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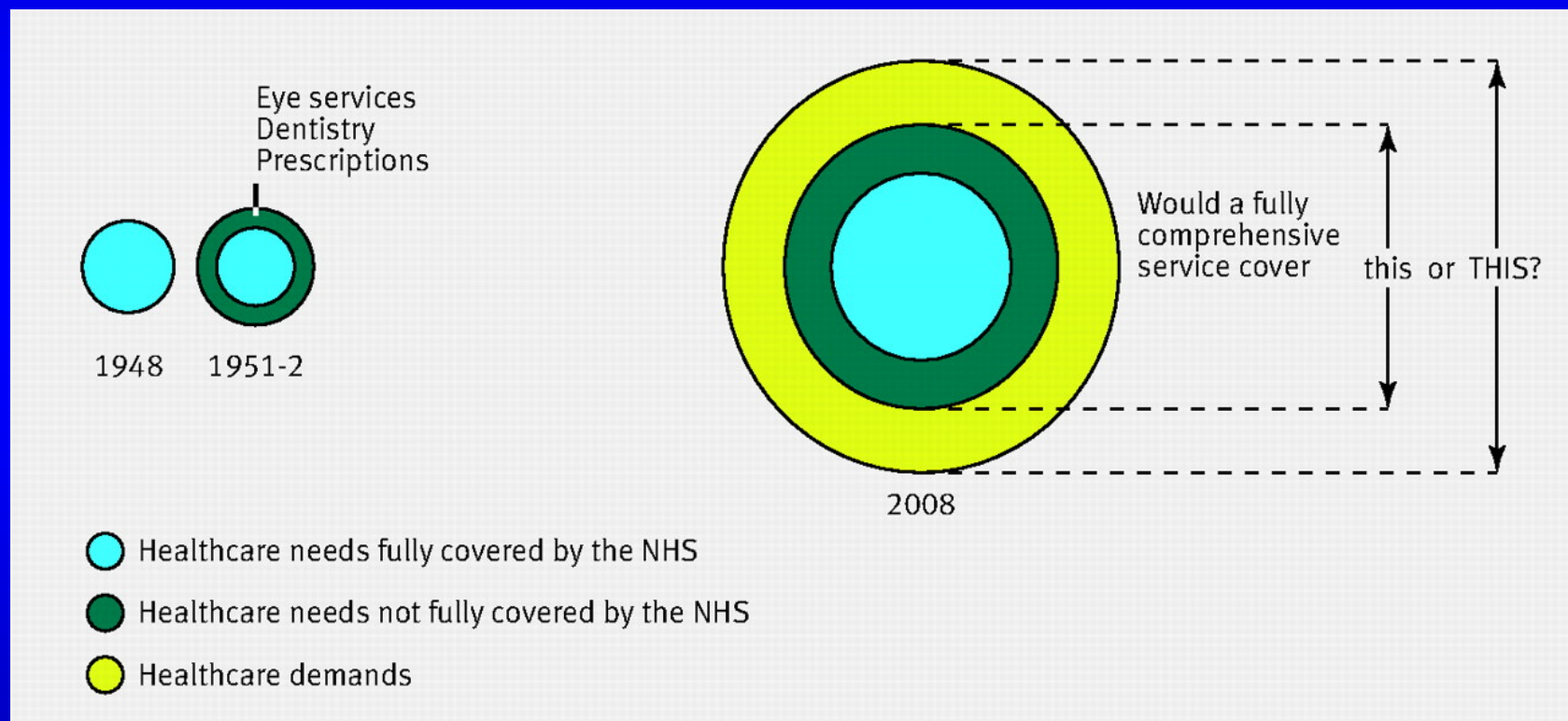


How can health economics support NHS trusts in their daily decisions?

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Healthcare needs and demands and NHS provision, 1948-2008



Delamothe, T. BMJ 2008;336:1344-1345



How are resources allocated?

- ◆ Fixed health care funding budget insufficient to meet needs (demands) is a global phenomenon
- ◆ Scarcity leads to the need to make choices
- ◆ Surveys in various countries have reported feelings of inadequacy among decision-makers for priority setting
- ◆ “surreptitious (implicit) rationing”: to limit access (delaying, deferring, deterring, dissuading, declining)
- ◆ How can economics aid in this decision-making process?



