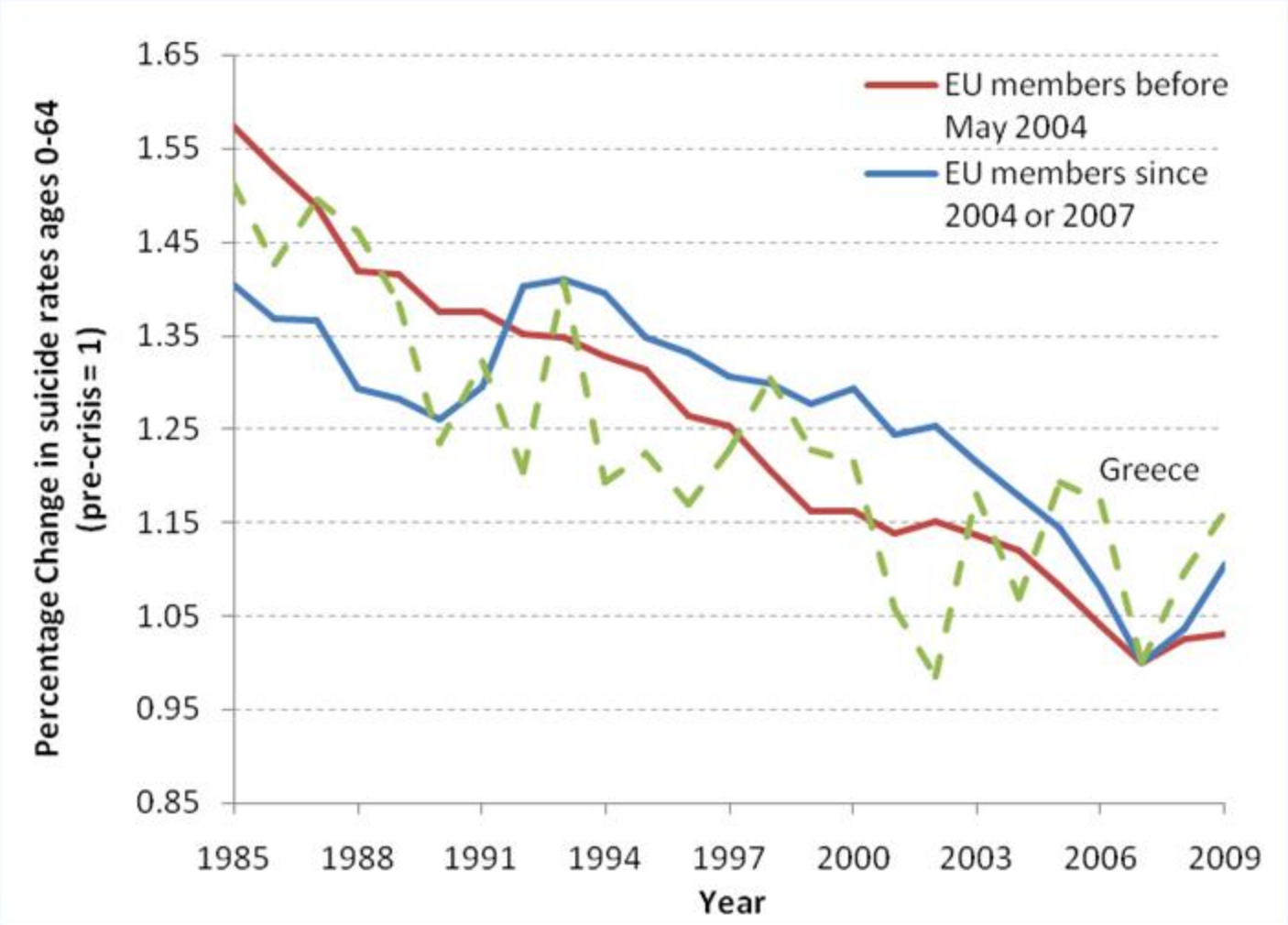
Figure: Changes in self-reported health and access to health care linked to financial crisis between 2007 and 2009, adjusted estimates

*For CIs unreported, X axis on log scale. Data are from the Greece EU Survey on Income

Source: Kentikelenis A, Karanikolos M, Papanicolas I, Basu S, McKee M, Stuckler D. Health effects of financial crisis: omens of a Greek tragedy. Lancet 2011

D. Stuckler. Health and Economic Crisis. Greece in the European Context. Presentation at Financial Times Congress Shaping the Future of Health Care in Greece, March 2012

Pre- and Post-Crisis



D. Stuckler. Health and Economic Crisis. Greece in the European Context. Presentation at Financial Times Congress Shaping the Future of Health Care in Greece, March 2012

Greece: Unmet Need

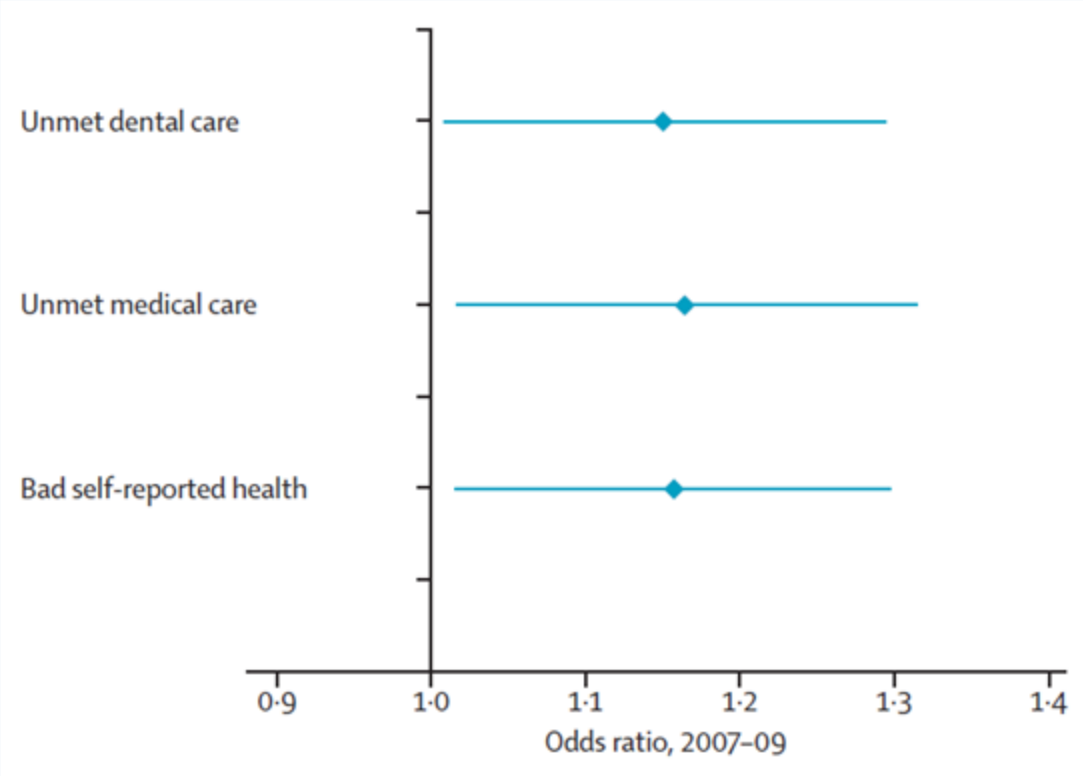
(people who need care but do not get it)

-15% rise in people not going to the doctor despite feeling it was necessary

-39% less likely to access to sickness benefits

-24% rise in public hospital admissions between 2009 and 2010

-25% reported decline in private hospital admissions



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D. Stuckler. Health and Economic Crisis. Greece in the European Context. Presentation at Financial Times Congress Shaping the Future of Health Care in Greece, March 2012

Μέτρα Αύξησης Αποδοτικότητας Μέσα από τον Έλεγχο της Ζήτησης-Κατανάλωσης Υπηρεσιών

	AT	BE	CY	DE	DK	EE	EL	ES	FI	FR	HU	IE	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SK	SI	UJ
ΙΑΤΡΟΙ																									
Οδηγίες	X	X		X	X	X		X	X	X	X		X	X	X	X	X	X		X		X	X	X	X
Εκπαίδευση και πληροφορία	X	X		X	X	X		X	X	X		X	X				X	X	X	X	X	X	X	X	X
Έλεγχος συνταγογράφησης	X	X		X	X			X	X	X	X	X	X		X		X	X		X	X	X	X	X	X
Ποσοστώσεις συνταγογράφησης		X		X				X							X			X							
Κλειστοί προϋπολογισμοί								X							X						X	X			X
Οικονομικά κίνητρα	X	X		X				X									X					X			X
ΑΣΘΕΝΕΙΣ																									
Επιμόρφωση	X	X		X	X	X			X	X		X	X				X		X	X	X	X	X		X
Συμμετοχή στο κόστος	X	X		X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X		X
ΦΑΡΜΑΚΟΠΟΙΟΙ																									
Υποκατάσταση με γενόσημα			X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	
Οικονομικά κίνητρα										X		X	X				X	X							X
Επιστροφές - rebates	X	X											X				X		X						X

Source: analysis of differences and commonalities in pricing and reimbursement systems in Europe. DG Enterprise and Industry, EC, June 2007

Μέτρα Αύξησης της Αποδοτικότητας Μέσα από το Έλεγχο της Προσφοράς Υπηρεσιών

	AT	BE	CY	DE	DK	EE	EL	ES	FI	FR	HU	IE	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SK	SI	UJ
ΤΙΜΟΛΟΓΗΣΗ																									
Με βάση κλινικά δεδομένα	X	X						X	X	X		X	X		X				X	X			X		
Με βάση οικονομική αξιολόγηση	X	X				X			X			X	X		X					X		X	X	X	
Με αναφορά σε άλλες τιμές	X	X				X		X	X	X	X	X	X		X					X					
Με βάση το κόστος παραγωγής							X	X																	
Με βάση τιμές σε άλλες χώρες	X	X	X			X	X	X	X	X	X	X		X			X	X	X	X	X		X	X	
Controlled price updates		X					X	X	X				X	X	X					X	X		X	X	X
ΕΛΕΓΧΟΣ ΔΑΠΑΝΗΣ																									
Rebates και εκπτώσεις	X			X			X	X		X	X	X	X								X				
Επιστροφές		X								X	X		X							X	X				X
Συμφωνίες price-volume						X				X	X				X			X		X		X	X		
Πάγωμα – μειώσεις τιμών		X					X	X	X	X		X	X					X		X					X
ΑΠΟΖΗΜΙΩΣΗ																									
Με τιμές αναφοράς		X		X	X	X	X	X			X		X	X	X		X		X	X	X		X	X	
Θετικές λίστες	X		X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Αρνητικές λίστες				X					X		X							X							X
Οικονομική αξιολόγηση	X	X			X	X			X		X	X	X	X	X	X	X	X	X	X		X	X	X	

Source: analysis of differences and commonalities in pricing and reimbursement systems in Europe. DG Enterprise and Industry, EC, June 2007

Νέα κριτήρια αξιολόγησης των παρεμβάσεων μας στο τομέα της Υγείας

Αποτελεσματικότητα, Ασφάλεια, Ποιότητα

- Για να αποφασίσουμε με καθαρά κλινικούς όρους που να επενδύσουμε τα χρήματα που διαθέτουμε για την υγεία

Κόστος

- Για να ξέρουμε πόσο στοιχίζει πραγματικά, και τις επιπτώσεις έχει στο σύστημα υγείας και ασφάλισης . Ένα φάρμακο π.χ. μπορεί να στοιχίζει, αλλά μπορεί να μειώνει την νοσηλεία ή την χρήση άλλων φαρμάκων

Κόστος / Αποτελεσματικότητα

- Για να ξέρουμε ένα αξίζει να επενδύσουμε στο φάρμακο, να κάνουμε επιλογές ανάμεσα σε εναλλακτικά φάρμακα, και να βελτιστοποιούμε τις συνθήκες χρήσεως τους

Προϋπολογισμός

- Για να εκτιμήσουμε τις επιπτώσεις της επιλογής συγκεκριμένων φαρμάκων στον συνολικό προϋπολογισμό μας, ανάλογα με τα διάφορα σενάρια διείσδυσης του

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Table 33. Use of HTA (Q62)

Country	Structure and capacity for health technology assessment	Cost-effectiveness and affordability taken into account in HTA	New medicine			New procedure			New high-cost equipment		
			Coverage	Reimbursement or price	Guidelines	Coverage	Reimbursement or price	Guidelines	Coverage	Reimbursement or price	Guidelines
Australia	Yes	Yes	X	X	X	X	X	X	X	X	X
Austria	Yes	Yes	X	X							
Belgium	Yes	Yes	X	X	X	X		X	X		
Canada	Yes	Yes	X	X	X				X	X	X
Czech Republic	No	-									
Denmark	Yes	Yes	X	X	X	X	X	X	X	X	X
Finland	Yes	Yes	X	X	X			X			
France	Yes	No	X	X		X	X		X		X
Germany	Yes	n.a.									
Greece	No	-									
Hungary	Yes	Yes	X			X			X		X
Iceland	Yes	n.a.	X								
Ireland	Yes	Yes	X								
Italy	Yes	n.a.									
Japan	Yes	Yes	X	X		X	X		X	X	
Korea	Yes	Yes	X	X		X					
Luxembourg	No	-									
Mexico (1)	Yes	Yes	X	X	X	X		X	X		X
Netherlands	Yes	Yes	X	X	X	X	X	X	X	X	X
New Zealand	Yes	Yes	X	X	X	X			X	X	
Norway	Yes	Yes	X		X	X		X	X		X
Poland	Yes	Yes	X	X		X		X	X		
Portugal	Yes	Yes	X	X	X			X			X
Slovak Republic	No	-									
Spain	Yes	Yes		X		X		X	X		X
Sweden	Yes	Yes	X	X	X						
Switzerland	Yes	Yes	X			X					
Turkey	No	-									
United Kingdom	Yes	Yes	X					X			X

Note (1): In Mexico, the use of HTA is yet limited.

Note: n.a. means Not Available; "-" Not Applicable.

Source: OECD Survey on health system characteristics 2008-2009.

Συμπεράσματα Ι

- Η βιωσιμότητα των υγειονομικών συστημάτων μακροπρόθεσμα απειλείται εξαιτίας
  - Των δημογραφικών τάσεων
  - Των τεχνολογικών εξελίξεων
  - Την διοικητικής ανεπάρκειας μας
  - Της εξάρτησης τους από τα δημόσια οικονομικά
  - Των δημοσιοοικονομικών κρίσεων

- Στα πλαίσια αυτά έχει οργανωθεί σε μικρο-επίπεδο μια σειρά από παρεμβάσεις με στόχο την αύξηση της αποδοτικότητας στα περισσότερα υγειονομικά συστήματα

Δομή Παρουσίασης

- Διεθνείς Τάσεις στα Οικονομικά και την Οργάνωση του Τομέα της Υγείας
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ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Chart 7.1.2. **Annual average growth rate in real health expenditure per capita, 1997-2007**

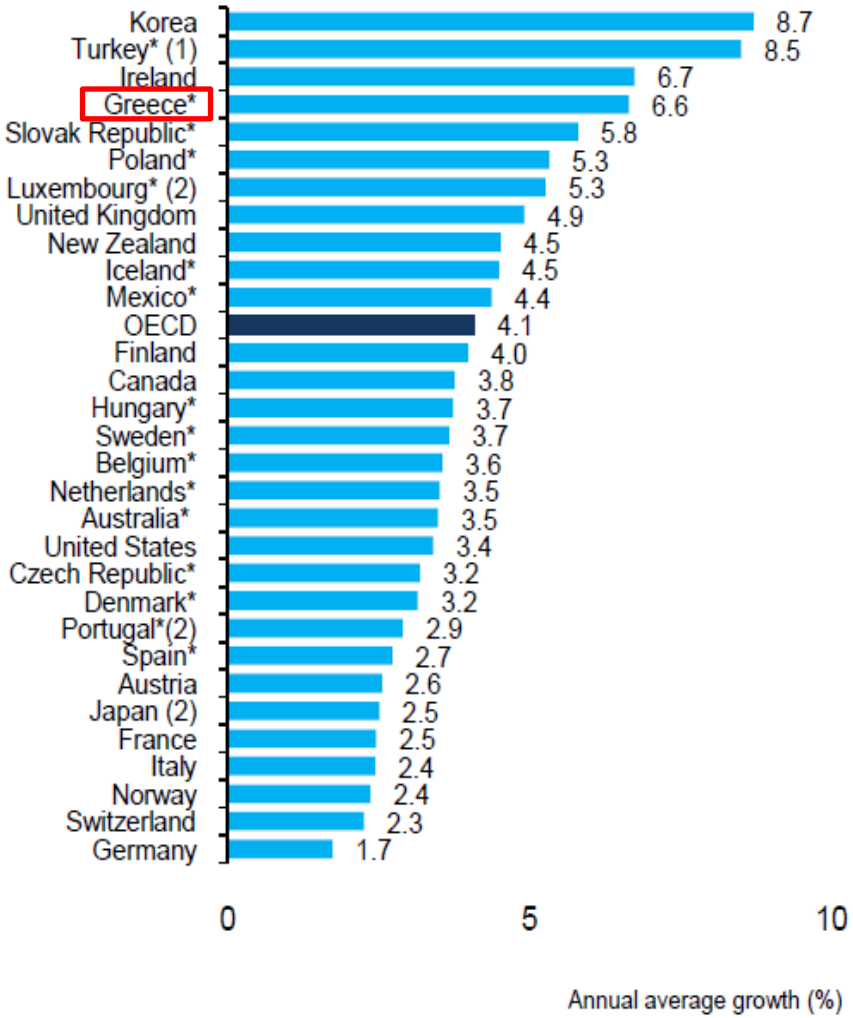
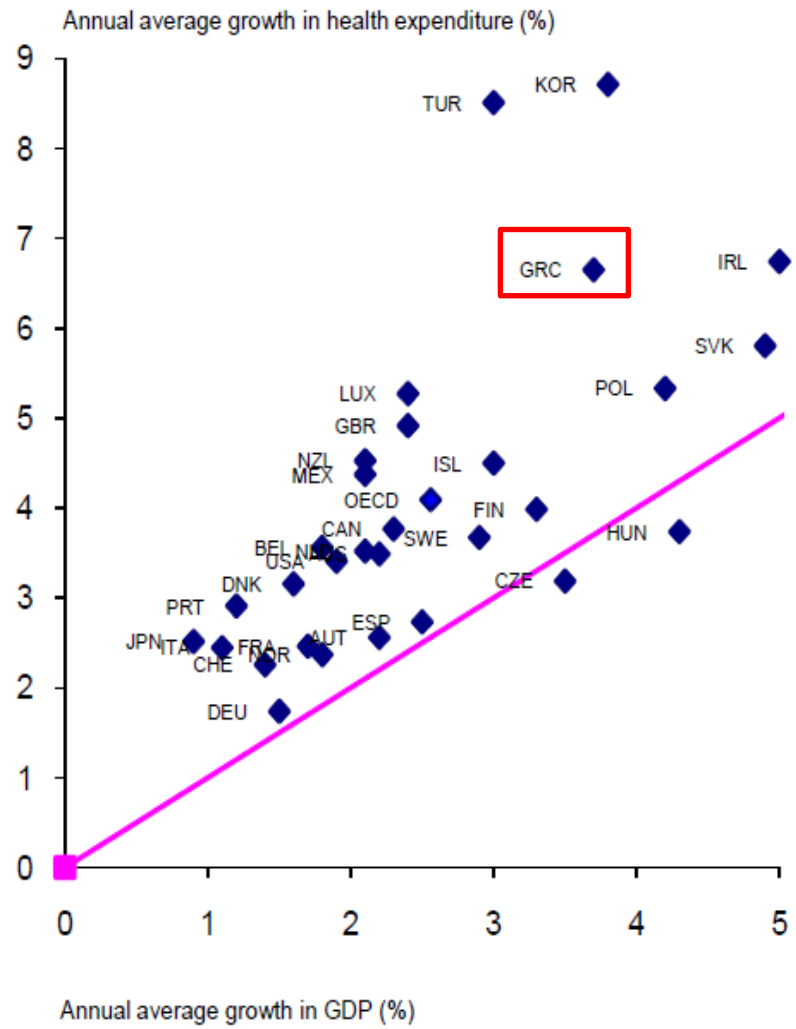


