

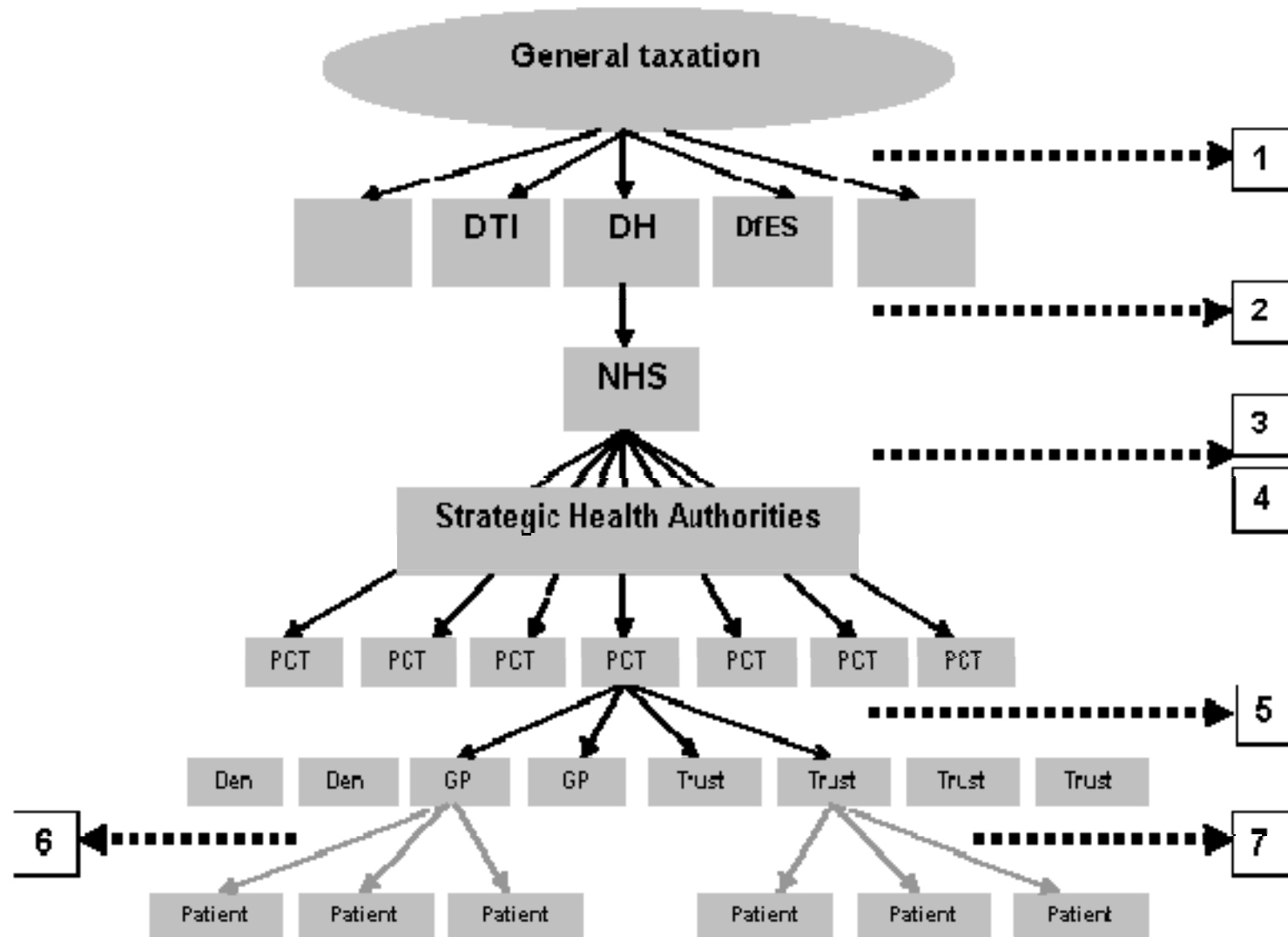
Paying for outcomes: Patient Reported Outcome in the English NHS

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Money flows: English NHS



Reimbursement: primary and secondary care

- **GP income:**
 - Capitation
 - Fee per item
 - Quality/activity dependent
- **Hospital income:**
 - Prospective activity-based fixed payment ('Payment by Results')
 - + Locally negotiated
 - + Quality dependent (eg 'CQUIN')

Impact of Payment by Results

- Shorter lengths of stay
- Higher day case rates
- Great cost-consciousness
- Service level financial reporting within hospitals
- Increased activity/volumes of work
- Lower transaction costs
- Centrally-operated efficiency lever
- But what about quality?.....

