L'impatto dei tumori sui sistemi sanitari: approcci ed esperienze a confronto
Aula Marconi, CNR, P.le Aldo Moro, 7 - Roma

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Differenze di sopravvivenza e percorsi di diagnosi e trattamento in Europa
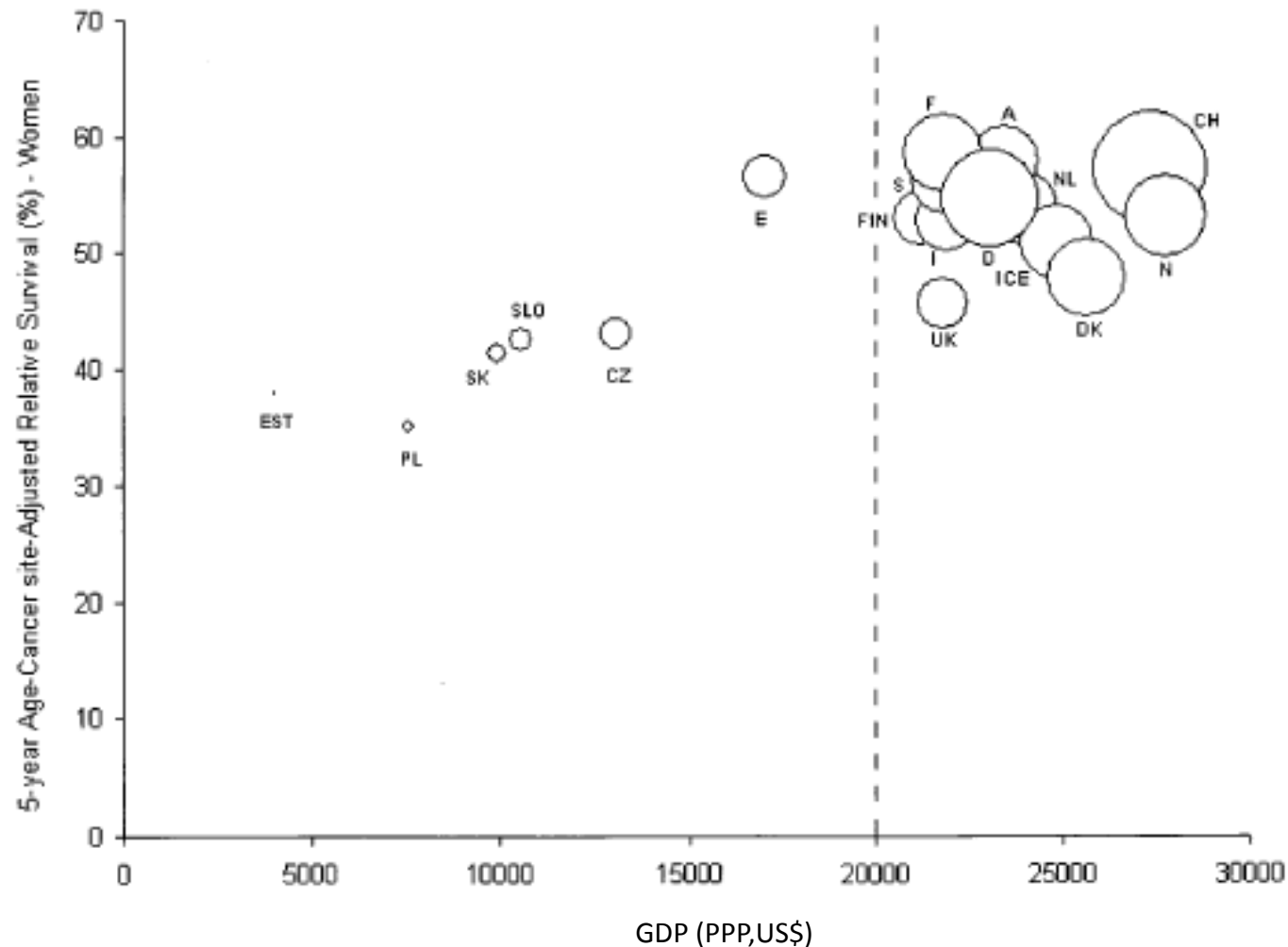
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Domande per la discussione

- E' vero che tanto maggiori sono le risorse economiche investite in sanità tanto migliore è l'outcome/sopravvivenza dei pazienti oncologici?

- E' importante <u>come</u> vengono utilizzate le risorse economiche?

- I dati disponibili su sopravvivenza e differenze di sopravvivenza devono essere utilizzati per decidere come investire le risorse economiche in sanità?