Chart 7.1.3. **Annual average growth in real per capita expenditure on health and GDP, 1997 to 2007**

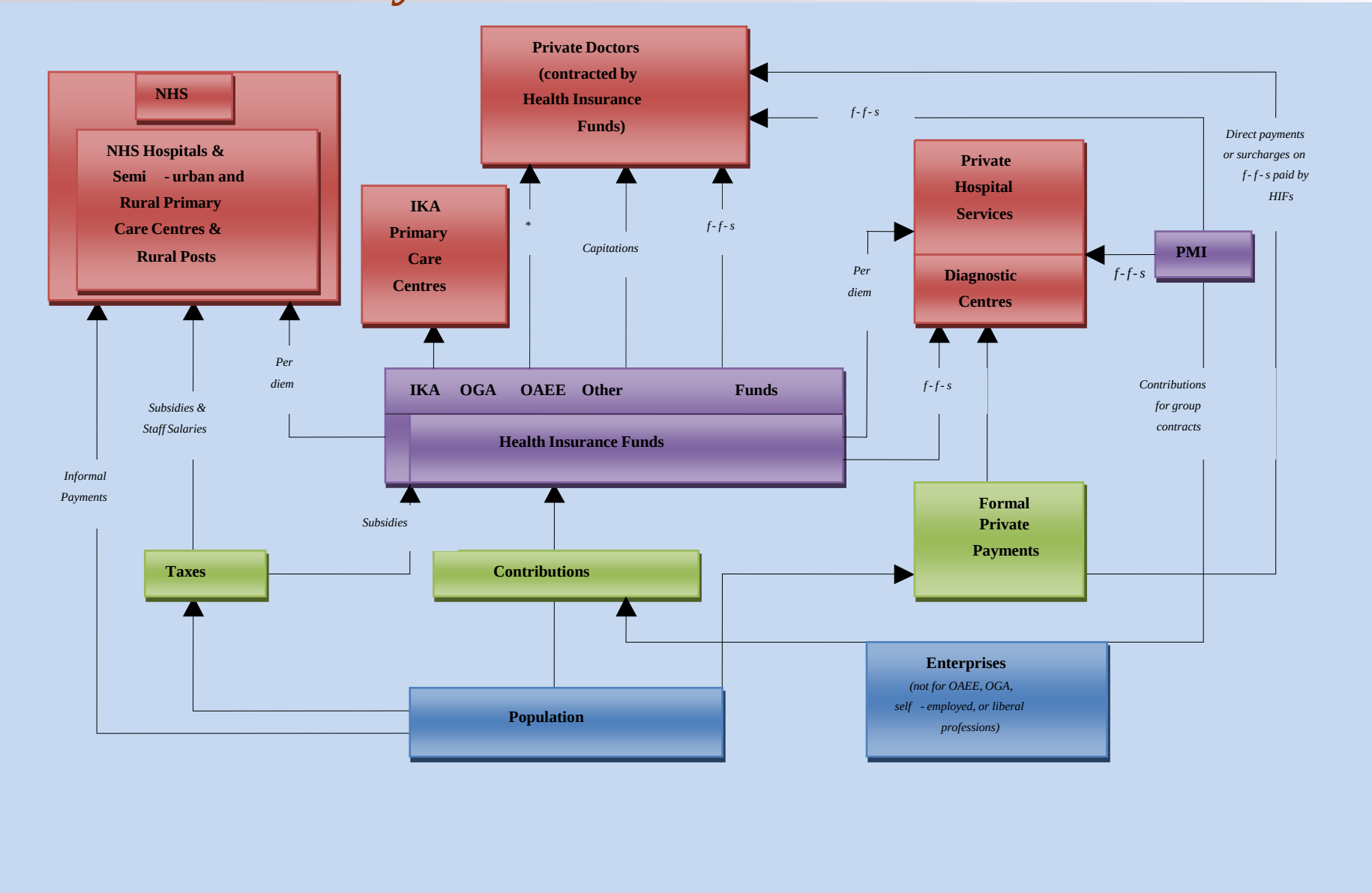


1. 1997-2005. 2. 1997-2006.

* Growth rates adjusted. See box "Definition and deviations".

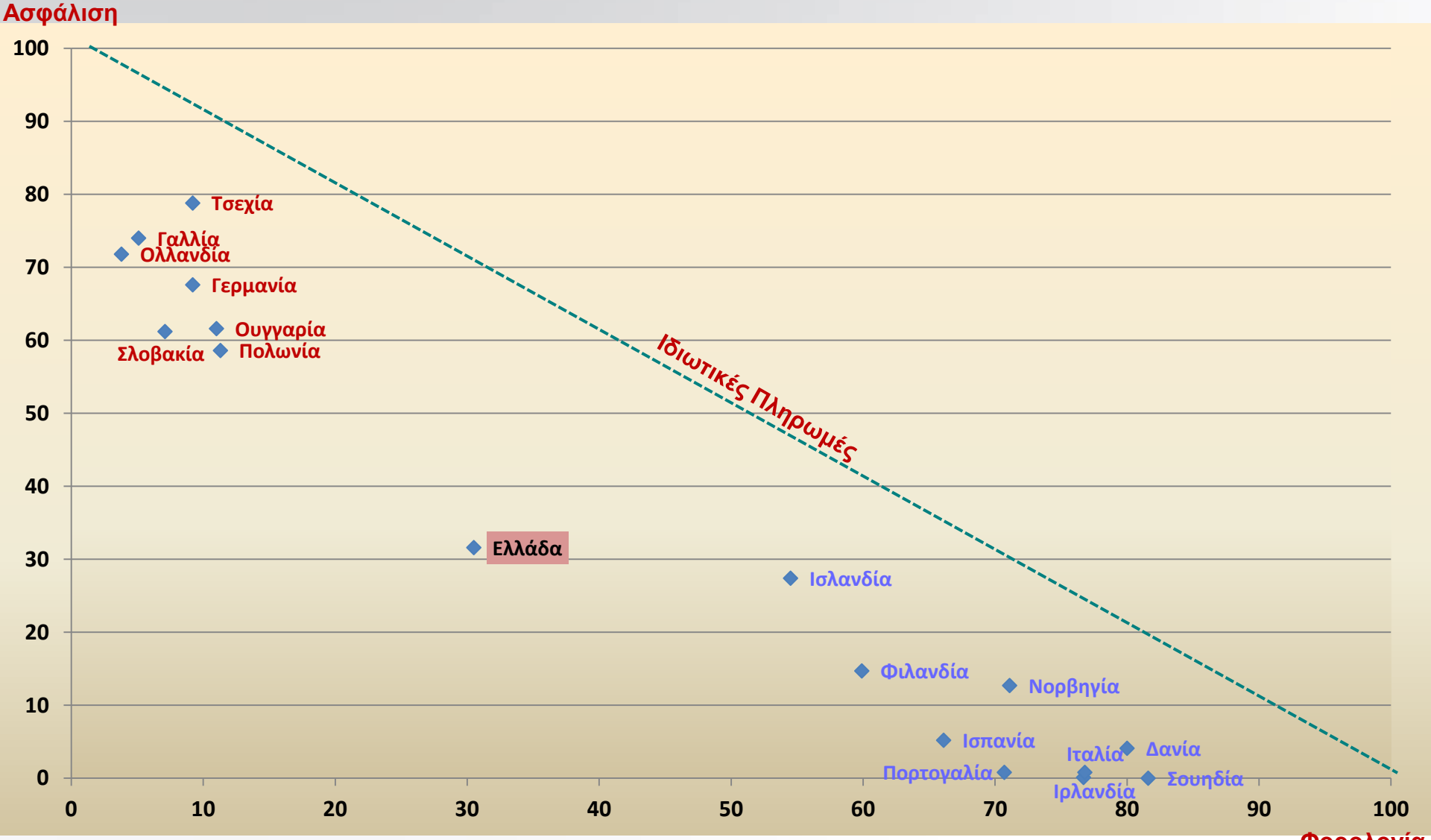
Source: OECD Health Data 2009.

One the most complex and bureaucratic HC systems in the in EU



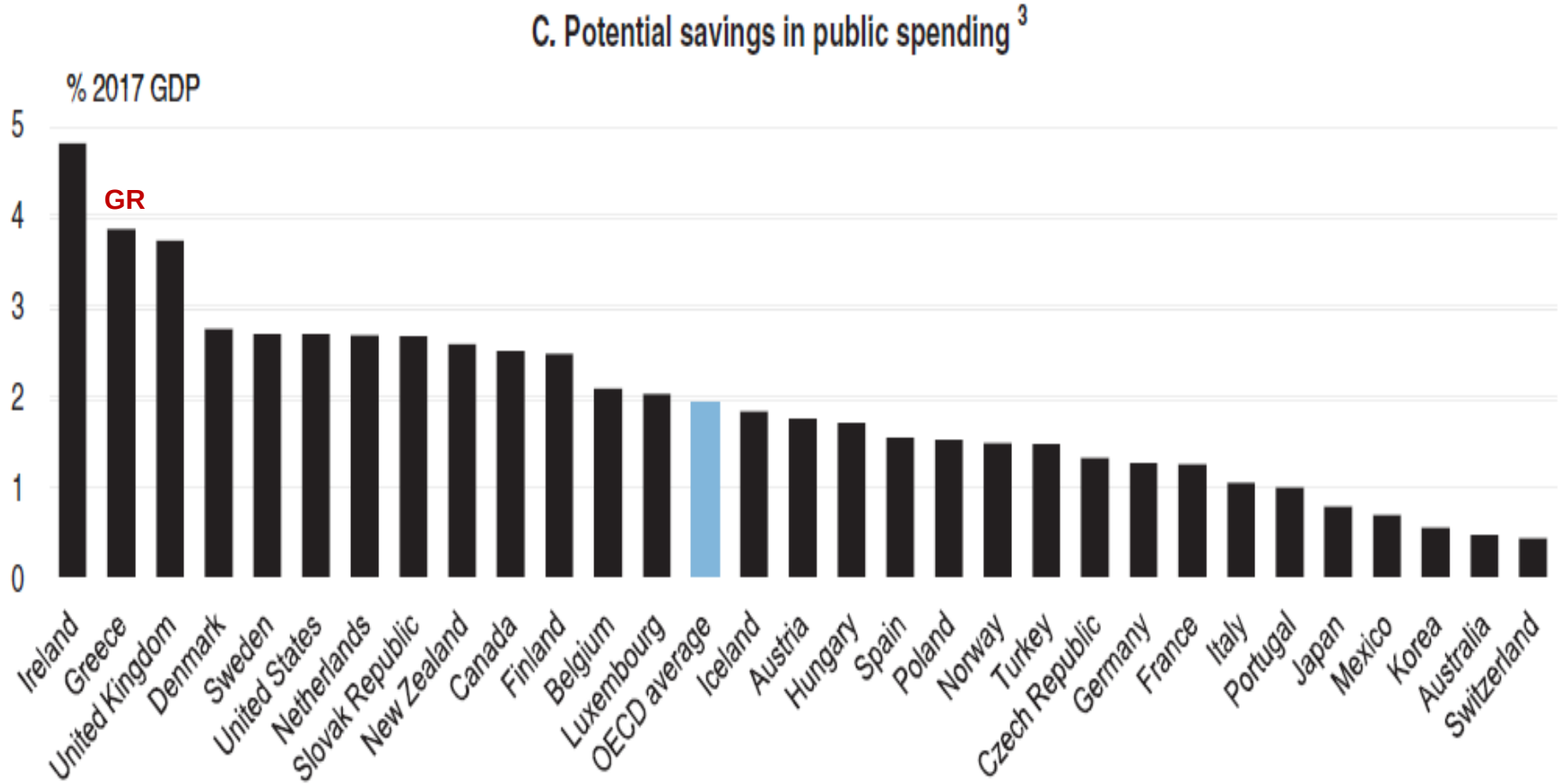
Πηγή: Mossialos and Davaki, 2005

Μοναδικό στην χρηματοδότηση



Πηγή: ΟΟΣΑ , 2010

Αναποτελεσματικότητα σε μακρο-επίπεδο



3. Potential savings represent the difference between a no-reform scenario and a scenario where countries would become as efficient as the best performing countries.

Source: OECD Health Data 2009; OECD calculations.

