Health cost dynamics and practical policymaking - an inside view

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Health Cost Growth – Bankruptcy threat?

- Worry: costs of ageing and the economy

$$\log\left(\frac{h_{i,t+1}}{h_{i,t}}\right) = \beta_0 + \beta_1 \log\left(\frac{g_{i,t+1}}{g_{i,t}}\right) + \beta_2 \log\left(\frac{x_{i,t+1}}{x_{i,t}}\right) + \beta_{3,i}\mu_i + \varepsilon_{i,t} \qquad (3.1)$$

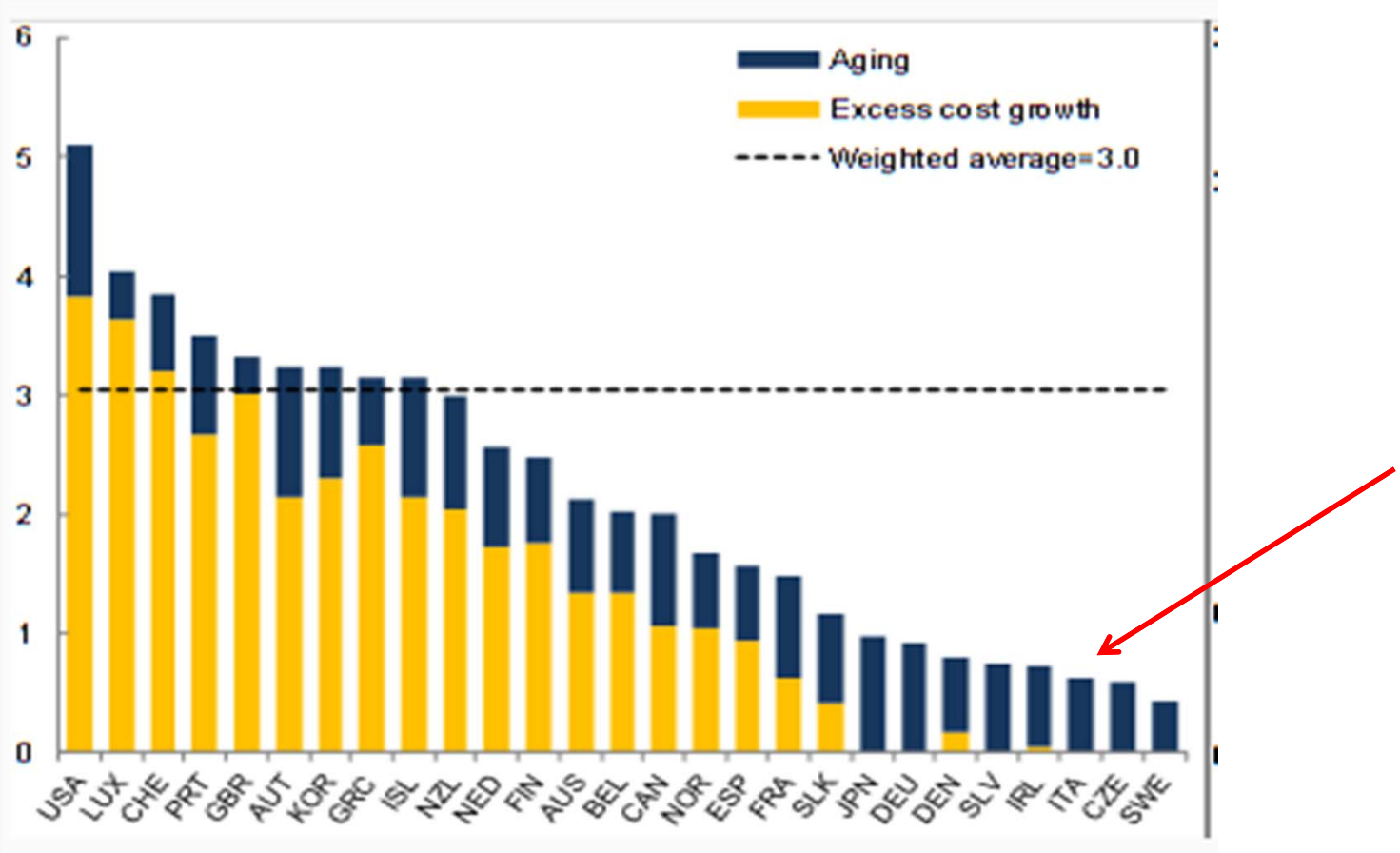
- More worry: we add cost

$$ECG_i = \hat{\alpha_0} + \frac{1}{T_i}\sum_{t=1}^{T} \hat{\varepsilon}_{i,t} + (\hat{\alpha_1} - 1)(GDP\ Growth_i)$$

- ECG – excess cost growth, over and above that resulting from demographics/ageing

Ireland – unsustainable health costs?

Projected increase in public health spending 2011-30, %GDP



- Average 3% extra %GDP
- Ireland only 0.7%
- Low "Excess Cost Growth"
- Note … public spending only

Source: Clements, Coady and Gupta, IMF; "The Economics of Public Healthcare Reform in Advanced and Emerging Economies"

Health Cost Growth – Bankrupting

Countries where health costs have already bankrupted the Exchequer/Insurers:

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-
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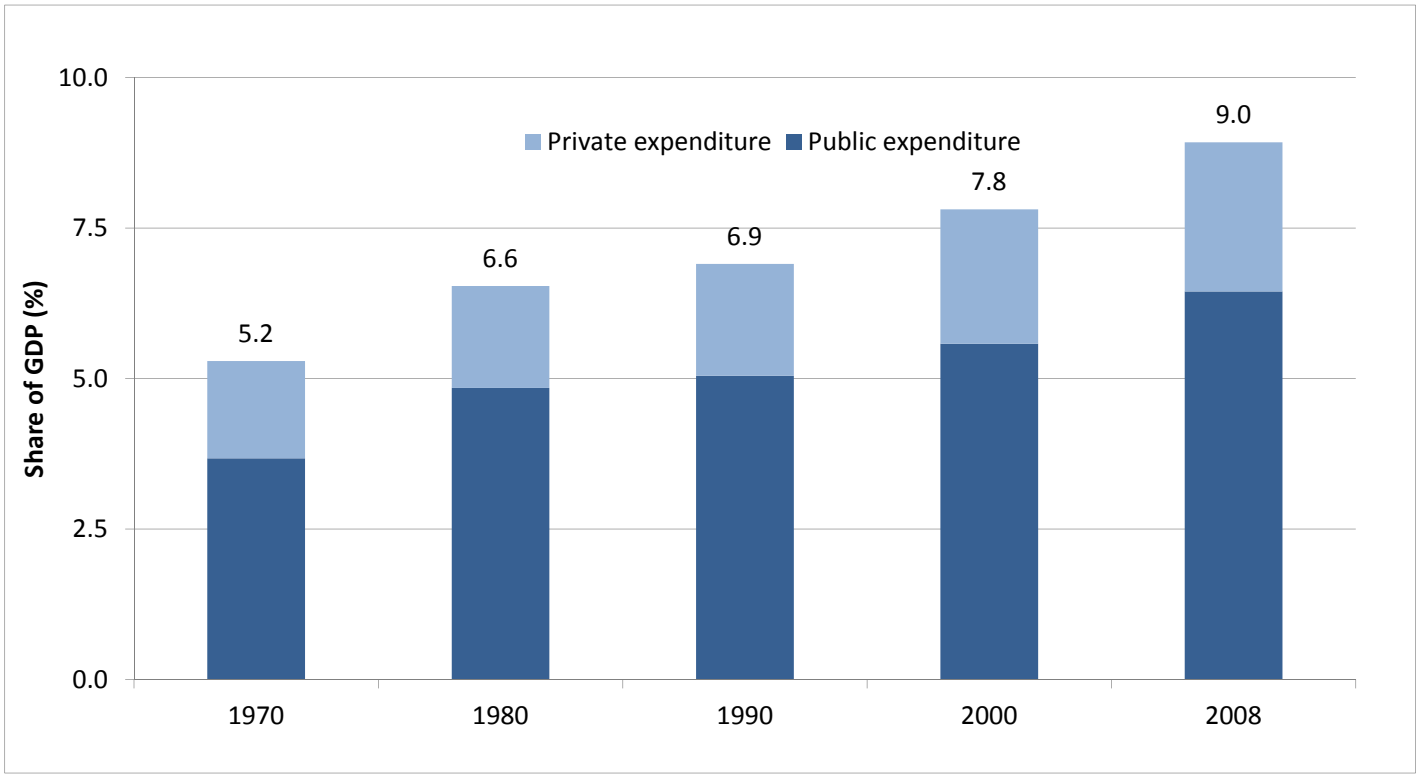
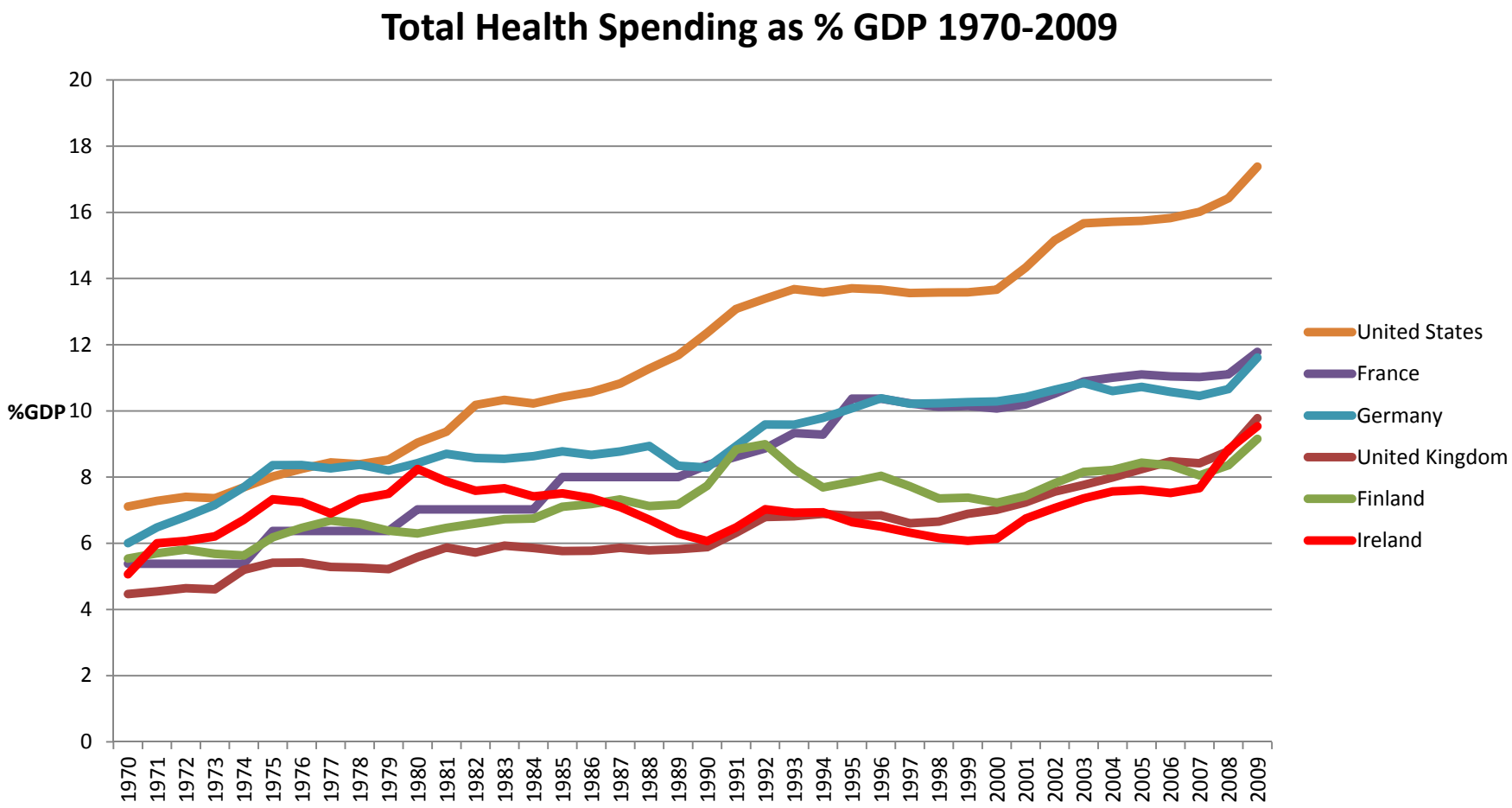
OECD: Health spending up 4% GDP in 40 years

