



ΕΘΝΙΚΗ  
ΣΧΟΛΗ  
ΔΗΜΟΣΙΑΣ  
ΥΓΕΙΑΣ  
ΥΓΕΙΟΝΟΜΙΚΗ ΣΧΟΛΗ  
ΑΘΗΝΩΝ 1929-1994



# Διαχείριση των Ρευματικών Νόσων με Βάση Κριτήρια Κόστους Αποτελέσματος

**Νίκος Μανιαδάκης**

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

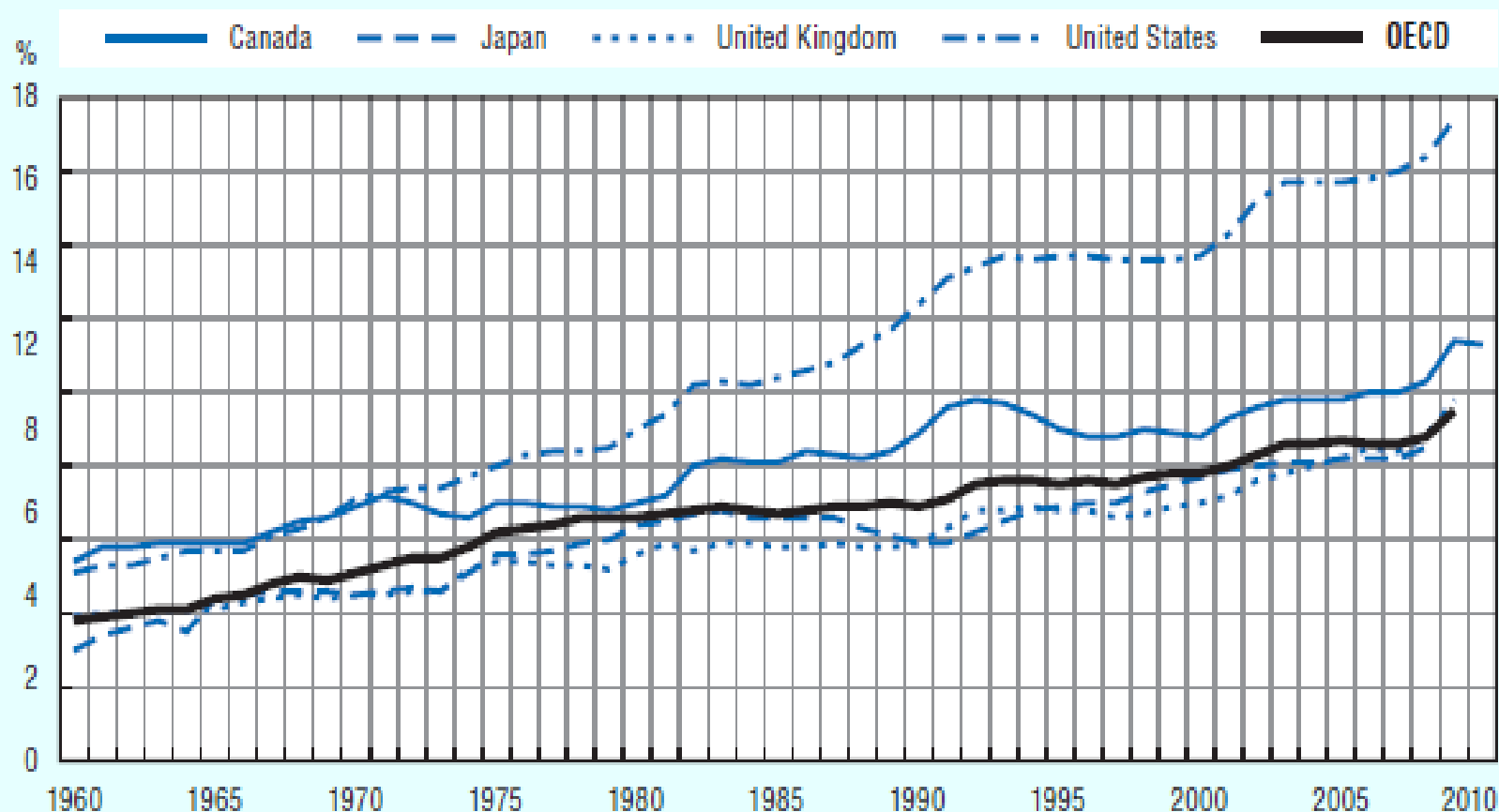
**Καθηγητής & Διευθυντής**

**Τομέας Οργάνωσης και Διοίκησης Υπηρεσιών Υγείας**

**Εθνική Σχολή Δημόσιας Υγείας**

Οι δαπάνες υγείας αυξάνονται  
συνεχώς και πρέπει να  
αυξήσουμε την αποδοτικότητα  
μας διότι δεν υπάρχουν  
επιπλέον πόροι διαθέσιμοι

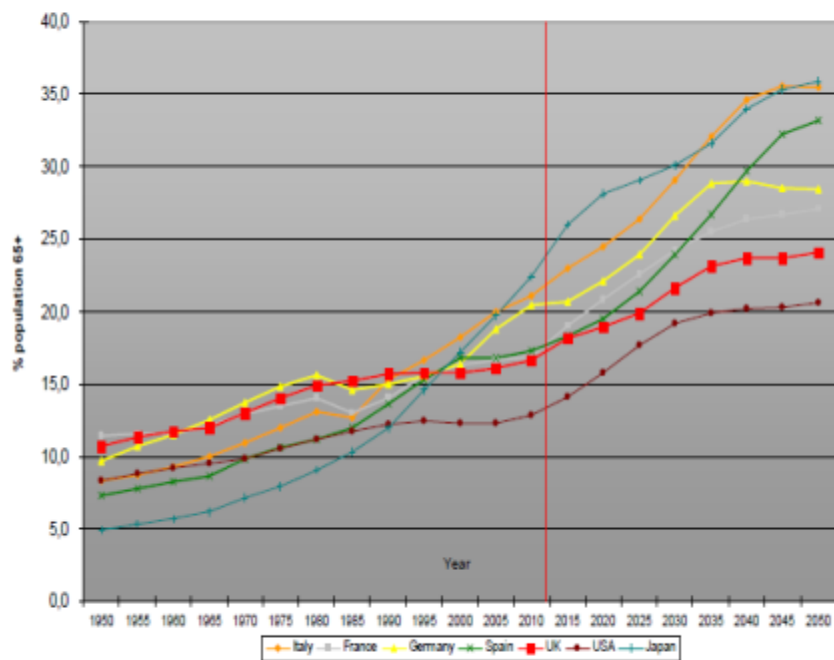
## Health expenditure as a share of GDP, 1960-2009, selected OECD countries



Source: OECD Health Data 2011.