Relationship between gross domestic product (GDP), expressed as parity purchasing power (PPP, US$), and the 5-year age- and cancer site-adjusted relative survival in the EUROCARE-3 countries

Pearson correlations (r) between 1995 socioeconomic indicators and 1- and 5-year ASRS for cancer patients diagnosed in 1990–94 in all 19 European countries, and separately for the 10 countries with GDP above and nine countries with GDP below the median

	INFMORT	LE	GDP	PEH	TNEH	CTS
All 19 European countries						
1-year W	−0.681***	0.745***	0.801***	0.738***	0.817***	0.812***
1-year M	−0.714***	0.778***	0.830***	0.766***	0.848***	0.851***
5-year W	−0.806***	0.871***	0.874***	0.811***	0.854***	0.825***
5-year M	−0.728***	0.811***	0.815***	0.753***	0.816***	0.841***
GDP above median						
1-year W	−0.337	0.620	0.414	0.087	0.503	0.692*
1-year M	−0.247	0.566	0.356	0.079	0.506	0.698*
5-year W	−0.362	0.644*	0.243	0.167	0.428	0.674*
5-year M	−0.100	0.453	0.173	0.104	0.413	0.659*
GDP below median						
1-year W	−0.611	0.547	0.599	0.566	0.665	0.734*
1-year M	−0.732*	0.661	0.738*	0.705*	0.791*	0.841**
5-year W	−0.797**	0.806**	0.861**	0.780*	0.885**	0.868**
5-year M	−0.754*	0.777*	0.839**	0.753*	0.855**	0.887***