Average health spending as a share GDP across OECD countries



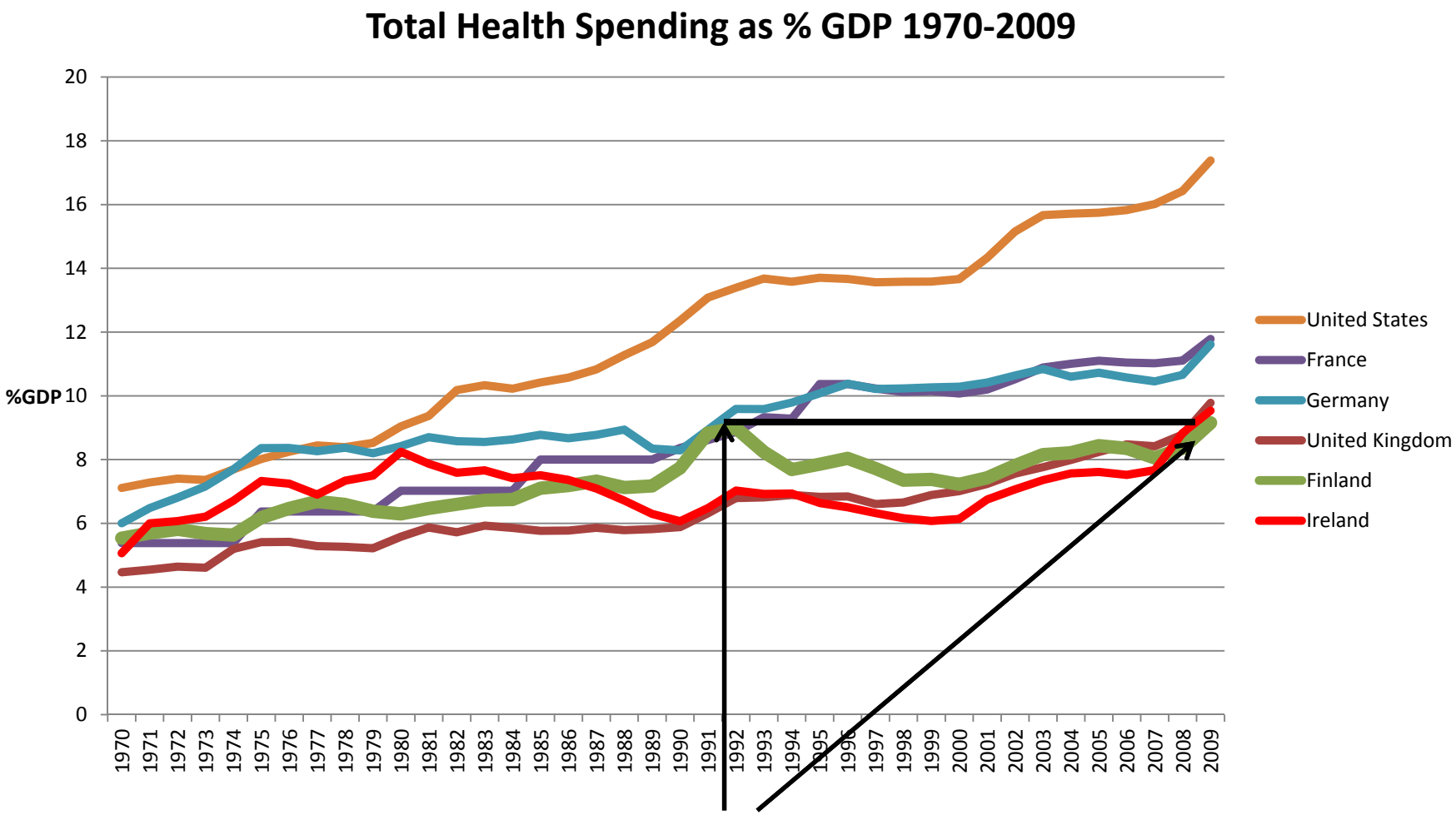
Health Spending and GDP



Ireland health spending up by 4.5% GDP too, but not a steady trend

Source: OECD

Overall – a Finland pattern?