Αναποτελεσματικό στην κατανομή των ανθρωπίνων πόρων

Σχέση ιατρικού και νοσηλευτικού προσωπικού 2007

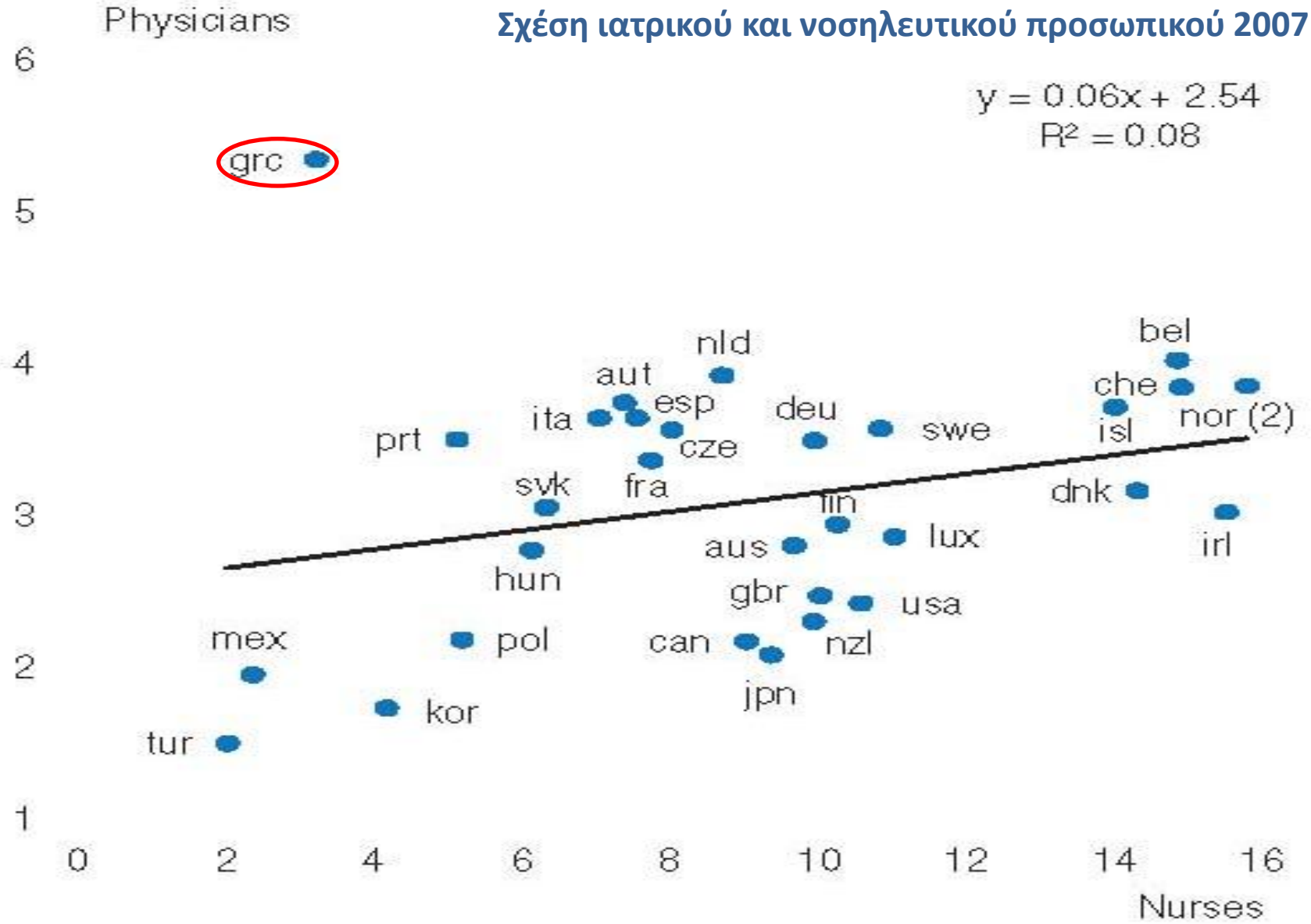
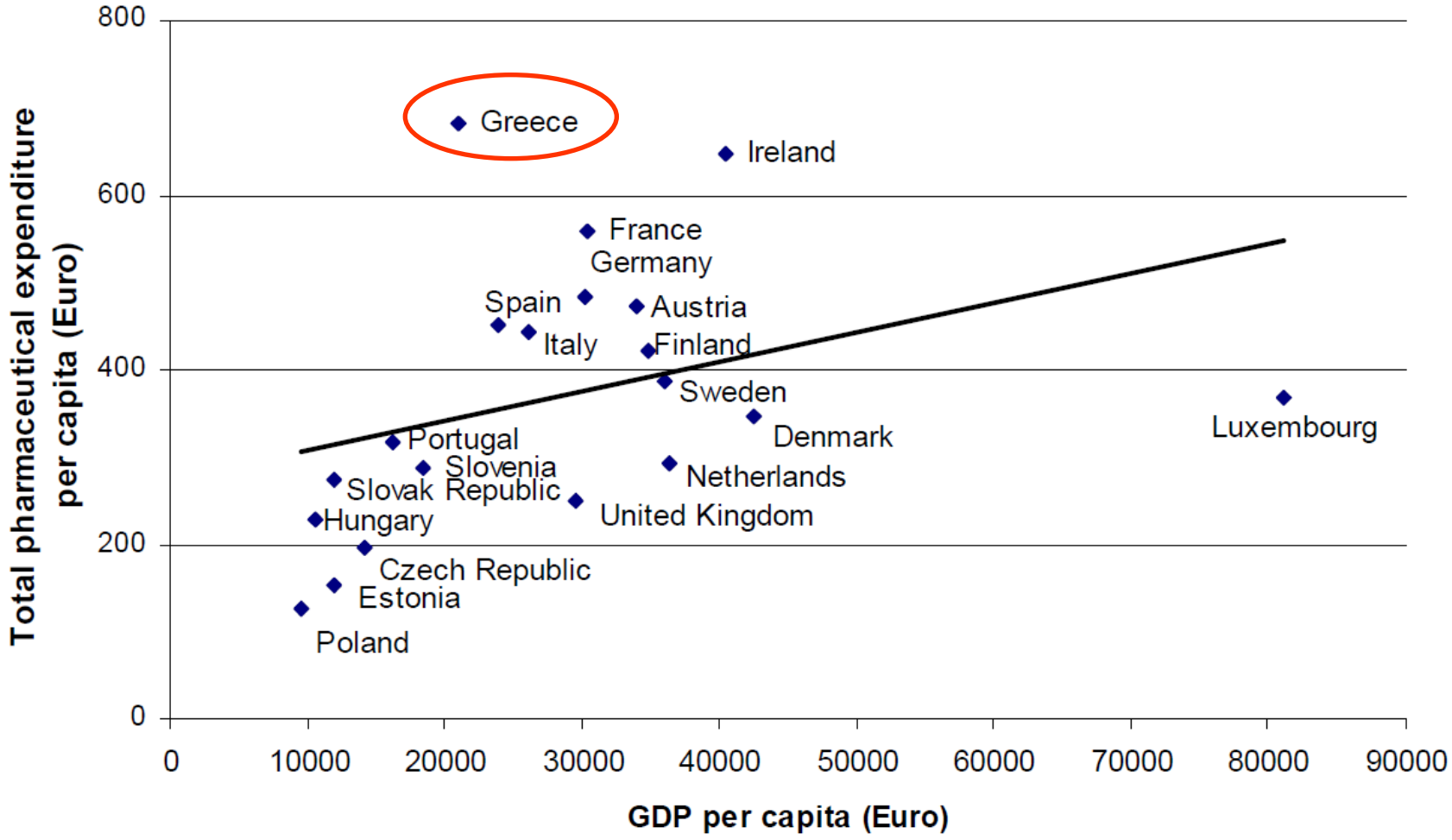
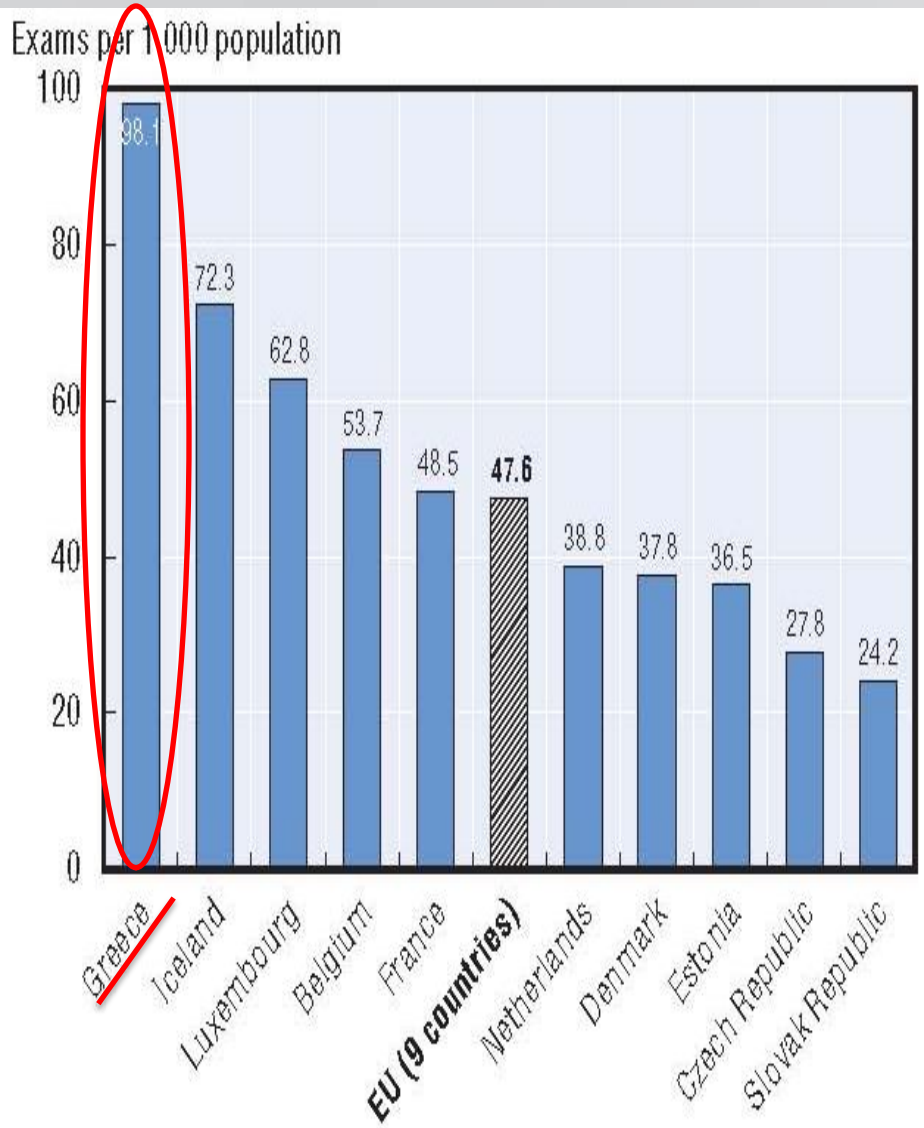


Figure 5: Pharmaceutical expenditure per capita (Euro) and GDP per capita, 2008

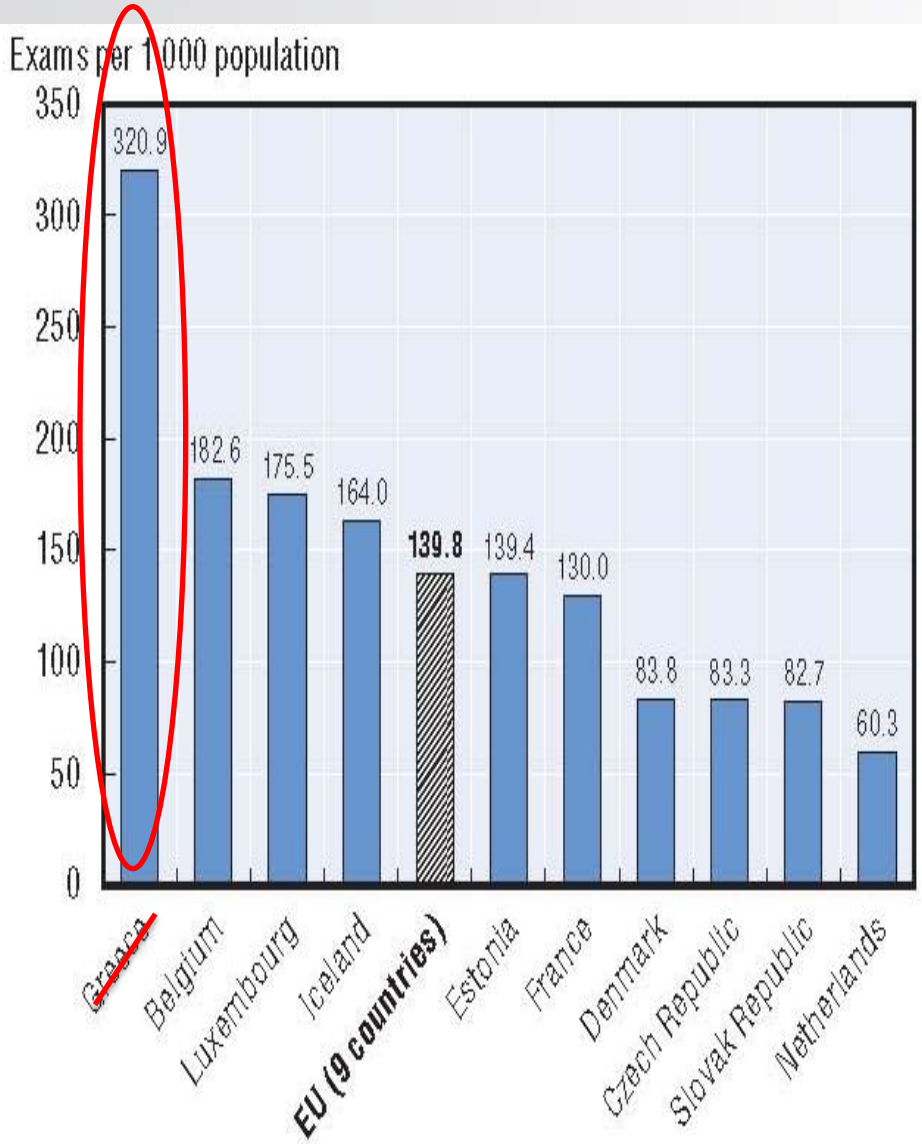


Source: Differences in cost of and access to pharmaceutical products in the EU; European Parliament, by Kanavos et al. March 2011

With supplier induced demand phenomena, MRI and CAT Scans, 2008

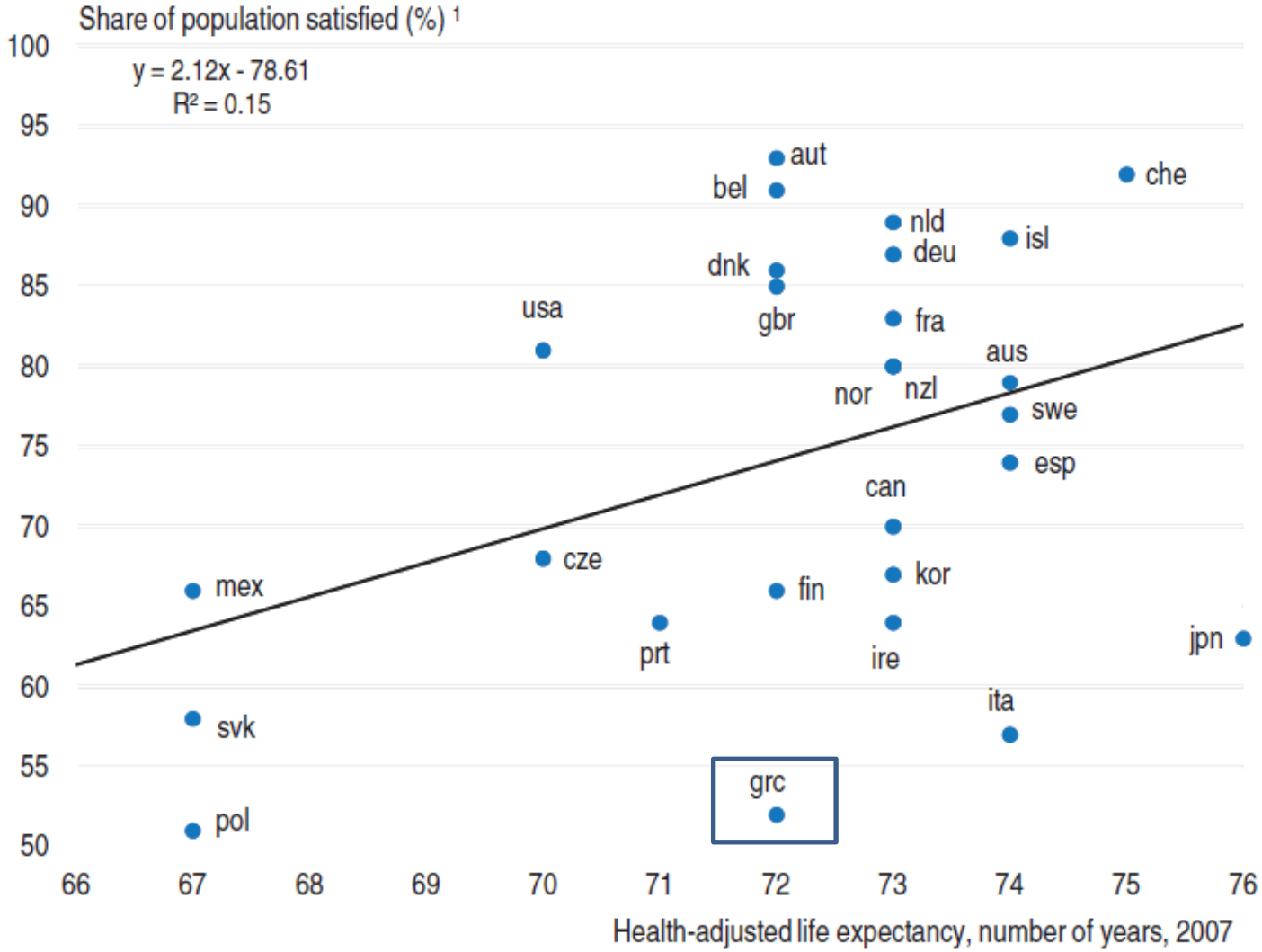


Source: OECD Health Data 2010.



Source: OECD Health Data 2010.

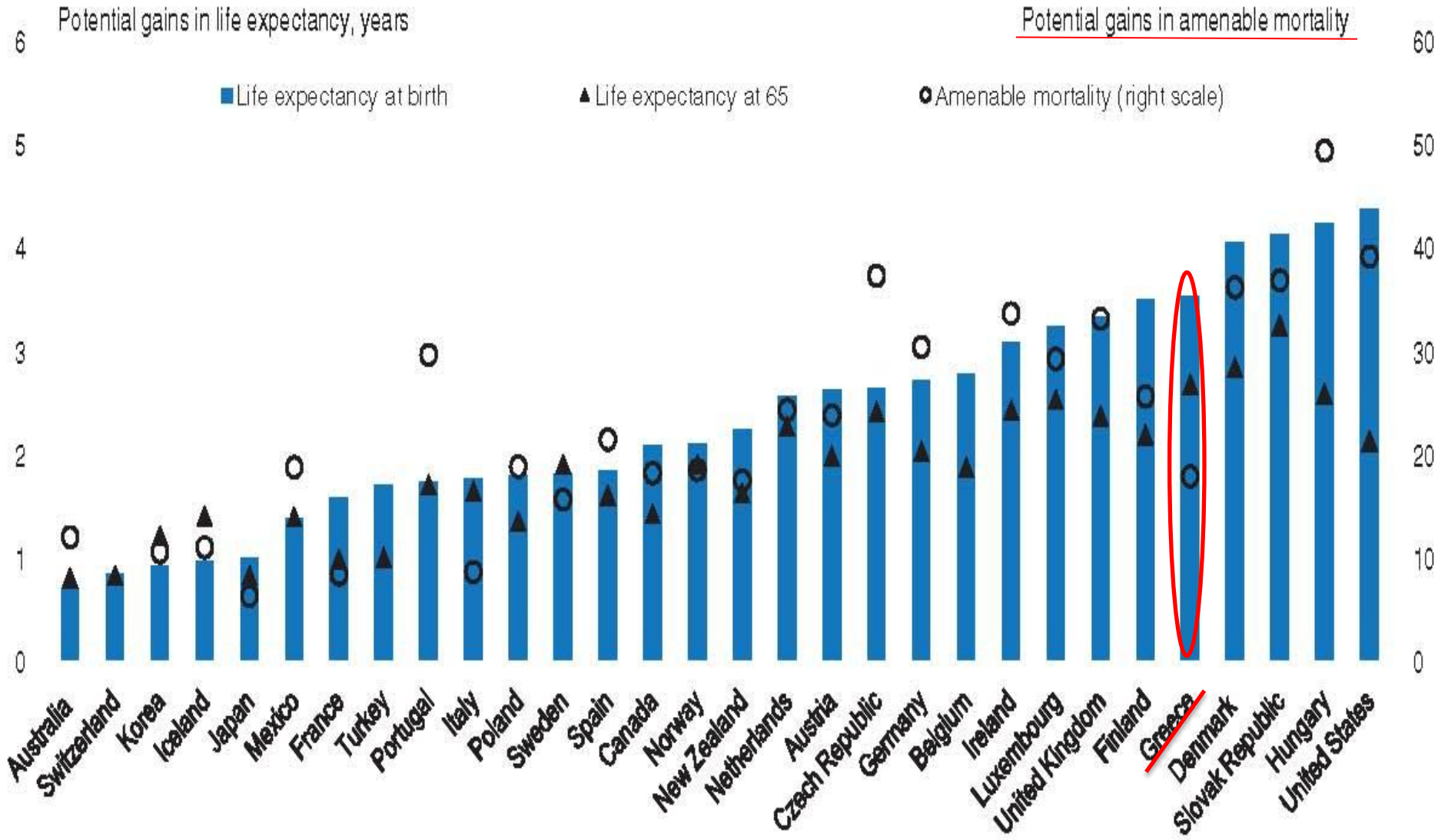
Figure 1.6. **Public satisfaction and health-adjusted life expectancy**



1. Share of population satisfied with availability of quality health care, 2008.

Source: WHO, *World Health Statistics 2010*; OECD Health Data 2009.

Αναποτελεσματικό υγειονομικά



In this panel, all DEAs were performed with two inputs: health care spending *per capita* and a variable referred to in Panel B as ENV. ENV is a composite indicator of the socio-economic environment (GDP *per capita*, educational attainment) and lifestyle factors (nitrogen oxide emissions, consumption of fruit and vegetables, lagged consumption of alcohol and tobacco – 1990 data). All DEAs refer to 2007 except in the case where amenable mortality rates were taken as the outcome since these are only available until 2003 and for 27 countries.