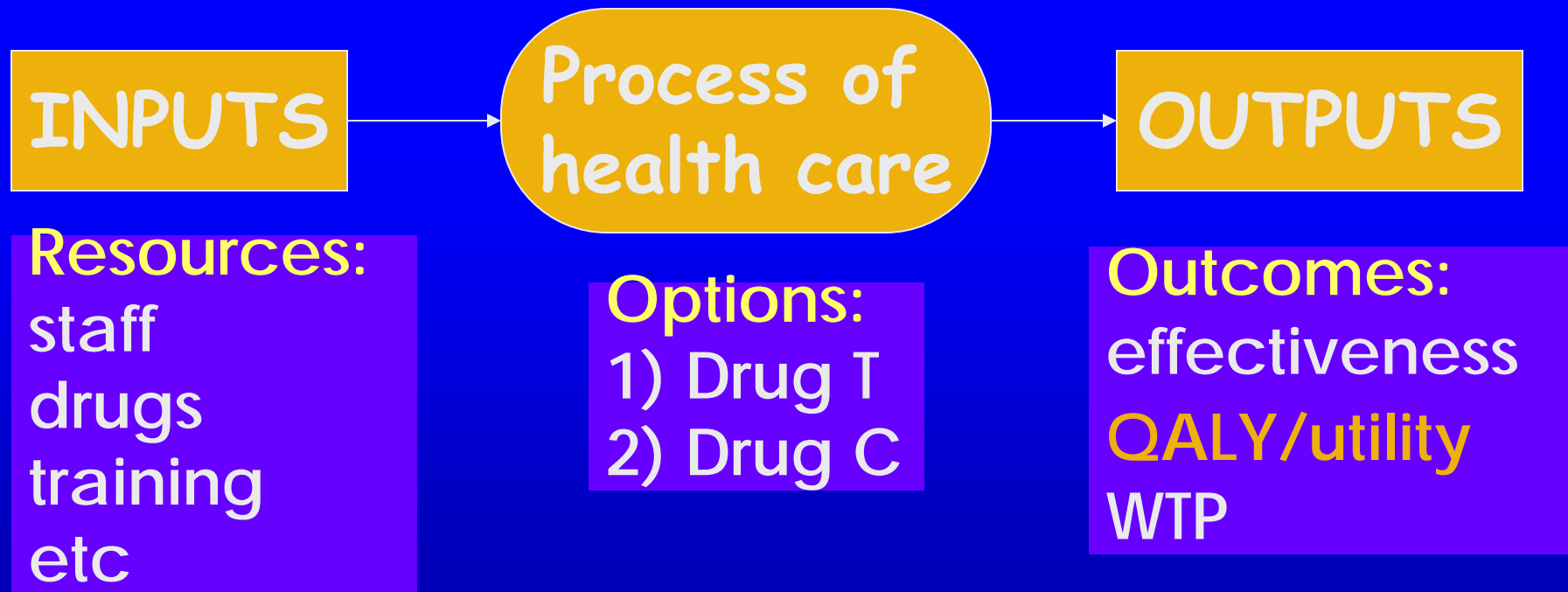
Definitions

- ◆ Opportunity cost
 - Every time we use resources to meet one need, we give up the opportunity to use those resources to meet some other need
 - The true economic cost of healthcare includes the opportunity cost of those other activities not funded
- ◆ The margin
 - Extra cost/benefit of one more unit of production
- ◆ Allocative efficiency
 - may be achieved by moving resources from one programme to another
- ◆ Technical efficiency
 - may be best to make best use of the resources you already have



Economic evaluation of healthcare

- ◆ comparative analysis of alternative interventions in terms of both costs & benefits