Finland's health spending % GDP peaked 1992 and took 17 years to return to that level

Source: OECD

Explaining past growth

- Income growth: 25% - 50%
- Technology: 28% – 58%
- Ageing: 6.5% - 9%
- Price increases: 5% - 18%
- Defensive medicine – negligible
- Source: OECD, 'Value for Money in Health Spending', 2011

- *Very hard to estimate*
- *In Ireland's case, staff levels +37% 2000-09 and and pay costs +21%, 2005-09*

Guessing the Future: Public Health Spending Levels 2030 as %GDP

- USA 12.7%
- UK 10.6%
- Germany 9.0%
- France 10.5%
- NL 10.2%
- Finland 8.9%
- Ireland 7.5%

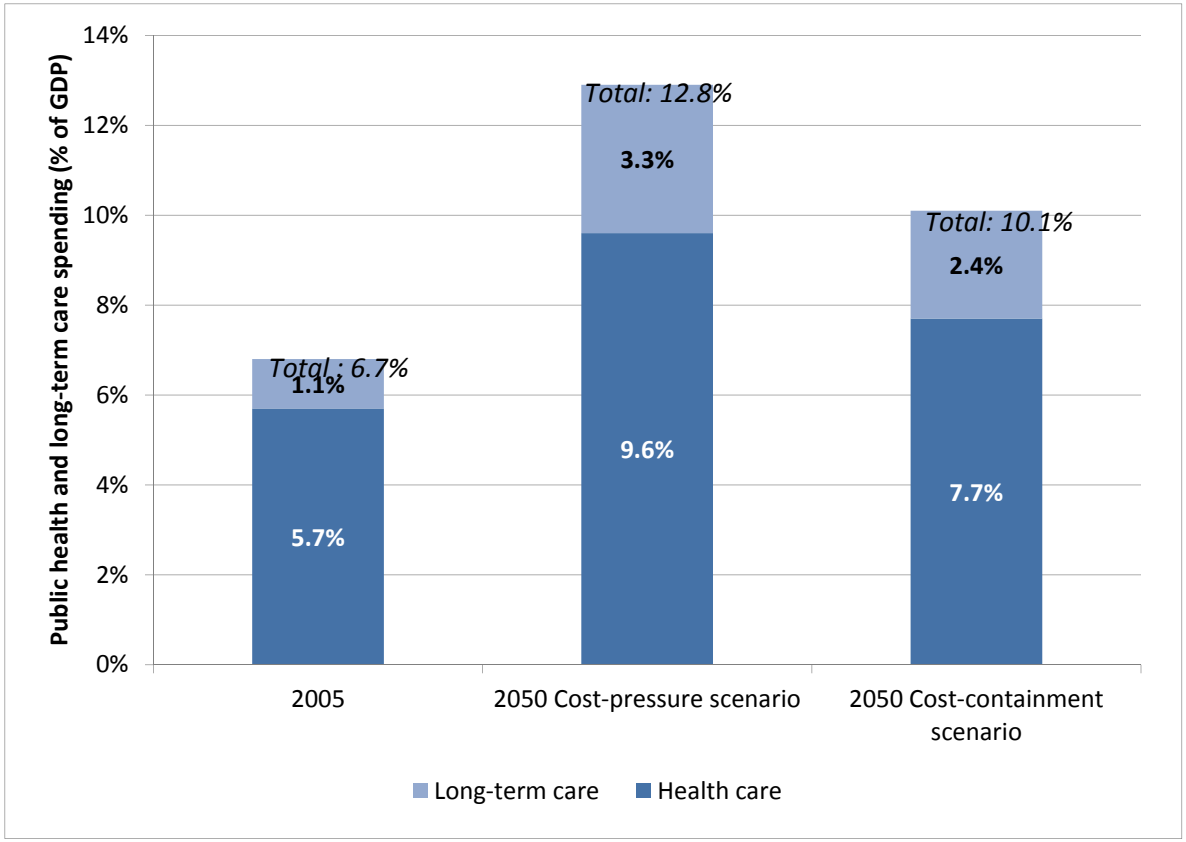
Proviso: Public spending only

But: Where is the 'threat' of ageing?

Where is unsustainable health spending, other than USA?

Source: Clements, Coady and Gupta, IMF; "The Economics of Public Healthcare Reform in Advanced and Emerging Economies"

But OECD said: Health could double - another 6% GDP



Source: OECD 2006

"Public expenditure on health and long-term care could rise to almost double current levels, from close to 7% of GDP in 2005 to some 13% by 2050"

- assuming that growth in... technological change remains unchanged
- restraining this could halve the growth amount

Main influences

- Where you stand today – how mature in terms of incomes, health spending levels
- Demographics: new demands plus expected higher 'dependency' ratios / labor force participation
- Disability years: how long people spend in disability needing health support – chronic diseases
- Amount of costly, unnecessary hospitalisation
- Use of new, more expensive technologies – without application to cost saving
  - More tests and more procedures
  - Late stage life prolongation

Try econometric analysis: what will affect 'Excess Cost Growth'?

Effect of a one-unit change in each OECD index on ECG

Cuts cost		Increases cost	
Public sector mgmt and co-ordination	-0.36	Price controls, regulation:	+0.10
Budget caps	-0.24	Delegation - allowing key decisions at insurer level	+0.10
Choice of insurers	-0.22	Contracting methods to incentivise less service	+0.09
Ability of insurers to compete	-0.17	User information on quality and price of services	+0.11
Private provision	-0.14	[Selection]	
[Selection]			

Source: Tyson, Kashwase, Soto and Clements, IMF; "The Economics of Public Healthcare Reform in Advanced and Emerging Economies"

- Interesting … useful?
- Main lessons: use budget caps and control; use some market mechanisms