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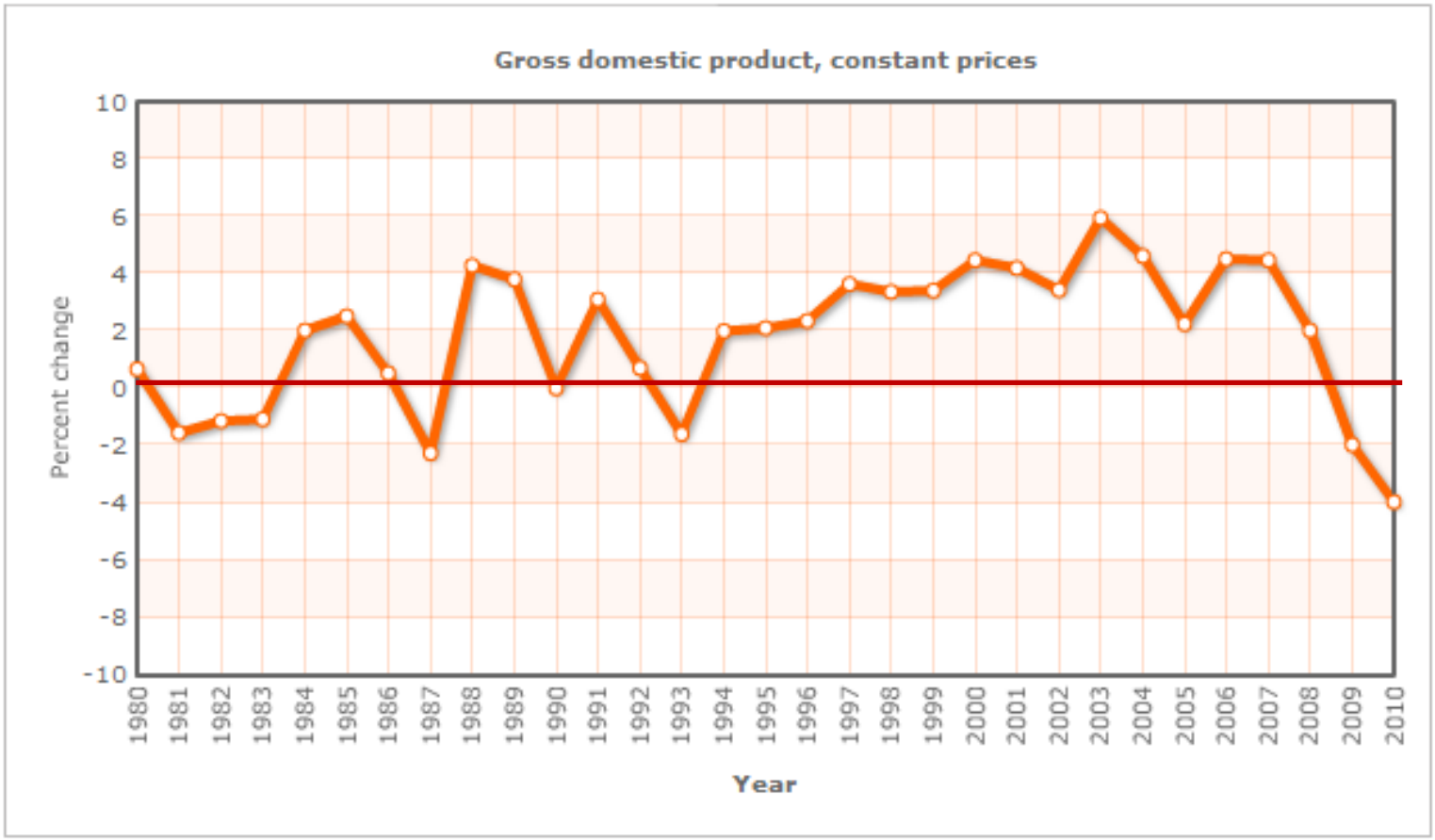
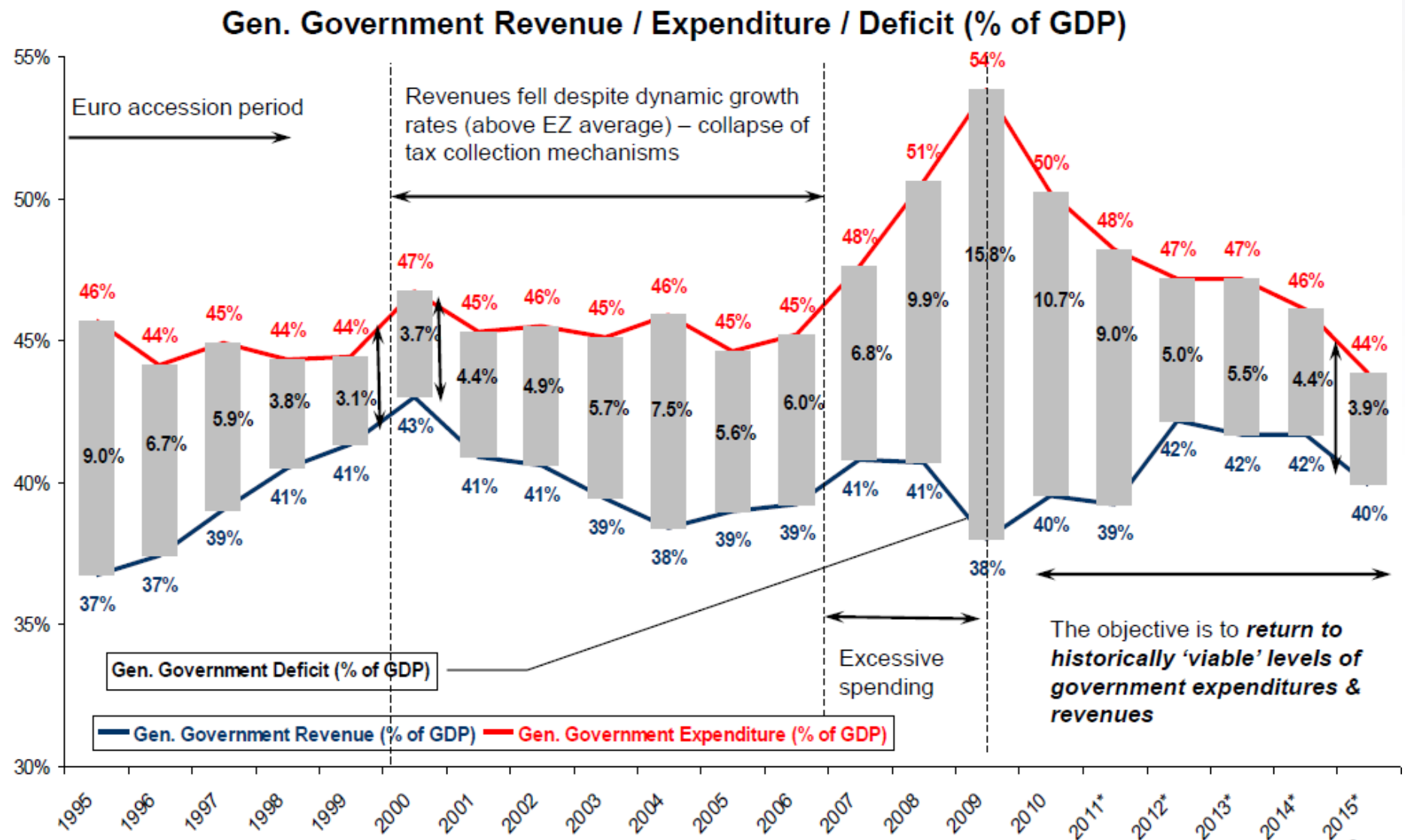
ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Ελλάδα, Ρυθμός Ανάπτυξης ΑΕΠ

Source: International Monetary Fund - 2010 World Economic Outlook



Fiscal Derailment: The lost decade



* Estimate. Sources: AMECO database, ELSTAT, 2012 Budget, Ministry of Finance, November 2011

Occasional Papers 61 | May 2010

The Economic Adjustment Programme for Greece


ΛΟΙΠΟΝ, ΟΣΩΝ ΕΛΛΗΝΩΝ ΤΑ ΕΠΙΘΕΤΑ ΑΡΧΙΖΟΥΝ ΑΠΟ Α, Β, Γ, Δ, Ε, Ζ, Η, Θ, Ι, Κ Λ, Μ, Ν, Ξ, Ο, Π, Ρ, Σ, Τ, Υ, Φ, Χ, Ψ, ΚΑΙ Ω ΘΑ ΠΑΡΟΥΝ ΣΥΝΤΑΞΗ ΣΤΑ 85!
ΚΑΙ "ΛΙΣΤΑ ΤΟΥ ΣΙΝΤΛΕΡ", ΓΙΑ ΝΑ ΤΗ ΣΚΑΠΟΥΛΑΡΕΤΕ, ΥΠΑΡΧΕΙ ΜΟΝΟ ΣΤΙΣ ΤΑΙΝΙΕΣ!
του Χρ. Ζωίδη

Health care spending is a #1 target

Annex 7: Statement by the European Commission, the ECB and IMF on the Second Review Mission to Greece

November 23, 2010

Our overall assessment is that the program remains broadly on track. The end-September quantitative criteria have all been met. While challenges remain, significant progress has been made, particularly in reducing the fiscal deficit.

Regarding **the outlook,** the economy is expected to begin turning around in 2011. Wage and price inflation is beginning to moderate, setting the stage for improvements in competitiveness.

In **the fiscal area,** the deficit reduction by 6 percent of GDP in 2010 is larger than the initially targeted change. At the same time, weaker-than-projected revenue collection and data revisions for 2009 mean that an extra effort will be needed to meet the deficit target of 7.5 percent of GDP in 2011, which the government has reaffirmed. New measures have been agreed to broaden tax bases and eliminate wasteful spending, particularly in the areas of:

- Health spending—which is inefficient relative to other euro zone countries;
- State enterprises—which are a heavy burden on the economy with perennial losses for Greek taxpayers; and
- Tax administration—which has instruments now coming into place to strengthen compliance.

Στόχοι για τις Υπηρεσίες Υγείας στο Μνημόνιο

- Να παραμείνουν οι Δημόσιες δαπάνες υγείας < 6% του ΑΕΠ
- Μείωση των δημοσίων δαπανών φαρμάκου στο 1% του ΑΕΠ έως το 2014
- Αύξηση της ποιότητας και αποδοτικότητας των υπηρεσιών υγείας
- Επιμέρους ποσοτικοί στόχοι με συνδεδεμένοι με διάφορα μέτρα

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Παρεμβάσεις Συνοπτικά στα Πρώτα Μνημόνια

Νοσοκομεία

- Χάρτης υγείας, συγχωνεύσεις, μηχανοργάνωση, ολοήμερη λειτουργία, έλεγχος αναλωσίμων, διπλογραφικό & αναλυτική λογιστική, προμήθειες, κωδικοποιήσεις, e-prescription, ανακοστολόγηση και ανατιμολόγηση ιατρικών πράξεων και υπηρεσιών

Ταμεία

- Ηλεκτρονική συνταγογράφηση, ενοποίηση παροχών, ΣΥΠΣΥ, ΕΟΠΥΥ, αξιολογήσεις δαπανών, ανακοστολόγηση πράξεων, Κλειστά Ενοποιημένα Νοσήλια

Φάρμακα

- Νέο σύστημα τιμολόγησης, νέο σύστημα αποζημίωσης, 4 λίστες φαρμάκων, Διαγωνισμοί & Διαπραγματεύσεις, Κλειστοί προϋπολογισμοί, συνταγολόγια, E-prescription, υποκατάσταση από γενόσημα, rebate Εταιρειών, περιθώριο χονδρεμπόρων rebate φαρμακείων, πολιτική στο ΥΥΚΑ, διαγωνισμοί, συνταγογράφηση με βάση δραστική

Παρεμβάσεις Συνοπτικά στο Δεύτερο Μνημόνιο

Νοσοκομεία

- Μετατροπές στην διοίκηση υπηρεσιών, μετακινήσεις προσωπικού, μετατροπές λειτουργίας μονάδων, λογιστική, διπλογραφικό auditing, εθνικοί διαγωνισμοί

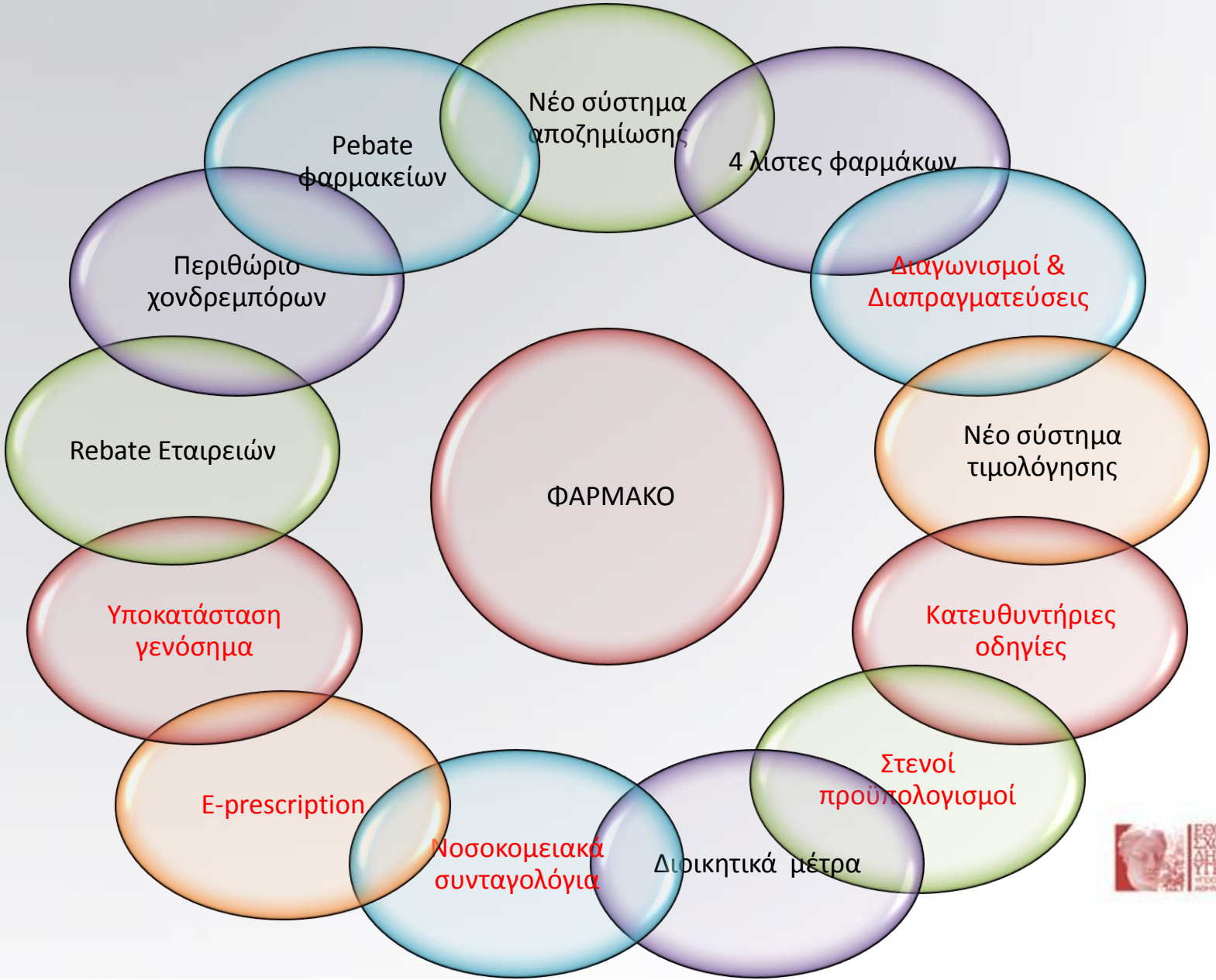
Ταμεία

- ΕΟΠΥΥ στο ΥΥΚΑ, μεταφορά και άλλων ταμείων, μοντέλο χρηματοδότησης και contracting, diagnostics,

Φάρμακα

- Τιμολόγηση στον ΕΟΦ, συμμετοχή ασθενών, δαπάνη με δωδεκατημόρια, επιπλέον μειώσεις στο σύστημα διανομής και rebates, συνταγογράφηση με δραστική, e-prescription Greek model, generic promotion

Μέτρα στοχευμένα στο φάρμακο



Και πιο ήταν το αποτέλεσμα?

Παρέμβαση Πικραμμένου για τις ελλείψεις στα φάρμακα

Επιστολή του πρωθυπουργού προς τον Πρόεδρο του Ελεγκτικού Συνεδρίου, Ιωάννη Καραβοκύρη.

Εικόνα διάλυσης στα δημόσια νοσοκομεία της Θεσσαλονίκης

Στην κατηγορία: Ρεπορτάζ

Ημερομηνία: 06/06/2012

Διάδωσέ το

Στο κόκκινο βρίσκονται τα δημόσια νοσοκομεία της Θεσσαλονίκης αλλά και όλης της χώρας. Γάζες, σύριγγες, γάντια, ακόμη και το βαμβάκι είναι πλέον είδος πολυτελείας και καθημερινά γίνεται αγώνας, για να κρατηθούν ανοιχτά τμήματα ή κλινικές και να γίνουν χειρουργικές επεμβάσεις.

Προμηθευτές Υγείας: Στα χέρια των Τραπεζών ο ομαλός εφοδιασμός των Δημόσιων Νοσοκομείων

16:25 14/6/2012 - Πηγή: Healthier World

Πέμπτη 14 Ιουνίου 20
στο χώρο της Υγείας
Προμηθευτών Επιστ
Σύλλογος Προμηθευτ
Πανελλήνιος Σύλλογ
Υλικού (ΠΑ.ΣΥ.Π.Ο.Υ
βιωσιμότητά τους όσ
που απέστειλαν την
Κυβέρνησης, τον Υπ
τον Διοικητή της Τρά
Τραπεζών

Μπάχαλο!! Καρκινοπαθείς χωρίς φάρμακα...1,9δισ τα χεωστούμενα του ΕΟΠΥΥ

10:37 01/06/2012

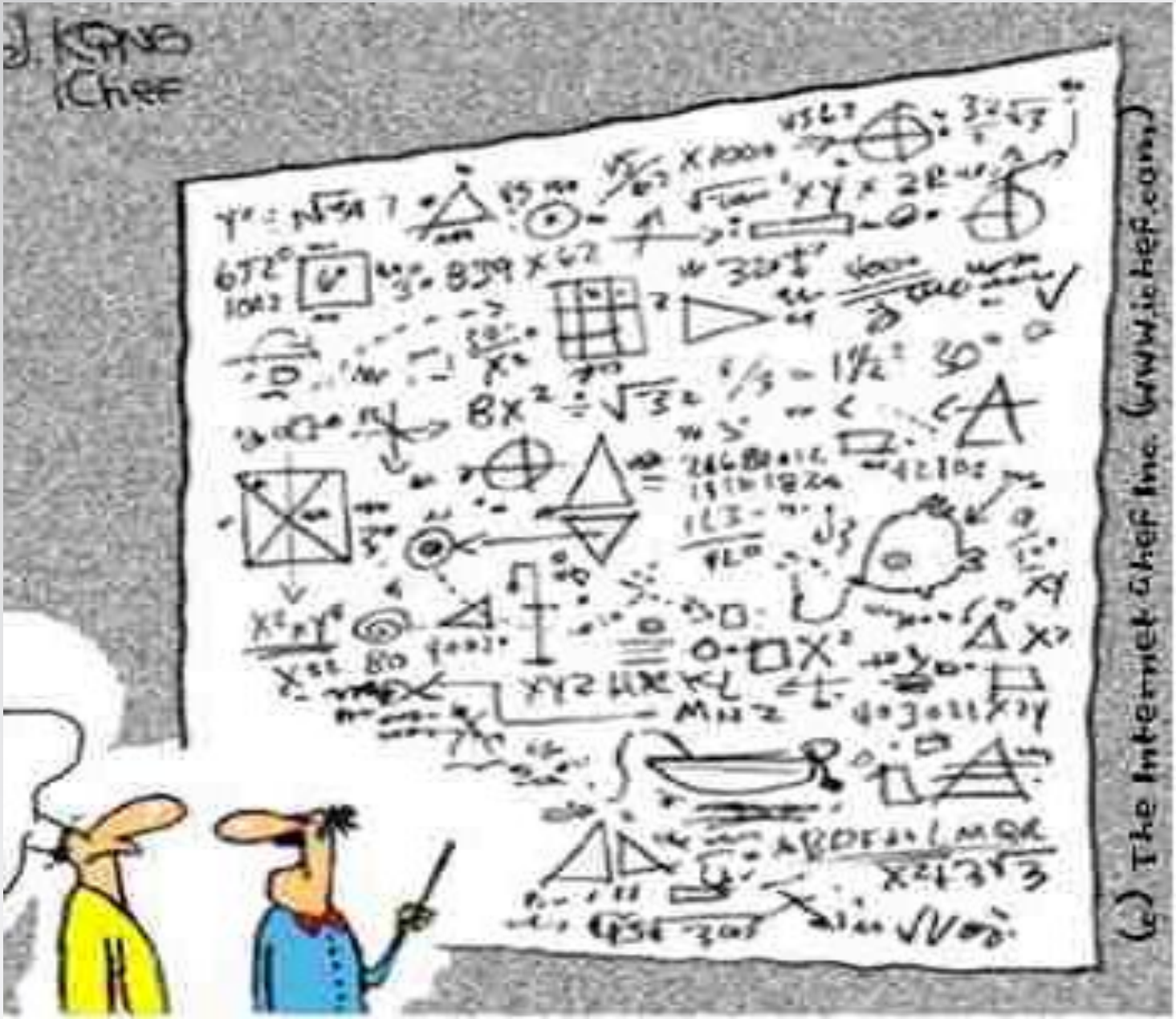
Tweet 0 +1 0 Μου αρέσει!