Incremental economic analysis

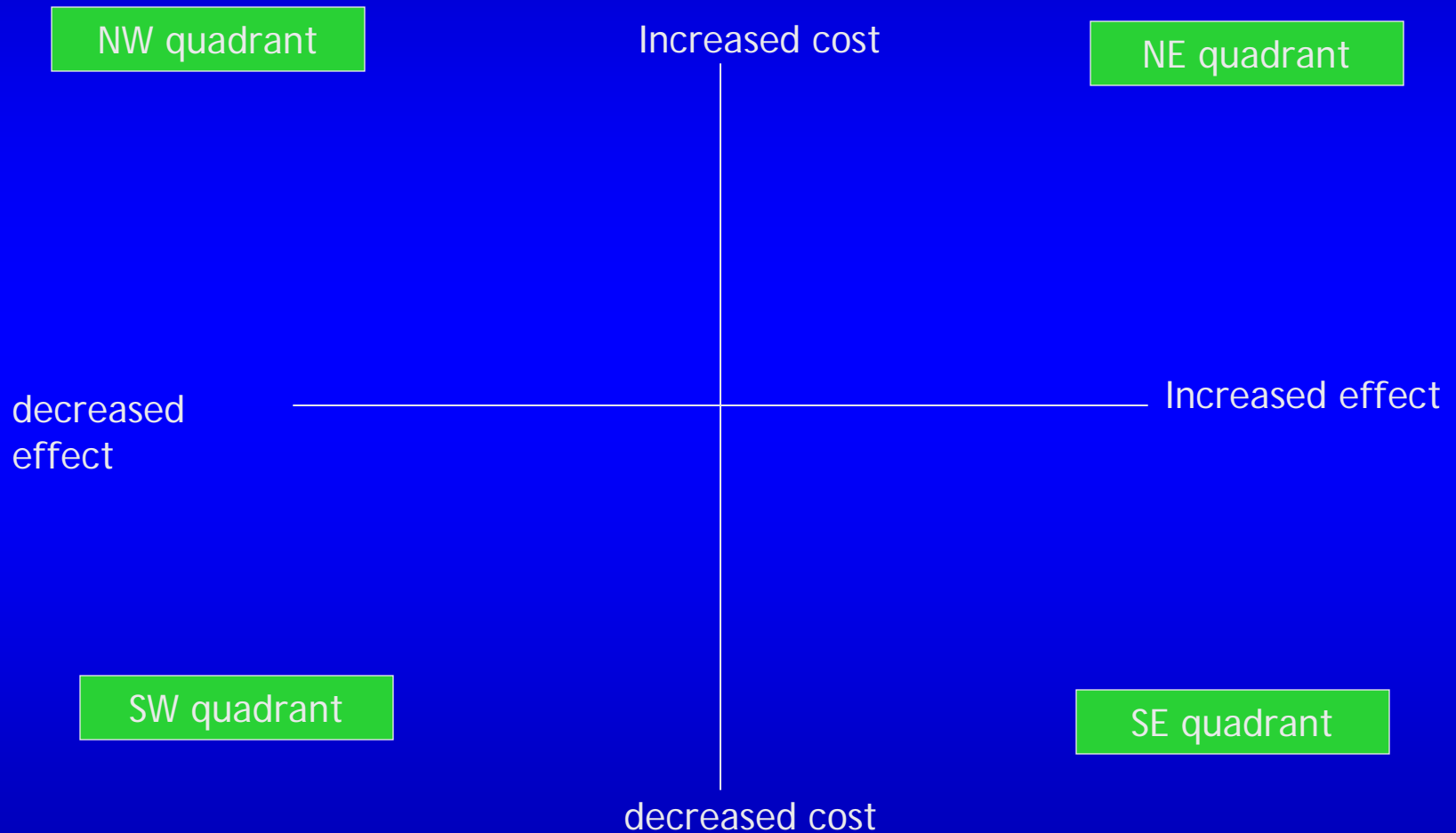
- ◆ Incremental cost effectiveness ratio (ICER)
 - The cost per extra unit of outcome

ICER for treating condition with DRUG T instead of DRUG C:

$$\frac{[\text{Cost}_T - \text{Cost}_C]}{[\text{Outcome}_T - \text{Outcome}_C]}$$