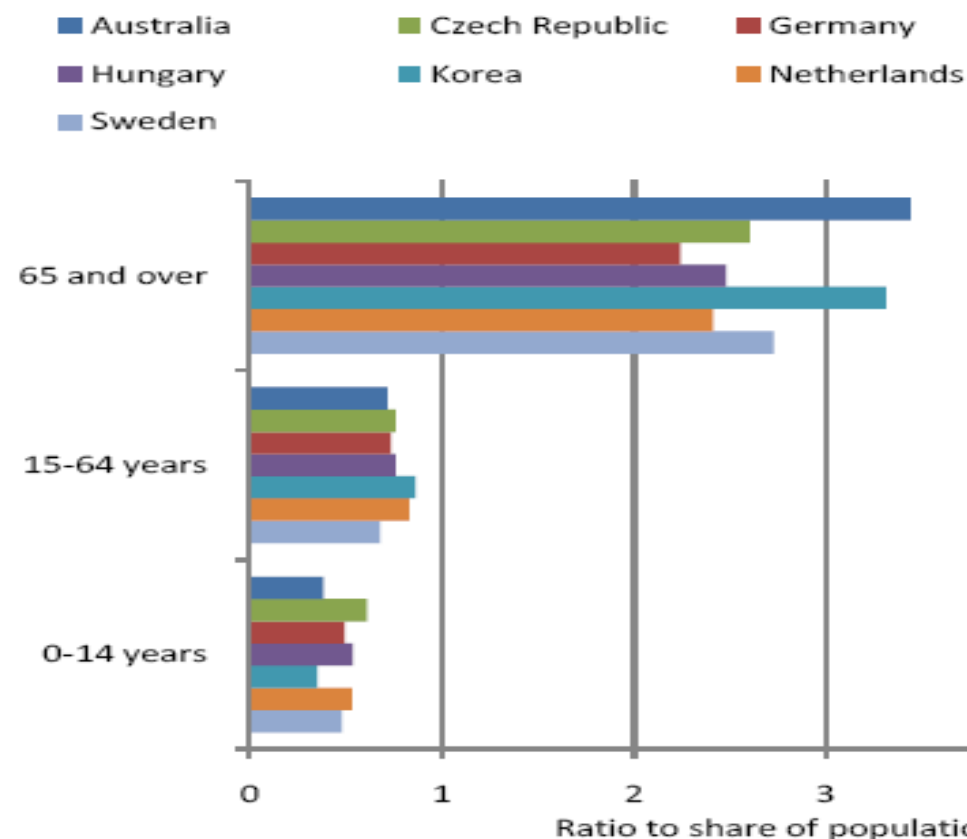
# Δημογραφική γήρανση

## World population evolution (% of +65)



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

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

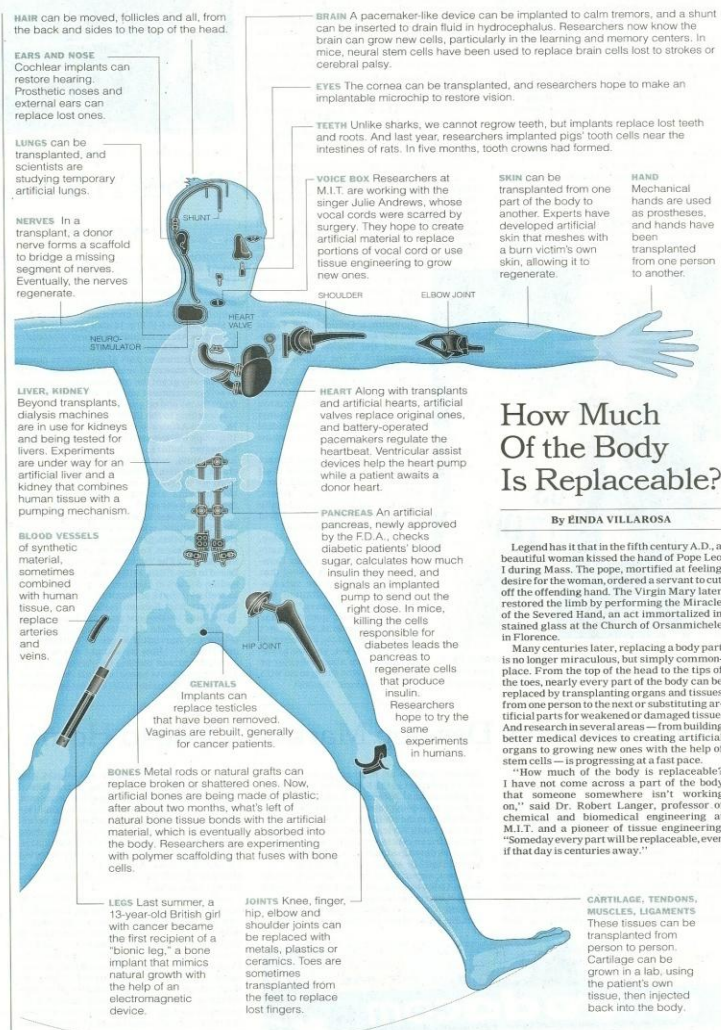


# Τεχνολογική επανάσταση

## Φάρμακα



## Συσκευές

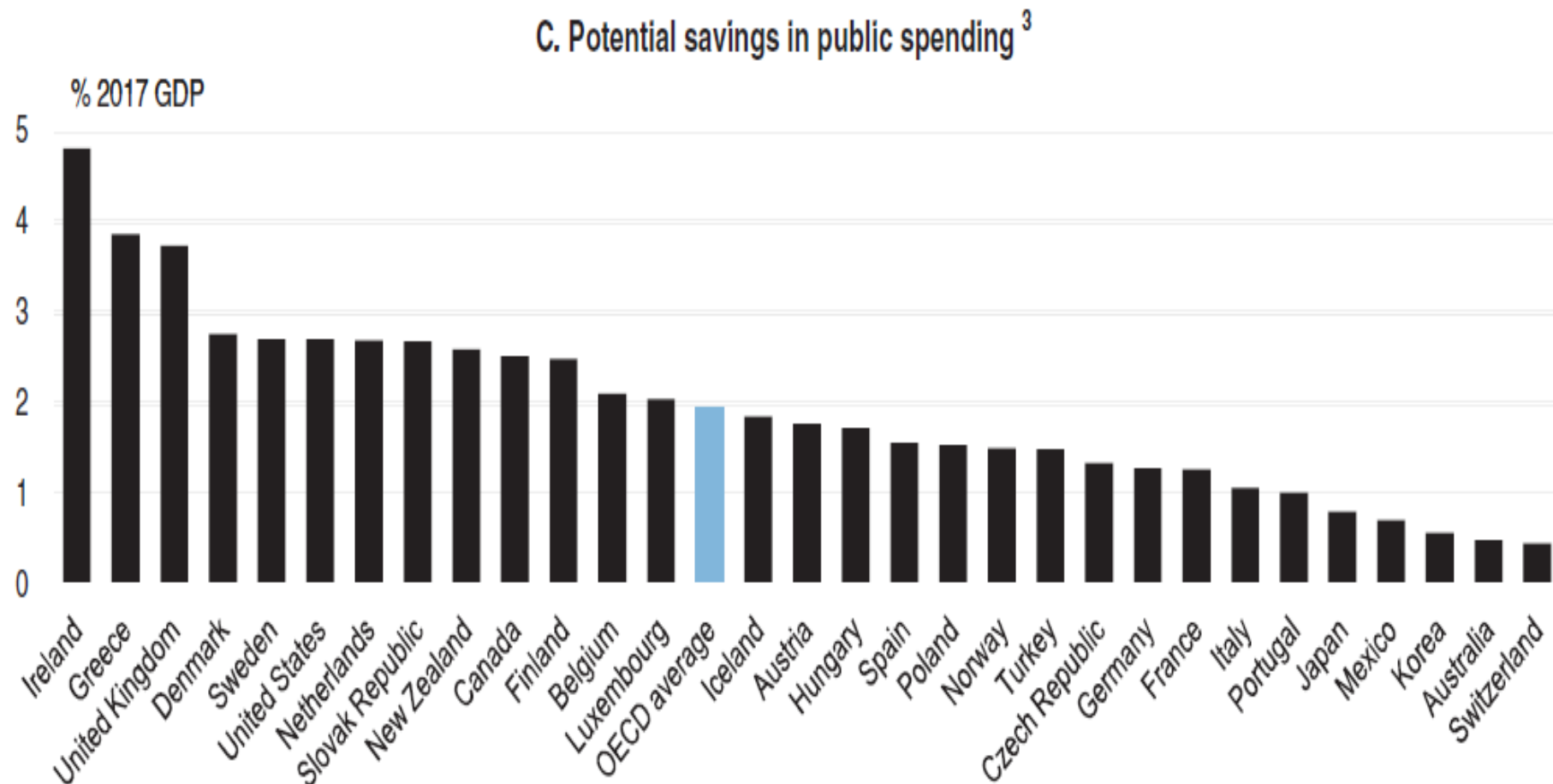


## Εξοπλισμός



Το σύστημα υγείας είναι  
οργανωμένο αναποτελεσματικά  
και πρέπει να το βελτιώσουμε  
για να προάγουμε την οικονομία  
κα την υγεία των ασθενών

## 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.



# Επιπτώσεις των ιατρικών σφαλμάτων

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**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.

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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.

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ΥΠΟΥΡΓΕΙΟ ΕΣΩΤΕΡΙΚΩΝ  
ΑΠΡΙΛΙΟΣ 1929-1934

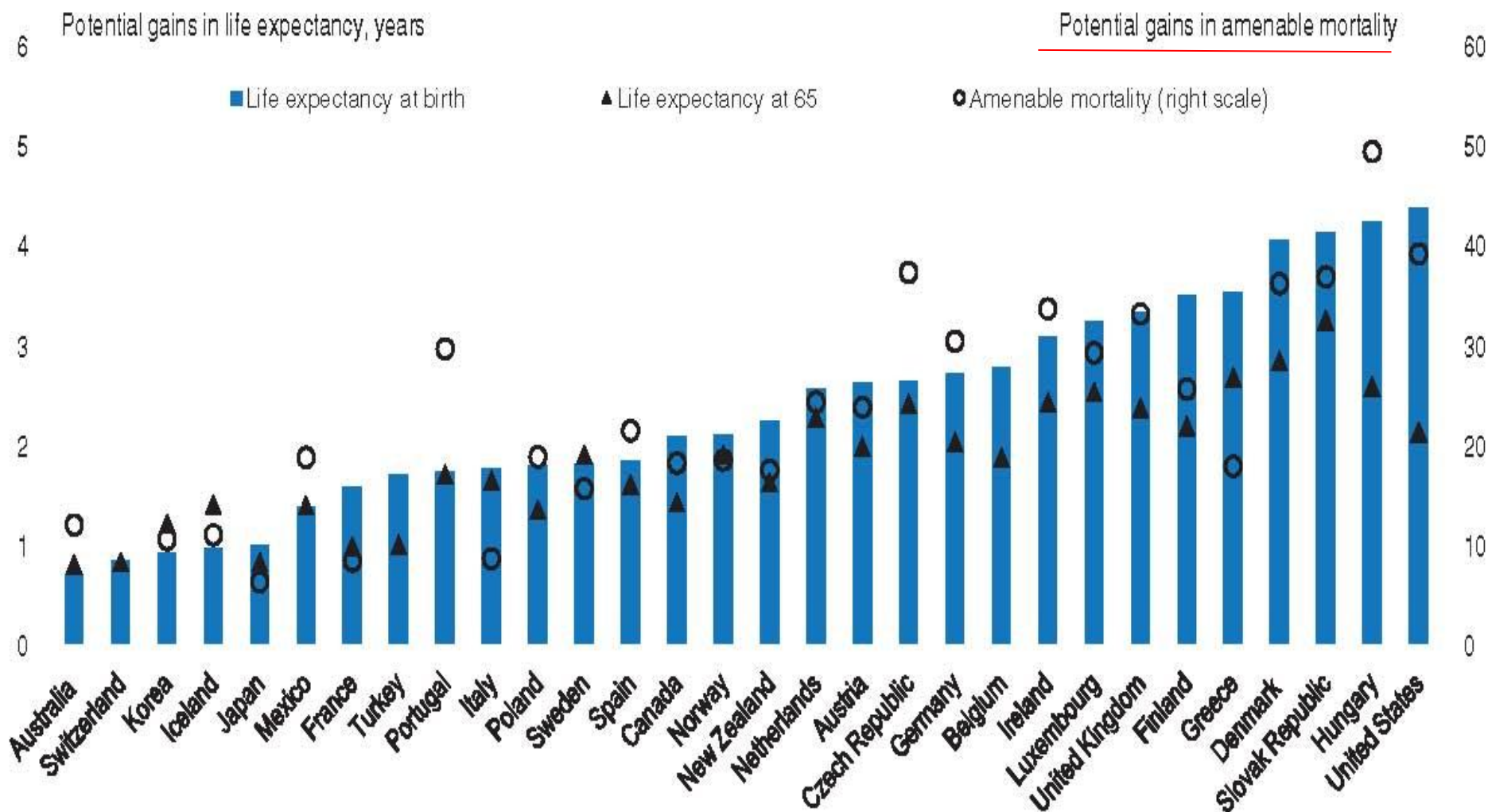


**Monitor**  
Independent Regulator  
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1. Flying would be much safer
2. There would be a crash every week
3. There would be 100,000 passengers killed per year
4. **There would be 17 crashes per day and 600,000 deaths per year**

# Αναποτελεσματικότητα στην βελτιστοποίηση των υγειονομικών αποτελεσμάτων



Source: OECD Health Data 2009; OECD calculations.

### Country Results

 Belgium	93%
 Austria	92%
 Sweden	90%
 Finland	88%
 The Netherlands	87%
 Denmark	85%
 Malta	84%
 France	83%
 Spain	82%
 Luxembourg	82%
 Czech Republic	80%
 Germany	79%
 United Kingdom	77%
 Slovenia	76%
 European Union (27)	71%
 Cyprus	69%
 Estonia	67%
 Ireland	64%
 Italy	63%
 Slovakia	62%
 Portugal	58%
 Lithuania	57%
 Latvia	55%
 Greece	48%
 Hungary	43%
 Bulgaria	43%
 Poland	42%
 Romania	42%

### Other Countries

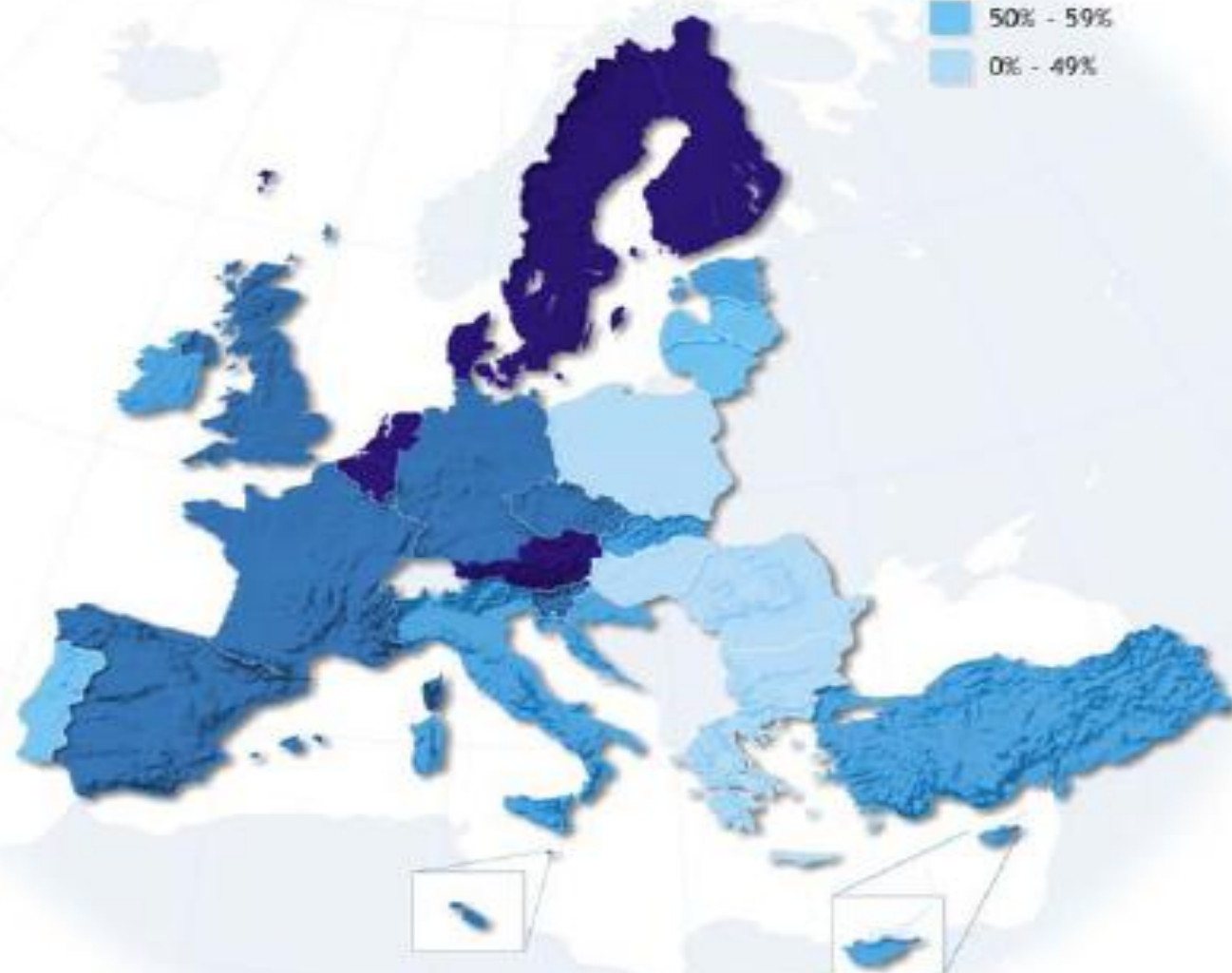
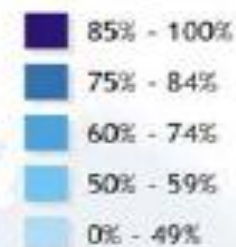
 Turkey	68%
 Croatia	65%

Question: QA3.1. Thinking now about your own experiences of health care services in (OUR COUNTRY) and those of people close to you, please tell me if you think that the quality of each of the following is very good, fairly good, fairly bad or very bad.

Option: Hospitals

Answers: Good

### Map Legend



Υπό καθεστώς περιορισμένων  
προϋπολογισμών οι θεραπείες  
που μεγιστοποιούν το  
υγειονομικό όφελος για τον  
ασθενή δεν μεγιστοποιούν  
απαραίτητα το όφελος για το  
σύνολο τους

## Περίπτωση Εργασίας:

Έχετε οριστεί στην επιτροπή για την κατάρτιση της Λίστας και θα πρέπει να επιλέξετε ένα από τα 2 εγκεκριμένα φάρμακα για την ρευματοειδή αρθρίτιδα. Παρακάτω δίδεται η επιβίωση με βάση τις κλινικές μελέτες. Τι θα επιλέγατε?

Φάρμακο:	Επιβίωση (έτη)
Live-Well	5
Live-For-Ever	7

Ωστόσο η ποιότητα ζωής είναι επίσης διαφορετική και στα πλαίσια αυτά και τα ποιοτικά έτη ζωής. Τι θα επιλέγατε?

Φάρμακο:	Επιβίωση (έτη)	Ποιότητα ζωής	Ποιοτικά έτη ζωής
Live-Well	5	90%	4,5
Live-For-Ever	7	55%	4,0

Επίσης το κόστος είναι διαφορετικό και συνεπώς το κόστος ανά έτος ζωής.  
Τι θα επιλέγατε?