Men (M) and Women (W)
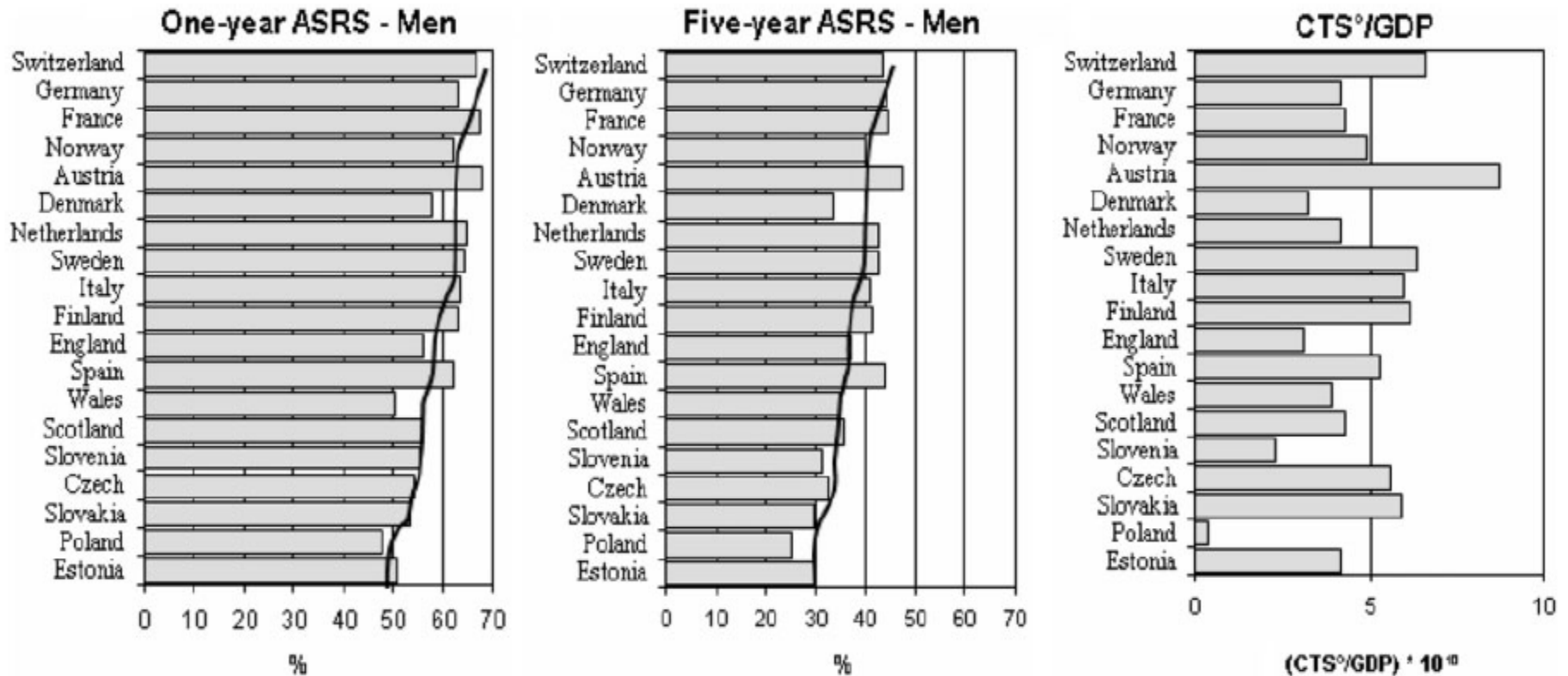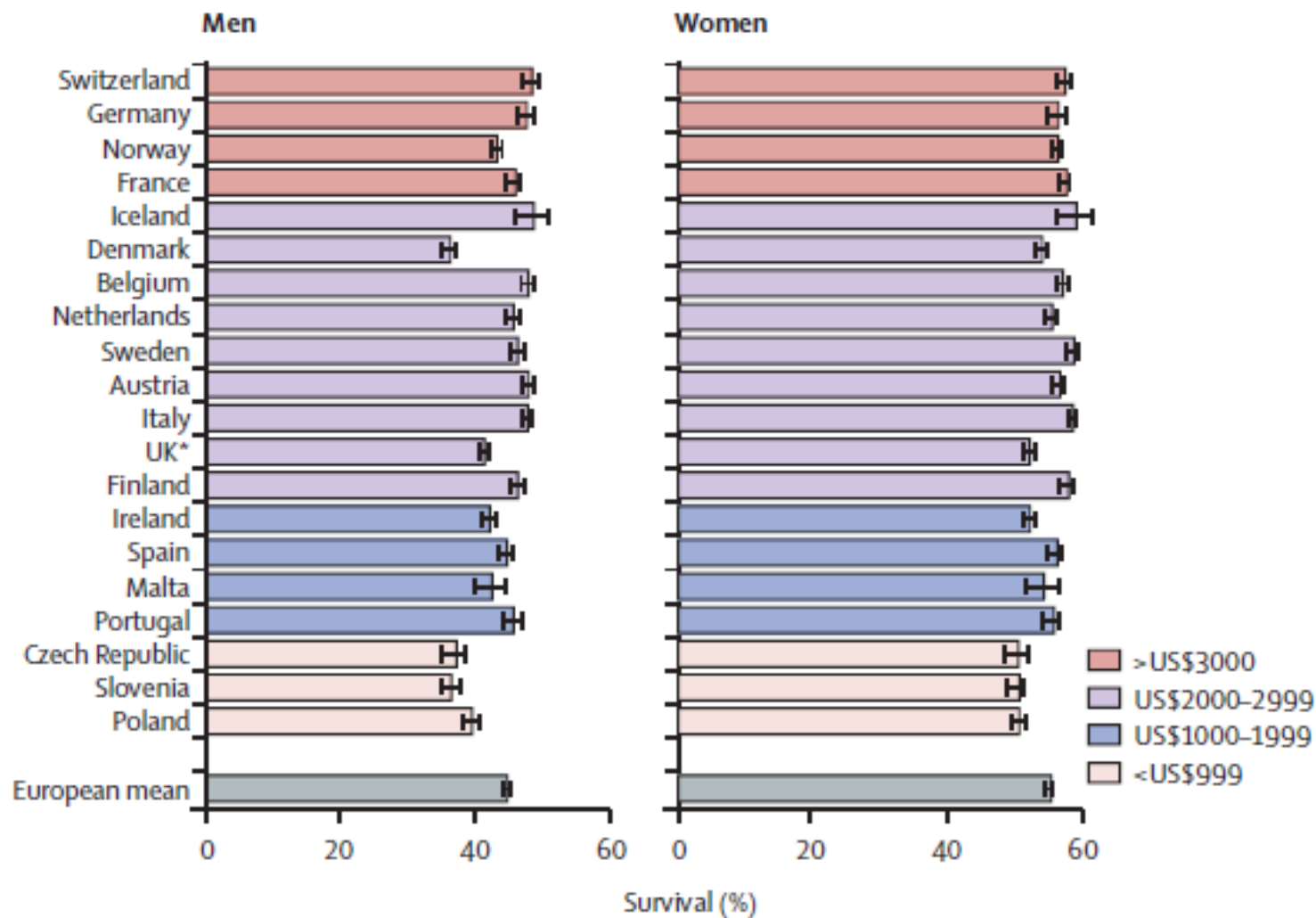*Correlation significant at $P<0.05$
**Correlation significant at $P<0.01$
***Correlation significant at $P<0.001$
INFMORT, infant mortality; LE, life expectancy at birth (men