Patient Reported Outcome Measures

- PROMs collected since April 2009. First national health system to collect this data routinely
- Four surgical procedures: varicose veins, hernias, knee replacement and hip replacement
- 300,000 procedures a year
- Spend: around £0.8bn (out of £105bn total NHS budget)
- Generic and disease-specific questionnaires; before and after operation; results published monthly, by hospital
(<http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1295>)
- Plans to expand coverage....including long term conditions in primary care and cancer interventions

By placing a tick in one box in each group below, please indicate which statements best describe your own health state TODAY.

MOBILITY

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

SELF-CARE

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

USUAL ACTIVITIES (*e.g. work, study, housework, family or leisure activities*)

- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

PAIN / DISCOMFORT

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

ANXIETY / DEPRESSION

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am severely anxious or depressed
- I am extremely anxious or depressed

EQ-5D

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Using PROMs data

- Patients: Choice, benefits from treatment
- Commissioners: Choice of provider, reimbursement-linked quality measure
- Providers: Technical efficiency, outcome variation, poor performers
- Clinicians: Benchmark quality measure
- NICE: Real world health impact of new technologies
- Government: Quality adjusted productivity measurement

Devlin N and Appleby J (2010) *Getting the most out of PROMs: Putting health outcomes at the heart of NHS decision making*. The king's Fund, London

<http://www.kingsfund.org.uk/publications/proms.html>

- **Example: Which hospital is best at hips?.....**

Data coverage: EQ-5D index scores

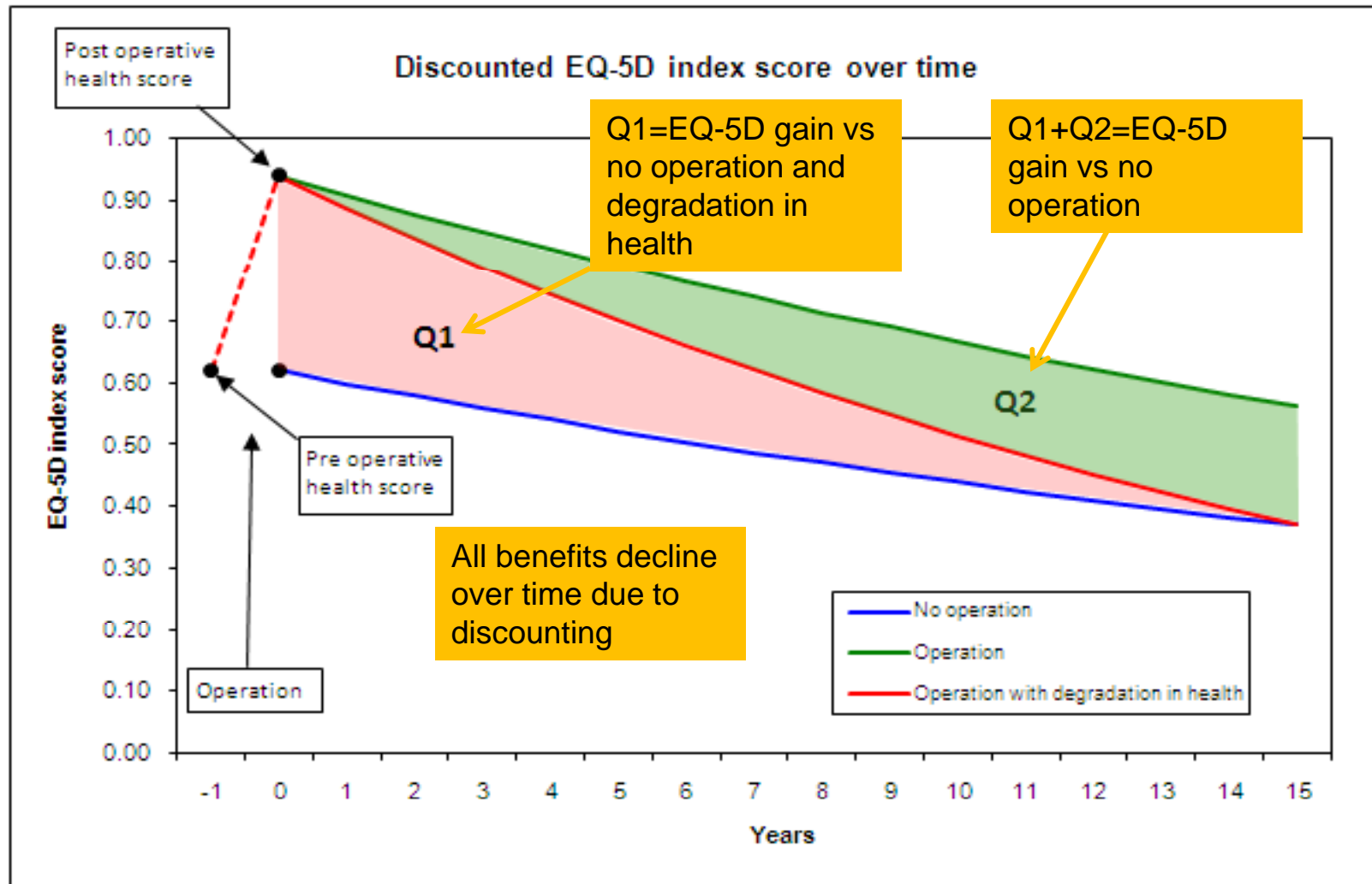
	Unadjusted data		Casemix Adjusted data	
	Hospitals (exclusions) ¹	Episodes	Hospitals (exclusions) ²	Episodes (exclusions) ²
NHS trusts	144 (1)	23,017	138 (6)	22,897 (120)
Non-NHS hospitals	73 (41)	3,361	24 (49)	2,566 (765)
Total	217 (42)	26,378 ³	162 (55)	25,463 (915)