Φάρμακο:	Επιβίωση (έτη)	Ποιότητα ζωής	Ποιοτικά Έτη Ζωής	Κόστος Θεραπείας (€)	Κόστος Ανά Έτος Ζωής (€)	Κόστος Ανά Ποιοτικό Έτος Ζωής (€)
Live-Well	5	90%	4,5	10.000	2.000	2.222
Live-For-Ever	7	55%	4,0	15.000	2.143	3.896

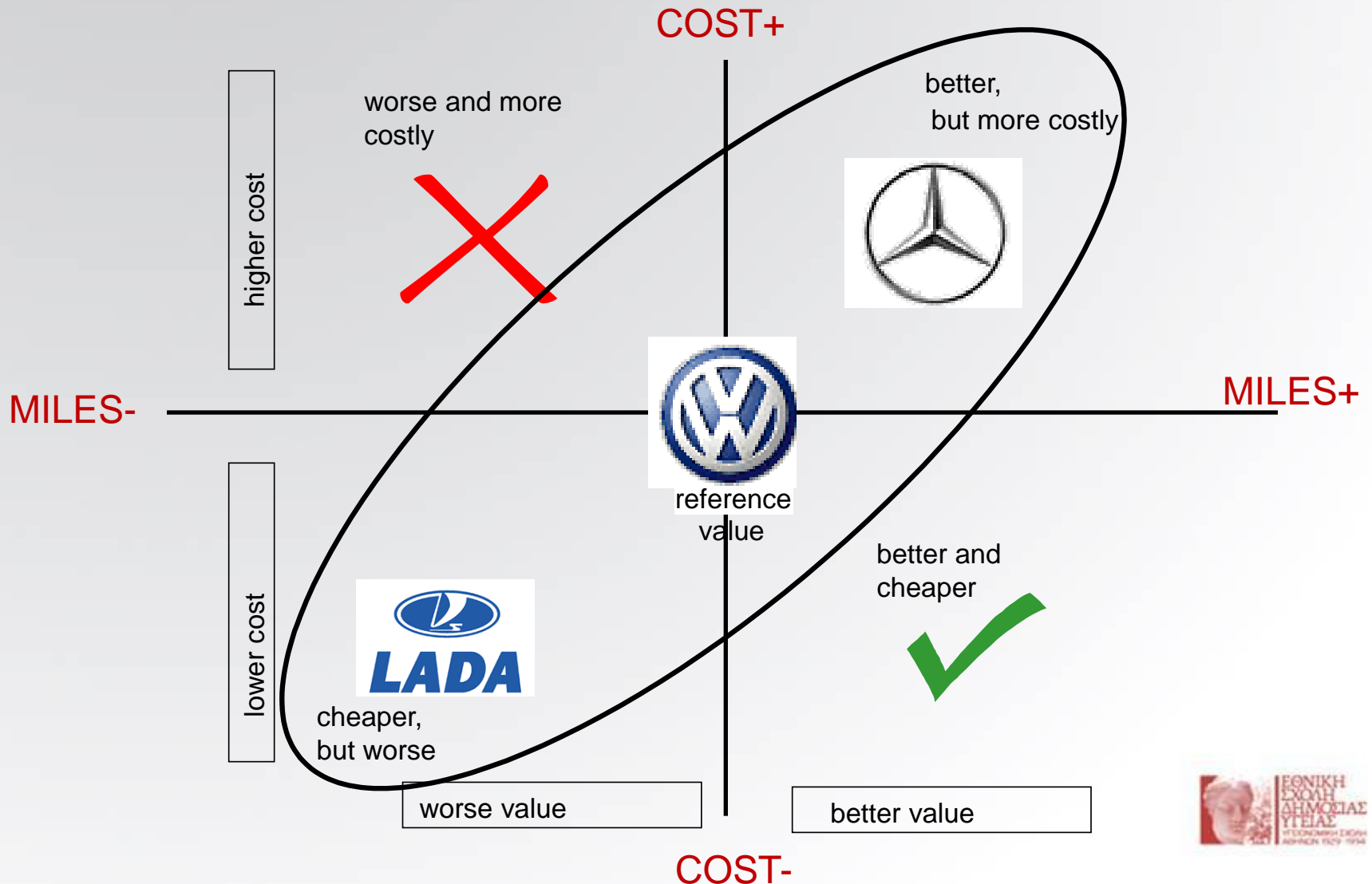


Τι γίνεται όταν ο προϋπολογισμός είναι δεδομένος? (που συνήθως είναι)  
 Η αποτελεσματικότερη θεραπεία για το άτομο δεν είναι αποτελεσματικότερη για το  
 σύνολο των ασθενών. Τι θα επιλέγατε?

Φάρμακο:	Επιβίωση (έτη)	Ποιότητα ζωής	Ποιοτικά Έτη Ζωής	Κόστος Θεραπείας (€)	Κόστος Ανά Έτος Ζωής (€)	Κόστος Ανά Ποιοτικό Έτος Ζωής (€)	Ασθενείς με 1.000.000(€) budget	Έτη Ζωής	Έτη ζωής ποιοτικά
Live-Well	5	90%	4,5	10.000	2.000	2.222	100	500	450
Live-For-Ever	7	55%	4,0	15.000	2.143	3.896	67	467	257

Για οτιδήποτε αγοράσουμε  
(χρηματοδοτούμε) στην ζωή μας  
αξιολογούμε τι σχέση ανάμεσα  
στο κόστος και την ποιότητα, τα  
χαρακτηριστικά ή το αποτέλεσμα

# We are paying more for better technology and outcome

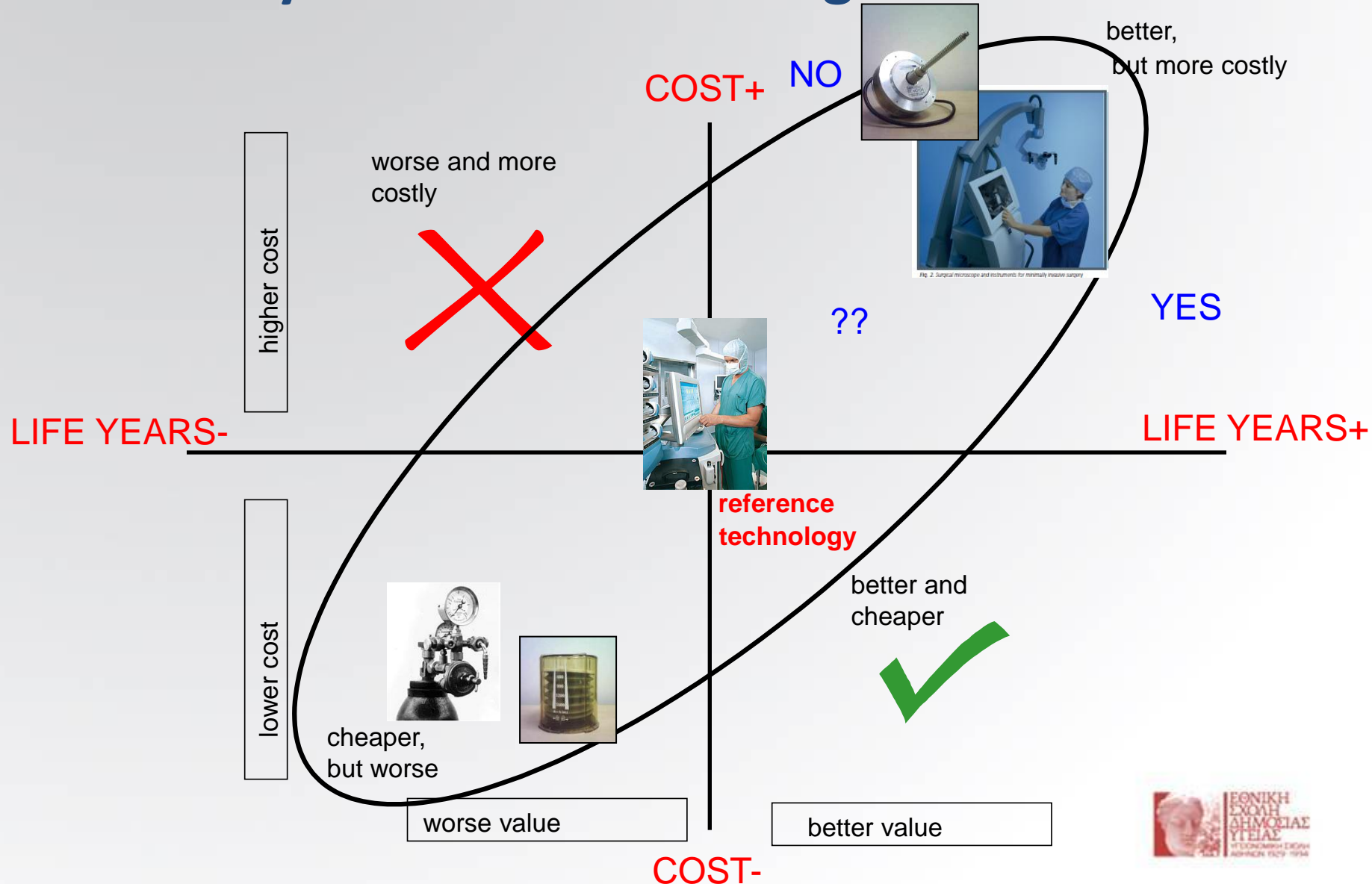


Source: adapted from Prof. Matthias Graf von der Schulenburg

Γιατί να μην κάνουμε το ίδιο  
στην υγεία?

# Why not doing the same in health care ?

## More money for better technologies



Καμιά φορά το κόστος των  
πράξεων μας είναι μεγαλύτερο  
από ότι νομίζουμε

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<sup>a</sup>, A. Pallis<sup>b</sup>, V. Fragoulakis<sup>c</sup>, P. Prezerakos<sup>d</sup> and V. Georgoulas<sup>b</sup>

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<sup>c</sup> *Health Economics Department, Foundation for Economic and Industrial Research, Athens, 11742, Greece*

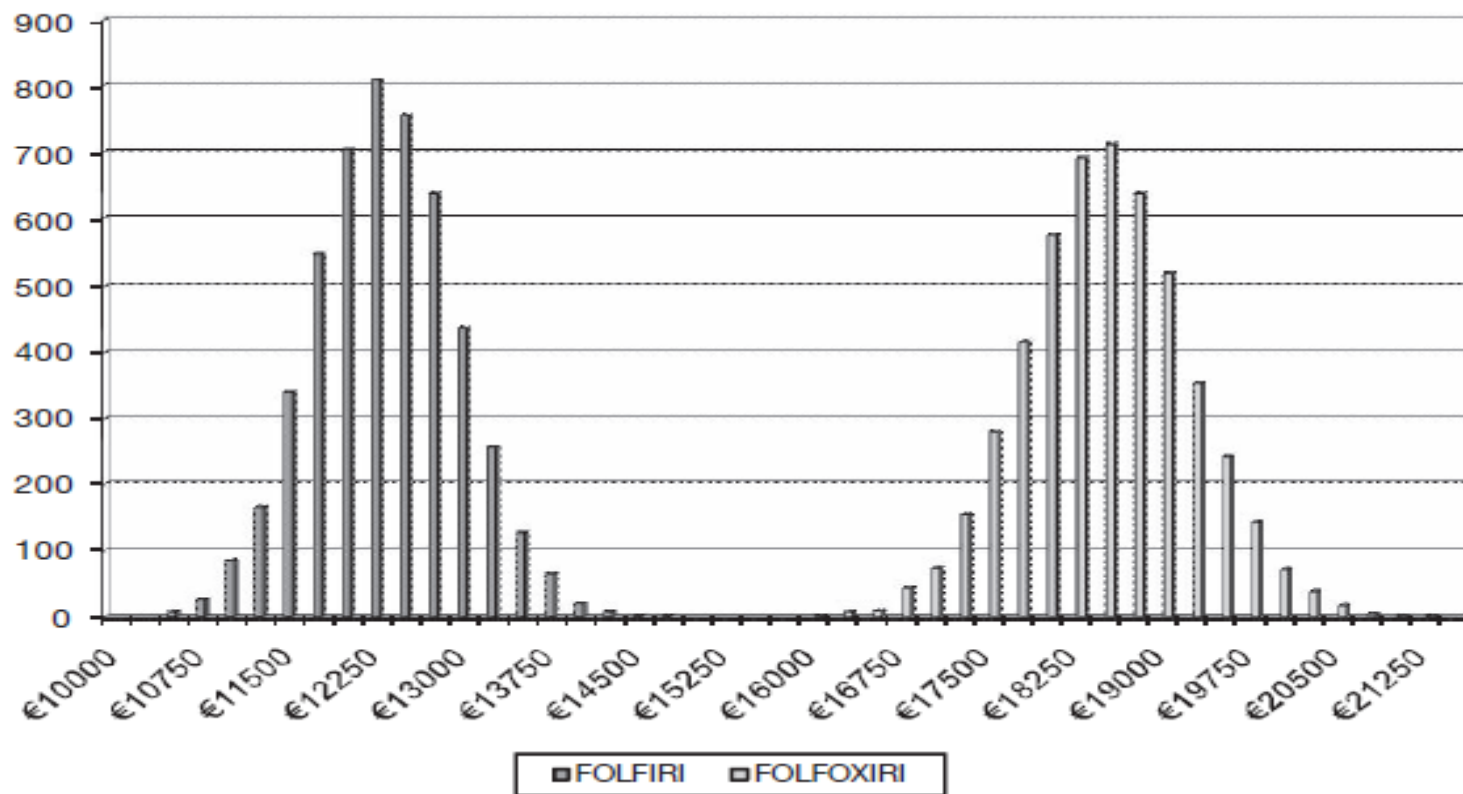
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*Address for correspondence:* N. Maniadakis, BSc, MSc, PhD, C.E.O and President, University General Hospital of Heraklion, Voutes 711 10, Crete, Greece. Tel.: +30 2810 542061; Fax: +30 2810 542064; e-mail: nmaniadakis@yahoo.com