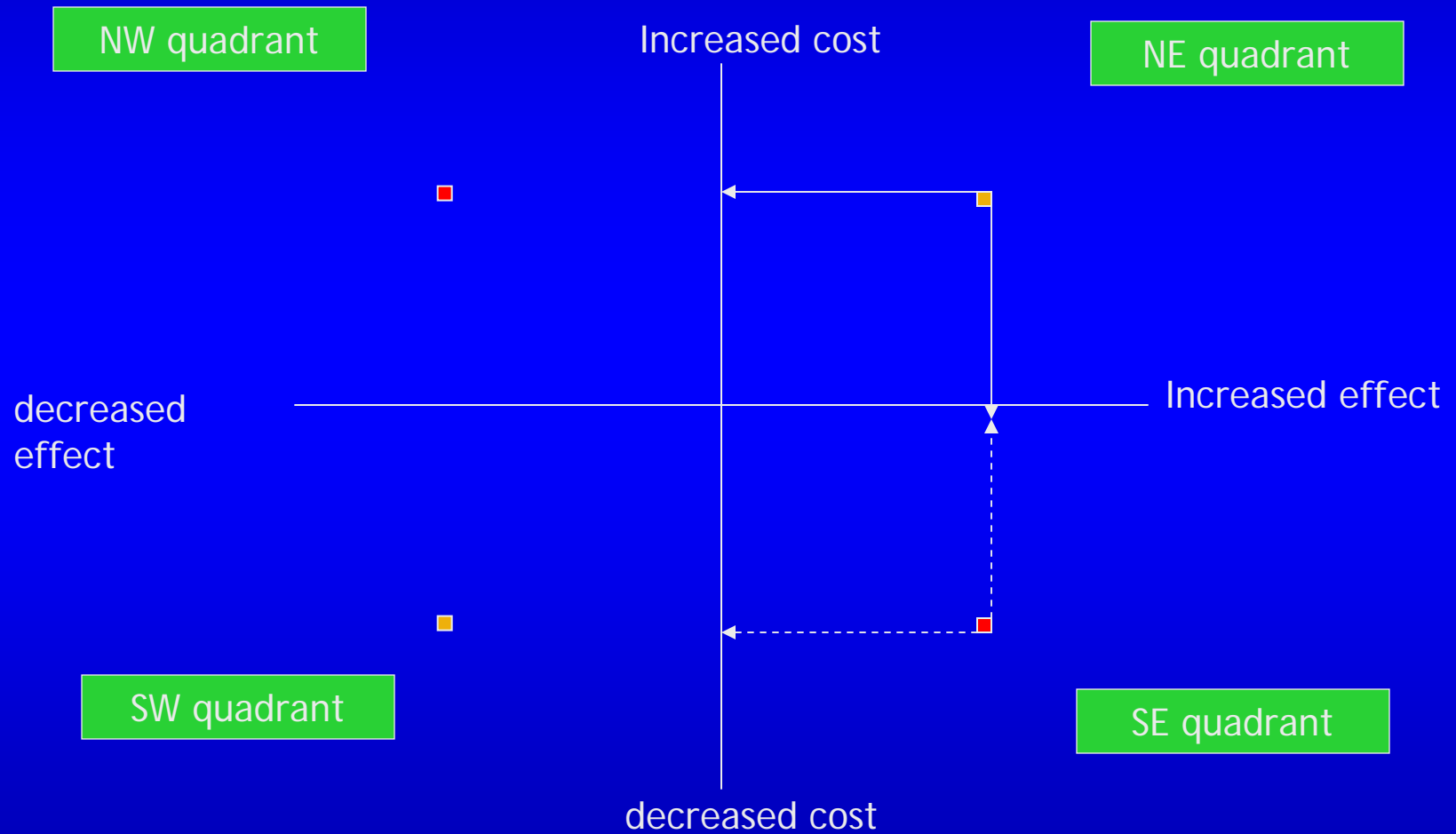


The cost-effectiveness plane



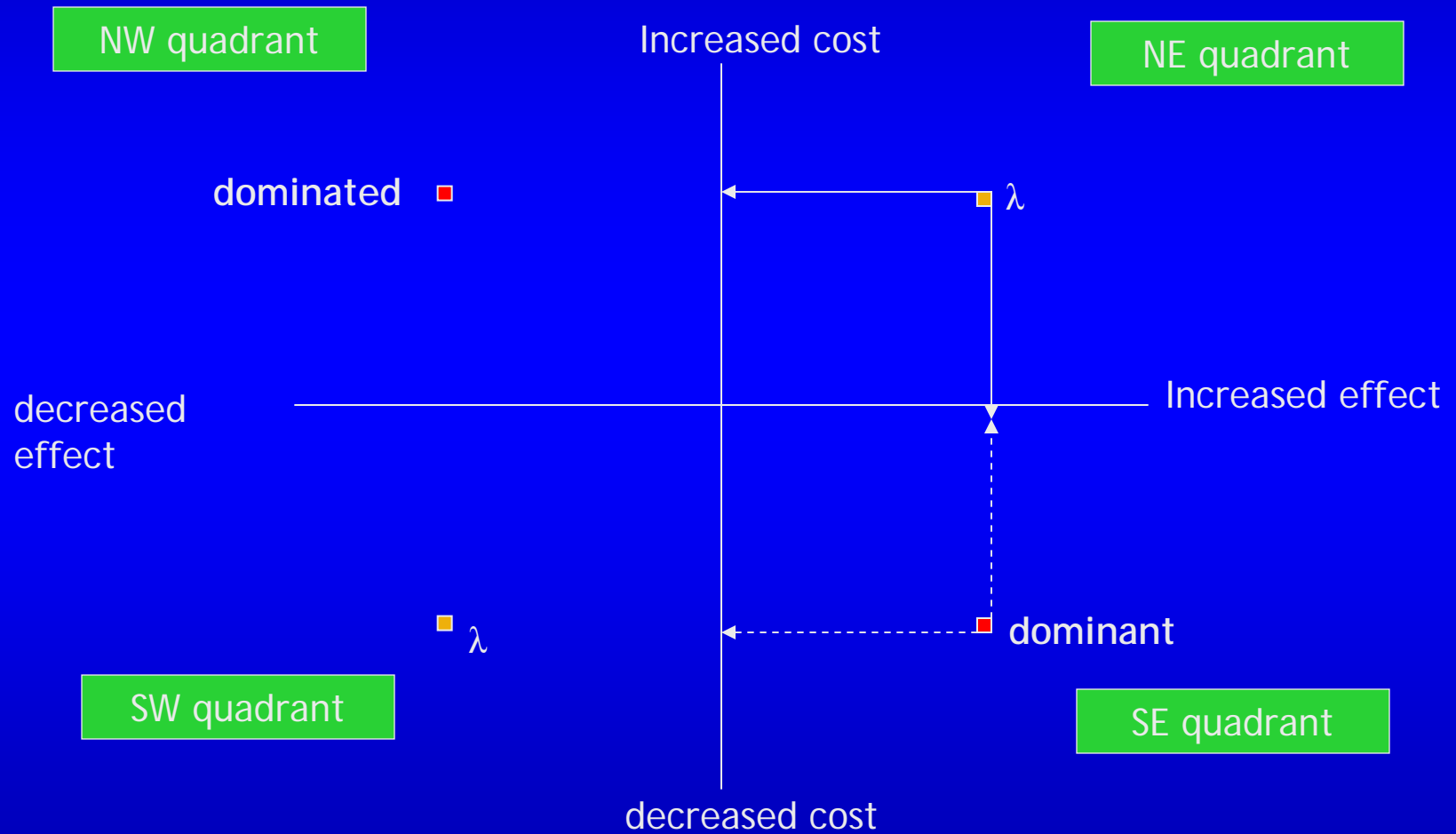


The cost-effectiveness plane





The cost-effectiveness plane





Marginal Analysis

- ◆ The “margin” is concerned with change
- ◆ Start with a given mix of services
- ◆ What are important are costs and benefits of changes in that mix
- ◆ If the mix of services can be changed to produce more benefit overall, this should be done



Screening for cancer of the colon

- ◆ Stool is tested for the presence of occult blood
- ◆ Proposal was for six sequential tests
- ◆ Neuhauser and Lewicki analysed the proposal on the basis of:
 - A population of 10,000 of whom 72 have colonic cancer
 - Each test detects 91.67% of cases undetected by the previous test



Screening for Ca colon with 6 sequential tests

No. of tests	No. of cases	Total cost/\$	Av. cost/\$
1	65.9469	77,511	1175
2	71.4424	107,690	1507
3	71.9003	130,199	1811
4	71.9385	148,116	2059
5	71.9417	163,141	2268
6	71.9420	176,331	2451



Screening for Ca colon with 6 sequential tests

No. of tests	Incremental cases detected	Incremental cost per test completed/\$	Incremental cost per case detected/\$
1	65.9469	77,511	
2	5.4956	30,179	
3	0.4580	22,509	
4	0.0382	17,917	
5	0.0032	15,024	
6	0.0003	13,190	

