

Ageing-Related Diseases: Summary of the results from the Ischaemic Heart Disease Study

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Health System influences on health care for IHD

- Demand side constraints have little influence on utilisation of IHD health care services
 - Health insurance
 - Patient cost sharing
- Supply side constraints have some bite
 - Methods of paying hospital (Global budgets, DRGs, fee-for-service)
 - Methods of paying physicians (Salary, mixed, fee-for-service)
 - Regulation of facilities (Strong regulation, weak regulation)

Epidemiology of IHD

❑ Collected information on risk factors

- Highest Body Mass Index (Australia and United States)
- Tobacco use (Denmark)
- High cholesterol level (Germany)
- Hypertension (Finland)

❑ Little information on incidence or prevalence

❑ Most reliable information on IHD mortality rates

Declining IHD Mortality

	Men		
	1970	1980	1995
Australia	1138		
United States	1133		
Finland	1092		
Canada	983		
United Kingdom	908		
Sweden	880		
Norway	791		
Germany	433		
Italy	418		
Greece	223		
Japan	175		
Spain	172		

Declining IHD Mortality

	Men		
	1970	1980	1995
Finland	1092	970	
Sweden	880	947	
United Kingdom	908	873	
Australia	1138	825	
United States	1133	804	
Canada	983	774	
Norway	791	738	
Germany	433	442	
Italy	418	413	
Greece	223	272	
Spain	172	267	
Japan	175	155	

Declining IHD Mortality

	Men		
	1970	1980	1995
Finland	1092	970	690
United Kingdom	908	873	585
Sweden	880	947	528
Germany	433	442	505
Norway	791	738	502
United States	1133	804	463
Australia	1138	825	447
Canada	983	774	421
Greece	223	272	299
Italy	418	413	288
Spain	172	267	236
Japan	175	155	143

Classification of countries by level of IHD

□ High level of IHD:

- Hungary, Finland, Great Britain, Denmark, Australia, Sweden, United States, Germany, Norway and Canada

□ Low level of IHD:

- Switzerland, Italy, Greece, Belgium, Spain, Japan and Korea

Aggregate Treatment Trends for IHD

□ Consumption of drugs (1990s)

- Possible substitution away from older toward newer drugs

□ Admission rates for AMI have remained steady

□ Acute care treatments (PTCA and CABG)

- Increasing for all countries
- Utilisation rates for PTCA increasing faster than CABG
- Highest utilisation rates: Australia, Belgium, Germany, Switzerland, United States
- Lowest utilisation rates: Great Britain, Hungary, Italy

Proportion of AMI patients undergoing a revascularisation (90 days from AMI admission)

	MEN		WOMEN	
	40-64	80-84	40-64	80-84
Australia (Perth)	39.0	8.2	44.0	2.5
Canada (Ontario)	21.2	3.5	21.9	3.7
Spain	15.7	-	11.2	-
Sweden	24.6	2.9	21.5	1.8
Great Britain (Oxford)	8.1	-	10.7	-
United States	58.2	28.4	47.5	22.0

One year case fatality rates (by age, 1997)