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	
Capecitabine 150 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

# Καμιά φορά τα φαινόμενα απατούν

ORIGINAL ARTICLE

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

Nikos Maniadakis<sup>a</sup>, Vasilios Fragoulakis<sup>b</sup>,  
Dimitrios Pectasides<sup>c</sup> and George Fountzilas<sup>d</sup>

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

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

Nikos Maniadas<sup>a</sup>, Vasilios Fragoulakis<sup>b</sup>,  
Dimitrios Pectasides<sup>c</sup> and George Fountzilas<sup>d</sup>

*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 uncertainty intervals

Πως απαντάω τεκμηριωμένα στο  
ερώτημα αν αξίζει να δοκιμάσω  
κάτι καλύτερο αλλά πιο ακριβό?



available at [www.sciencedirect.com](http://www.sciencedirect.com)



journal homepage: [www.elsevier.com/locate/lungcan](http://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<sup>☆</sup>

N. Maniadakis<sup>a,\*</sup>, V. Fragoulakis<sup>b</sup>, A. Pallis<sup>a</sup>, P. Prezarakos<sup>c</sup>, V. Georgoulas<sup>a</sup>

<sup>a</sup> Department of Medical Oncology, University General Hospital of Heraklion, Voutes 71110, Crete, Greece

<sup>b</sup> Health Economics Department, Foundation for Economic and Industrial Research, Athens 11742, Greece

<sup>c</sup> Centre of Educations and Specialisations, Municipality of Athens, 5 Mayer and Favier, Athens, Greece

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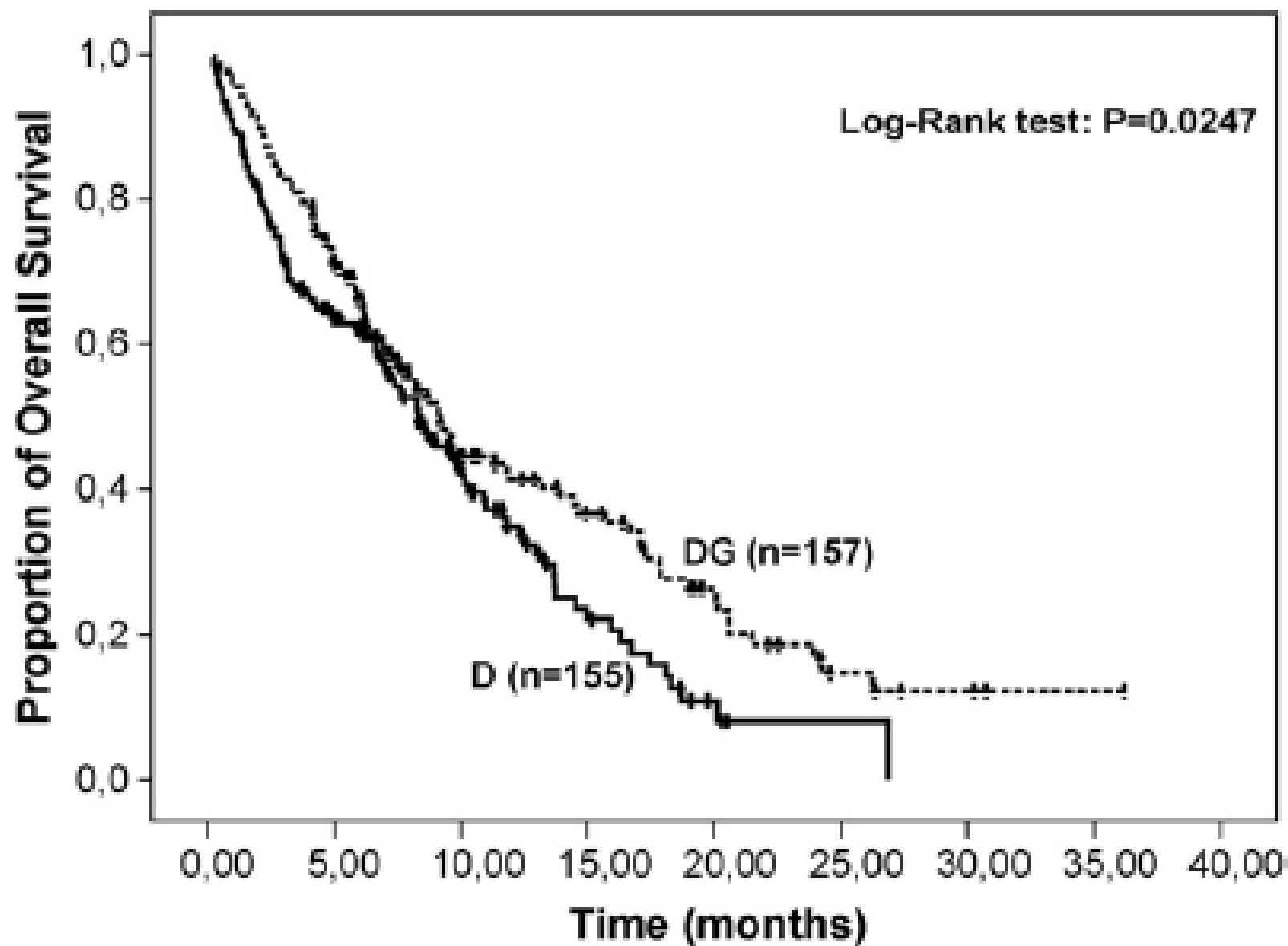


Fig. 1 Kaplan-Meier survival curve.

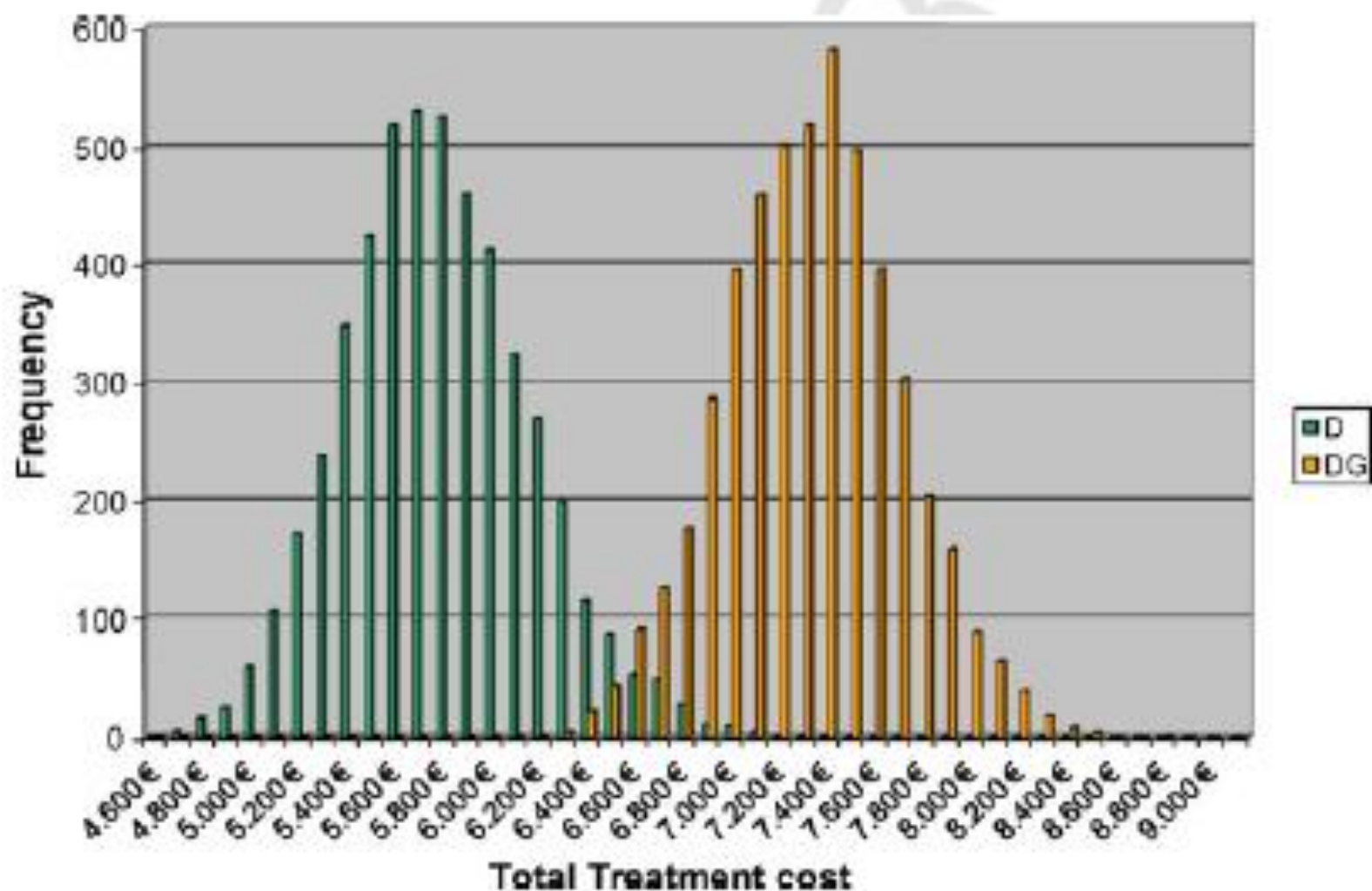


Fig. 3 Distribution of treatment cost (€) per therapy arm based on bootstrapped data.

Δεν είναι όλοι οι ασθενείς ίδιοι  
και για τον οικονομολόγο

original article

*Annals of Oncology*  
doi:10.1093/annonc/mdn634

# **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**

N. Maniadakis<sup>1\*</sup>, U. Dafni<sup>2</sup>, V. Fragoulakis<sup>3</sup>, I. Grimani<sup>4</sup>, E. Galani<sup>5</sup>, A. Fragkoulidi<sup>6</sup> & G. Fountzilas<sup>6</sup>

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Received 27 December 2007; revised 11 July 2008; accepted 18 August 2008

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

	PCb ( <i>n</i> = 131)	GDoc ( <i>n</i> = 134)	Pw ( <i>n</i> = 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

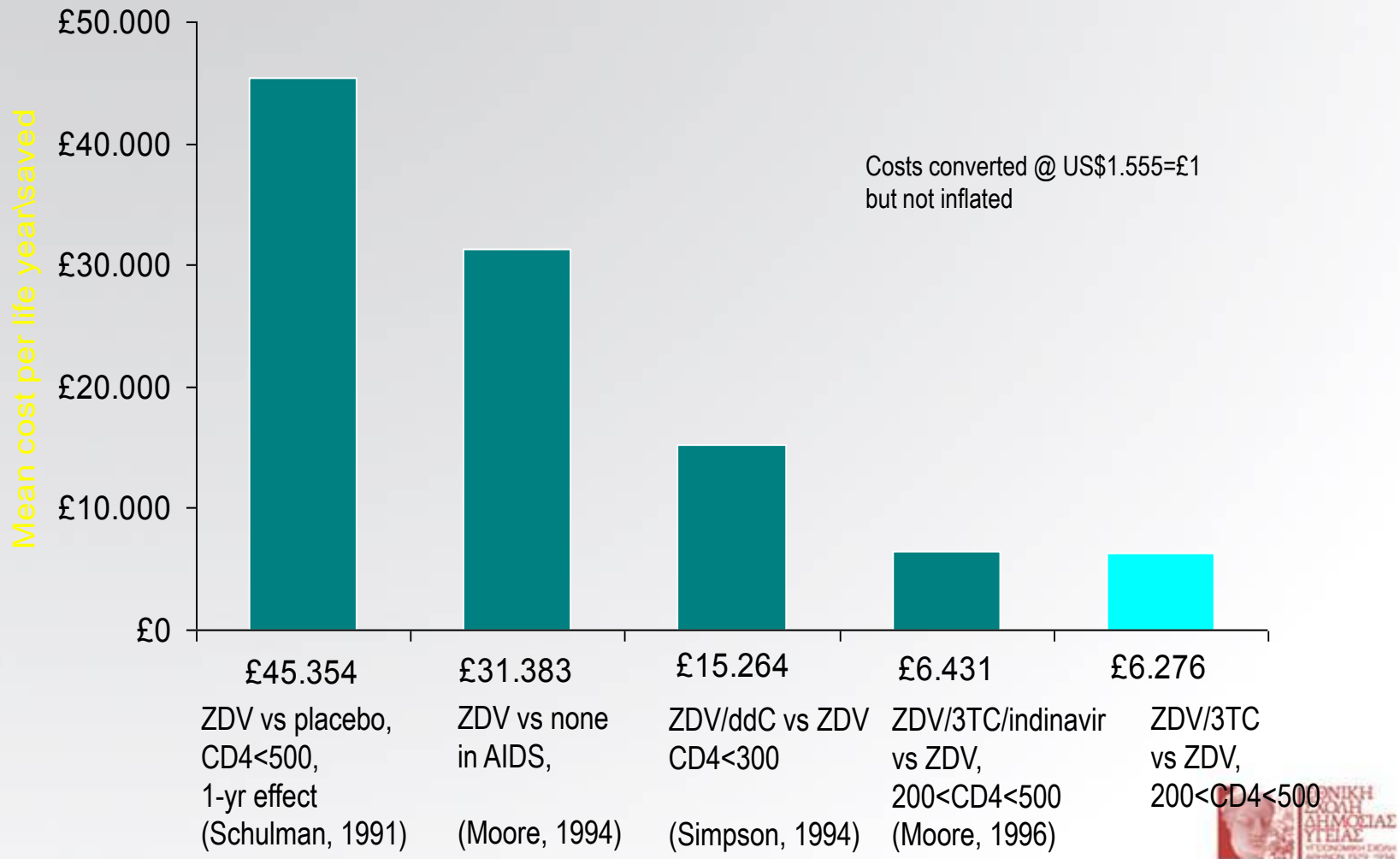
	PS0	PS1	TNo	TYes	HER2 OvNo	HER2OvYes
Mean	6878	Dominance	Dominance	Dominance	Dominance	26 162
Standard deviation	38 641	9941	2662	267 734	3344	510 242
95%LUI	Dominance	Dominance	Dominance	Dominance	Dominance	Dominance
95%UUI	20 158	Dominance	3197	1935	1371	227 270
	HTNo	HTYes	MET1	MET2	MET3	AGE70
Mean	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.