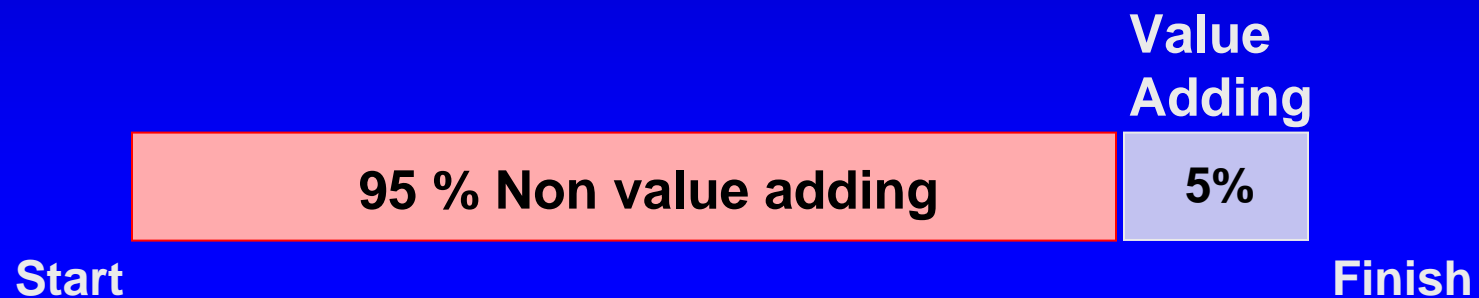


Screening for Ca colon with 6 sequential tests

No. of tests	Incremental cases detected	Incremental cost per test completed/\$	Incremental cost per case detected/\$
1	65.9469	77,511	1175
2	5.4956	30,179	5494
3	0.4580	22,509	49,150
4	0.0382	17,917	469,534
5	0.0032	15,024	4,724,695
6	0.0003	13,190	47,107,214