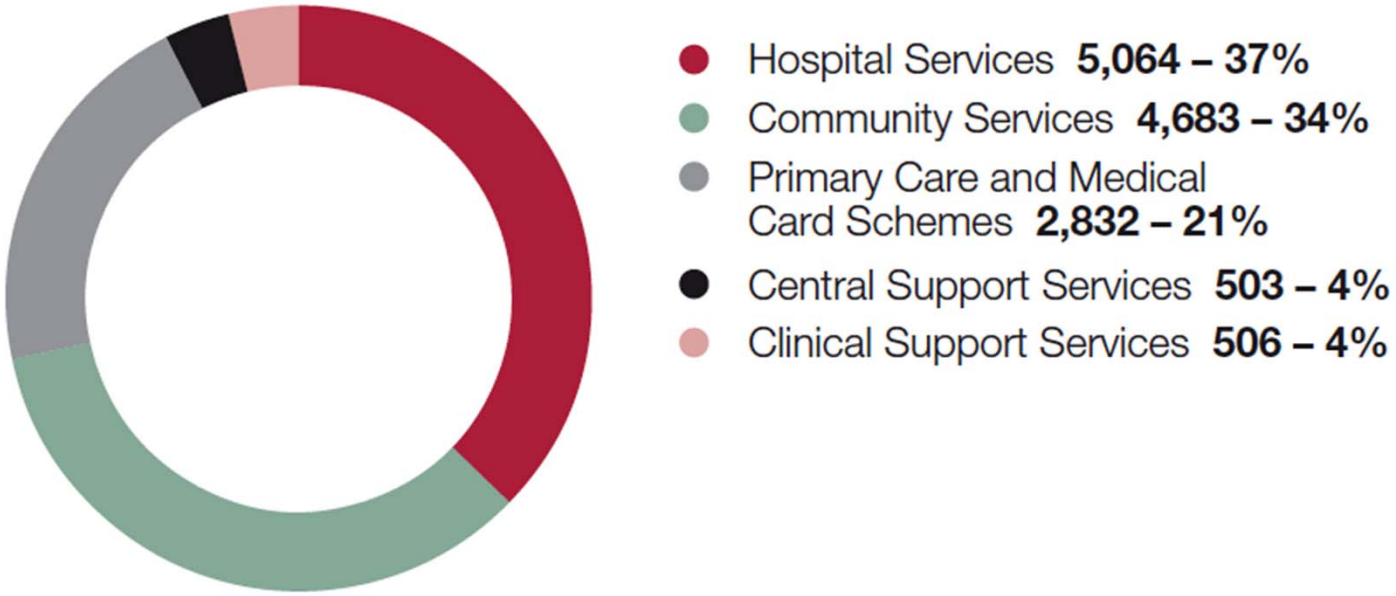
Cost management – for developed countries

- **Demand management**
  - increase years of healthy life expectancy
  - increase health status of the population, incl. equality measures
  - avoid costly, hospital-based, late-interventions to deal with chronic disease
- **Supply management**
  - Implement budget caps and control
  - Well chosen market mechanisms for competition dynamic
  - Get payment systems right for outcomes and cost limitation
- **How?**

  - use technologies that support these goals
  - closely manage to increase hospital efficiencies with detailed data
  - re-configure deployment of resources
  - incentives – deal with capture
  - focus on primary care
  - efficiency in all aspects of ‘episode of care’
  - integrated care / pathways /evidence-based medicine

Practical matters: HSE cost profile now

Figure 3: Breakdown of Total Expenditure by Service (€m and %) 2011



Data source: HSE Corporate Finance

Practical matters: HSE cost profile now

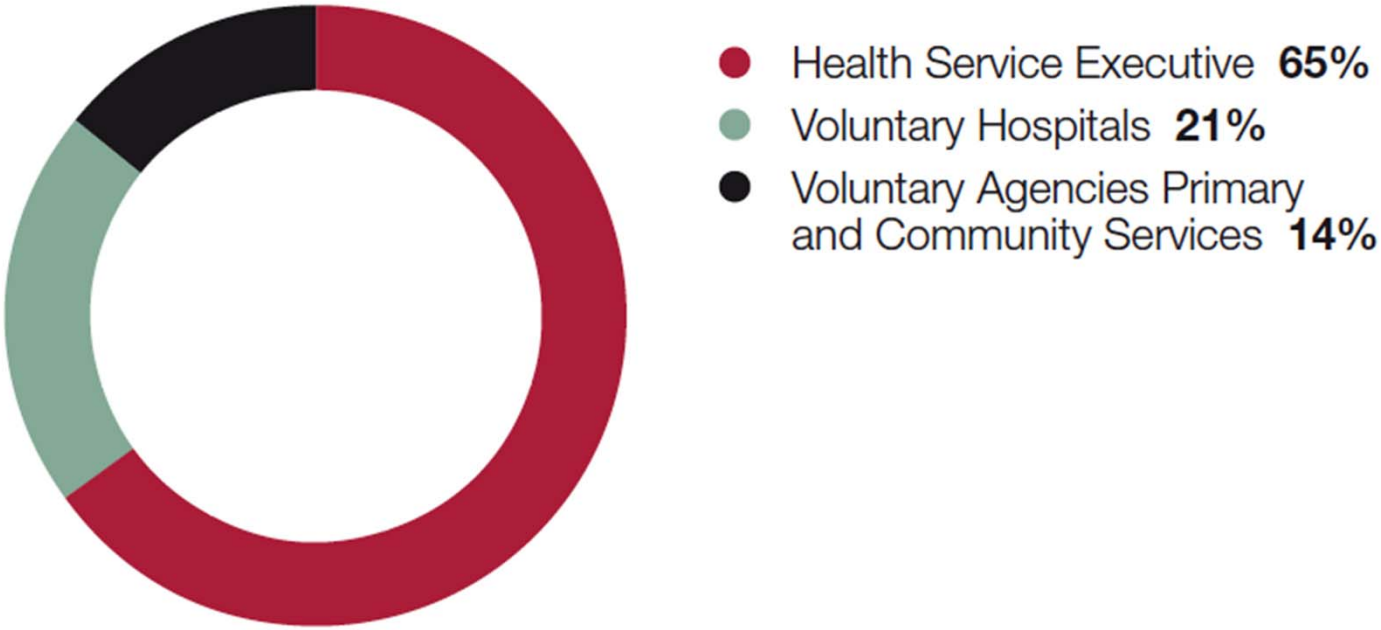
Primary Care and Medical Card Schemes Expenditure (€m and %) 2011

Doctors' Fees and Allowances	476 – 17%
Capitation Payments	172 – 6%
Fostering Payments	105 – 4%
Dental Treatment Services Schemes	52 – 2%
Cash Allowances	60 – 2%
Community Opthalmic Services	28 – 1%
Other	5 – 0%
Pharmaceutical Services	1,934 – 68%

Data source: HSE Annual Financial Statements

HSE – Staff Paid For

Figure 2: HSE and other Providers 2011



Data source: Health Service Personnel Census

Practical matters: How do you deal with cost?