Που να επενδύσω τα χρήματα  
όταν έχω πολλές εναλλακτικές  
θεραπείες?

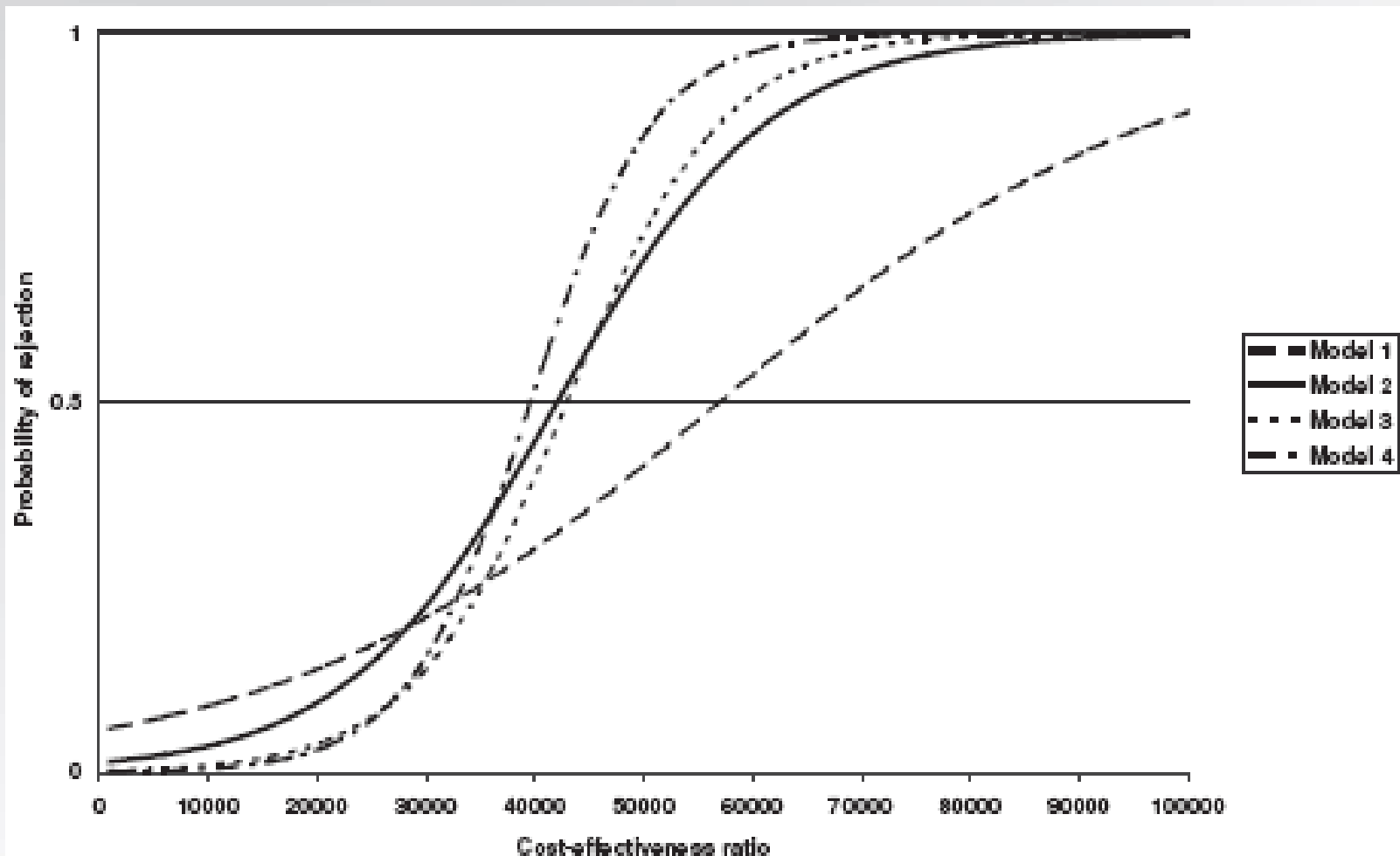


# Αξιολόγηση 2 – Πολλές θεραπείες για HIV

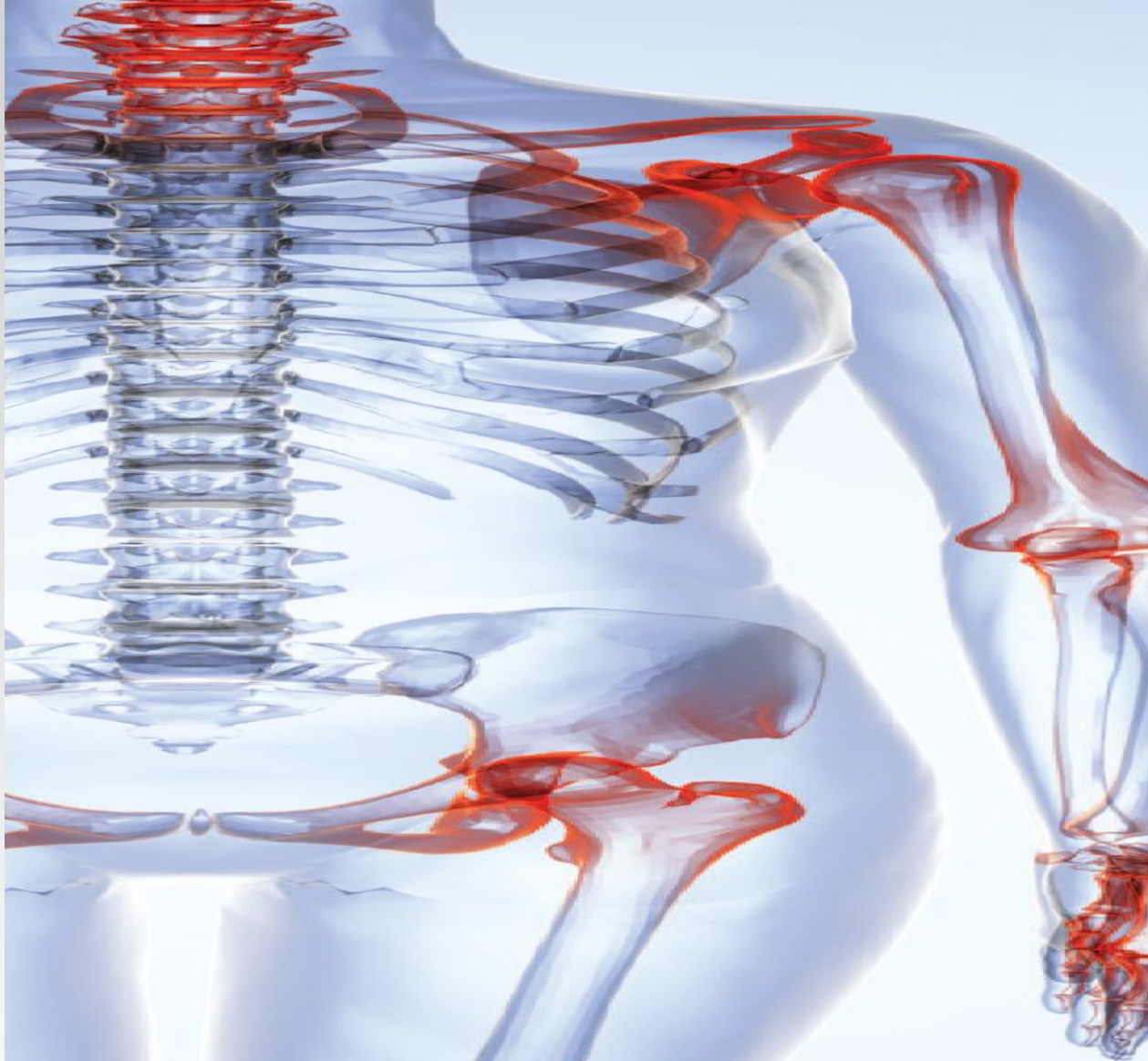


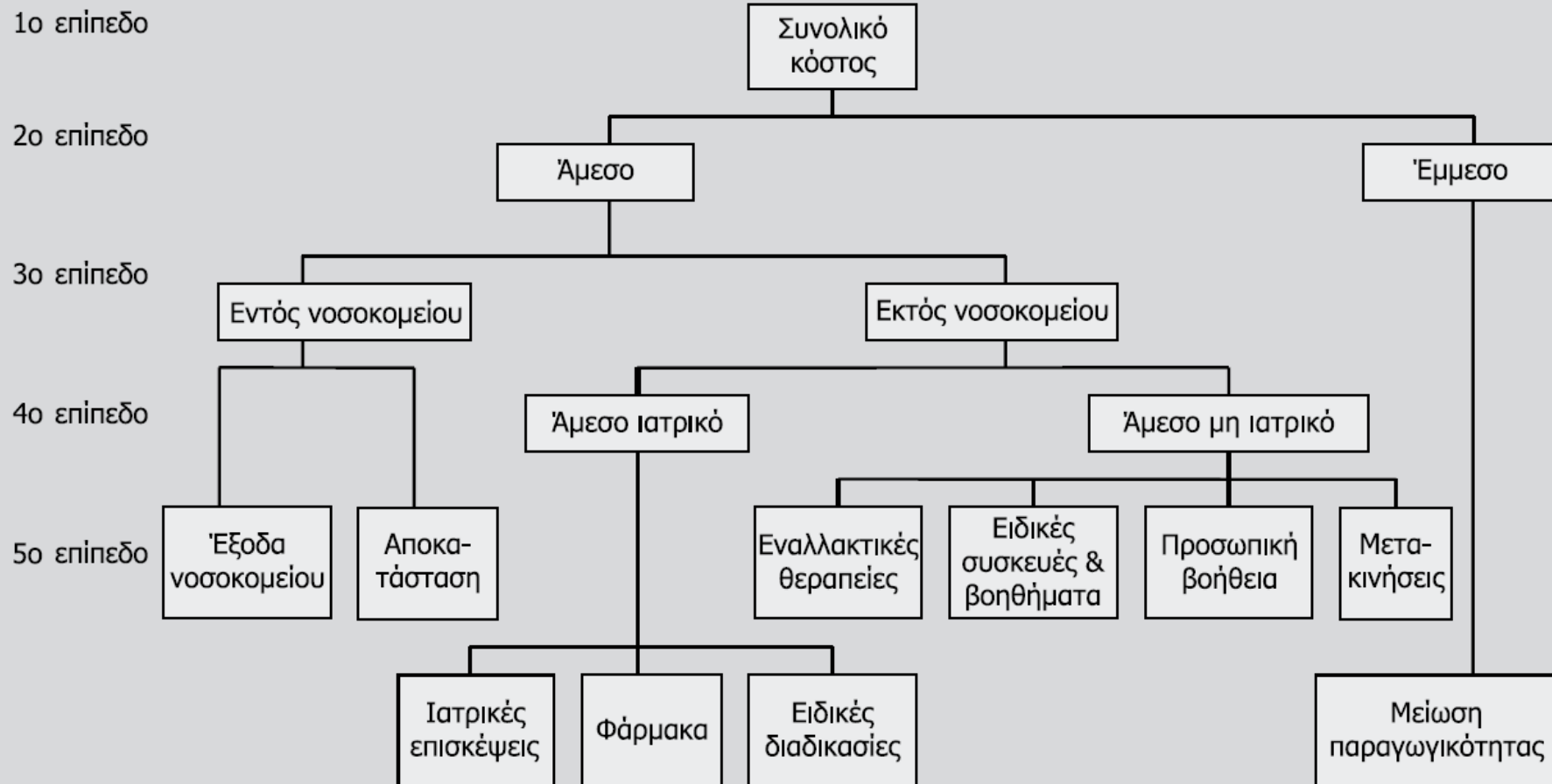
Η διάθεση και η ικανότητα του  
καθενός να πληρώσει είναι  
διαφορετική !