ΕΘΝΙΚΟΣ ΟΡΓΑΝΙΣΜΟΣ ΠΑΡΟΧΗΣ ΥΠΗΡΕΣΙΩΝ ΥΓΕΙΑΣ
ΕΟΠΥΥ

Φοβερό μπάχαλο στο τομέα της Υγείας καθώς αγωνία ζουν καθημερινά οι καρκινοπαθείς. Η άνεση του χρόνου, ωστόσο, δεν υπάρχει για τους χρονίως πάσχοντες ασθενείς με καρκίνο ή πολλαπλή σκλήρυνση οι οποίοι γνωρίζουν πολύ καλά ότι ακόμη και μία μέρα καθυστέρηση στη θεραπεία μπορεί να κοστίσει την ίδια τους τη ζωή.

Τους τελευταίους μήνες άτομα με σοβαρές παθήσεις ψάχνουν μάταια για τα φάρμακά τους από νοσοκομείο σε νοσοκομείο κι από φαρμακείο σε φαρμακείο

Η συνταγή είχε πρόβλημα



Το πρόβλημα ωστόσο το κύριο είναι στην εφαρμογή

Ανακαλύψαμε Νέα Μοντέλα Εξοικονόμησης Υγειονομικών Πόρων: “Αγαπητέ ασθενή για οικονομία, οι μάνατζερ μας ζητούν να κάνουμε επεμβάσεις χωρίς αναισθησία; Ελπίζω να μην σας πειράζει”

Νέα μοντέλα κατανομής και διαχείρισης προσωπικού

Παρουσιάσαμε μια ανύπαρκτη εικόνα για να πάρουμε την βούλα

Foto: J. Szecsenyi, 2005

Η πραγματικότητα όμως είναι σκληρή και αντίθετη?

Foto: J. Szecsenyi, 2005

Συμπεράσματα ΙΙ

- Το σύστημα υγείας ήταν πολύ προβληματικό πριν την έναρξη του μνημονίου
- Ορισμένοι από τους οικονομικούς στόχους ήταν αιτιολογημένοι, ωστόσο άλλοι αλλοπρόσαλλοι δεδομένης της υπο-χρηματοδότησης του συστήματος από δημόσιους πόρους
- Με την έναρξη του επιχειρήθηκε η ταυτόχρονη εφαρμογή δεκάδων μέτρων και πολιτικών από μια δημόσια διοίκηση με χαμηλή αποτελεσματικότητα και δυναμικότητα

Δομή Παρουσίασης

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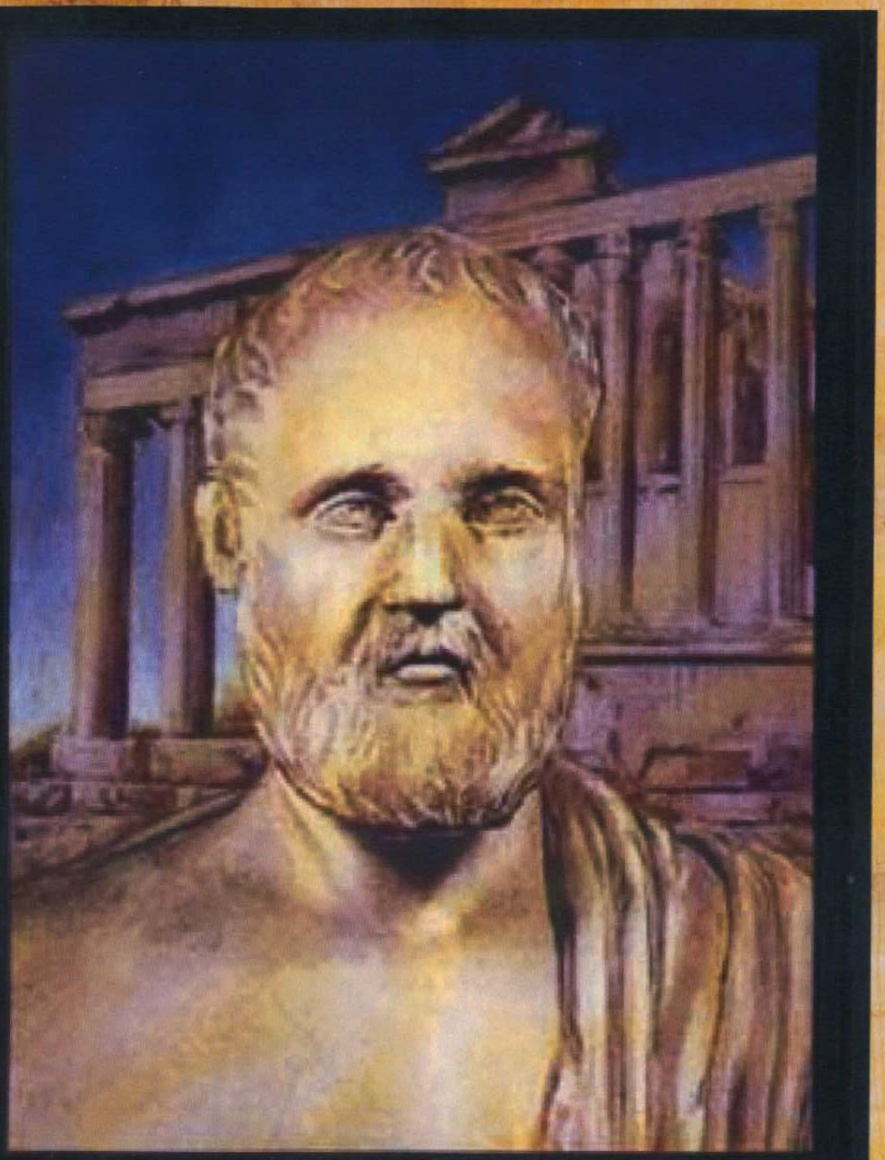
ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ



ΙΣΟΚΡΑΤΗΣ

«Η ΔΗΜΟΚΡΑΤΙΑ ΜΑΣ ΑΥΤΟΚΑΤΑΣΤΡΕΦΕΤΑΙ ΔΙΟΤΙ ΚΑΤΕΧΡΑΣΘΗ ΤΟ ΔΙΚΑΙΩΜΑ ΤΗΣ ΕΛΕΥΘΕΡΙΑΣ ΚΑΙ ΤΙΣ ΙΣΟΤΗΤΑΣ, ΔΙΟΤΙ ΕΜΑΘΕ ΤΟΥΣ ΠΟΛΙΤΕΣ ΝΑ ΘΕΩΡΟΥΝ ΤΗΝ ΑΥΘΑΔΕΙΑ ΩΣ ΔΙΚΑΙΩΜΑ, ΤΗΝ ΠΑΡΑΝΟΜΙΑ ΩΣ ΕΛΕΥΘΕΡΙΑ, ΤΗΝ ΑΝΑΙΔΕΙΑ ΤΟΥ ΛΟΓΟΥ ΩΣ ΙΣΟΤΗΤΑ ΚΑΙ ΤΗΝ ΑΝΑΡΧΙΑ ΩΣ ΕΥΔΑΙΜΟΝΙΑ»

ΙΣΟΚΡΑΤΗΣ 436π.Χ - 338π.Χ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STAFF-LEVEL AGREEMENT

Europe and IMF Agree €110 Billion Financing Plan With Greece

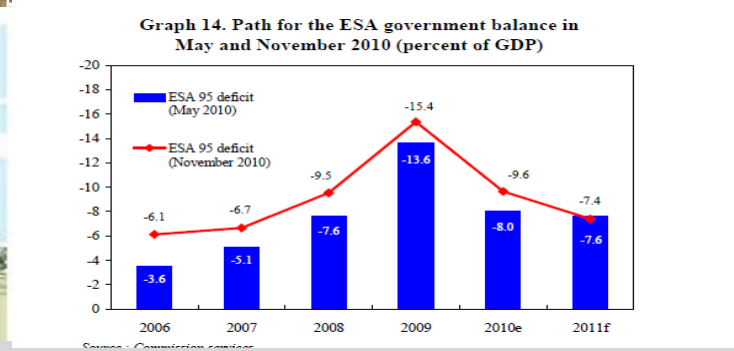
IMF Survey online

May 02, 2010

- Twin pillars of ambitious program aim to

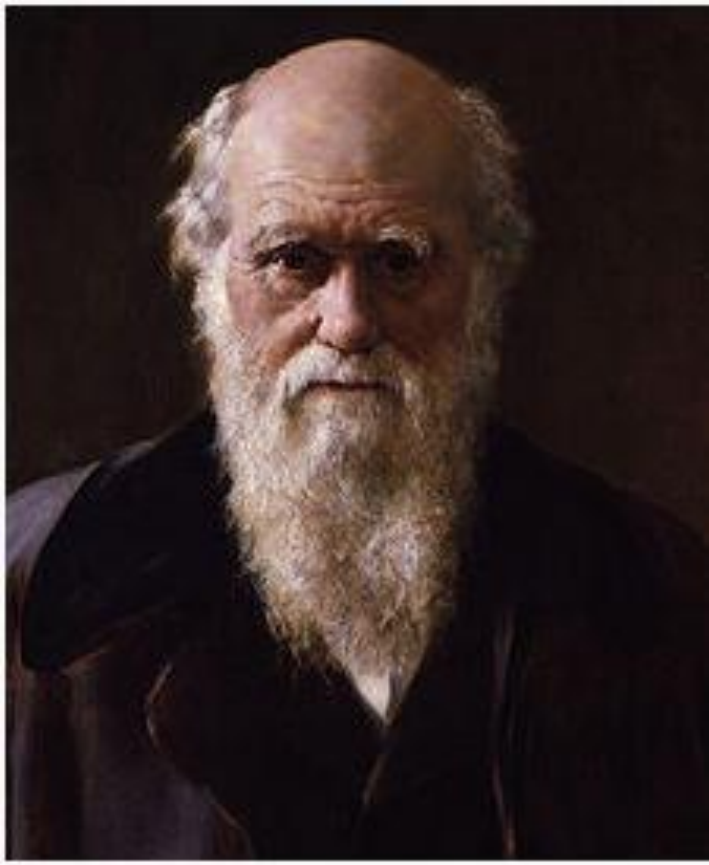
In Athens, Greek prime minister, George Papandreou announced a targeted program to cut spending, boost revenues, and modernize the economy (photo: Zuma/Newscom)

Έχουμε μακρά ιστορία, μακρύ δρόμο μπροστά μας και σκληρό DNA!!



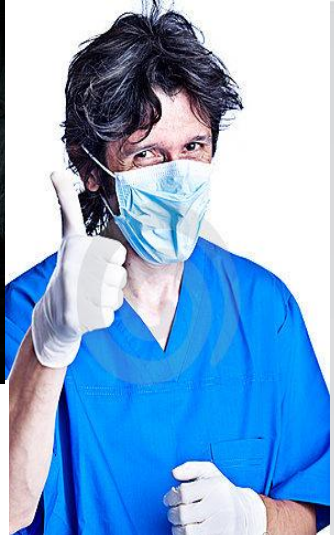
Πως θα επιβιώσουμε ?

"Survival of the fittest"

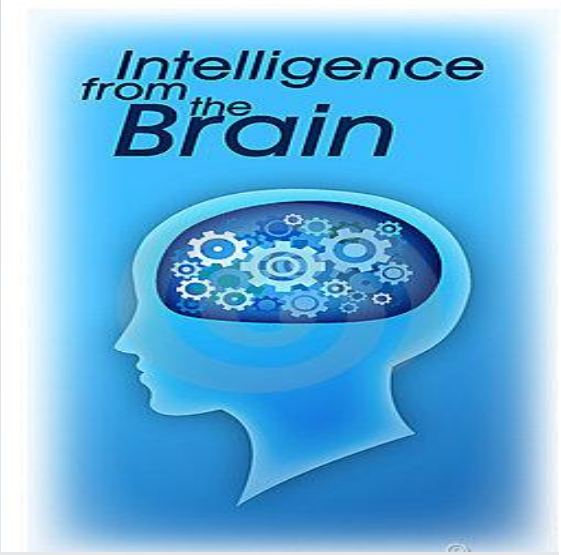


"better adapted for immediate, local environment"


INNOVATION




B+
BE POSITIVE


Intelligence
from the
Brain


BEST
VALUE


INNOVATION


~~Reactive~~
Proactive
dreamstime.com

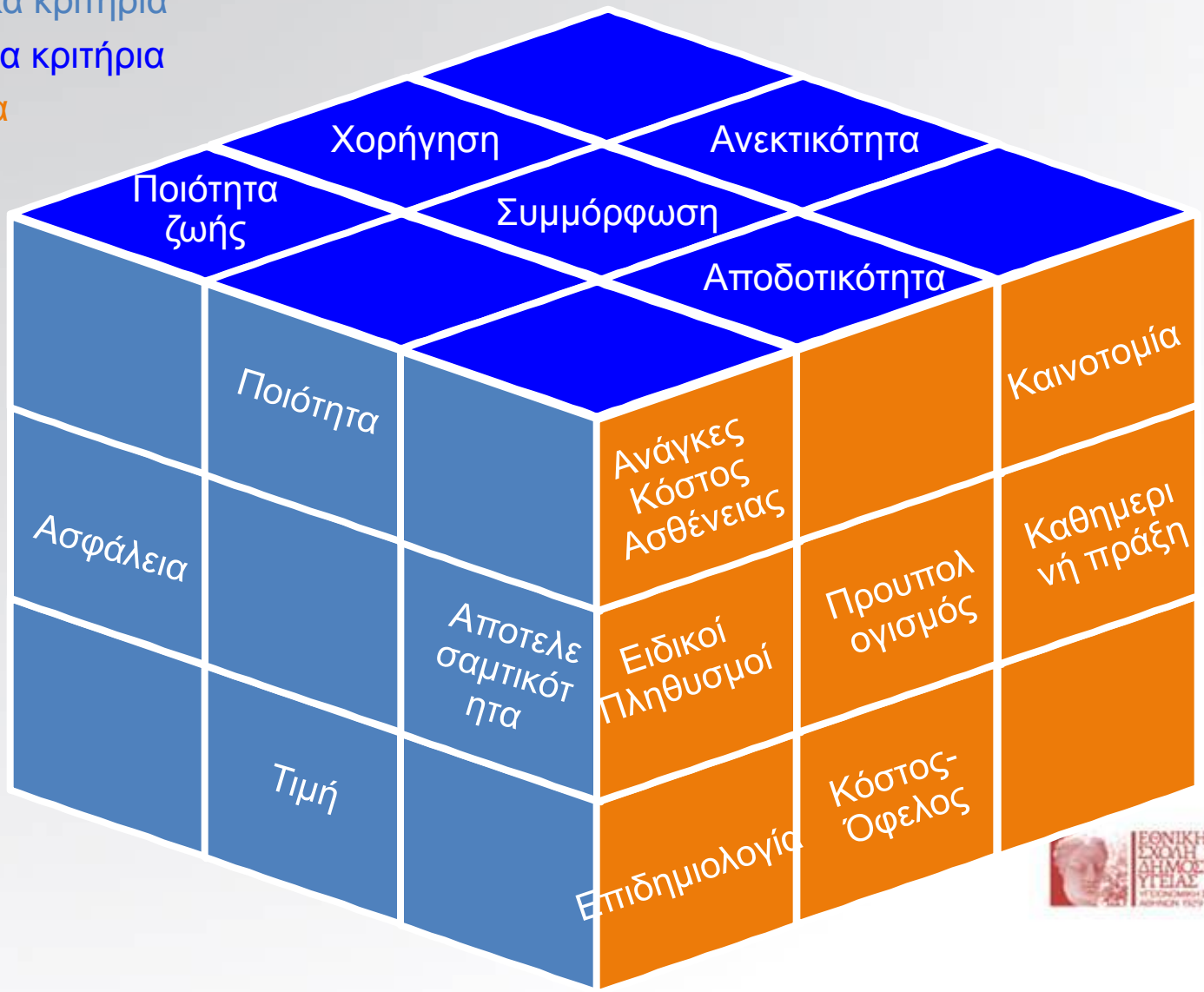

BE COOL

Τομείς παρέμβασης

- Συνταγολόγια και Διαγωνισμοί
- Συνταγογράφηση και υποκατάσταση
- Κατευθυντήριες οδηγίες
- Οικονομική αξιολόγηση - κόστος

Η αξιολόγηση και χρήση των φαρμάκων και ιατρικών παρεμβάσεων πρέπει να βασίζεται σε πλήθος παραγόντων και κριτηρίων