and women combined); GDP, gross domestic product; PEH, public expenditure on health; TNEH, total national expenditure on health; CTS, computer tomography scanners frequency;
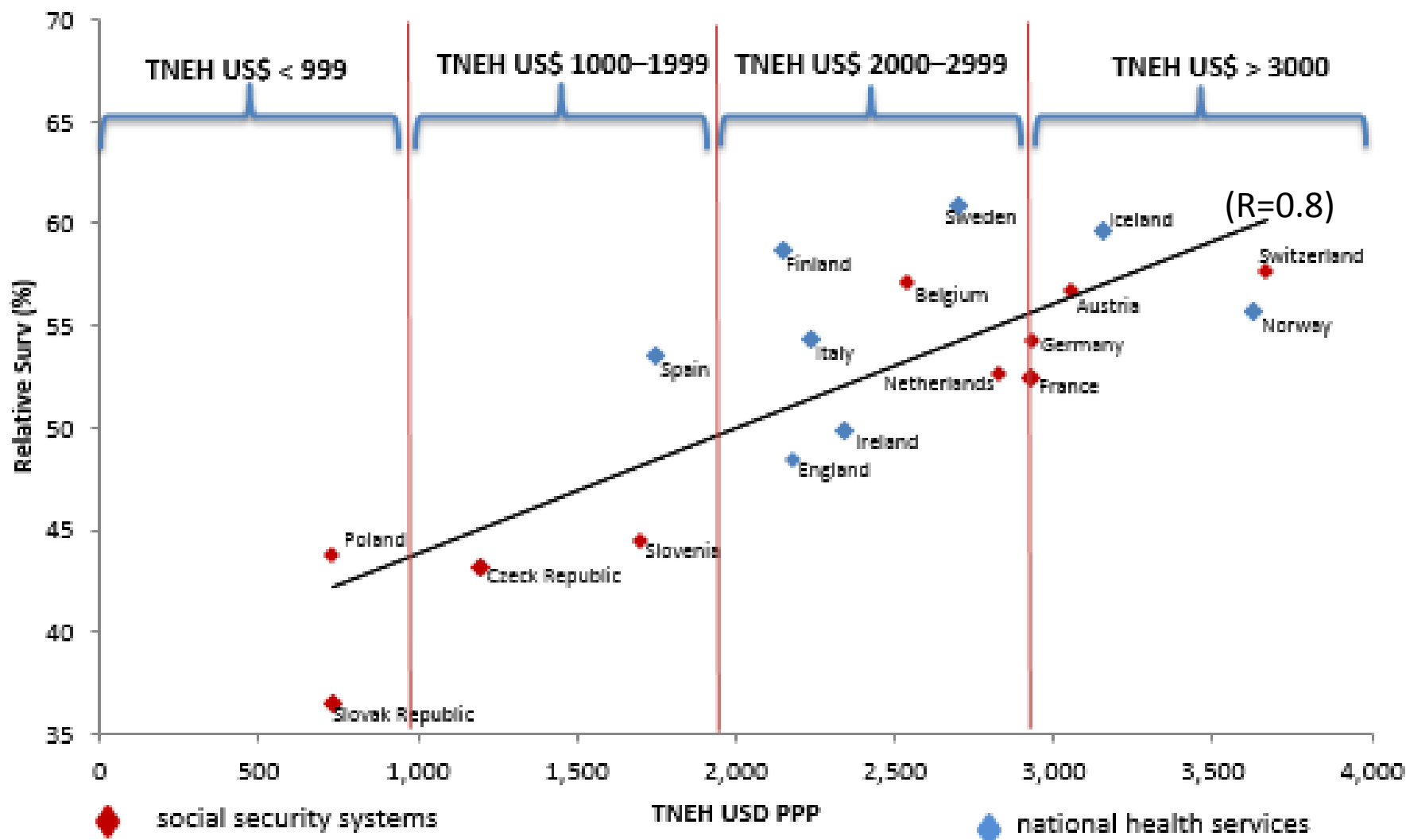
Fonte: Verdecchia et al. Eur Journal of Public Health, 2008