# Πότε μια τεχνολογία ή παρέμβαση είναι ελκυστική στην Αγγλία



# Τι γίνεται με την περίπτωση της ρευματοειδούς αρθρίτιδας ?





Πηγή: Rosery et al, 2005<sup>29</sup>

**Εικόνα 1.** Διάγραμμα κόστους ρευματοειδούς αρθρίτιδας.

# TNF inhibitors in the treatment of rheumatoid arthritis in clinical practice: costs and outcomes in a follow up study of patients with RA treated with etanercept or infliximab in southern Sweden

G Kobelt, K Eberhardt, P Geborek

*Ann Rheum Dis* 2004;**63**:4–10. doi: 10.1136/ard.2003.010629

**Table 3** Cost per QALY gained with one year treatment (€)

	No	Incremental cost (€)*	QALY gain*	Cost/QALY (€)
Direct costs only	116	12455	0.28	44500
Base case†	116	12184	0.28	43500
Improvement linear	116	12184	0.19	64100
Improvement after 6 weeks	116	12184	0.33	36900
Drop outs included	160	10727	0.2	53600
Patients with HAQ <0.6 at baseline	8	14131	0.11†	128500
Patients with HAQ 0.6<1.1 at baseline	21	11131	0.18†	61800
Patients with HAQ 1.1<1.6 at baseline	30	15241	0.25†	61000
Patients with HAQ 1.6<2.1 at baseline	36	11176	0.30†	37300
Patients with HAQ ≥2.1 at baseline	21	6888	0.16†	43000

1€=9.05 SEK.

\*Incremental costs and QALY gains are calculated compared with baseline, assuming that without TNF inhibitor treatment patients would remain at the baseline level throughout the year; †base case assumption for QALY gain: improvement of utility after three months.

# TNF inhibitors in the treatment of rheumatoid arthritis in clinical practice: costs and outcomes in a follow up study of patients with RA treated with etanercept or infliximab in southern Sweden

G Kobelt, K Eberhardt, P Geborek

*Ann Rheum Dis* 2004;**63**:4–10. doi: 10.1136/ard.2003.010629

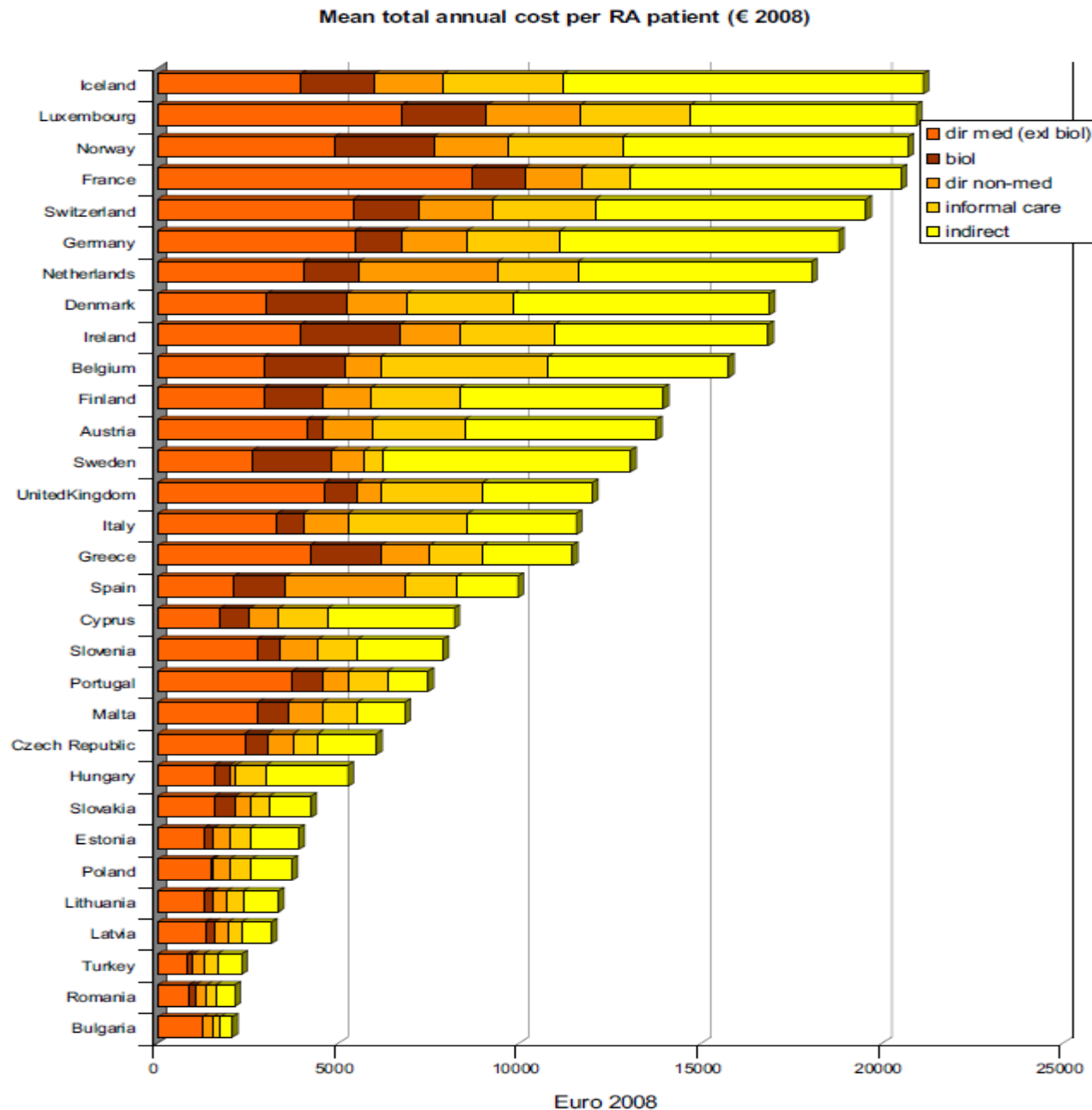
**Table 4** Costs and utilities at different levels of functional impairment

	Costs and utilities by levels of functional disability by HAQ				
	<0.6	0.6<1.1	1.1<1.6	1.6<2.1	≥2.1
<i>Baseline</i>					
Number of patients	8	21	30	36	21
Mean HAQ score	0.38	0.90	1.34	1.83	2.35
Mean DAS28	5.45	5.44	6.05	6.11	6.08
Mean utilities	0.680	0.455	0.299	0.174	0.063
Mean costs (€)	4350	19200	20550	36250	40850
<i>12 Months</i>					
Number of patients	29	24	33	16	14
Mean HAQ score	0.19	0.88	1.31	1.81	2.33
Mean DAS28	2.48	3.61	3.49	3.63	4.66
Mean utilities	0.829	0.686	0.634	0.576	0.270
Mean costs (€)	19140	38800	48100	49500	44000
<i>Epidemiological cohort, Lund*</i>					
Mean utilities	0.717	0.636	0.611	0.422	0.235

\*See Kobelt *et al.*<sup>1 2</sup>

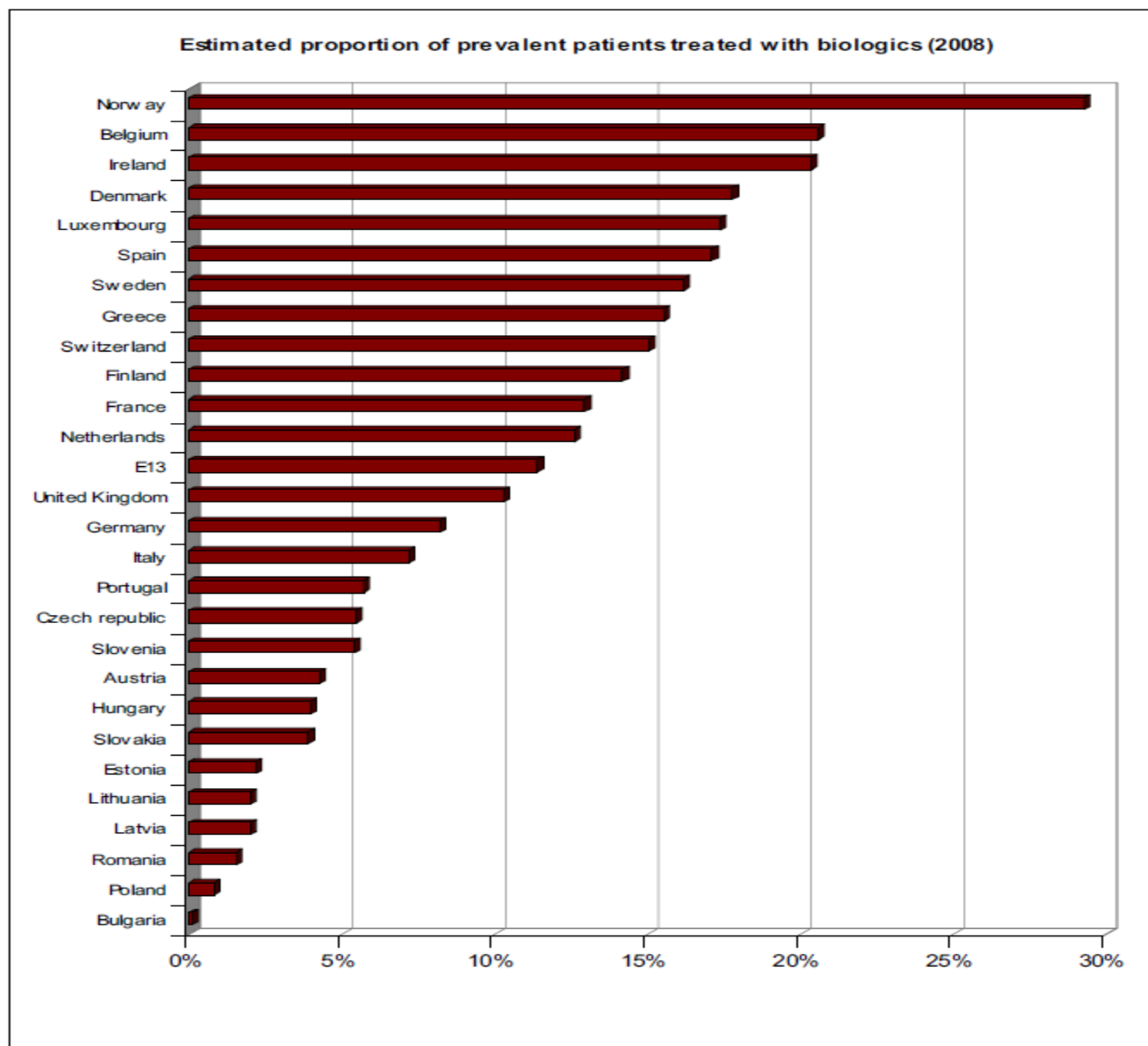


**Figure 2-1 – Mean annual cost per patient with RA (C 2008)**

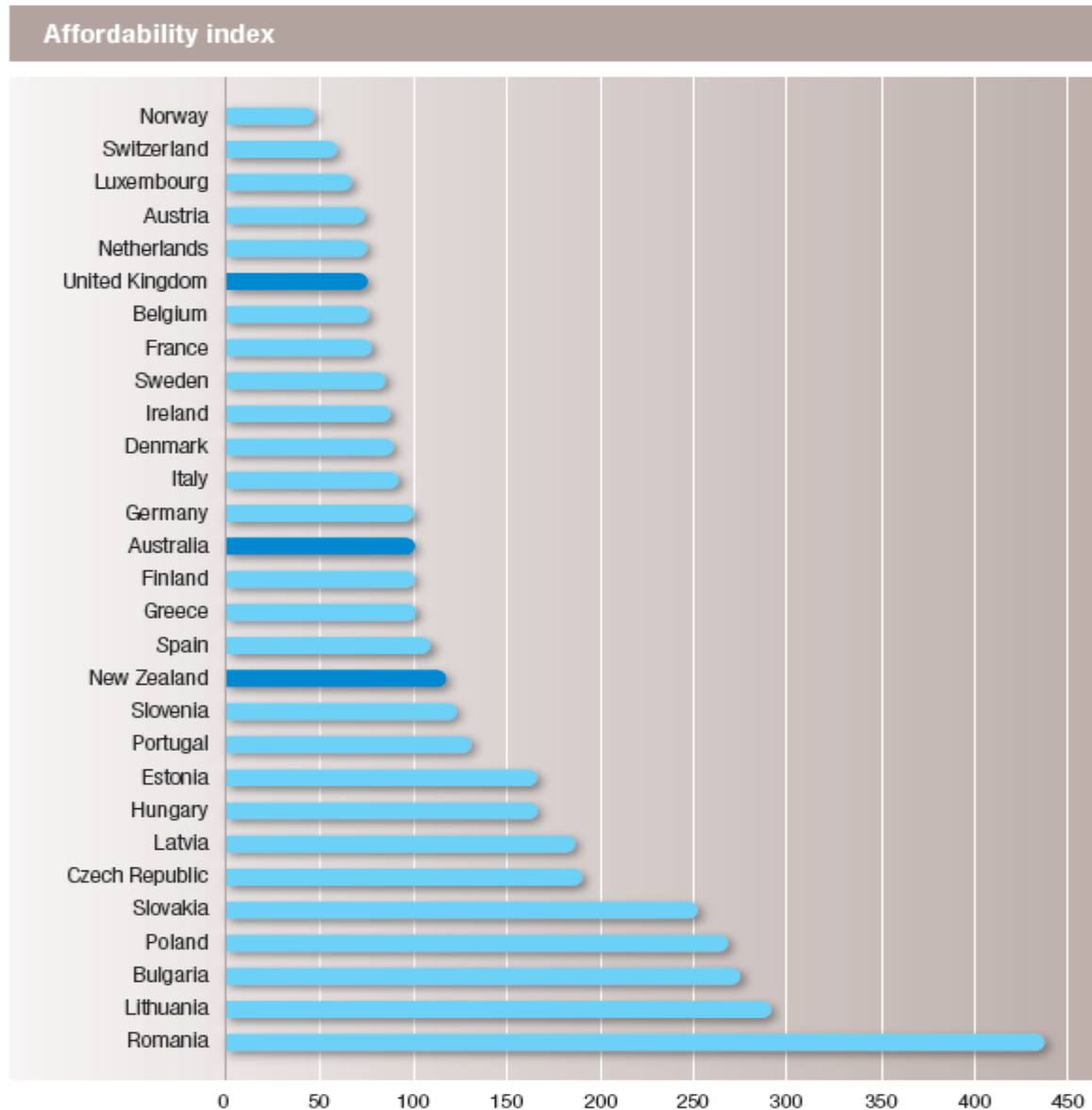


Euro 2008

**Figure 3-19 Proportion on treatment end of 2008**



**Figure 4-3: Affordability index (Germany = 100)**



Comparison of health expenditures per capita (index) to the price of biologics (index). Low indexes indicate good affordability, high indexes indicate difficulties to afford.

