

International trends in drug assessment: 'The' critical issue

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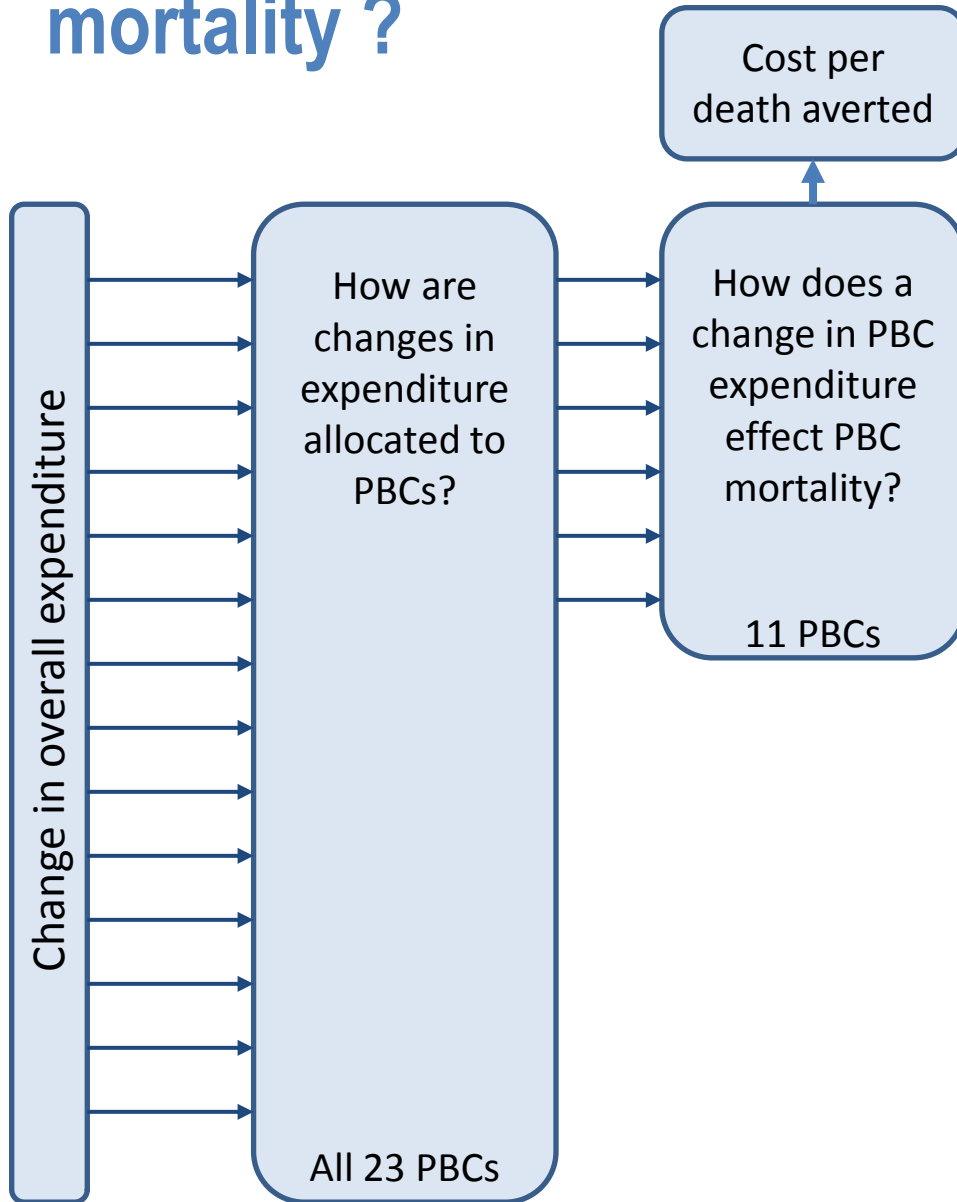
What do we need to asses?

- Compare
 - Health *expected* to be gained health *expected* to be lost due to additional health care costs
- Assess health benefits additional health care costs
 - Rapid development of methods
 - Transparent accountable and empirically based
- Health *expected* to be lost due to additional health care costs
 - Opportunity (health) cost of new drugs
 - Cost effectiveness threshold
 - Little empirical foundation