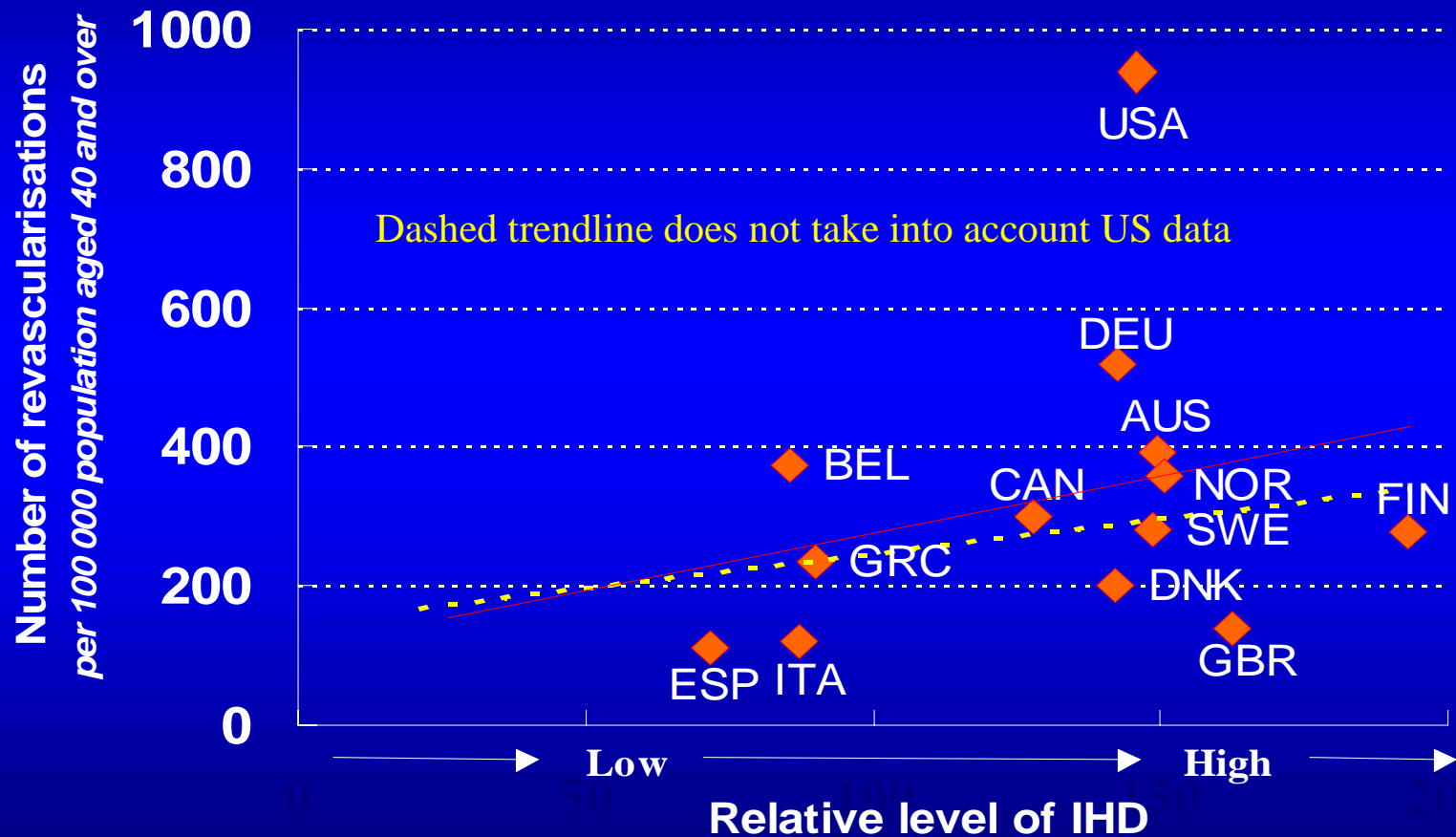
	MEN		WOMEN	
	40-64	80-84	40-64	80-84
Australia	3.1		8.7	
Canada (96)	6.5	41.0	7.5	38.9
Denmark (96)	9.6	36.9	10.6	39.4
Finland	10.2	53.8	12.7	47.9
Sweden	6.9	34.1	7.4	34.8
United Kingdom	8.5		10.2	
United States (96)	8.0	35.8	12.8	35.1