- Business view
  - Variable costs
  - Fixed cost
  - Cost of capital
  - Accrual accounting - profitability measure
- Public sector
  - Current budget
    - Staff: pay and pensions
    - Consumables (drugs, devices, prostheses)
    - Grants to agencies/voluntary organisations/NGOs
  - Capital budget
  - Cash accounting to 'Vote'
  - Return on investment/cost of capital more notional

Public sector cost strategies

- Staff
  - HSE direct pay and pensions cost 40% but really 70%
  - A lot of staff costs are fixed not variable, so use differentiated strategies to address quasi-fixed costs
    - Staff levels
    - Appropriate mix and deployment of staff
    - Rates of pay
    - Non-core pay
    - Pensions
    - Non-HSE staff costs
- Supplies
  - Achieve lower drug cost – good agreement now
  - Achieve lower supplier / procurement cost – potential
- Then… performance manage
  - Set high efficiency-clinical quality goals
  - Very detailed data for clinical care/resource management together
  - Measure and manage
  - People who can do it and incentives aligned

€3.5bn of HSE Spend – to control?

Appendix 1 **Revenue Grants and Grants Funded by Other Government Departments/State Agencies**

(Analysis of Grants to Outside Agencies in Note 8)

Name of Agency	Revenue Grants 2011 €'000	Grants Funded by other Government Departments/ State Agencies 2011 €'000	Total Grants 2011 €'000
Total Grants under €100,000 (2,349 Grants)	**42,821**	**1,484**	**44,305**
Ability West Ltd	23,304		23,304
Abode Hostel and Day Centre	1,059		1,059
Acquired Brain Injury Ireland (Formerly Peter Bradley Foundation)	8,494		8,494
Active Retirement Ireland	247		247
Adapt House Women's Refuge Centre, Limerick	628		628
Adapt Kerry Ltd	174		174
Addiction Response Crumlin (ARC)	299	744	1,043
Adelaide and Meath Hospital, Dublin Incorporating the National Children's Hospital	188,686		188,686
Adoption Authority of Ireland	457		457
Aftercare Recovery Group	117		117
Age Action Ireland	542		542
Age and Opportunity	626		626
AIDS Fund Housing Project (Centenary House)	383		383
AIDS Help West	235		235
Aiseiri	190		190
Aislinn Centre, Kilkenny	447		447
Alcohol Action Ireland	150		150
ALJEFF Treatment Centre Ltd	57	392	449
All Communicarers Ltd	573		573
All In Care	4,163		4,163
Alliance	244		244
Alpha One Foundation	149		149
Alzheimer Society of Ireland	9,926		9,926
Amber Kilkenny Women's Outreach	440		440
AMEN	164		164
Ana Liffey Drug Project	798	367	1,165
Anne Sullivan Foundation for Deaf/Blind	1,242		1,242
Aoibhneas Foundation Ltd	969		969
Aosóg	207		207
Aras Mhuire Day Care Centre (North Tipperary Community Services)	301		301

€3.5bn of HSE Spend – to control?

Name of Agency	Revenue Grants 2011 €'000	Grants Funded by other Government Departments/ State Agencies 2011 €'000	Total Grants 2011 €'000
ARC Cancer Support Centre	211		211
Ard Aoibhinn Centre	2,817		2,817
Ardee Day Care Centre	292		292
Arlington Novas Ireland	2,798	84	2,882
Arthritis Ireland	194		194
Asperger Syndrome Association of Ireland (ASPIRE)	331		331
Associated Charities Trust	113		113
Association for the Healing of Institutional Abuse (AHIA) (Previously known as the Aislinn Centre, Dublin)	355		355
Athlone Community Services Council Ltd	390		390
Autism Initiatives Group	3,791		3,791
Autism West Ltd	580		580
Aware	207		207
Baile Mhuire Recuperative Unit for the Elderly	203		203
Balcurris Boys Home Ltd	638		638
Ballinasloe Social Services	139		139
Ballincollig Senior Citizens Club Ltd	364		364
Ballyboden Children's Centre	152		152
Ballyfermot Advanced Project Ltd	0	517	517
Ballyfermot Home Help	2,387		2,387
Ballyfermot Star Ltd	71	321	392
Ballymun Day Nursery (Tir na nOg)	323		323
Ballymun Local Drugs Task Force	52	221	273
Ballymun Youth Action Project (YAP)	602	51	653
Ballyowen Meadows Childrens Residential Centre	885		885
Barnardos	8,416	296	8,712
Barretstown	183		183
Barrow Valley Enterprises for Adult Members with Special Needs Ltd (BEAM)	366		366
Base Youth Centre	210		210
Bawnogue Youth and Family Support Group (BYFSG)	122	268	390
Beaufort Day Care Centre	183		183
Beaumont Hospital	248,791		248,791
Before 5 Nursery and Family Centre	143		143
Belong to Youth Services Ltd	139		139
Belvedere Social Service	605		605
Bernard Van Leer Foundation	106		106

€3.5bn of HSE Spend – to control?