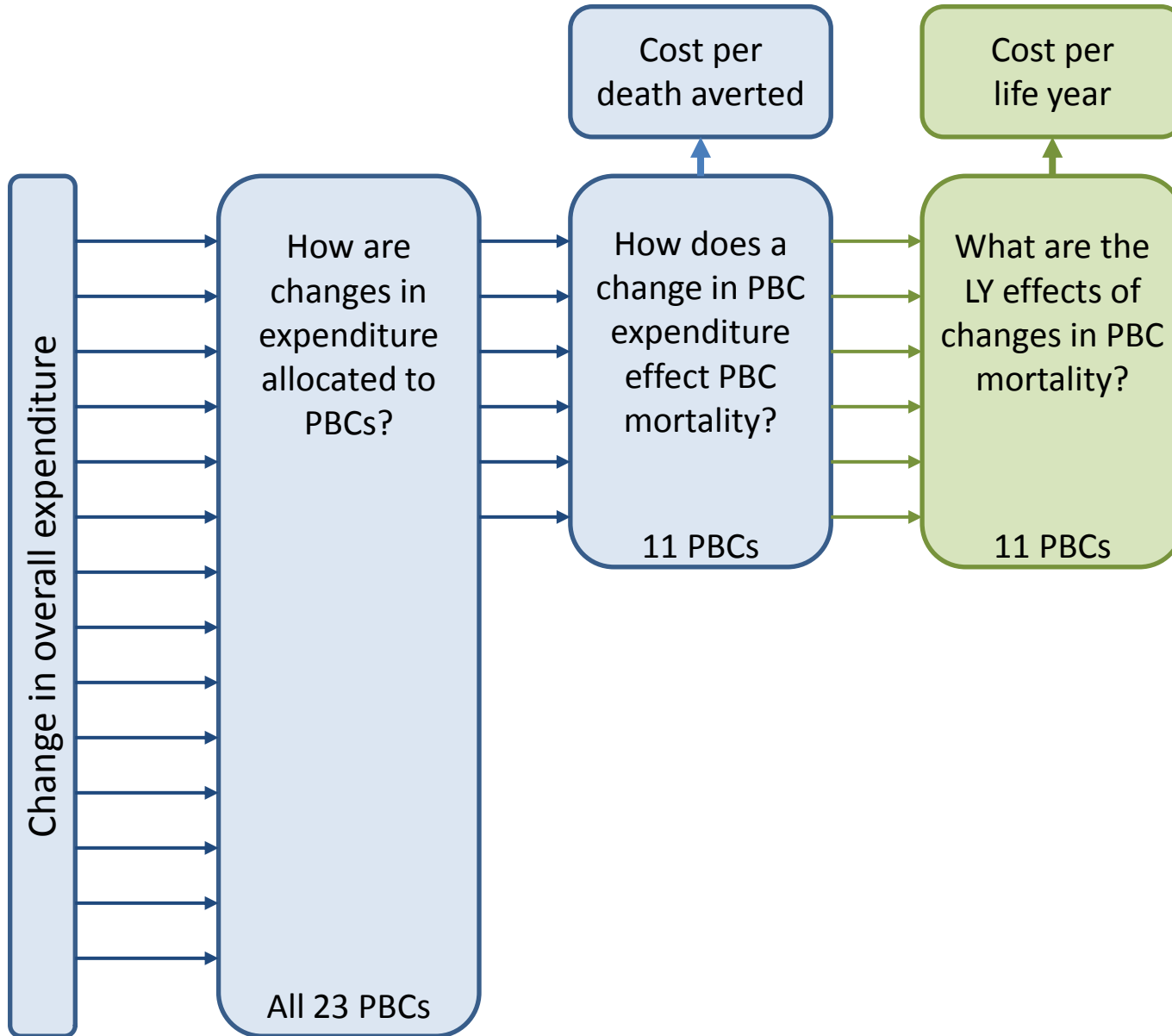
What do we need?

- Estimate *health effects* of additional health care costs
 - Expected health effects of changes in expenditure
- What its not
 - Consumption value of health (willingness to pay)
 - Marginal productivity of 'ideal' health care system
- No simple relationship with changes in
 - Budget, prices and productivity
 - Health production outside health care
- Relevant to all health care systems
 - Not just those with administrative budgets