TECH: Canada, Finland, Sweden and USA

Level of IHD and utilisation of revascularisations

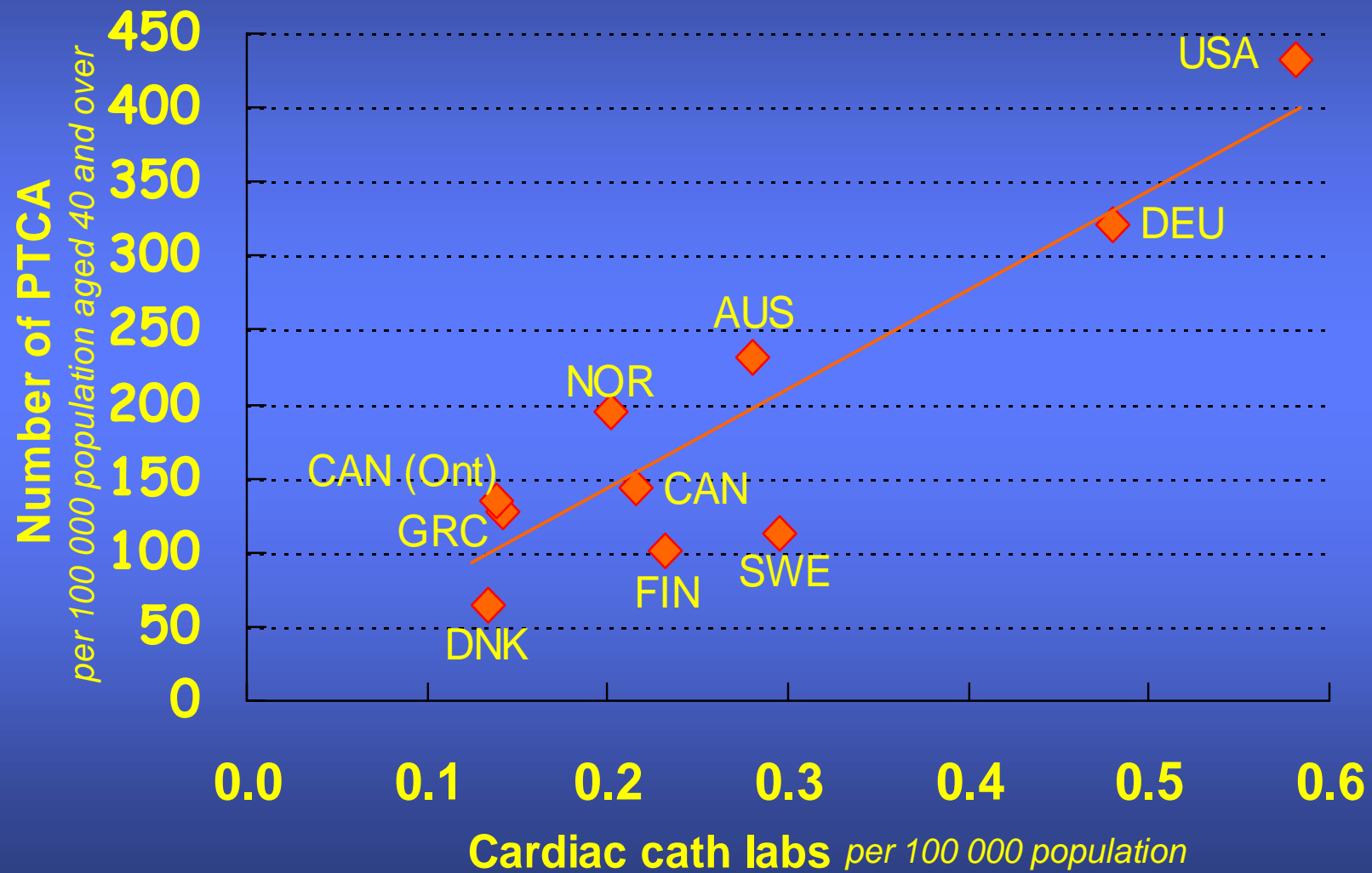
Level of IHD	Utilisation of revascularisation procedures		
	High	Medium	Low
High	AUS, DEU, USA	CAN, DNK, FIN, NOR, SWE	<i>HUN, GBR</i>
Low	<i>BEL, CHE</i>	ESP, GRC, JPN, KOR	ITA