Relative survival 1 (left) and 5 (centre) years after diagnosis and CTS/GDP (right) for 19 European countries ranked by 1995 TNEH, in men.

5-year relative survival adjusted for age-mix and case-mix by country for all cancers combined, with area-weighted mean European survival
Countries are ordered by total national expenditure and colour-coded by TNEH

Fonte: Berrino et al, Lancet Onc 2007

Relationship between total national expenditure on health (TNEH), (US$PPP), and the 5-year age-adjusted relative all-cancer survival (%) (period 2000-2002) by country and national health-care system organization

Sopravvivenza

- Stadio alla diagnosi
  - copertura del servizio sanitario
  - classe socio economica
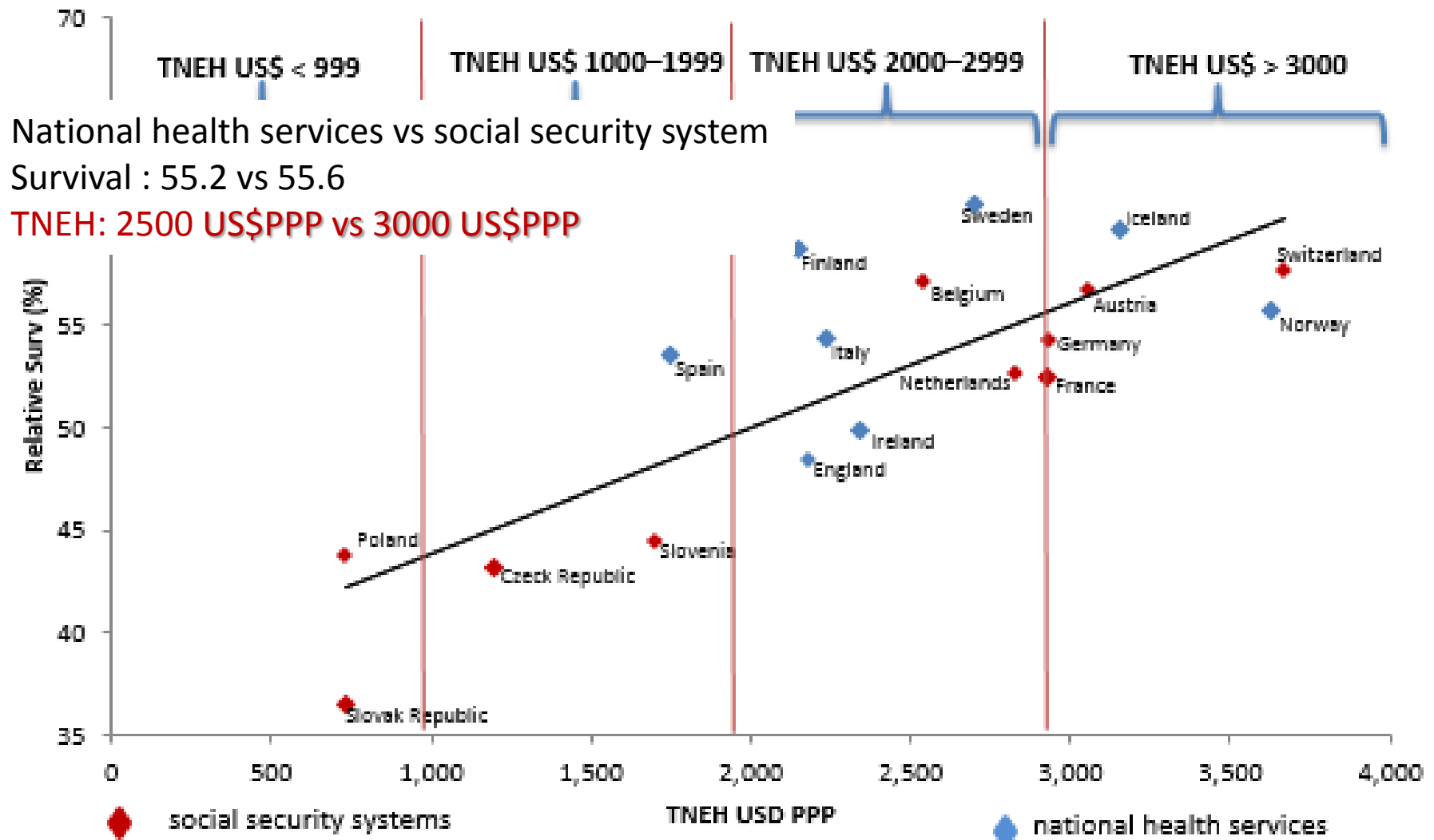 - razza
  - **apparecchiature diagnostiche (CT, RMI)**

- Trattamento
  - copertura del servizio sanitario
  - classe socio economica
  - razza
  - farmaci innovativi
  - **Apparecchiature per radioterpia (RT)**

Medical devices and total national health expenditure (TNEH) (USD PPP) at 2002 with 5-year age-adjusted relative survival (period 2000-2002) by country. Country ranked by TNEH