Notes: 1: Organisations not included in data release where data suppressed for patient confidentiality reasons (ie where <5 questionnaire returns).

2: Organisations/episodes not included in adjusted casemix dataset where <30 questionnaire returns

3: DH data has a total of 26,479 episodes for unadjusted data not 26,378. 101 episodes are suppressed for patient confidentiality reasons

Stylised model of future health change

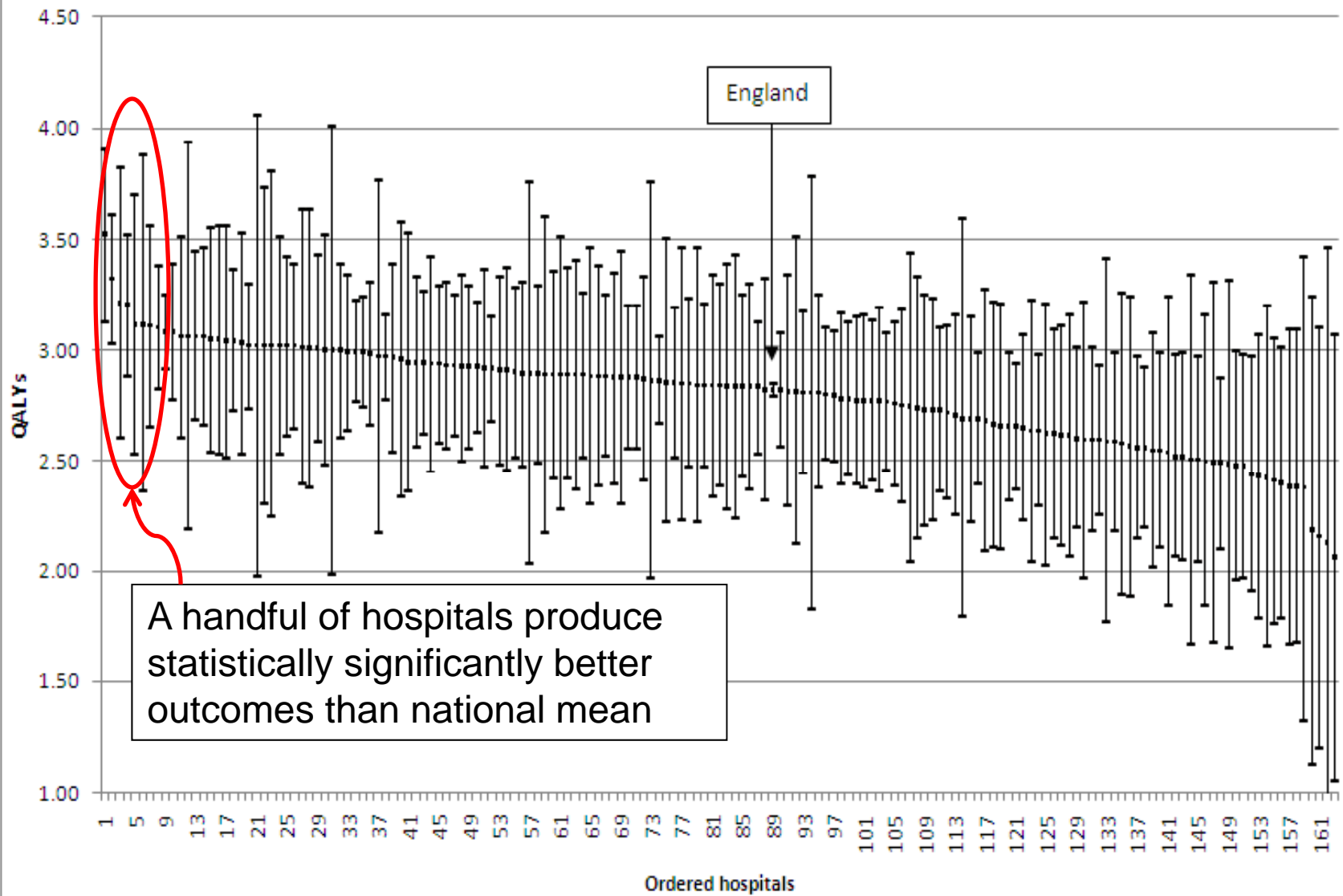


Change in QALYs following a hip replacement

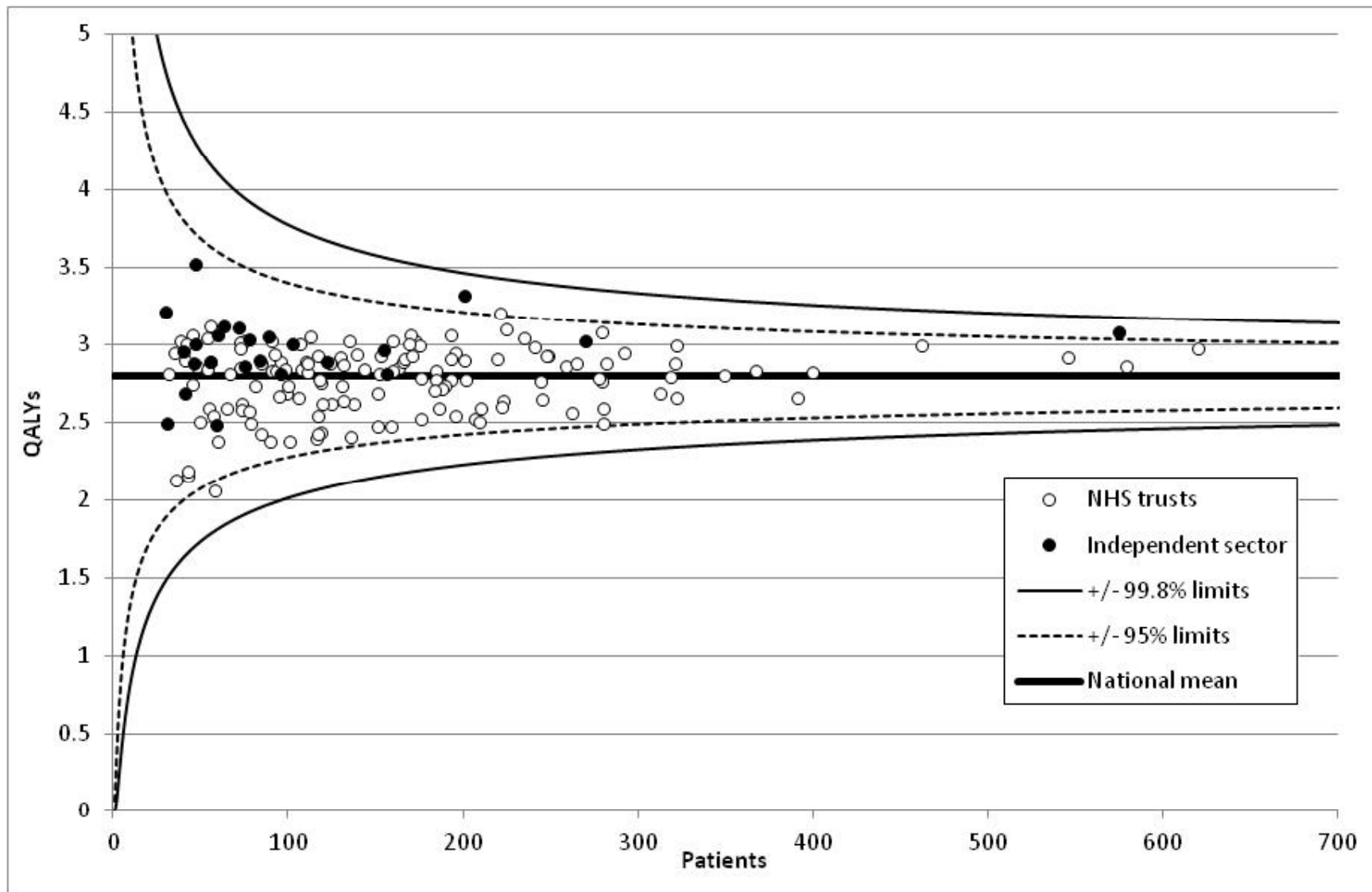
	Unadjusted (n=217)		Casemix adjusted (n=162)	
	No degradation in health	Degradation in health	No degradation in health	Degradation in health
Min	1.97	1.08	3.76	2.06
Max	8.72	4.79	6.42	3.52
Mean¹	5.12	2.81	5.10	2.80
NHS hospital	5.12 (144)	2.81 (144)	5.05 (138)	2.77 (138)
Non-NHS hospital	5.11 (73)	2.80 (73)	5.41 (24)	2.97 (24)