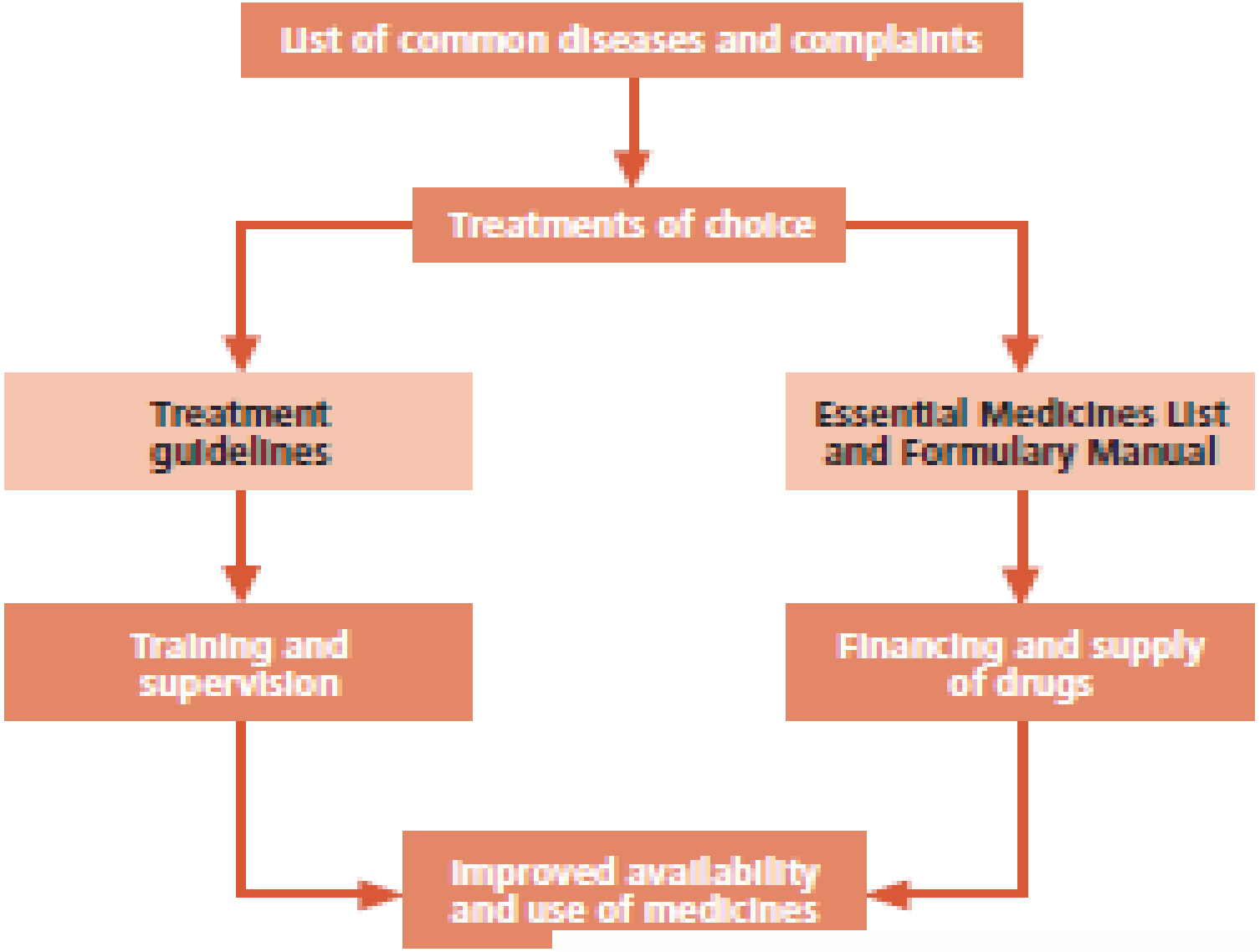
= Παραδοσιακά κριτήρια
= Επιπρόσθετα κριτήρια
= Νέα κριτήρια



Λίστες – Συνταγολόγια - Οδηγίες

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Figure 3.1 How STGs and EMLs lead to better prevention and care



4. Assessing new medicines

Summary

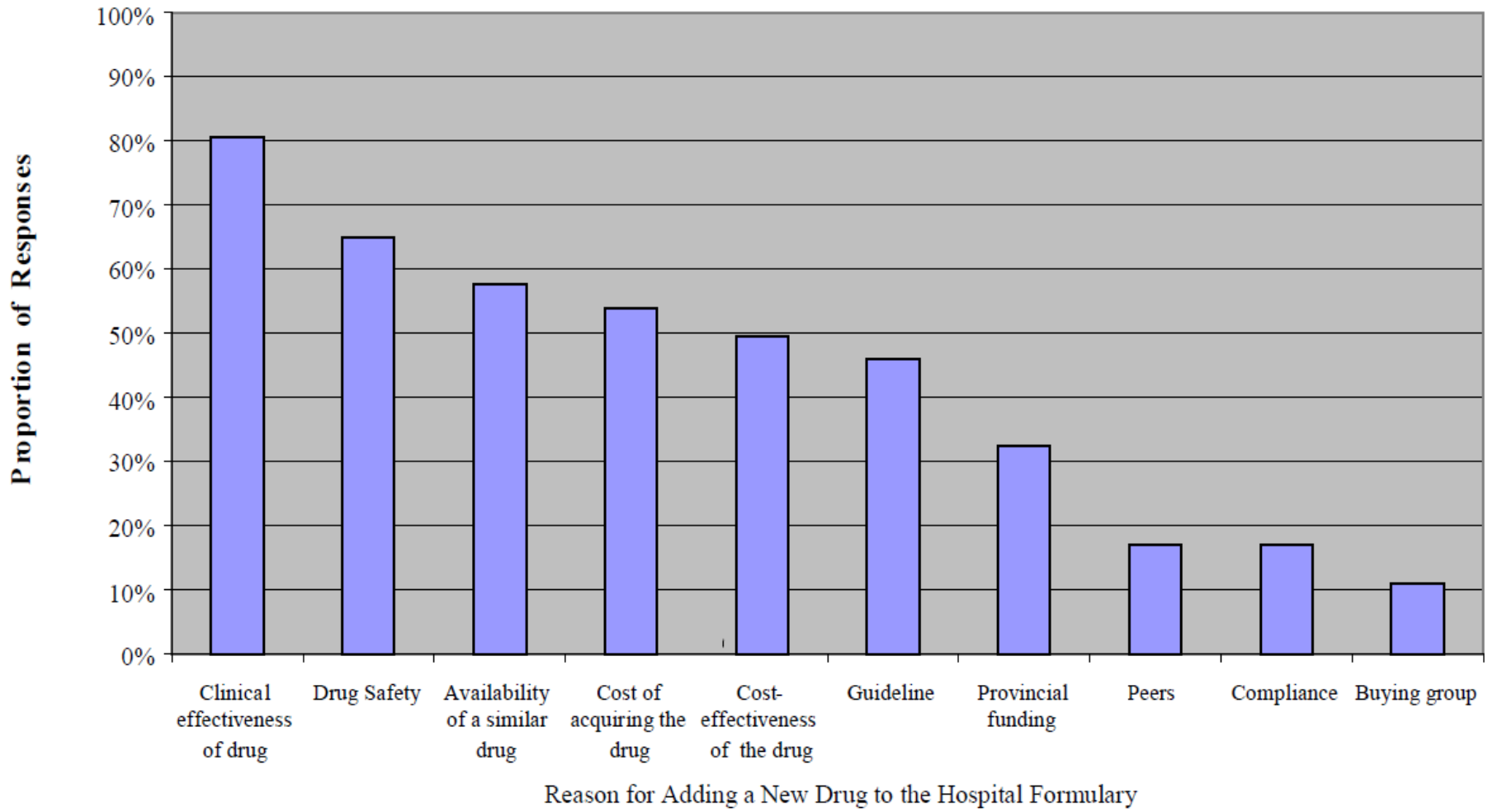
The assessment of new medicines is critical to managing a formulary list, which involves adding new medicines and deleting old ones. Drugs should be evaluated and compared on the basis of:

- efficacy, comparative efficacy
- effectiveness, comparative effectiveness
- safety, comparative safety
- cost of use
- quality.

Efficacy, effectiveness and safety can be evaluated from a critical assessment of the literature. Much of the information may be biased and it is very important that those evaluating new medicines have the necessary skills and time to assess the literature critically. Once efficacy and safety are established, medicines should be compared according to cost of use and, if possible, cost-effectiveness. Drug costs and quality will vary with locality.

A SURVEY OF PHARMACY AND THERAPEUTIC COMMITTEES ACROSS CANADA: SCOPE AND RESPONSIBILITIES

Nicole Mittmann[1,2], Sandra Knowles[3]



Drug and Therapeutics (D & T) committees in Dutch hospitals: a nation-wide survey of structure, activities, and drug selection procedures

Figure 1 The information requested on an HDF drug application form.

A. Product-specific information:

Proprietary name and generic name
Form(s) of administration and possible route(s) of administration
Strength(s)
Pharmaceutical industr(y)(ies)
Registered and nonregistered indication(s)
Replacement (if yes, which product) or addition
Price (per smallest dosage unit)

B. Pharmacotherapeutic and pharmacoeconomic information

Scientific literature about clinical performance (inclusion of copies)
Pharmacological mechanism: innovative or known
Contra indication(s), adverse effects, and drug–drug interaction(s)
Hospitals in which the product is already being used (national or international)
Number of patients/year that will probably use the product
Number of medical specialties and (outpatients') departments that will prescribe the product
Expenditures/year (in case of replacement, savings or extra costs)
Possibility of use within primary and tertiary healthcare
Included in formularies or guidelines used in primary and tertiary healthcare or neighbouring hospitals

C. Applicant information

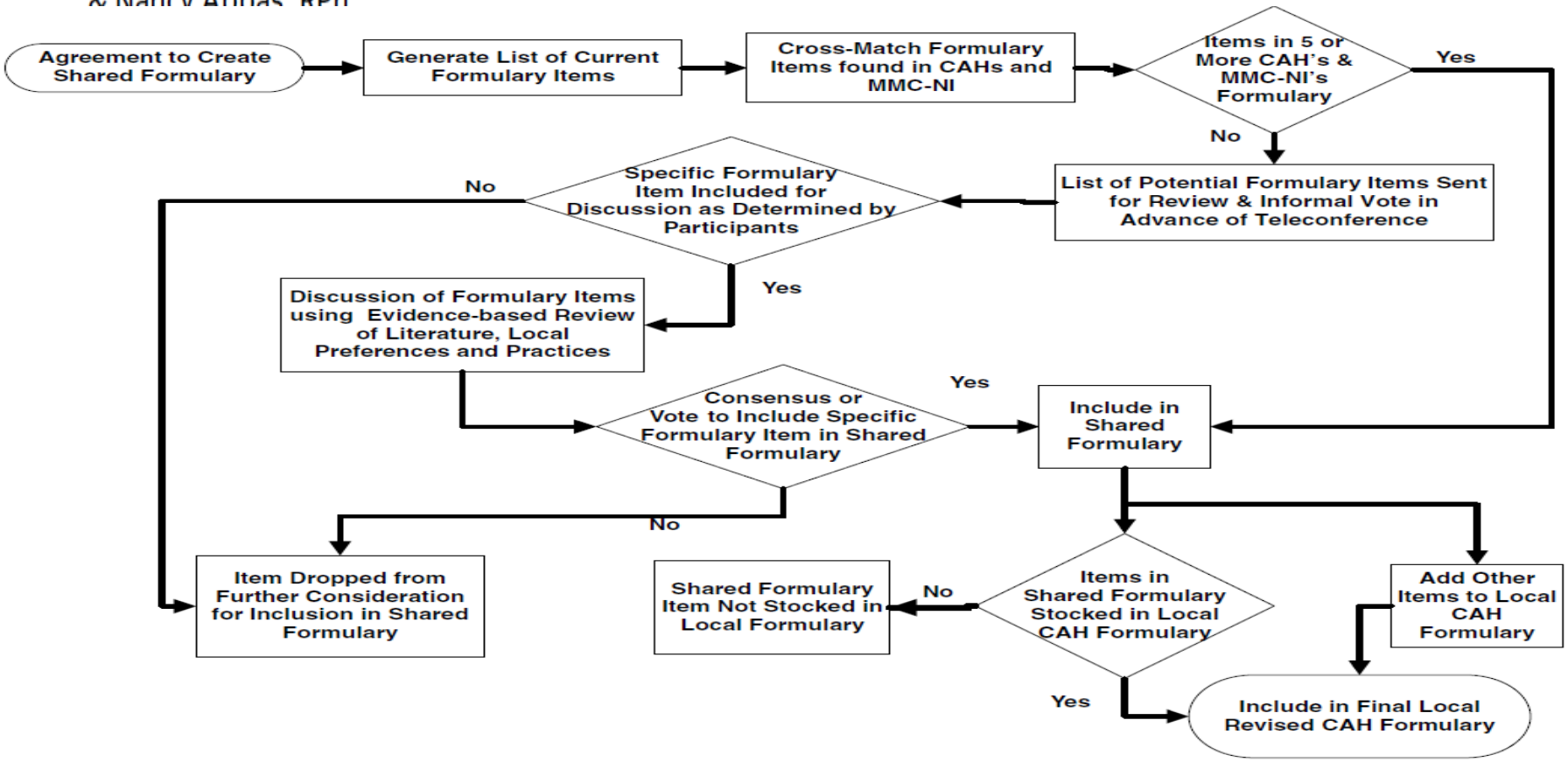
Name of the medical specialist
Other medical specialists that support this application
Signature and date

THE JOURNAL OF RURAL HEALTH

ORIGINAL ARTICLE

Creating a Shared Formulary in 7 Critical Access Hospitals

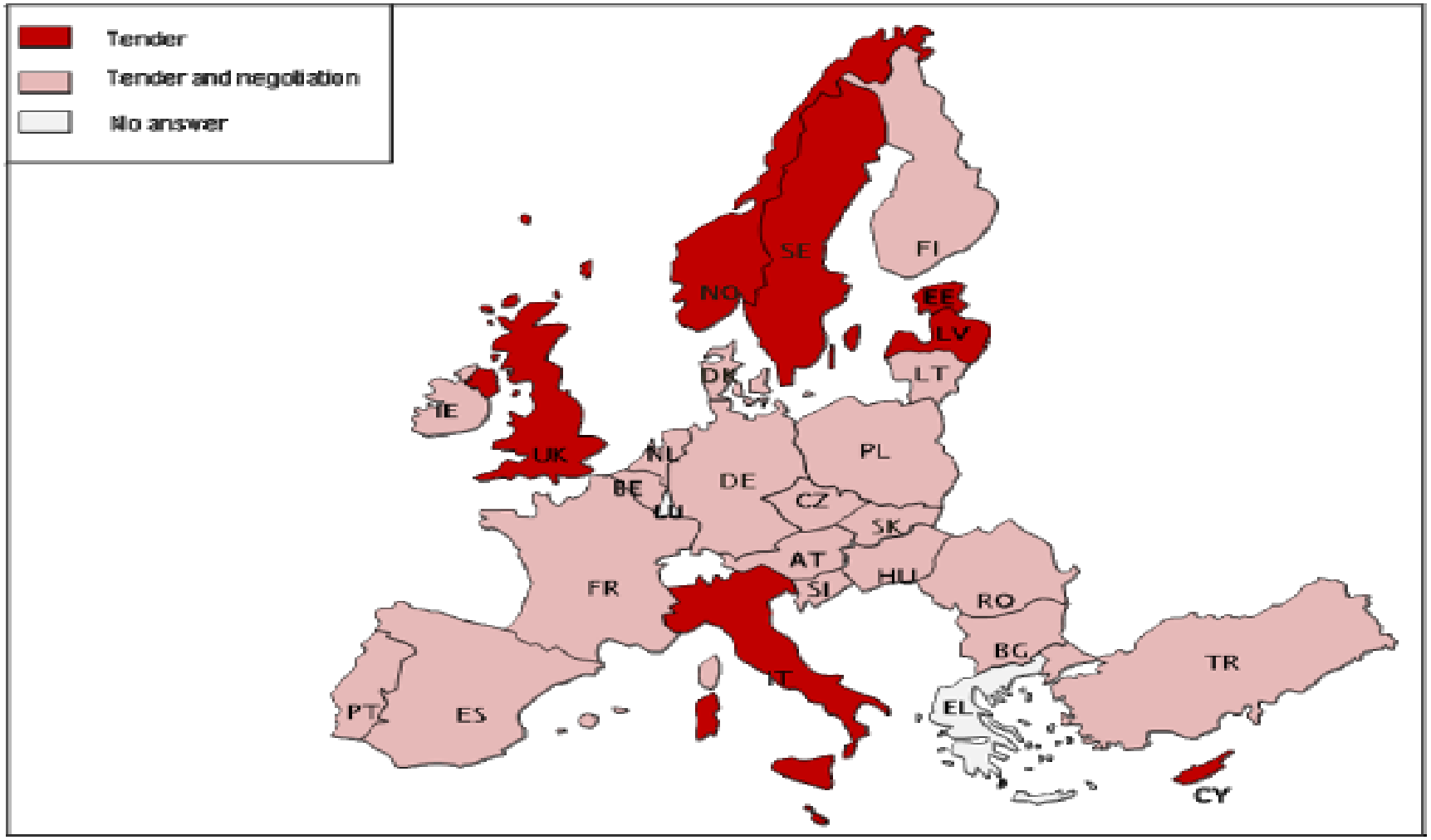
Douglas S. Wakefield, PhD;[1] Marcia M. Ward, PhD;[2] Jean L. Loes, MS, RN;[3] John O'Brien, MBA;[4] & Nancy Abbas, RPh[3]



Διαγωνισμοί

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Figure 4.1: European survey – Purchasing policies for medicines used in hospitals in European countries, 2009



Data not available for EL, LU

Source: PHIS 2009c-u, PHIS 2009v

Tender systems for outpatient pharmaceuticals in the European Union: Evidence from the Netherlands, Germany and Belgium

Panos Kanavos, Liz Seeley and Sotiri Vandoros

LSE Health

London School of Economics

Table 1
Key features of tendering systems in European countries , 2008 - 2009

Country	Tendering system in place	Year of introduction	Hospital care	Ambulatory care	Types of procured pharmaceuticals	Frequency	Criteria
Austria	Y	NA	✔	No	Vaccines, pharmaceuticals as defined in pandemic plans; also pharmaceuticals for military and prisoner population	Depending on need	Best price/offer
Belgium	Y	NA	✔	✔	Hospital care: Vaccines, pharmaceuticals as defined in pandemic plans and specific therapeutic groups of pharmaceuticals; also pharmaceuticals for military and prisoner population	Annually (hospital care)	NA
Cyprus	Y[1]	Before 1970	✔ [2]	✔ [2]	NA	Bi-annually (hospital care)	NA
Czech R	Y	NA	✔	✔	Hospital care: Vaccines, pharmaceuticals as defined in pandemic plans; pharmaceuticals relevant for public hygiene in competence of MoH	Annually (hospital care)	NA
Germany	Y[3]	2003	No	✔	Pharmaceuticals in ambulatory care; mostly generics (also biosimilars), some branded ; AOK tenders for >90 molecules; tenders can be regionalized for AOK	Annually or every 2 years	Lowest price, product portfolio, supply
Denmark	Y	1990	✔	No	Vaccines, pharmaceuticals against communicable diseases, pandemics	Annually	NA
Estonia	Y	NA	✔	✔	Hospital care: Vaccines, pharmaceuticals against communicable diseases and drug addiction disorders	Annually (hospital care)	NA
Finland	Y	NA	✔	No	NA	At 1-3 year interval	Price, quality, supply, availability
France	Y	NA	✔	No	NA	Annually or every 2 years	NA
Hungary	Y	1994	✔	✔	Hospital care: Vaccines, pharmaceuticals	Annually	Lowest