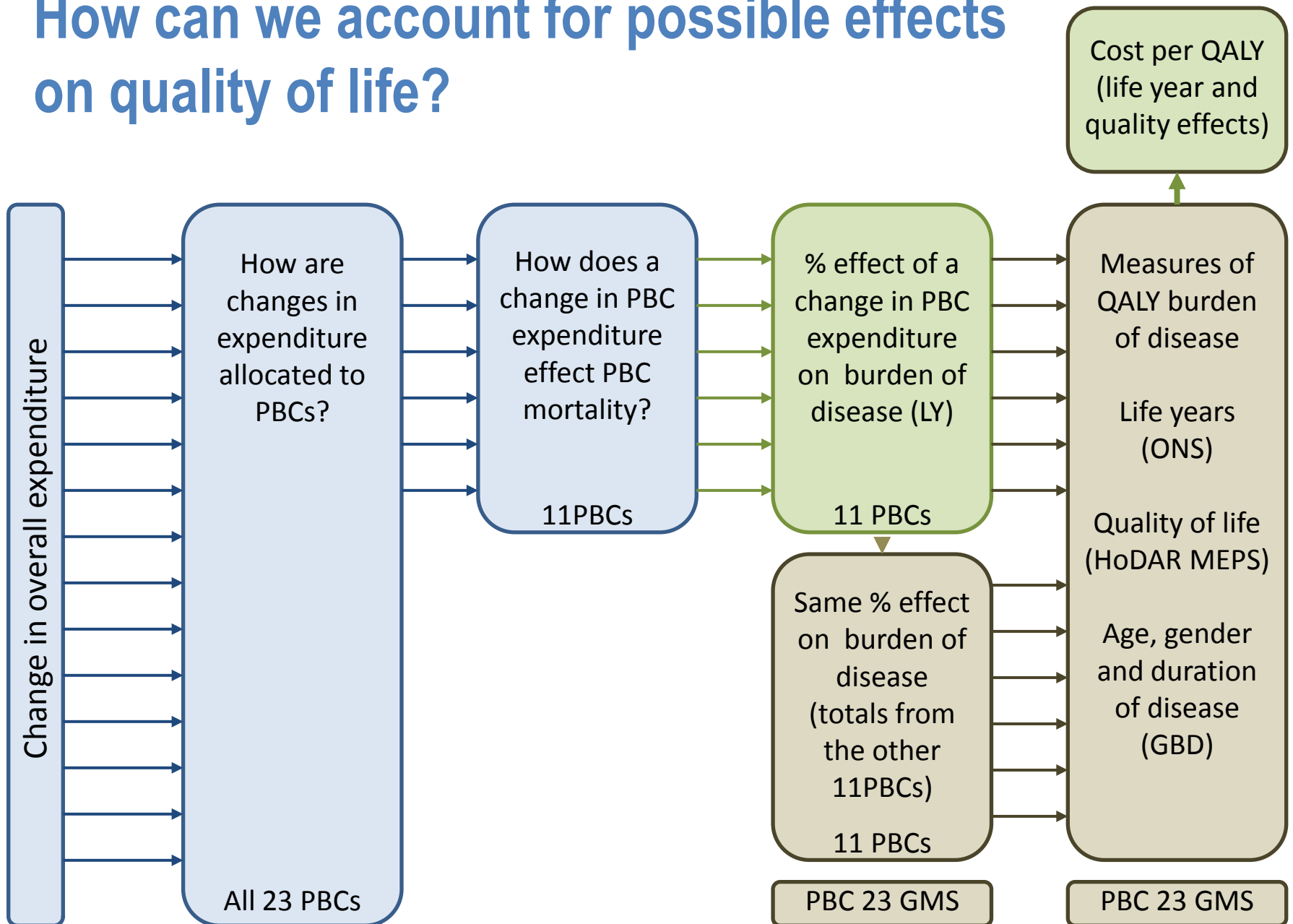
How can we estimate effects of expenditure on mortality ?



How can we estimate effects on life years



How can we account for possible effects on quality of life?



Estimates of the threshold (2008-09)

	Cost per death averted	Cost per life year	Cost per QALY (mortality effects)	Cost per QALY
<i>Qol associated with LYs</i>	-	1	<i>Norms</i>	<i>Based on burden</i>
<i>Qol during disease</i>	-	0	0	<i>Based on burden</i>
<i>YLL per death averted</i>	-	4.5 YLL	4.5 YLL	4.6 YLL
<i>QALYs per death averted</i>	-	4.5 YLL	3.8 QALY	12.7 QALY
11 PBCs (with mortality)	£105,872	£23,360	£28,045	£8,308
All 23 PBCs	£114,272	£25,214	£30,270	£18,317

What are the expected health consequences of £10m?

	Change in spend (£000)	Additional deaths	LY lost	Total QALY lost	Due to premature death	Quality of life effects
Totals	£10,000	37	167	546	107	439
Cancer	£324.000	3	27	19	18	1
Circulatory	£550.000	17	84	78	53	25
Respiratory	£332.000	10	12	166	7	159
Gastro-intestinal	£232.000	2	18	32	12	20
Infectious diseases	£237.000	1	4	11	3	9
Endocrine	£137.000	< 0.5	4	44	2	42
Neurological	£433.000	1	5	79	3	76
Genito-urinary	£336.000	2	2	8	1	6
Trauma & injuries*	£558.000	0	0	0	0	0
Maternity & neonates*	£495.000	< 0.05	< 0.5	0	< 0.5	< 0.5
Disorders of Blood	£292.000	< 0.5	1	10	1	10
Mental Health	£2,532.000	2	7	51	4	46
Learning Disability	£147.000	< 0.5	1	2	< 0.5	1
Problems of Vision	£275.000	< 0.05	< 0.5	4	< 0.5	3
Problems of Hearing	£124.000	< 0.05	< 0.5	6	< 0.05	6
Dental problems	£409.000	< 0.05	< 0.05	7	< 0.05	7
Skin	£279.000	< 0.5	1	2	1	1
Musculo skeletal	£514.000	< 0.5	2	25	1	24
Poisoning and AE	£132.000	< 0.05	< 0.5	1	< 0.5	1
Healthy Individuals	£501.000	< 0.05	< 0.5	0	< 0.05	< 0.5
Social Care Needs	£426.000	0	0	0	0	0
Other (GMS)	£735.000	0	0	0	0	0

Implications for policy

- On balance likely to underestimate health effects
 - £18,317 per QALY is likely to be an overestimate
- Current NICE threshold range maybe too high
 - Paying too much not too little for branded drugs
 - Too much not too little utilisation at current prices
- No evidence that the threshold has grown
 - With total expenditure or prices
- Evidence that imposing greater costs means a lower threshold
 - Threshold is more likely to fall as HCS comes under pressure
- Uncertainty in the estimate?
 - A policy threshold should be less than the mean (£18,317)