	CT (N per 1,000,000 population)	MRI (N per 1,000,000 population)	RT (N per 1,000,000 population)	Actual/need RT capacity (%)	TNEH (USD PPP)	5 year Relative Survival (%)
Switzerland	18	14.1	10.6	NA	3,673	58
Norway	NA	NA	NA	NA	3,628	56
Iceland	20.9	17.4	13.9	NA	3,156	60
Austria	27.2	13.4	4.5	NA	3,057	57
Germany	14.2	6	4.6	60-80	2,934	54
France	9.7	2.7	6	90	2,931	52*
The Netherlands	NA	NA	NA	60-8	2,833	53
Sweden	14.2	7.9	NA	90	2,702	61
Belgium	28.8	6.6	NA	90	2,542	57
Ireland	NA	NA	NA	NA	2,344	50
Italy	23.4	10.6	4.3	60-80	2,235	54
England	5.8**	5.2**	3.9**	50	2,184	48
Finland	13.3	12.5	8.8	NA	2,150	59
Spain	12.9***	6.2***	3.7***	NA	1,745	54
Slovenia	NA	NA	NA	<40	1.706	44
Czeck Republic	12.1	2.2	6.7	50	1,195	43
Poland	5.8	0,9	NA	<40	733	44
Slovak Republic	8.7	2****	7.1****	NA	730	37*
Malta	NA	NA	NA	NA	NA	49

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Relationship between total national expenditure on health (TNEH), (US$PPP), and the 5-year age-adjusted relative all-cancer survival (%) (period 2000-2002) by country and <u>national health-care system organization</u>

National health services vs social security system
Survival : 55.2 vs 55.6
TNEH: 2500 US$PPP vs 3000 US$PPP

Studi di alta risoluzione

Variation in 'standard care' for breast cancer across Europe: A EUROCARE-3 high resolution study
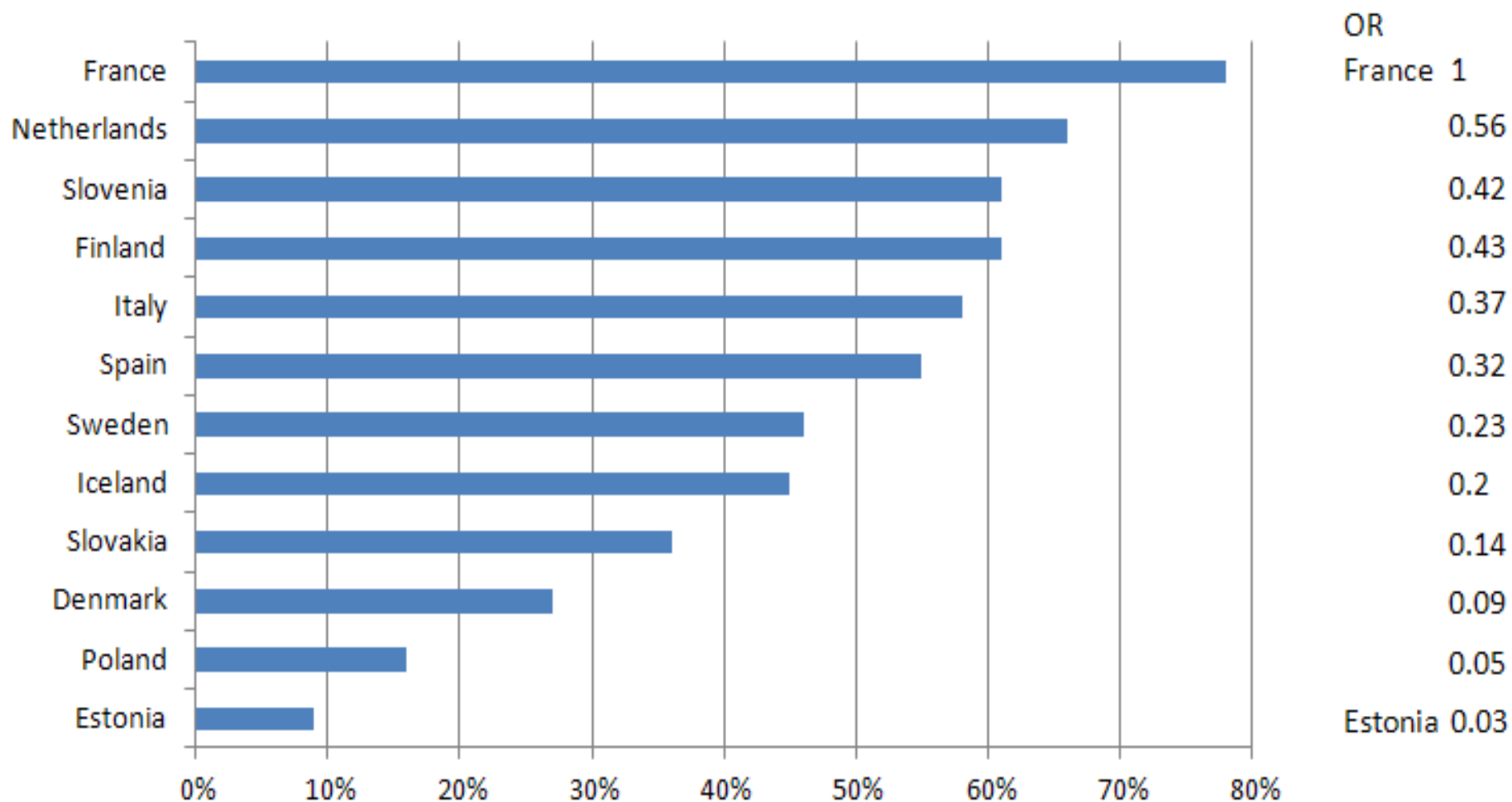
Claudia Allemani [a,*], Hans Storm [b], Adri C. Voogd [c], Kaija Holli [d], Isabel Izarzugaza [e], Ana Torrella-Ramos [f], Magdalena Bielska-Lasota [g], Tiiu Aareleid [h], Eva Ardanaz [i,j], Marc Colonna [k], Emanuele Crocetti [l], Arlette Danzon [m], Massimo Federico [n], Isabel Garau [o], Pascale Grosclaude [p], Guy Hédelin [q], Carmen Martinez-Garcia [r], Karin Peignaux [s], Ivan Plesko [t], Maja Primic-Zakelj [u], Jadwiga Rachtan [v], Giovanna Tagliabue [w], Rosario Tumino [x], Adele Traina [y], Laufey Tryggvadóttir [z], Marina Vercelli [aa], Milena Sant [a]