Table 1
Key features of tendering systems in European countries , 2008 - 2009

Country	Tendering system in place	Year of introduction	Hospital care	Ambulatory care	Types of procured pharmaceuticals	Frequency	Criteria
					against communicable disea ses, pandemics	(hospital care)	price; most reliable supplier
Ireland	Y	NA	✔	✔	Hospital care: Vaccines, pharmaceuticals against communicable diseases, pandemics	Annually or multi-annually (hospital care)	MEAT[4]
Latvia	Y	1998	✔	✔	Hospital care: Vaccines, pharmaceuticals against communicable diseases, pandemics and oncology drugs	3-4 months before the agreement with the seller expires; irregular (hospital care)	Lowest price
Malta	Y	NA	✔ [2]	✔ [2]	NA	3 years (hospital care)	NA
The Netherlands[5]	Y	Q3 2005	No	✔	Currently 33 molecules; vary by insurer; possibility to extend to more molecules	• 6-monthly (originally for the 3 molecules of the combined preference system introduced in 2005) • Currently the duration is 12 months	Lowest price
Romania	Y	March 2002	✔ [2]	✔ [2]	Hospital care: Vaccines and pharmaceuticals as defined in pandemic plans	Annually (hospital care)	Lowest price
Sweden	Y	NA	✔	No	NA	Locally decided, most commonly bi-annual	NA
Slovenia	Y	Jan. 1998	✔ [2]	✔ [2]	NA	Annually (hospital care)	NA
UK	Y	NA	✔	No	Vaccines, pharmaceuticals against communicable diseases, pandemics	Determined by tendering strategy	Generally MEAT[4]
Switzerland	Y	NA	✔	No	Vaccines, pharmaceuticals as defined in pandemic plans	Only in specific cases	NA
Iceland	Y	Jan. 2004	✔	✔	NA	Every 2 years (hospital care)	NA
Norway	Y	NA	✔	No	Pharmaceuticals as defined in pandemic plans	Annually	Lowest price; best economic offer

Table 4

Likely effects of tendering practices for retail market drugs in the Netherlands and Germany, 2009

Stakeholder	The Netherlands	Germany
Sickness funds	Short-term: significant savings through discounts, by influencing price directly through tender process; these need to be benchmarked against pharmacy remuneration Long-term: sustain the same or comparable level of savings provided there is sufficient competition on the supply-side	Short-term: significant savings through rebates, by influencing price directly through rebate process Long-term: sustain the same or comparable level of savings provided there is sufficient comp etition on the supply-side
Indirect impact on Patients	Likelihood of reduced premium or smaller increases in premium depending on size of savings	Likelihood of reduced premium or smaller increases in premium depending on size of savings
Direct impact on Patients	Smaller deductions from their (annual) excess	Zero co-pays if rebated price is 30% below reference price
Physicians	No incentives; complaints about increased workload at having to explain changes in treatment	Fiscal incentives planned: doctors to receive €0.50 per prescription for informing patients about likely changes to the product prescribed
Pharmacies	• Discount eliminated (or vastly reduced) from the pharmacy remuneration • Significant opposition to the preference policy due to its impact on overall remuneration level • Increase in dispensing fee by over €1 to counteract the effect on remuneration	• A bonus of €1,000 per pharmacy to enable them enforce the policy and tackle increased workload (only in North Rhine Westphalia) • Pharmacy remuneration based on the list price, not the tender price • Pharmacy remuneration does not encompass discounts

Generics industry	• One company wins entire molecule market • Lowest price is the winning factor • Price competition can lead to exit over the longer term	• One company wins molecule market • Lowest price is key in determining contract, but other factors such as product portfolio (for a specific molecule) are important • Possibility for more than one company to join forces and offer an inclusive deal for a molecule based on price and portfolio (number of putups based on dosage) • Price competition can lead to exit over the longer term
Originator-brand industry	• Complete exclusion from market if tender is not won • In-patent products (currently) excluded from preference policy • Based on the clustering the prices for patented products can be influenced downwards by generic products in the same cluster.	• Legal uncertainty about whether jumbo groups can be included in rebate policy • Individual in-patent products are included in rebate policy (with sales exceeding €800,000 pa • Complete exclusion from market if tender is not won • Possibility to conclude rebate contracts prior to patent expiry which may also be valid for a certain time period beyond patent expiry • Increasing generic erosio n via tendering may put more pressure on margins of originator companies. This may subsequently lead to higher prices of new products.

Operational principles

Four strategic objectives of pharmaceutical procurement

1. Procure the most cost-effective drugs in the right quantities
2. Select reliable suppliers of high-quality products
3. Ensure timely delivery
4. Achieve the lowest possible total cost

Product Selection and Monitoring Advisory Group. Factor X scoresheet.							
SCORING CRITERIA			SCORES AWARDED				
			Product 1	Product 2	Product 3	Product 4	Product 5
Phase 1							
Safety	Plasma Source	20					
	Donor Test	10					
	Pool Size	5					
	Plasma Quarantine	5					
	Mini Pool NAT	5					
	Manufacturing Pool NAT	5					
	Viral Inactivation	25					
	Inhibitors	10					
	Measurement of Activation	5					
	Reported Incidence of Thrombosis	15					
	Presence of Factors in addition to Factor X	5					
	Total for Safety	110					
Efficacy	Recovery	10					
	Clinical Response	30					
	Total for Efficacy	40					
Quality	Qualitative and Quantitative Composition of Active Component	10					
	Excipients (presence or absence of albumin as a stabilier)	5					
	Stability	5					
	Volume of Administration	3					
	Instructions for Use & Handling	3					
	Ease of Administration	4					
	Total for Quality	30					

(continued on next page)

Security of Supply / Availability	Number of Manufacturing Plants	4					
	Security of Supply	6					
	Total for Supply/ Availability	10					
Scientific Support	Clinical Opinion	4					
	Consumer Opinion	3					
	Tender	3					
	Total for Scientific Support	10					
Total Scores Awarded: Phase 1		200					
Phase 2							
Cost	Total For Cost	20					
Total Scores Awarded: Phase 2							

Οικονομική Αξιολόγηση
Τιμή, Κόστος και κόστος-όφελος

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

Περίπτωση 1η

ΤΙΜΗ ≠ ΚΟΣΤΟΣ ΘΕΡΑΠΕΙΑΣ

CURRENT MEDICAL RESEARCH AND OPINION®
VOL. 23, NO. 9, 2007, 2251-2257

0300-7995
doi:10.1185/030079907X223765

ORIGINAL ARTICLE

Economic analysis of a multicentre, randomised, phase III trial comparing FOLFOXIRI with FOLFIRI in patients with metastatic colorectal cancer in Greece

N. Maniadakis[a], A. Pallis[b], V. Fragoulakis[c], P. Prezerakos[d] and V. Georgoulias[b]

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Table 2. Cost per item

Chemotherapy	Cost(€)
Folinic acid per mg	0.34
Irinotecan per mg	2.39
Oxaliplatin per mg	8.17
5-Fluorouracil per mg	0.18
Second line drugs	
Capecitabine150 mg	88.12
Temozolomide 5 mg	33.34
Cisplatin 10 mg	7.38
Gemcitabine per mg	0.18
Cetuximab 100 mg	339.67
Bavacizumab 100 mg	531.11
RhG-CSF	
Granocyte 263 μg	444.78
Diagnostics	
CT scan	70.0
X-ray	5.0
SGOT	4.49
SGPT	4.49
γGT	5.02
LHD	4.75
Serum creatine	4.05
Albumin	5.22
Bilirubin	2.88
Na	5.22
K	5.22
LDH	4.75
ALP	5.02
Uric acid	2.88
CBC	2.71
Resource use	
Hospital day	73.0
Day visit	73.0

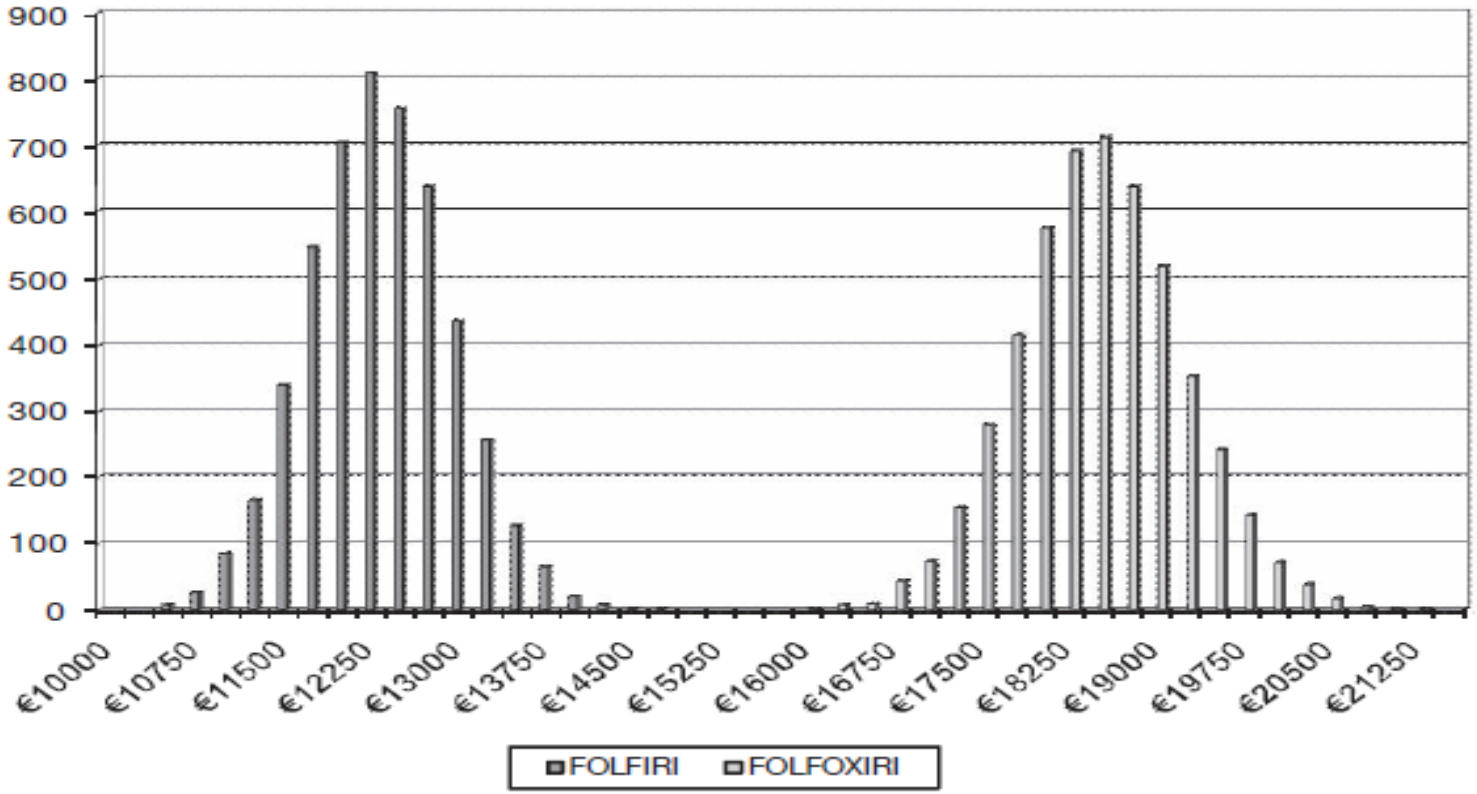

Table 3. Total treatment cost and differences between treatment groups

	FOLFIRI	FOLFOXIRI	Difference
Min	855	1666	811
Max	45 796	50 280	4484
Mean	12 201	18 344	6143
S.D.	610	712	660
95%UCI	13 427	19 776	6253
95%LCI	11 011	16 951	6033

Περίπτωση 2η

ΤΙΜΗ ΜΕΓΑΛΥΤΕΡΗ ΑΛΛΑ

ΚΟΣΤΟΣ ΘΕΡΑΠΕΙΑΣ ΧΑΜΗΛΟΤΕΡΟ

CURRENT MEDICAL RESEARCH AND OPINION®
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0300-7995
doi:10.1185/03007990902719117

ORIGINAL ARTICLE

XELOX versus FOLFOX6 as an adjuvant treatment in colorectal cancer: an economic analysis

Nikos Maniadakis[a], Vasilios Fragoulakis[b], Dimitrios Pectasides[c] and George Fountzilas[d]

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[b]*Social Insurance Institute, Athens, Greece*

[c]*Second Department of Internal Medicine, Oncology Section, 'ATTIKON' University General Hospital, Haidari, Athens, Greece*

[d]*Department of Medical Oncology, Papageorgiou Hospital, Aristotle University of Thessaloniki School of Medicine, Thessaloniki, Greece*

Address for correspondence: Nikos Maniadakis, Professor and Head of Health Services Organisation and Management, Department of Health Services Organisation and Management, National School of Public Health, 196 Alexandras Avenue, 11521 Athens, Greece. Tel.: +30 6945237716; Fax: +30 210 7227222; nmaniadakis@yahoo.com

Key words: Capecitabine – Colorectal cancer – Economics – FOLFOX – XELOX

Table 2. Unit price data used to estimate treatment cost

Cost item	Cost (€) (per package)	Cost item	Cost (€) (per item)
Chemotherapy		Laboratory and Diagnostic Tests	
Oxaliplatin 5 mg/ml BT×1 Vial×10 ml	125.73	Haematology and biochemistry test	72.84
Oxaliplatin C.S. Vial×100 mg×20 ml	441.44	CT scan	80.62
Capecitabine F.C.Tab. BT 120 × 500 mg	340.67	Serum glutamic pyruvic transaminase	8.98
Capecitabine F.C.Tab. BT 60 × 150 mg	51.36	Gamma-glutamyl transpeptidase	5.02
Irinotecan Hydrochloride 100 Mg/5 Ml	123.32	Albumin	5.87
Irinotecan Hydrochloride 40 Mg/2 Ml	50.46	Bilirubin	2.90
Erythropoetin		Sodium	5.22
Epoetinum alfa InjSol1 Vial × 4000 IU/ML	309.99	Potassium	5.22
Granulocyte Colony Stimulating Factor		Lactate dehydrogenase	4.75
Lenograstim (263 Mcg)	288.96	Alkaline phosphatase	5.02
Filgrastim (480 Mcg)	53.88	Haemoglobin	4.00
Antibiotics		Uric acid	2.88
Ceftazidime 2 g	11.81	Serum creatinine	4.05
Amicasil Inj Sol 1 Vial×500 Mg/2 Ml	2.64	Other Resources	
Metronidazole 500 mg	2.58	Reimbursement for hospitalisation day	73.37
Clindamycin	6.56	Hospital real cost of inpatient day	480.00
Piperacillin/Tazobactam 4.5 g	10.16	Catheters and ports real/reimbursed cost	525.00
Ceftriaxone 2 g	12.19	Outpatient chemotherapy administration	30.00
Targoplanin 200 mg	14.74	Travel cost per kilometre	0.30
Teicoplanin 400 mg	33.78	Average salary per month	1000

ORIGINAL ARTICLE

XELOX versus FOLFOX6 as an adjuvant treatment in colorectal cancer: an economic analysis

Nikos Maniadakis[a], Vasilios Fragoulakis[b], Dimitrios Pectasides[c] and George Fountzilas[d]

*Table 3. Mean treatment cost (in euros) per item and treatment group**

	FOLFOX6 ($n=86$)	XELOX ($n=83$)	Difference A – B	p value
National Health Service Perspective				
Total Cost	17 480 (15 846; 19 085)	12 525 (11 328; 13 778)	4955 (2423; 6524)	<0.001
Chemotherapy	8762 (7857; 9916)	9713 (8862; 10 710)	−954 (−2386; 484)	0.1943
Hospitalisations	5154 (4816; 5598)	1050 (958; 1146)	4104 (3677; 4530)	<0.001
Erythropoietin	2754 (2473; 3085)	1714 (1511; 1905)	1040 (662; 1417)	<0.001
G-CSF, Labs, Other Drugs	638 (560; 730)	357 (318; 397)	281 (185; 377)	<0.001
Social Insurance Perspective				
Total Cost	16 240 (14 668; 17 793)	12 617 (11 522; 13 830	3623 (1467; 5439)	<0.001
Chemotherapy	9164 (8240; 10 335)	10 160 (9237; 11 250)	−996 (−4263; 2271)	0.1924
Hospitalisations	3079 (2874; 3344)	185 (154; 226)	2829 (1836; 3788)	<0.001
Erythropoietin	2892 (2593; 3247)	1800 (1578; 2003)	1092 (695; 1489)	<0.001
G-CSF, Labs, Other Drugs	661 (582; 755)	369 (328; 413)	292 (193; 391)	<0.001

*Figures in parentheses represent 95% lower and upper uncertainly intervals

ΠΕΡΙΠΤΩΗΣΗ 3η

ΤΙΜΗ ΜΕΓΑΛΥΤΕΡΗ ΑΛΛΑ

ΚΟΣΤΟΣ – ΟΦΕΛΟΣ ΕΛΚΥΣΤΙΚΟ

Lung Cancer (2007) xxx, xxx–xxx

available at www.sciencedirect.com

journal homepage: www.elsevier.com/locate/lungcan

Q1 # Economic evaluation of docetaxel/gemcitabine versus docetaxel as frontline treatment of patients with advanced/metastatic non-small cell lung cancer in Greece☆

N. Maniadakis[a,*], V. Fragoulakis[b], A. Pallis[a], P. Prezarakos[c], V. Georgoulias[a]

[a] *Department of Medical Oncology, University General Hospital of Heraklion, Voutes 71110, Crete, Greece*
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[c] *Centre of Educations and Specialisations, Municipality of Athens, 5 Mayer and Favier, Athens, Greece*

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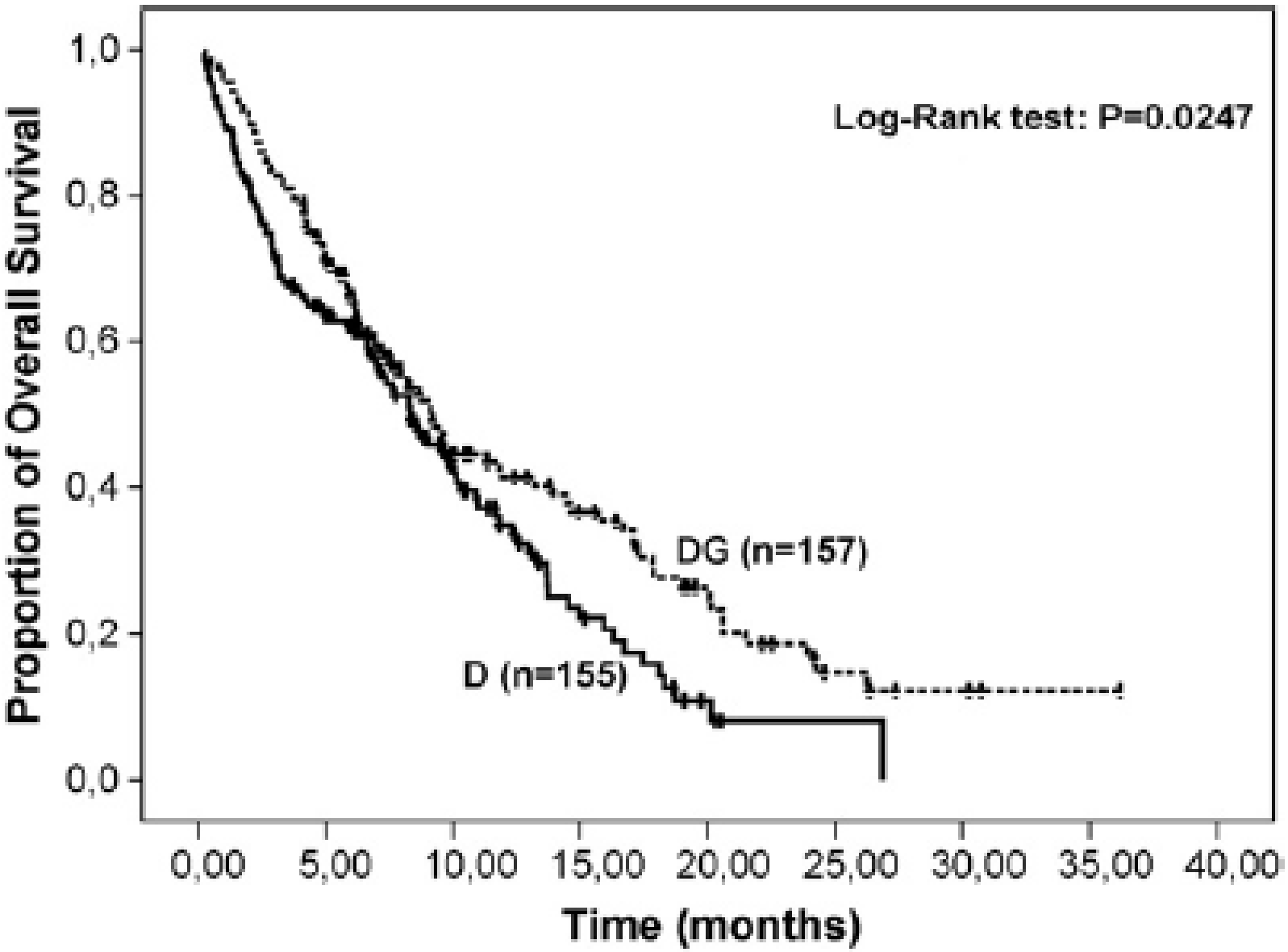

Fig. 1 Kaplan–Meier survival curve.