Access to innovative treatments for rheumatoid arthritis in New Zealand. A comparison with Australia and the UK. May 20120, G. Kobelt, I. Lekander, Y. Santesson Nicolae



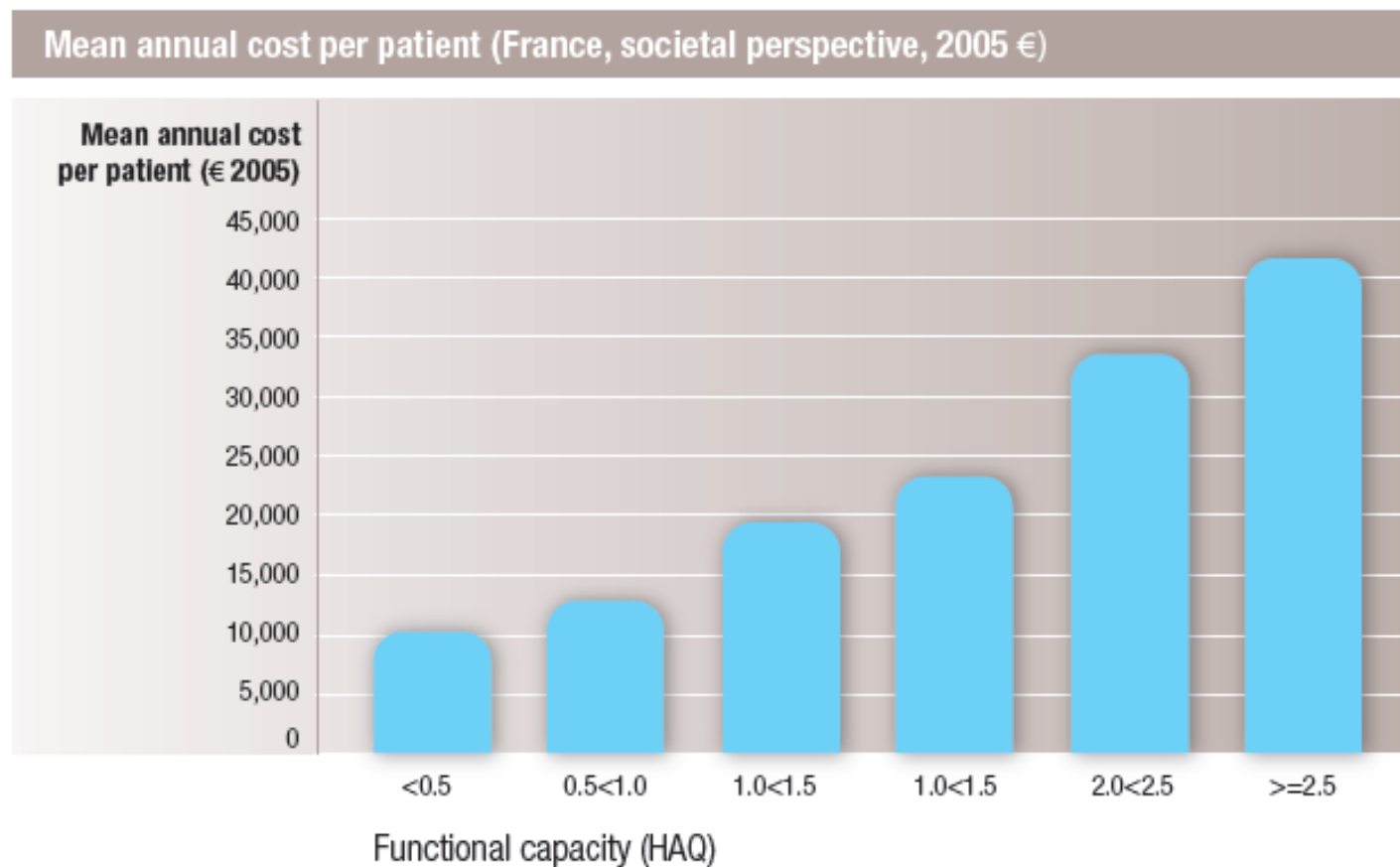
**Table 4-3:** Published cost-effectiveness analyses of biological treatments

Country	Perspective	Interventions compared	Data source	Patients Included (baseline HAQ)	Time-horizon	Result	Currency and year	Ref
Finland	Healthcare provider	INF / other standard care		Early disease (1.3 )	Mean 21 months	€52,000	€ 2007	18
Netherlands	Societal	Monotherapy / comb / comb+pred. /comb+INF	Investigator trial	Early disease (1.4)	2 years	IFN vs. next best alt: ICER €130,000	€ 2008	19
Sweden	Societal	INF+MTX / MTX	Clinical trial	Advanced active RA (HAQ 1.8)	10 years	16,100€/ QALY	€ 2002	20
Sweden	Societal	INF and ETA / compared to baseline	Registry	Advanced RA (HAQ 1.5)	1 year	43,400€/ QALY	€ 2003	21
Sweden	Societal	ADA+MTX/ DMARD sequence	Clinical trial	Advanced active RA	Lifetime	40-44,000€/ QALY	€ 2004	22
Sweden	Societal	ETA+MTX / MTX	Clinical trial	Advanced active RA (HAQ 1.8)	10 years	37-46,000€/ QALY	€ 2004	23
Sweden	societal	RIT vs 2nd line TNF	Clinical trial and registry	Advanced RA, TNF failures (1.9)	Lifetime	Rituximab dominant	€ 2008	24
Sweden	societal	INF /standard care (registry data)	Registry	Advanced RA (1.4)	20 years	19-20,000€	€ 2007	25
UK	NHS/PSS	ETA/ DMARD sequence	Clinical trial	Advanced active RA	Lifetime	16,330 £/ QALY	GB£ 2005	26
UK (NICE)	NHS/PSS	INF/ DMARD sequence; ETA/ DMARD sequence	Clinical trial	Advanced RA	Lifetime	89,970 £/ QALY 64,880 £/ QALY	GB£ 2004	27, 28
UK	NHS/PSS Societal	INF+MTX / MTX	Clinical trial	Advanced active RA (HAQ 1.8)	10 years	34,800 £/ QALY 29,900 £/ QALY	GB£ 2002	20
UK	NHS/PSS	ETA, INF, ADA / DMARD sequence	Registry	Advanced active RA (HAQ 2.1)	Lifetime	23,900 £/ QALY	GB£ 2006	29
UK	NHS/PSS	RIT 2 <sup>nd</sup> line/ standard care	Clinical trial	Advanced RA, TNF-failures (1.9)	Lifetime	£11,601 vs biologics £14,690 vs DMARDs	GB£ 2004	30

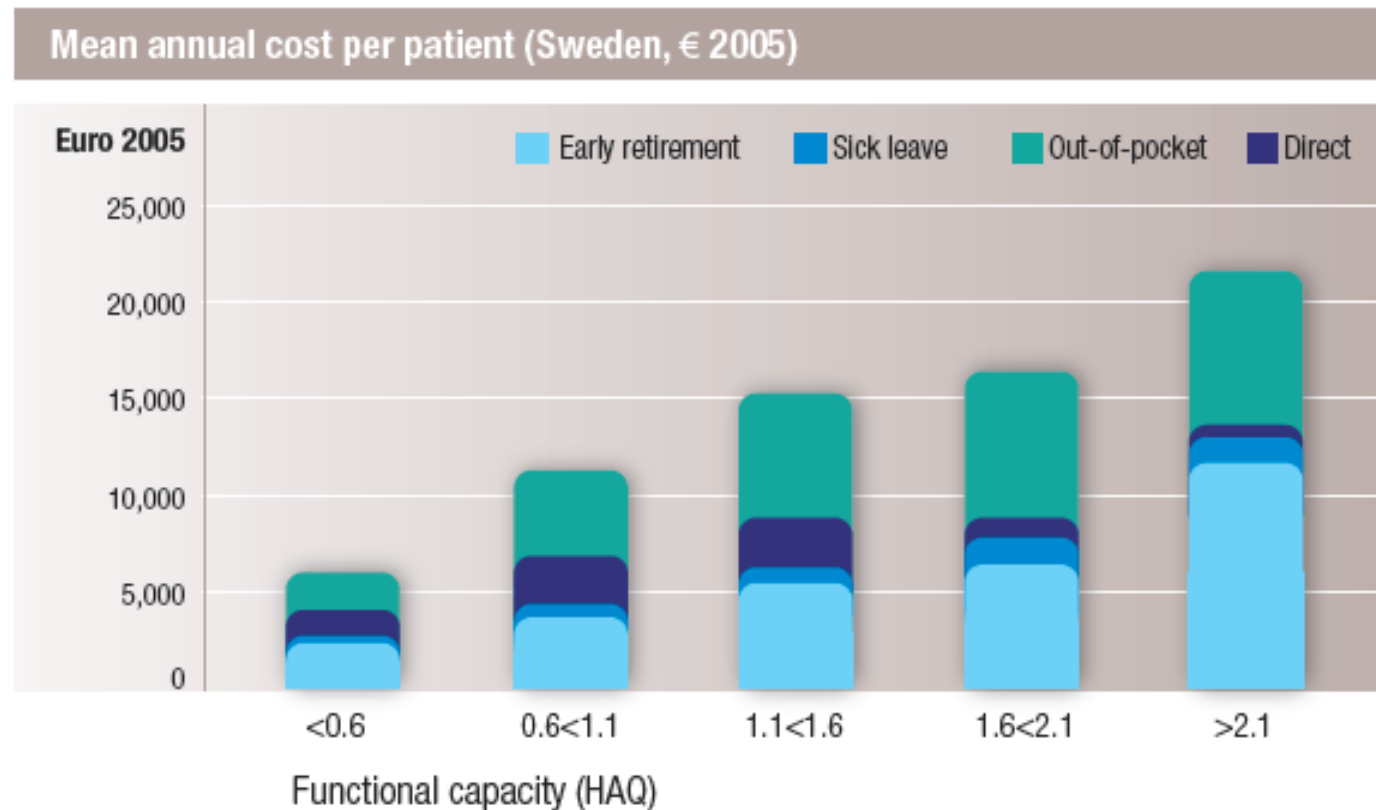
ADA = adalimumab, ETA = etanercept, INF = infliximab, MTX = methotrexate, RIT = rituximab  
DMARD = disease modifying arthritic drugs, NHS = National Health Service, PSS = Personal Social Service

Access to innovative treatments for rheumatoid arthritis in New Zealand. A comparison with Australia and the UK. May 20120,  
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**Figure 5-6: Relationship of costs to HAQ<sup>7</sup>**