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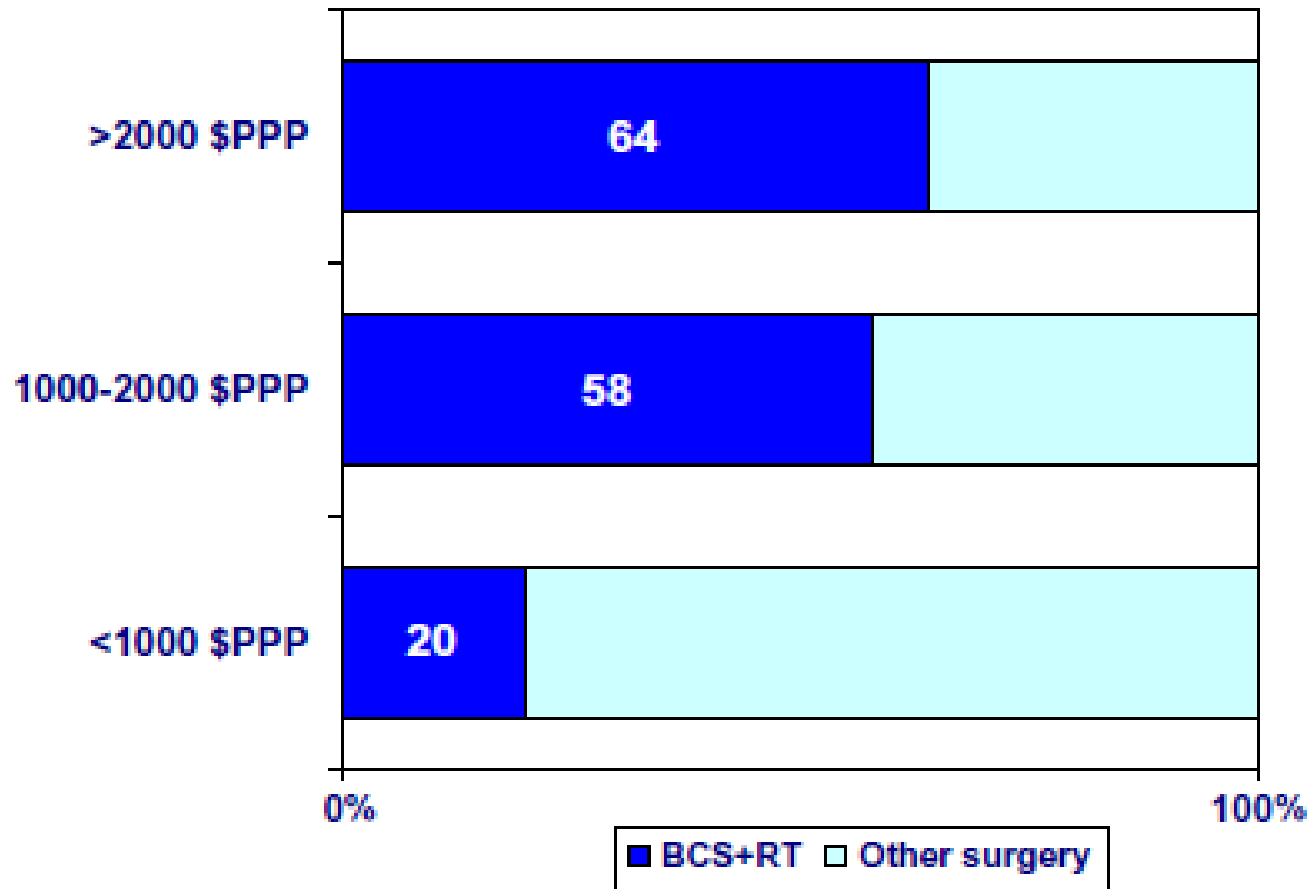
Number of cases and stage distribution (%) of breast cancer by country