Name of Agency	Revenue Grants 2011 €'000	Grants Funded by other Government Departments/ State Agencies 2011 €'000	Total Grants 2011 €'000
Blakestown and Mountview Youth Initiative (BMYI)	556	65	621
Blanchardstown and Inner City Home Helps	3,978		3,978
Blanchardstown Local Drugs Task Force	100	258	358
Blanchardstown Youth Service	180	67	247
Bluebell Development Project Ltd	0	121	121
Bluebird Care	783		783
Bodywhys The Eating Disorder Association of Ireland	286		286
Bon Secours Sisters	2,215		2,215
Bonnybrook Day Nursery	248		248
Brainwave – Irish Epilepsy Association	820		820
Bray Area Partnership	45	65	110
Bray Community Addiction Team	0	781	781
Bray Lakers Social and Recreational Club Ltd	144		144
Bray Travellers Group	0	109	109
Bray Women's Refuge	629		629
Brothers of Charity Services Ireland	164,149		164,149
Bushy Park Treatment Centre	53	57	110
Cabra Resource Centre	173	79	252
Cairde	417		417
Cairdeas Centre Carlow	273		273
Camphill Communities of Ireland	1,097		1,097
Cancer Care West	699		699
Cappagh National Orthopaedic Hospital	26,325		26,325
Capuchins	118		118
Cara Housing Association	209		209
Care for the Elderly at Home Ltd	237		237
Care Of the Aged, West Kerry	111		111
Caredoc GP Co-operative	6,710		6,710
Careline	116		116
Caremark Ireland	1,480		1,480
Carers Association Ltd	4,017		4,017
Careworld	422		422
CARI Foundation	322		322
Caring and Sharing Association (CASA)	218		218
Caring For Carers Ireland	925		925
Caritas	2,029		2,029

Page 3 of 18

Plus 2,349 grants of less than €100k

Dominated by voluntary hospitals

Down 5% 2010-2011 but… more?

Ireland is still expensive

- Not just in health of course (CSO, CBI analysis)
- Input costs high
  - Staff, consumables
- Efficiency not at achievable levels
  - e.g. average length of stays
  - Barriers to efficiency in place (fixed costs and payment systems)

Example from health insurance cost comparison

19 Jan 2011: VHI released comparative data to illustrate its costs were lower than US costs (and health utilisation), based on a survey by the International Federation of Heath Plans