Notes: 1: The mean is an arithmetic mean and not the average based on QALY changes at a national level. The English average QALY change based on the national EQ-5D index pre and post operative scores are 5.14 and 2.82 respectively for no degradation and degradation in health. There are no differences between casemix unadjusted and adjusted, by definition.

Hip replacement: Change in QALYs: Degradation in health, casemix adjusted



QALY change following a hip replacement



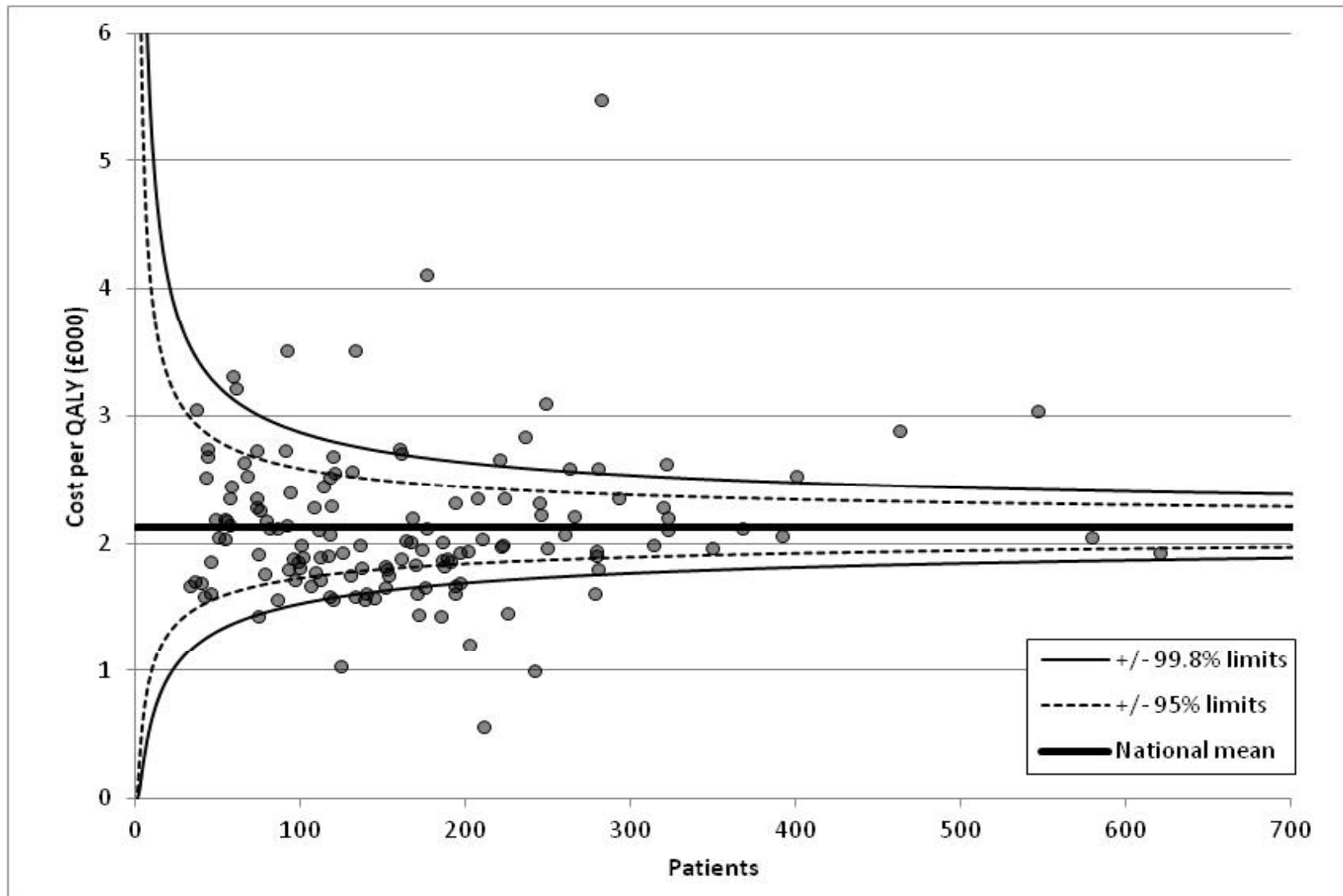
Cost per QALY following a hip replacement