Table 2 Unit cost data used

Cost item	Cost (€)
Chemotherapy	
Docetaxel 20 mg	139.15
Docetaxel 80 mg	544.24
Gemcitabine 1 g	104.26
Gemcitabine 200 mg	21.83
Antibiotics	
Ceftazidime 2 g	11.81
Amikacin 250 mg	2.06
Amikacin 500 mg	3.01
Metronidazole 500 mg	3.23
Clindamycin 600 mg	2.44
Piperacillin/tazobactam 4.5 g	12.70
Ceftriaxone 2 g	15.23
Teicoplanin 200 mg	18.42
Teicoplanin 400 mg	36.82
Lenograstim (G-CSF)	57.80
Second-line chemotherapy	
Vinorelbine 10 mg	16.29
Vinorelbine 50 mg	74.50
Irinotecan 40 mg	63.06
Irinotecan 100 mg	154.16
Paclitaxel 30 mg	121.88
Paclitaxel 100 mg	405.25
Carboplatin 150 mg	55.45
Cisplatin 10 mg	4.40
Cisplatin 50 mg	2.01
Topotecan 20 mg	223.00
Temozolamide 20 mg	15.90
Temozolamide 100 mg	79.22
Temozolamide 250 mg	196.74
Other resources	
Radiotherapy planning	290.63
Radiotherapy adjustment	290.63
Radiotherapy cost/session	14.01
Day of hospitalization	73.37
Outpatient chem. administration	30.00
Laboratory and diagnostic tests	
Hematology and biochemistry test	72.84
CT scan	80.62
X RAY	15.00
SGOT	8.98
SGPT	8.98
γGT	5.02
Creatin	4.05
Albumin	5.87
Bilirubin	2.90
Na	5.22
K	5.22
LDH	4.75
ALP	5.02

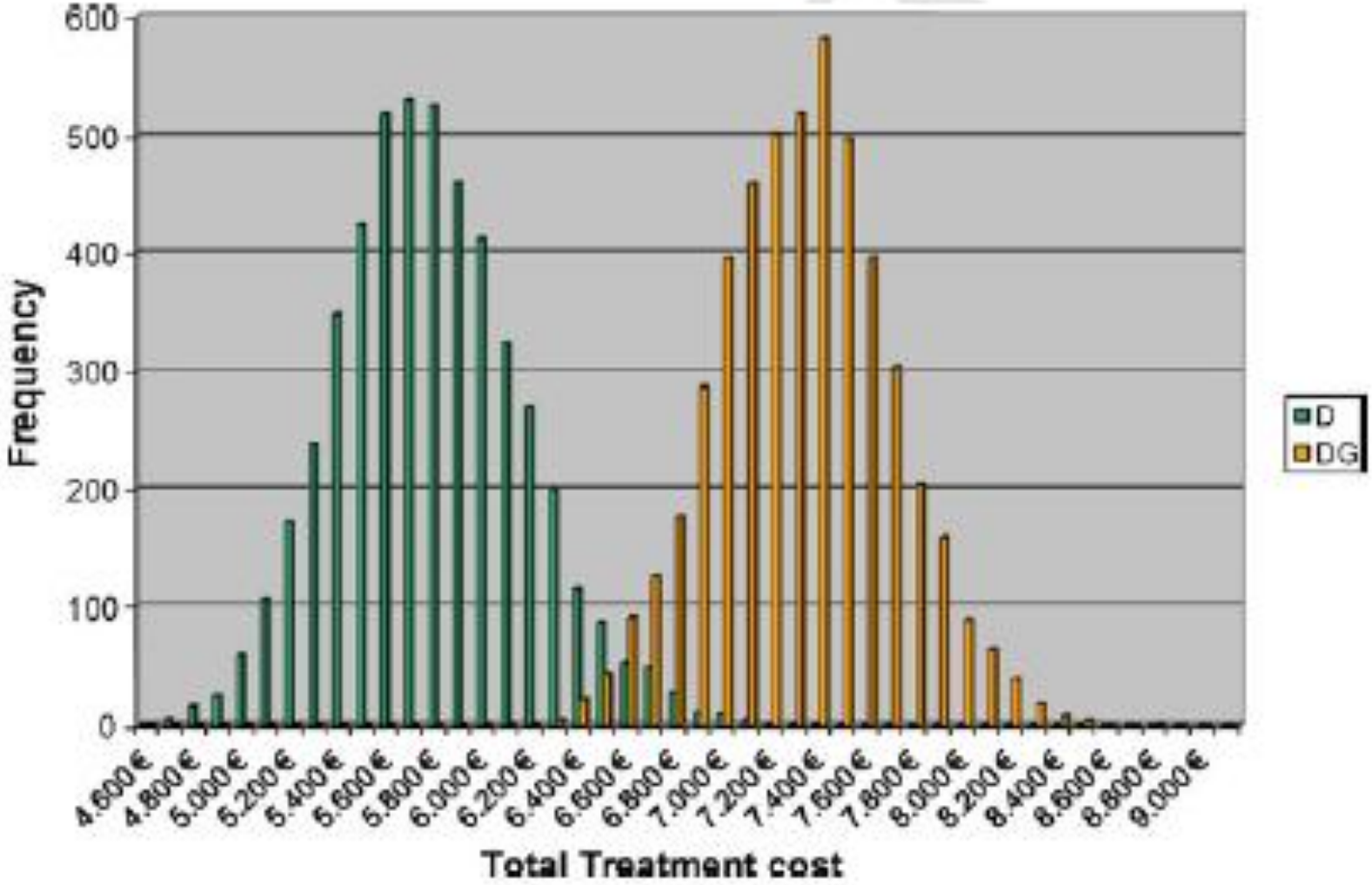

Fig. 3 Distribution of treatment cost (€) per therapy arm based on bootstrapped data.

Table 4 Cost–effectiveness

	D	DG	Difference
Effectiveness (months)			
Mean survival	7.25	9.19	1.94
S.D.	0.50	0.65	0.82
95%LCI	6.29	8.98	0.43
95%UCI	8.23	10.51	3.59
Treatment cost (€)			
Mean cost	5730	7272	1542
S.D.	384	362	532
95%LCI	5023	6571	499
95%UCI	6559	8012	2561

Incremental cost per life year saved of DG vs. D: € 9.538.

ΠΕΡΙΠΤΩΣΗ 4η

ΔΙΑΦΟΡΕΤΙΚΛΗ Η ΟΙΚΟΝΟΜΙΑ ΤΟΥ ΦΑΡΜΑΚΟΥ ΑΝΑ ΚΑΤΗΓΟΡΙΑ ΑΣΘΕΝΩΝ

ΕΘΝΙΚΗ ΣΧΟΛΗ ΔΗΜΟΣΙΑΣ ΥΓΕΙΑΣ

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Economic evaluation of taxane-based first-line chemotherapy in the treatment of patients with metastatic breast cancer in Greece: an analysis alongside a multicenter, randomized phase III clinical trial

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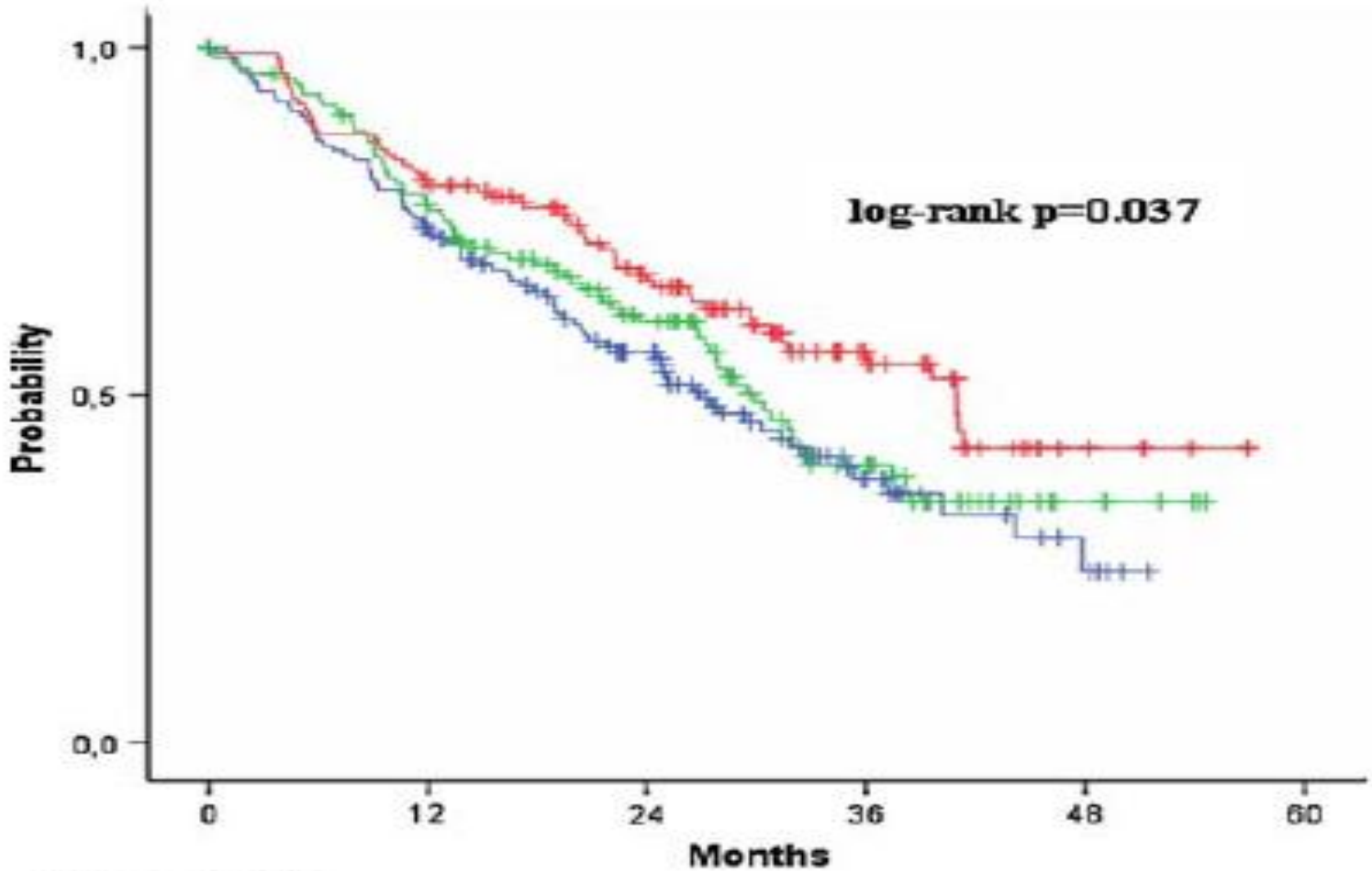

Patients at risk					
PCb	136	101	62	28	6
GDoc	144	102	64	21	5
Pw	136	108	72	32	7

Fig. 2 Survival of patients treated with PCb (——), GDoc (——), or Pw (——) ($P = 0.037$)

Table 3. Treatment cost (EUR) per item and treatment group (undiscounted)

	PCb (n = 131)	GDoc (n = 134)	Pw (n = 133)
Total cost	20 498 (19 044–22 020)	19 343 (18 088–20 570)	20 578 (19 249–21 985)
Chemotherapy	12 687 (11 853–13 516)	11 198 (10 490–11 872)	11 934 (11 239–12 614)
Bisphosphonates	768 (362–1395)	745 (562–935)	448 (303–606)
Erythropoietin	740 (487–1052)	931 (617–1307)	834 (554–1123)
Granulocyte colony-stimulating factor	694 (508–902)	876 (701–1063)	397 (266–542)
Hormonotherapy	477 (382–578)	499 (412–589)	517 (415–629)
Hospitalization	464 (421–521)	880 (809–957)	947 (892–1004)
Laboratory exams	203 (185–222)	255 (227–285)	350 (309–394)
Imaging	2190 (2065–2322)	2088 (1952–2224)	2187 (2047–2336)
Trastuzumab	2275 (1576–3010)	1871 (1289–2507)	2963 (2057–4012)

Figures in parentheses represent 95% lower and upper uncertainty intervals.

PCb, paclitaxel with carboplatin; GDoc, gemcitabine with docetaxel; Pw, weekly paclitaxel.

Table 5. Incremental cost (EUR) per life year saved of Pw versus GDoc for various patient subgroups

	PS0	PS1	TNo	TYes	HER2 OvNo	HER2OvYes
Mean	6878	Dominance	Dominance	Dominance	Dominance	26 162
Standard deviation	38 641	9941	2662	267 734	3344	510 242
95%LUI	Dominance	Dominance	Dominance	Dominance	Dominance	Dominance
95%UUI	20 158	Dominance	3197	1935	1371	227 270
	HTNo	HTYes	MET1	MET2	MET3	AGE70
Mean	5396	199	12 948	1831	Dominance	Dominance
SD	104 626	2465	76 140	18 152	5938	165 095
95%LUI	Dominance	Dominance	883	Dominance	Dominance	Dominance
95%UUI	24 731	4384	63 472	9850	5215	109 087

EUR, Euros; Pw, weekly paclitaxel; GDoc, gemcitabine with docetaxel; PS0, 1, performance status 0 or 1; TNo, Yes, trastuzumab administration no or yes; HER2OvNo, YES, HER2 overexpression no or yes; LUI, lower uncertainty interval; UUI, upper uncertainty interval; HTNo, Yes, hormonal therapy No or Yes; MET1, 2, 3, metastatic sites 1, 2, ≥3 at study entry; AGE70, age greater than 70.

Table 5.1 *HTA agencies and units in Europe*

Agency	Country	Since	Scope	Annual HTA budget (US$ million)[g]	Population served (million)	Per capita HTA budget	Permanent staff	Consultants
CEDIT	France	1982	Regional	0.34	11.0	0.03	11	variable
CMT	Sweden	1984	Regional	1.5	n.a.	n.a.	17	5-8
SBU	Sweden	1987	National	6.8	9.0	0.75	33	variable 300
LBI@HTA[a]	Austria	1990	National	0.93	8.0	0.12	10	variable
CAHTA[b]	Spain	1991	Regional	2.4	7.0	0.34	45	150
MTU	Switzerland	1992	National	n.a.	7.6	n.a.	6	60
OSTEBA	Spain	1992	Regional	0.3	2.1	0.14	5	40
AETS	Spain	1994	National	0.6	46.1	0.01	11	80
FinOHTA	Finland	1995	National	2.0	5.1	0.39	18	65
VSMTVA	Latvia	1995	National	0.05	2.3	0.02	8	variable
AETSA	Spain	1996	Regional	0.9	7.5	0.12	15	variable
NCCHTA	United Kingdom	1996	National	21.6	59.8	0.36	36	variable
DACEHTA[c]	Denmark	1997	National	3.8	5.4	0.7	15	variable
NHSC	United Kingdom	1998	National	1.2	50.0	0.02	7	variable
AVALIA-t	Spain	1999	Regional	0.35	2.7	0.13	7	variable
MTV-Aarhus	Denmark	1999	Regional	n.a.	n.a.	n.a.	n.a.	n.a.
DAHTA	Germany	2000	National	1.5	80.0	0.19	8	variable
ZonMw	Netherlands	2001	National	13.5	16.0	0.84	7	variable
MTV-Odense	Denmark	2001	Hospital	n.a.	n.a.	n.a.	n.a.	n.a.
A. Gemelli	Italy	2001	Hospital	n.a.	n.a.	n.a.	n.a.	n.a.
KCE	Belgium	2002	National	3.1	10.3	0.3	35	variable
NHS QIS[d]	United Kingdom	2003	Regional	0.8	5.1	0.16	15	variable
NOKC[e]	Norway	2003	National	4.0	4.5	0.89	30	100
ROHTO	Finland	2003	National	n.a.	5.1	n.a.	n.a.	n.a.
UETS	Spain	2003	Regional	0.8	6.0	0.13	10	variable
IQWiG	Germany	2004	National	17.0	80.0	0.21	70	variable
AHTAPol	Poland	2005	National	3.6	38.2	0.09	40	variable
HAS[f]	France	2005	National	1.0 (60.0)[h]	65.0	0.01-1.2	17	225
HIQA	Ireland	2007	National	n.a.	4.2	n.a.	n.a.	n.a.

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