Country	No. of cases	In situ	T1N0M0	T2-3N0M0	T1-3N+M0	T4N±M0	M1	NS
Denmark	487	0.0	29.2	11.5	28.1	24.0	1.4	5.8
Estonia	405	0.3	21.5	18.8	40.3	13.6	3.0	2.7
Finland	576	0.0	35.9	10.1	29.0	2.8	1.9	20.3
France	1484	0.1	40.6	15.5	27.6	2.9	3.2	10.0
Iceland	438	0.0	37.7	13.2	36.3	1.1	2.7	8.9
Italy	3259	1.4	33.9	13.0	33.2	7.5	3.1	8.0
Netherlands	1219	0.0	44.5	13.7	25.4	6.3	2.1	8.0
Poland	1058	0.0	27.1	15.1	47.0	3.9	1.2	5.7
Slovakia	489	0.2	24.7	15.3	40.5	6.5	11.0	1.6
Slovenia	718	0.0	27.9	18.8	37.5	9.5	2.5	3.9
Spain	2882	5.3	28.1	18.3	33.6	6.0	2.4	6.3
Sweden	471	0.0	38.0	11.3	26.5	13.8	3.0	7.4
All cases	13,485	1.5	33.0	15.0	33.2	6.9	2.9	7.5

Fonte: Allemani EJC 2010

High-resolution study on breast cancer: proportions of T1N0M0 cases that received breast-conserving surgery plus radiotherapy with odds ratios (ORs) by country. Data from EUROCARE high-resolution study

Percentage of T1N0M0 receiving BCS +RT by TNEH

High TNEH countries: Denmark, France, Iceland
Medium TNEH countries: Finland, Italy, The Netherlands, Slovenia, Spain, Sweden
Low TNEH countries: Estonia, Poland, Slovakia

Fonte: Allemani EJC 2010

High-resolution study on breast cancer: proportions of lymph node–positive (N+) patients who received adjuvant chemotherapy by age, and proportions with advanced stage at diagnosis and 5-year relative survival (cohort 1995–1999) by country

Country	Proportion (%) of breast cancer patients N+ receiving adjuvant chemotherapy by age group			Proportion (%) of breast cancer patients with advanced stage (N=13,486)	Five-year relative survival (%) (N=168,547)
	All ages	Age 15-49 (N=1300)	Age 50-99 (N=3723)		
Denmark	21	53	16	54	77.5
Estonia	46	98	77	57	n.a.
Finland	52	82	23	34	83.5
France	54	90	51	34	77.5
Iceland	56	90	40	40	87.5
Italy	47	84	61	44	82.7
Netherlands	66	93	15	34	81.4
Poland	76	89	46	52	73.9
Slovakia	72	96	73	58	61.6
Slovenia	85	99	67	50	71.9
Spain	71	97	69	42	80.3
Sweden	74	81	16	43	84.7

Breast cancer survival in the US and Europe: a CONCORD high-resolution study

Claudia Allemani[1,2], Milena Sant[2], Hannah K. Weir[3], Lisa C. Richardson[3], Paolo Baili[4], Hans Storm[5], Sabine Siesling[6], Ana Torrella-Ramos[7], Adri C. Voogd[8], Tiiu Aareleid[9], Eva Ardanaz[10], Franco Berrino[11], Magdalena Bielska-Lasota[12], Susan Bolick[13], Claudia Cirilli[14], Marc Colonna[15], Paolo Contiero[16], Rosemary Cress[17], Emanuele Crocetti[18], John R. Fulton[19], Pascale Grosclaude[20], Timo Hakulinen[21], M. Isabel Izarzugaza[22], Per Malmström[23], Karin Reigner[24]

Breast cancer survival and stage at diagnosis in Australia, Canada, Denmark, Norway, Sweden and the UK, 2000-2007: a population-based study

Domande per la discussione

- E' vero che tanto maggiori sono le risorse economiche investite in sanità tanto migliore è l'outcome/sopravvivenza in oncologia? Sì ma non sufficiente

- E' importante <u>come</u> vengono utilizzate le risorse economiche? Sì

- I dati disponibili su sopravvivenza e differenze di sopravvivenza devono essere utilizzati per decidere come investire le risorse economiche in sanità? Sì, cosa possiamo fare perché avvenga più spesso? Specie in Italia…

Grazie per l'attenzione

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