NHS trusts	Unadjusted (n=143 ¹)		Casemix adjusted (n=137)	
	No degradation in health	Degradation in health	No degradation in health	Degradation in health
	£	£	£	£
NHS Min	294	536	309	563
NHS Max	2,979	5,431	3,012	5,491
NHS Mean	1,180	2,151	1,167	2,128
<i>Non-NHS²</i>	<i>1,148</i>	<i>2,094</i>	<i>1,028</i>	<i>1,875</i>
<i>Mean</i>				

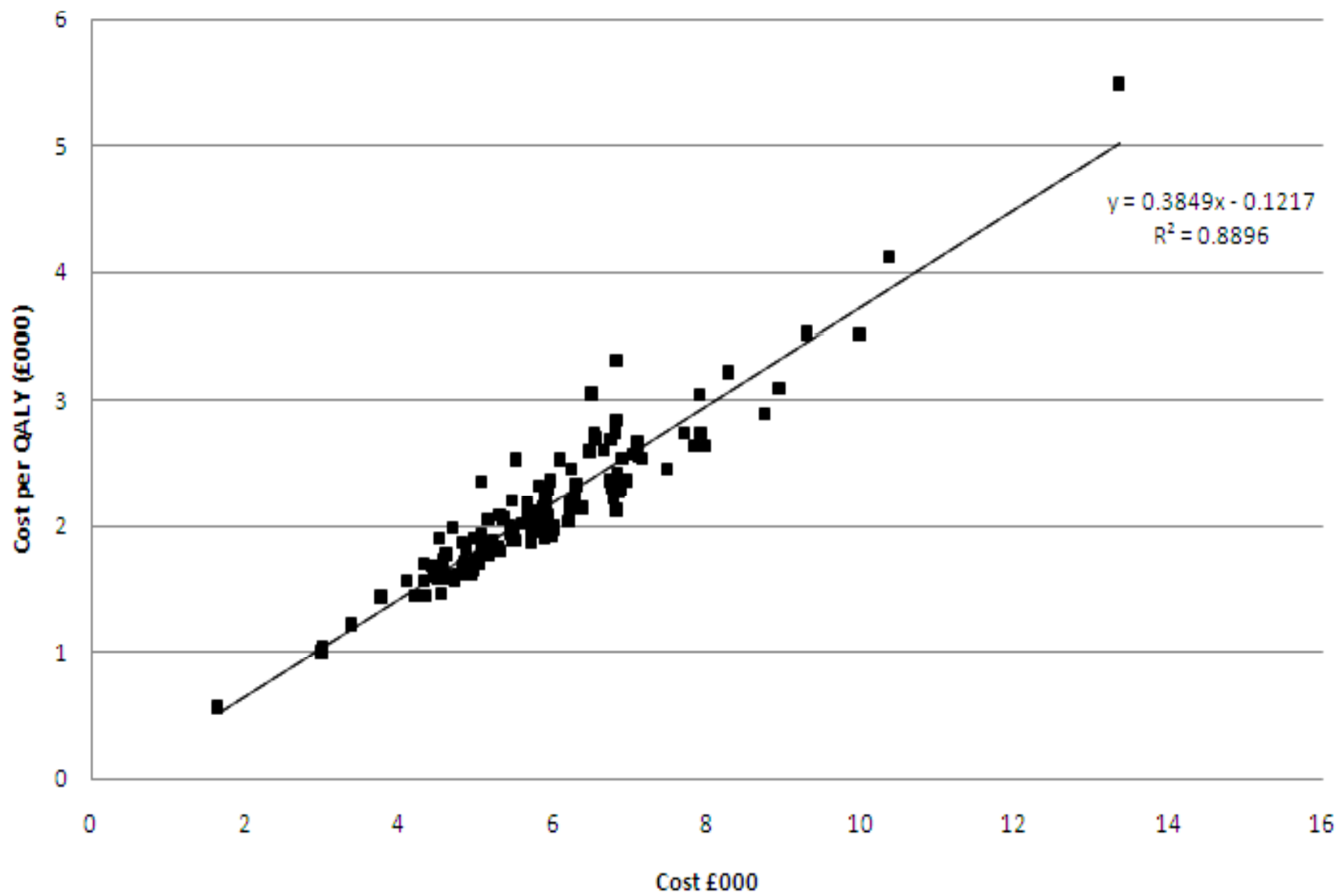
Note: 1. One hospital reported very low costs for the main hip HRGs. This was assumed to be a costing error and the provider has been removed from the cost per QALY analysis. There may also be data quality issues in the data reported for other providers, in particular for cost. No adjustments have been made for these.

2. The estimates for non-NHS hospitals are based on a weighted tariff price, not actual costs and are not strictly comparable with NHS hospital estimates of cost per QALY.

Cost per QALY following a hip replacement



NHS hospitals: Cost per QALY vs cost: casemix adjustment, degradation in health



TOP 10 trusts

Good value

Best price

Cost per QALY (degradation in health)		QALY change		Unit cost	
	£000				£000
SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	0.05	MID ESSEX HOSPITAL SERVICES NHS TRUST	3.21	SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	0.12
THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST	0.56	TRAFFORD HEALTHCARE NHS TRUST	3.12	THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST	1.65