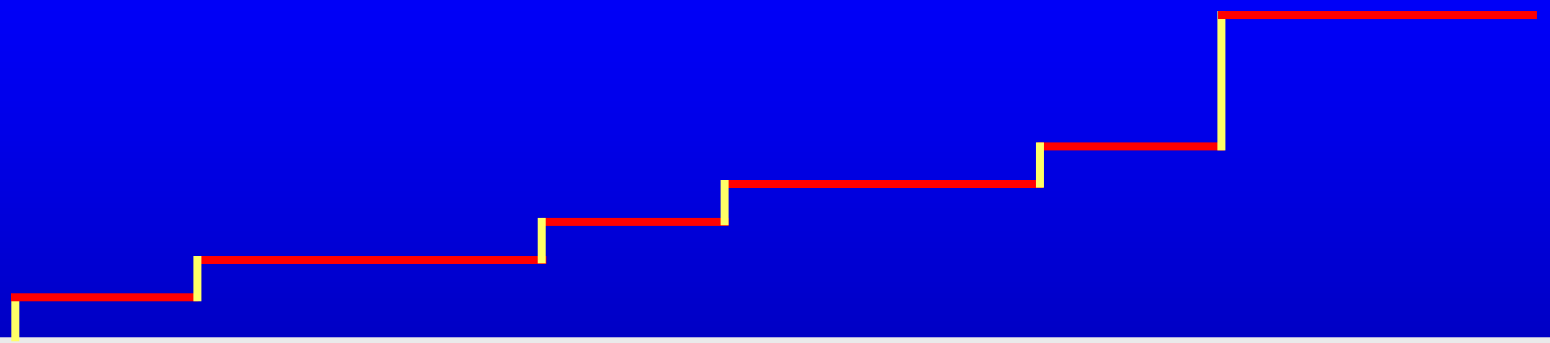
Traditional 'improvement' is futile



Thanks to: Chris Cooper
Simpler Consulting



Value
added

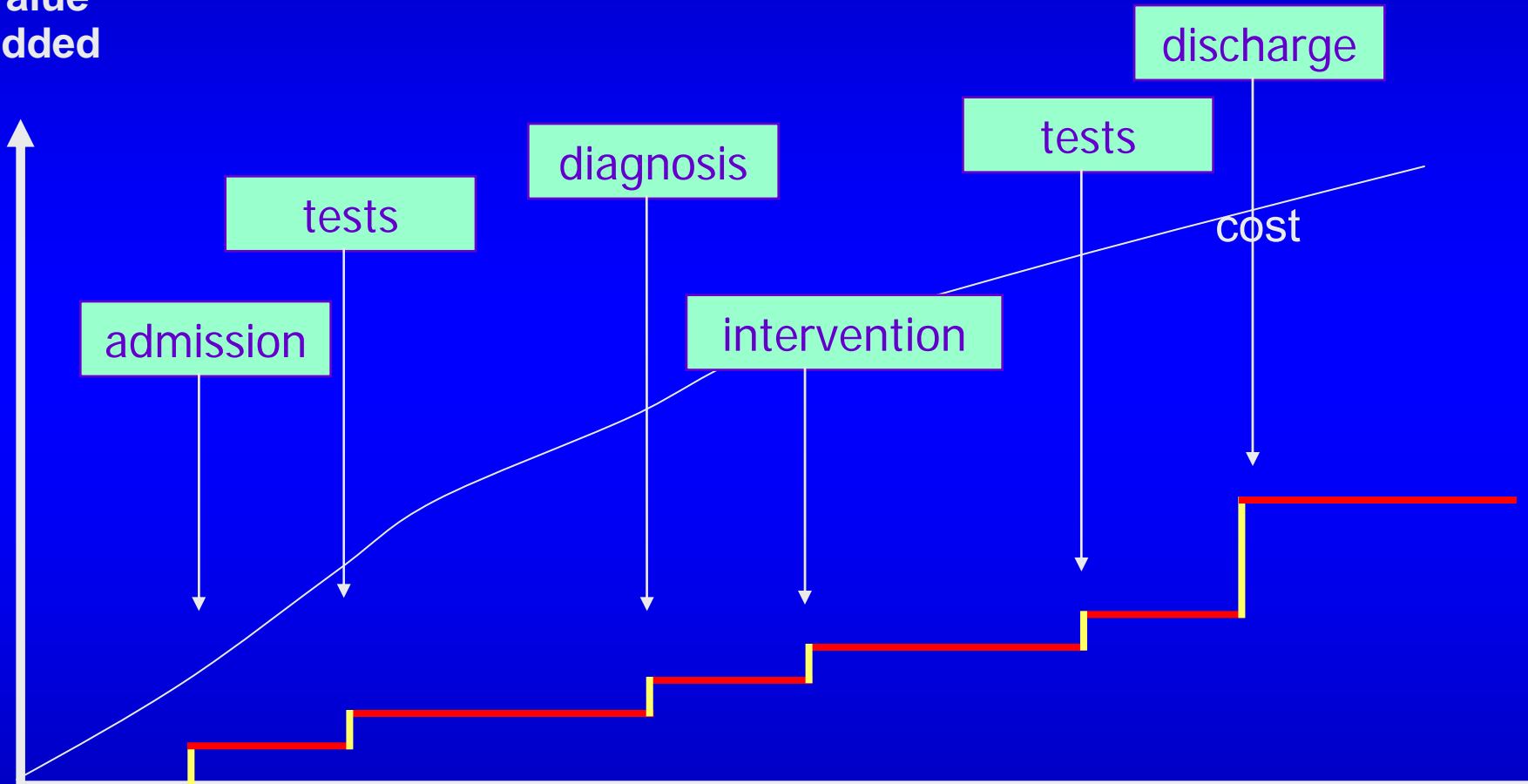


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Time



Value added

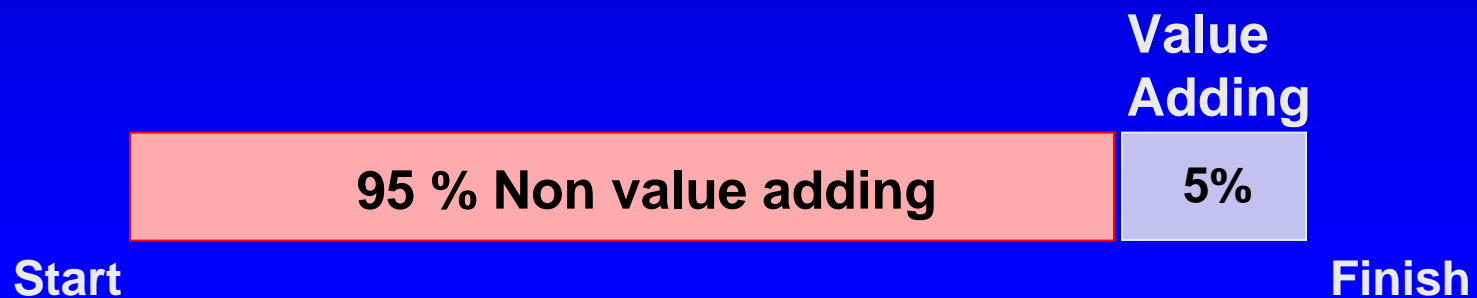


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Traditional 'improvement' is futile