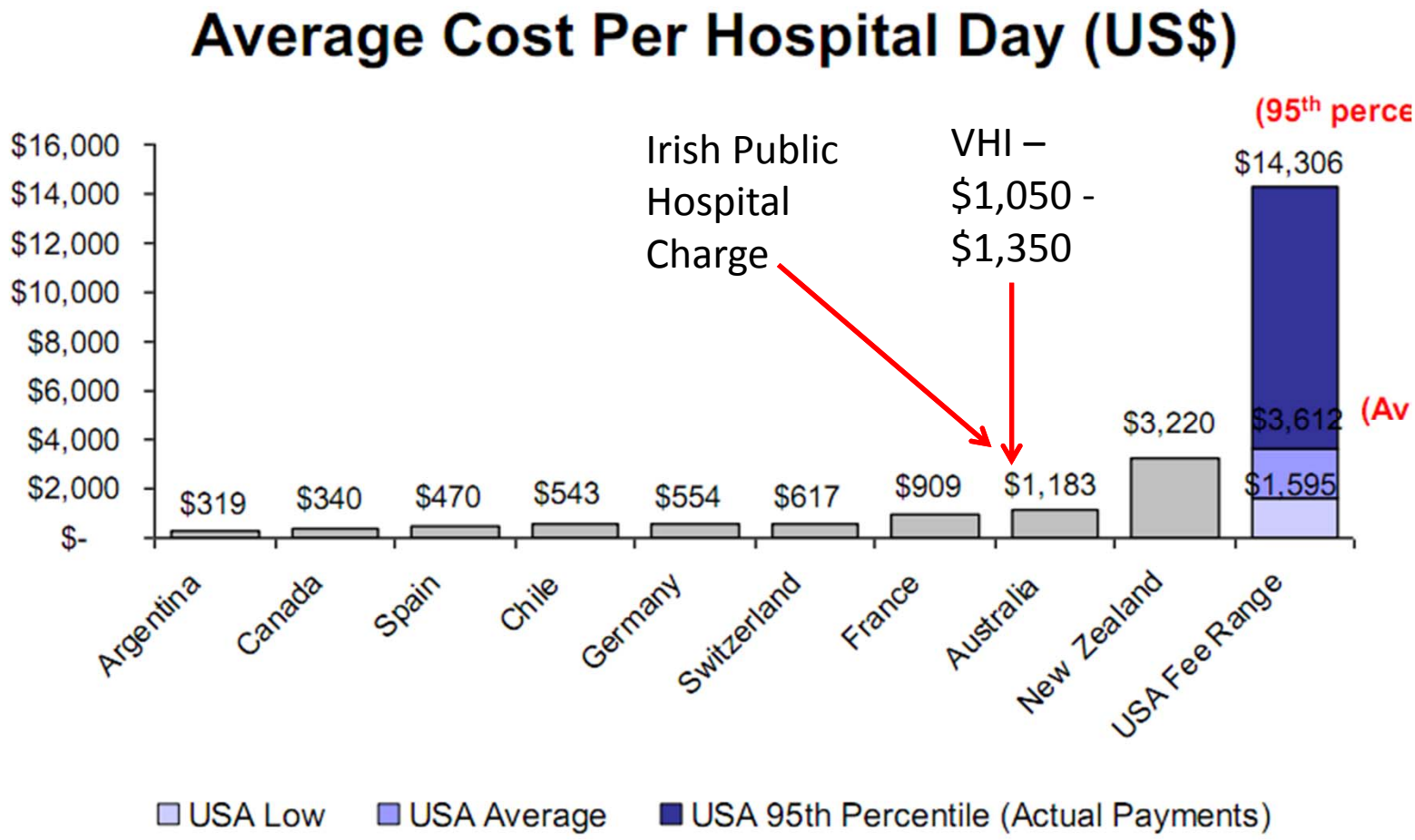
Appendix II

Vhi Healthcare v's US Healthcare Cost Comparison

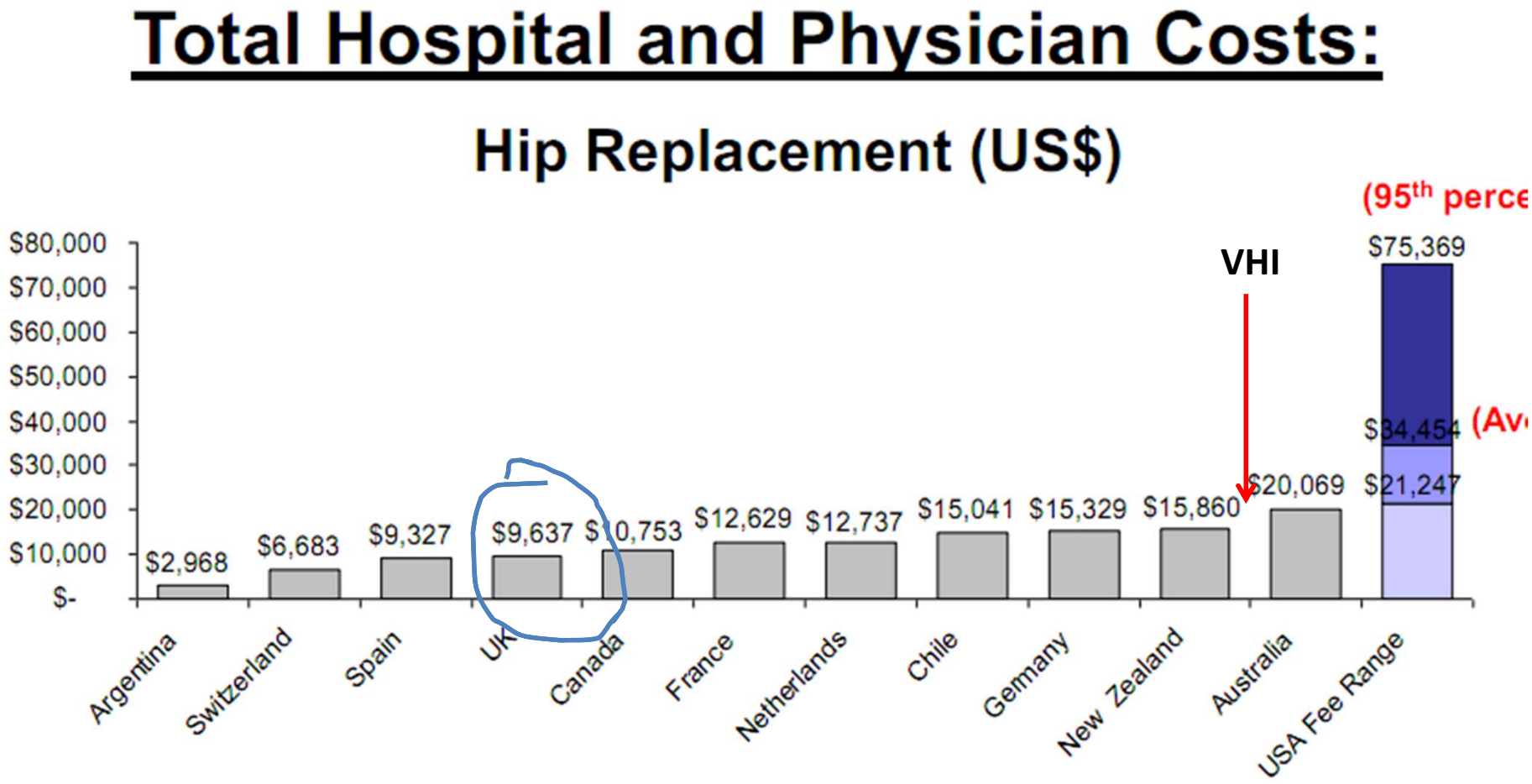
Procedure	Vhi Healthcare Cost	US Average Cost (1)	US High End Cost(1)
Average cost per hospital day	$1,050 - $1,350 *	$2,515	$10,116
Appendicectomy	$5,119 - $5,679	$9,848	$26, 374
Bypass surgery	$32,300 - $35,500	$47,400	$116,798
Hip replacement	$17,800 - $19,600 *	$26,400	$67,900
Vaginal delivery (grant in aid)	$3,800 - $5,600	$6,973	$12,227

Hospital day costs

Place VHI costs beside the other international comparisons in that 2010 IFHP survey:



Hip replacement



Source: International Federation on Health Plans, 2010

Practical matters: How do you deal with cost?

- Example 1:
  - If average annual cost of 'hospital bed' c €200,000 +
  - And cost of nursing home bed €50,000
  - Then, save money by moving people to nursing homes!
  - Yes but… only if hospital bed (incl. fixed costs) is removed
- Example 2:
  - Reorganise working time, rosters – save overtime, agency costs
  - Yes, real savings: but cash saved for HSE means less cash for someone – face the reality
  - Not to be confused with 'efficiency' - more throughput for same cost
- Example 3:
  - Adoption of a new technology that delivers efficiency and clinical benefits
  - 'Spend more to save'…. but where is the money to spend and how to take out / capture the savings?
  - Who captures the benefits? The payor, or receiver of care?
  - We need innovation here in current, cash-reducing circumstances

What about….?

- Demand reduction – reducing illness, preventive health measures
  - Absolutely necessary in medium/long term
  - But does not address current fixed cost structure

- Using competition and private sector?
  - Use where costing is clear and transparent
  - Where contestability is possible
  - Where incentives for ‘efficient quality’ are designed
  - Where performance management is clear
  - Potential to provide contracted predictability to public sector
  - Variety of payment mechanisms available, not just procedure based payments

Summary

- Ireland will not be bankrupted (again) by health – banking/insurance failure more dangerous
- Budget cap will always be necessary
- Potential that cost of inefficiency is borne by excess morbidity, mortality where more cash unavailable
- Efficiency gains available to Ireland both in unit prices and use of resources – but how will savings be used?
- Instability in health insurance market, as Society of Actuaries will know
- Health reform happens slowly, as do cost adjustment and resource mix change
- HSE cost performance since 2009 good, but limits of current actions being reached
- Need for more scope to act and innovation