IPSWICH HOSPITAL NHS TRUST	1.00	WEST SUFFOLK HOSPITALS NHS TRUST	3.10	IPSWICH HOSPITAL NHS TRUST	2.99
SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	1.04	THE ROYAL BOURNEMOUTH AND CHRISTCHURCH HOSPITALS NHS FOUNDATION TRUST	3.08	SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	3.00
COLCHESTER HOSPITAL UNIVERSITY NHS FOUNDATION TRUST	1.22	STOCKPORT NHS FOUNDATION TRUST	3.06	COLCHESTER HOSPITAL UNIVERSITY NHS FOUNDATION TRUST	3.38
BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	1.44	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	3.06	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	3.77
CENTRAL MANCHESTER UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	1.45	ROYAL BERKSHIRE NHS FOUNDATION TRUST	3.06	MID CHESHIRE HOSPITALS NHS FOUNDATION TRUST	4.11
MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	1.45	TAUNTON AND SOMERSET NHS FOUNDATION TRUST	3.05	MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	4.21
WEST SUFFOLK HOSPITALS NHS TRUST	1.46	WHIPPS CROSS UNIVERSITY HOSPITAL NHS TRUST	3.04	THE QUEEN ELIZABETH HOSPITAL KING'S LYNN NHS TRUST	4.32
THE ROYAL WOLVERHAMPTON HOSPITALS NHS TRUST	1.56	CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	3.04	UNIVERSITY HOSPITALS COVENTRY AND LEICESTER NHS TRUST	4.33

Significantly best outcomes

Thank you

- John Appleby
- www.kingsfund.org.uk