Revascularisation rate and relative level of IHD

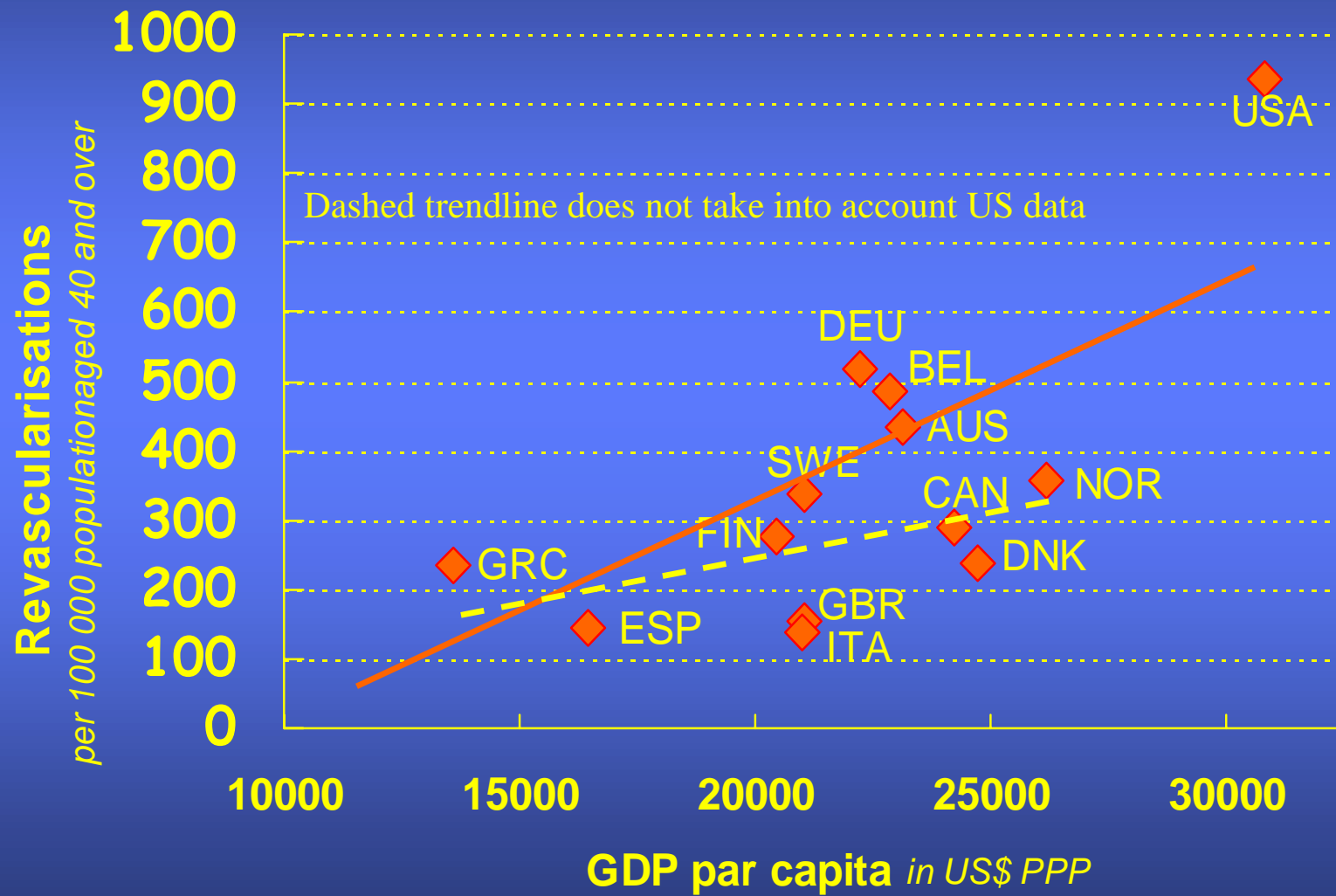


SUPPLY CONSTRAINTS			
REGULATION OF FACILITIES	Utilisation of revascularisation procedures		
	High	Medium	Low
Strong constraint		CAN, DNK, NOR	GBR
Medium constraint	AUS	FIN, GRC, ITA, SWE	
Low constraint	BEL, CHE, DEU, USA	ESP, JPN, KOR	HUN
HOSP PAYMENT METHODS	High	Medium	Low
Global budgets		CAN, DNK, ESP, GRC, NOR, SWE	GBR
Mixed financing	AUS, USA	FIN	HUN, ITA
Fee-for-service	BEL, CHE, DEU,	JPN, KOR	
PHYS PAYMENT METHODS	High	Medium	Low
Salaried		DNK, ESP, FIN, JPN, NOR, SWE	HUN, ITA, GBR
Mixed remuneration	AUS, DEU	CAN, GRC	
Fee-for-service	BEL, CHE, USA	KOR	

Utilisation rates for PTCA and no. of catheterisation laboratories per 100,000 persons



Utilisation rates for revascularisations and GDP per capita in \$US PPP



Concluding remarks

□ General observations

- Levels of IHD vary
- Treatment patterns vary
- Outcomes vary
- There is a link between the three but it is not strong

□ Link between health system supply-side constraints and utilisation of invasive revascularisation procedures

□ Demonstrates the potential for developing information systems for evaluating health care