**Figure 5-7: Changing structure of costs with advancing disease<sup>6</sup>**



**Table 5-1:** Reductions in costs in the first year of TNF inhibitor treatment<sup>4</sup>

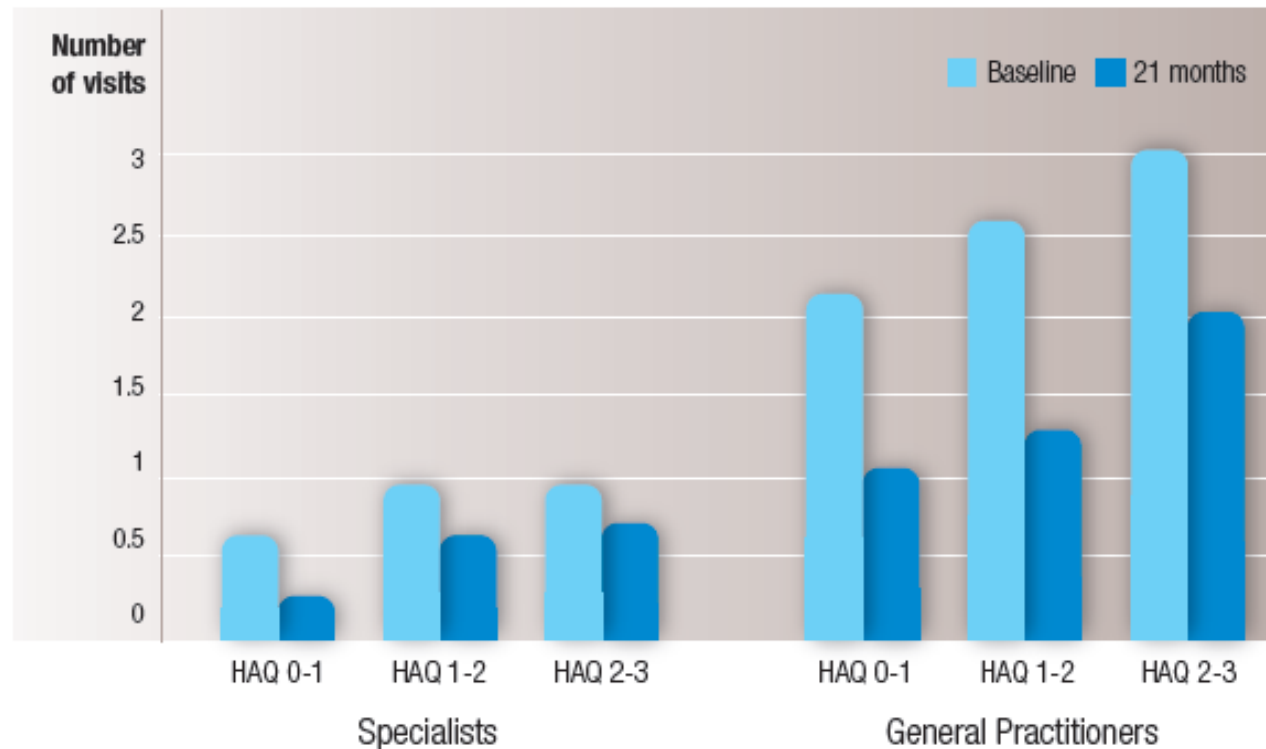
	Mean costs per year (€, 2002) and utilities		
	Baseline mean (SD)	12 months mean (SD)	24 months (SD)
Utility	0.28 (0.33)	0.65 (0.23)	N/A
Work capacity, full sample (%) <sup>*</sup>	27	28	N/A
Work capacity, patients <65 (%)	31	33	N/A
Sick leave (days)	1.6 (5.0)	1.1 (2.6)	N/A
Indirect cost	21880 (17030)	21739 (18110)	N/A
Total cost cortisone	97 (95) <sup>i</sup>	44 (52)	34 (44)
Total cost NSAID	117 (81) <sup>i</sup>	89 (87)	87 (87)
Total cost analgesics	63 (51) <sup>i</sup>	51 (49)	54 (50)
Total cost DMARD	289 (734) <sup>i</sup>	109 (387)	98 (343)
Total cost hospital	3823 (7179) <sup>ii</sup>	1963 (3839)	N/A
Total cost surgery	569 (989)	356 (675)	N/A
Outpatient visits <sup>iii</sup>	367	568 <sup>iv</sup>	N/A
Acute care visits <sup>iii</sup>	246	143	
Total cost anti-TNF treatment		14704 (3065) <sup>**</sup>	16202 (3584)
Total costs	27447 (20933)	39630 (20829)	N/A



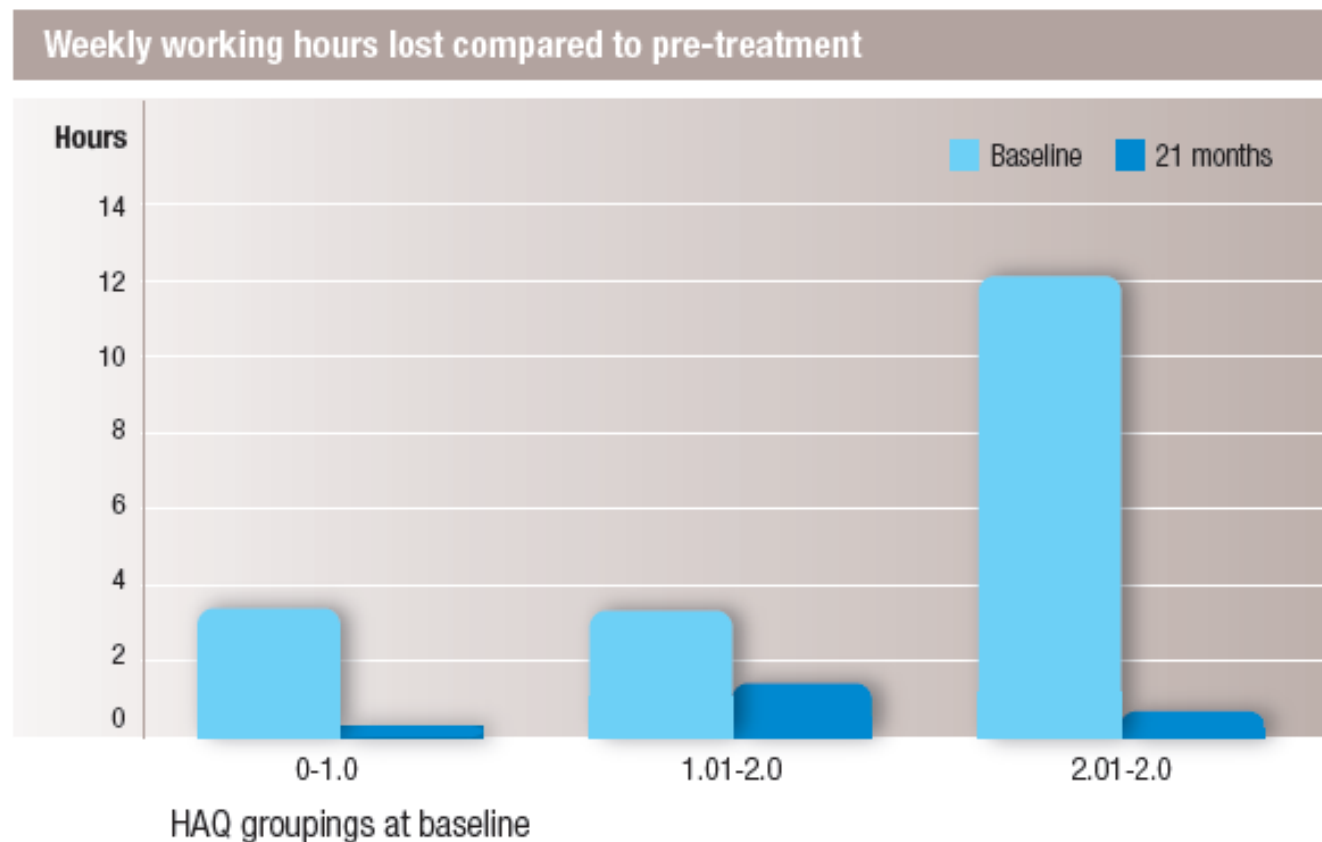


**Figure 5-8:** Decrease in outpatient consultations with TNF inhibitor therapy<sup>13</sup>

Change in specialist and general practitioner visits with anti-TNF therapy at 21 months by HAQ at baseline



**Figure 5-9: Weekly working hours lost by baseline HAQ<sup>13</sup>**



# Personal and economic burden of late-stage rheumatoid arthritis among patients treated with adalimumab: an evaluation from a patient's perspective

T. Mittendorf<sup>1</sup>, B. Dietz<sup>2</sup>, R. Sterz<sup>2</sup>, M. A. Cifaldi<sup>3</sup>, H. Kupper<sup>2</sup> and J.-M. von der Schulenburg<sup>1</sup>

**Objectives.** This study evaluated the patients' perspective of burden of disease among 505 patients with severe, long-standing rheumatoid arthritis receiving adalimumab.

**Methods.** Health-related quality-of-life and resource use data were collected during a 144-week open-label study.

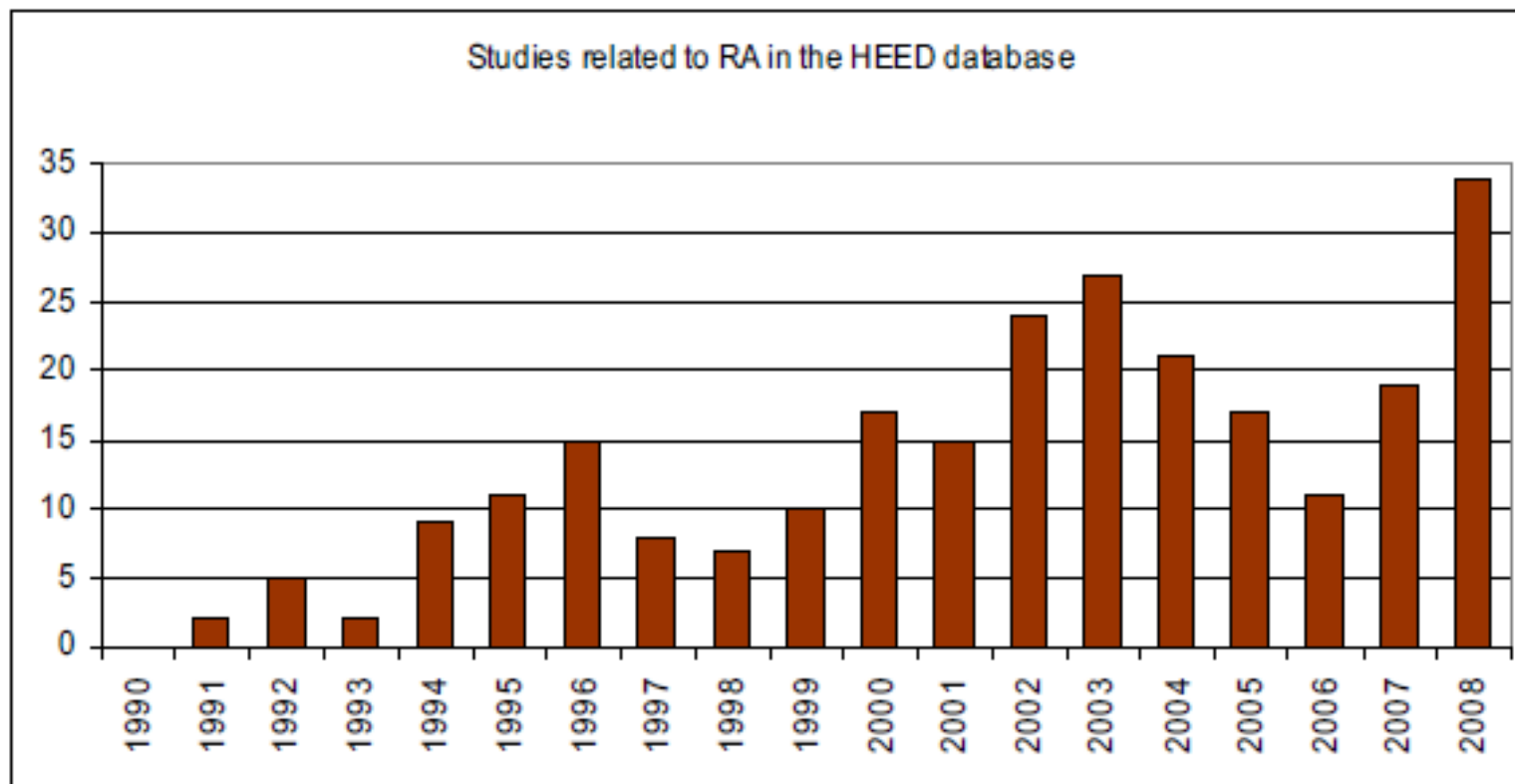
**Results.** Adalimumab maintained pain control and reduced the duration of morning stiffness. Work impairment decreased and work productivity was maintained over the duration of the study. Costs were estimated at ~€2100 over the course of the study, and personal help and transportation costs comprised a large percentage of total costs.

**Conclusions.** These results suggest that adalimumab could improve many aspects of a patient's burden of disease.

**KEY WORDS:** Rheumatoid arthritis, Patient perspective, Adalimumab, Out-of-pocket payments.



**Figure 4-5 Studies on costs, patient outcomes and cost-effectiveness in HEED related to RA between 1990-2008**



G. KOLBELT – F. KASTENG.. ACCESS TO INNOVATIVE TREATMENTS IN RHEUMATOID ARTHRITIS IN EUROPE, 2009

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 <sup>(1)</sup>	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.

# Συμπέρασμα

- Η οικονομική αξιολόγηση δίνει μια άλλη επιπλέον διάσταση στην λήψη αποφάσεων, δεν υποκαθιστά την κλινική αξιολόγηση αλλά την εμπλουτίζει
- Ωστόσο πολλές φορές δίνει αντικρουόμενες λύσεις σε σχέση με την αξιολόγηση της κλινικής αποτελεσματικότητας
- Επίσης βοηθά στην στόχευση των θεραπειών στους ασθενείς και στις συνθήκες που βελτιώνουν την αποδοτικότητα
- Γίνεται με τεκμηρίωση και πλήθος αναλύσεων και στοιχείων από έγκριτους φορείς και με συγκεκριμένες μεθοδολογίες