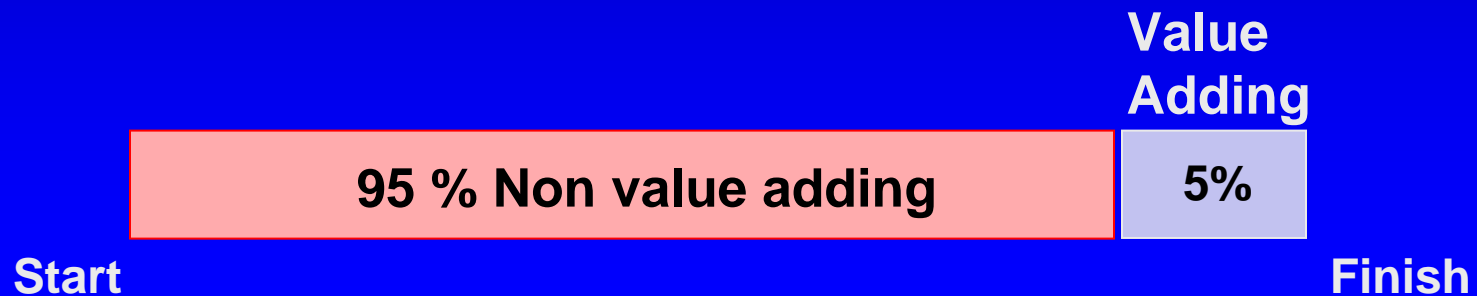


"Lets use a better drug for doing X"

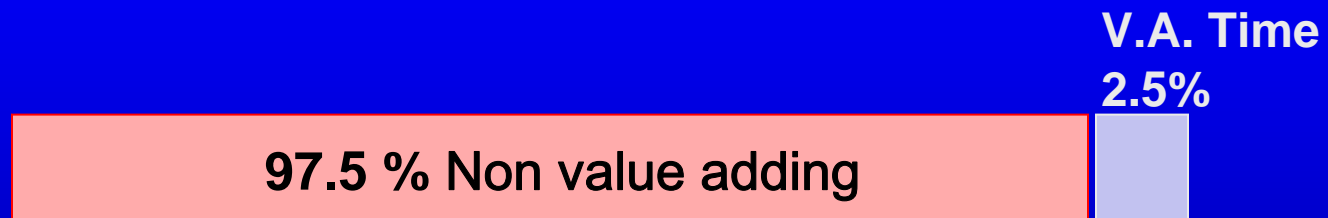
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Traditional 'improvement' is futile



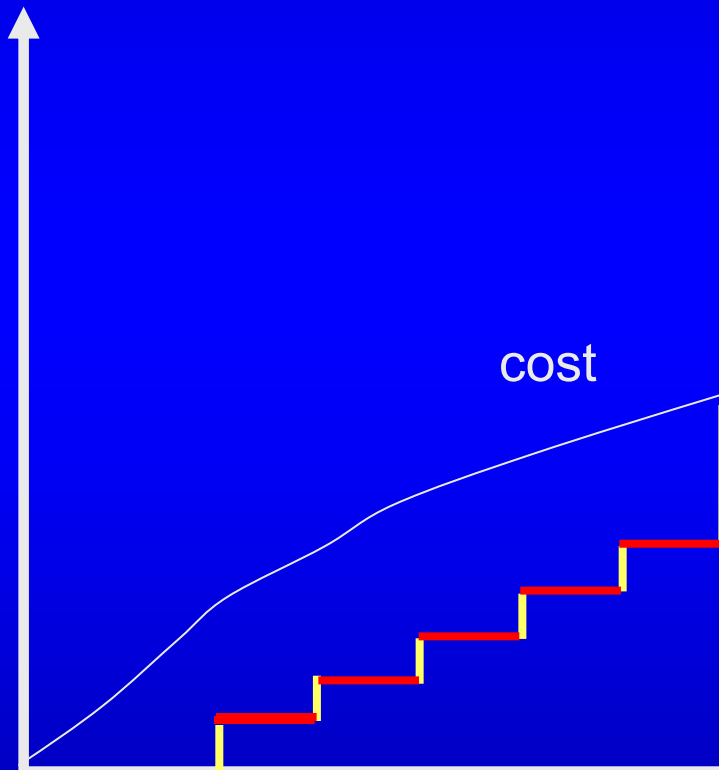
"Lets use a better drug for doing X"



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Implications of opportunity cost and marginal analysis

- ◆ To do more of some things, we have to take resources from elsewhere:
 - By doing the same things at less cost (technical efficiency)
 - By taking resources from an effective area of care because a new proposal is more effective per £ spent (allocative efficiency)
- ◆ Measure costs and benefits of health care
- ◆ Often about “how much” rather than “whether”
- ◆ Economists don’t tell you what to do, they tell you what will happen when you do it



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Thank You