The background image is a composite. On the left, a person in a white lab coat and blue hairnet is working in a laboratory. In the center, a person in a grey lab coat and blue gloves is holding a large, clear, cylindrical object. On the right, a man with a mustache and glasses, wearing a dark suit and tie, is smiling. Behind him is a whiteboard with red arrows and text, including "PIP JT." and "DIP".

What is the value of health:  
why do you want to know?

**Christopher McCabe PhD**  
**Research Chair in Community Based Medicine**

## Acknowledgements

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# Overview

- **Why might we want to know?**
- **Whose value of health should we use?**
- **The health care budget and the value of health**
- **Cost effectiveness threshold as the value of a QALY – what that means for policy makers**
- **Estimating the value of the threshold**
- **Conflicting values of health and decision making**



# Why might we want to know

*To inform:*

- Governments deciding how much tax revenue to allocate to health care
- Health Insurance companies deciding what premiums to charge
- Health care budget holders facing Marginal investment & disinvestment decisions



# Whose value of health?

All stakeholders in the health care system have legitimate values:

- Patients & Carers
- Clinical staff
- Taxpayers
- General Population
- Society's agents – e.g. Parliament

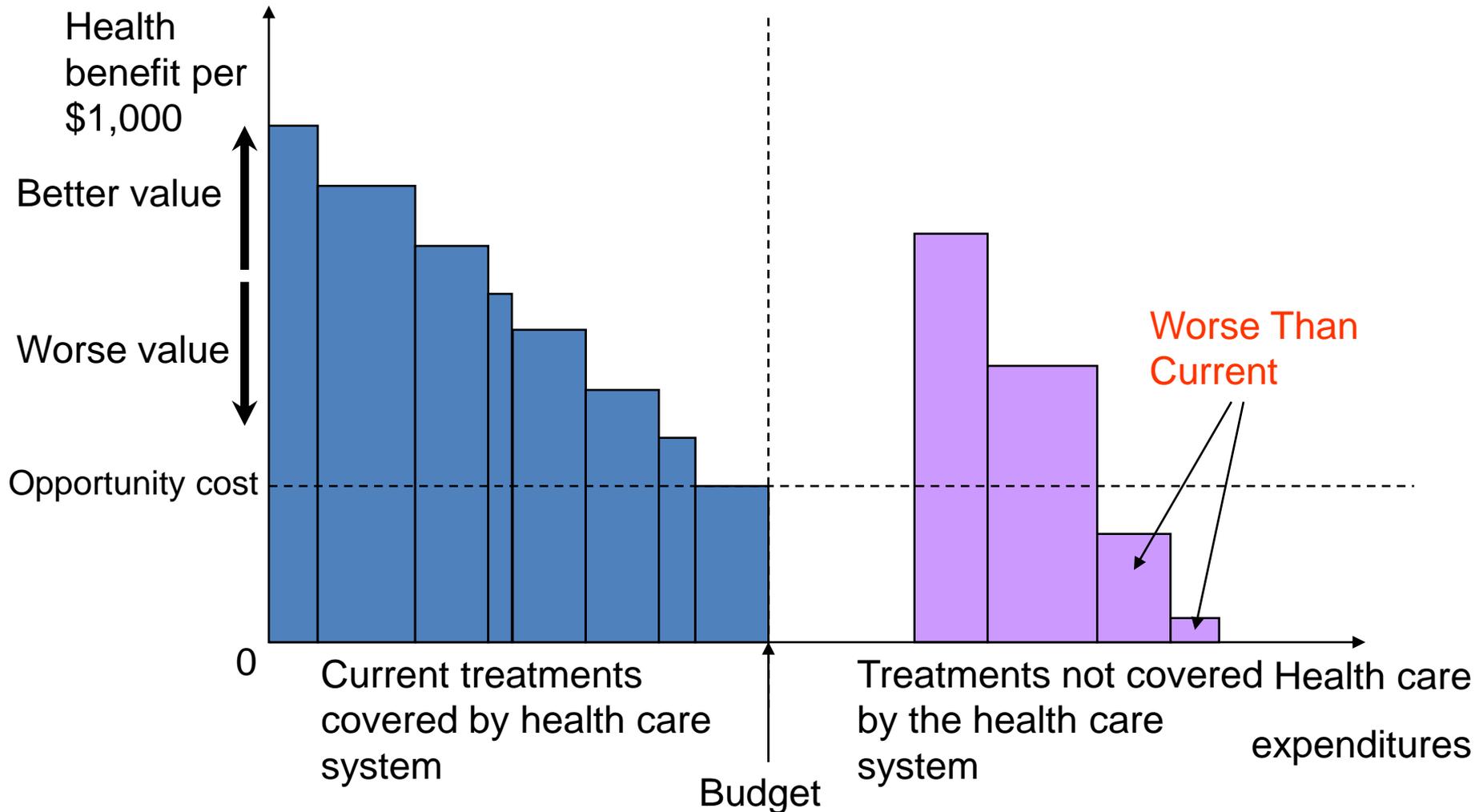
The appropriate value depends upon what we want to use the value for.



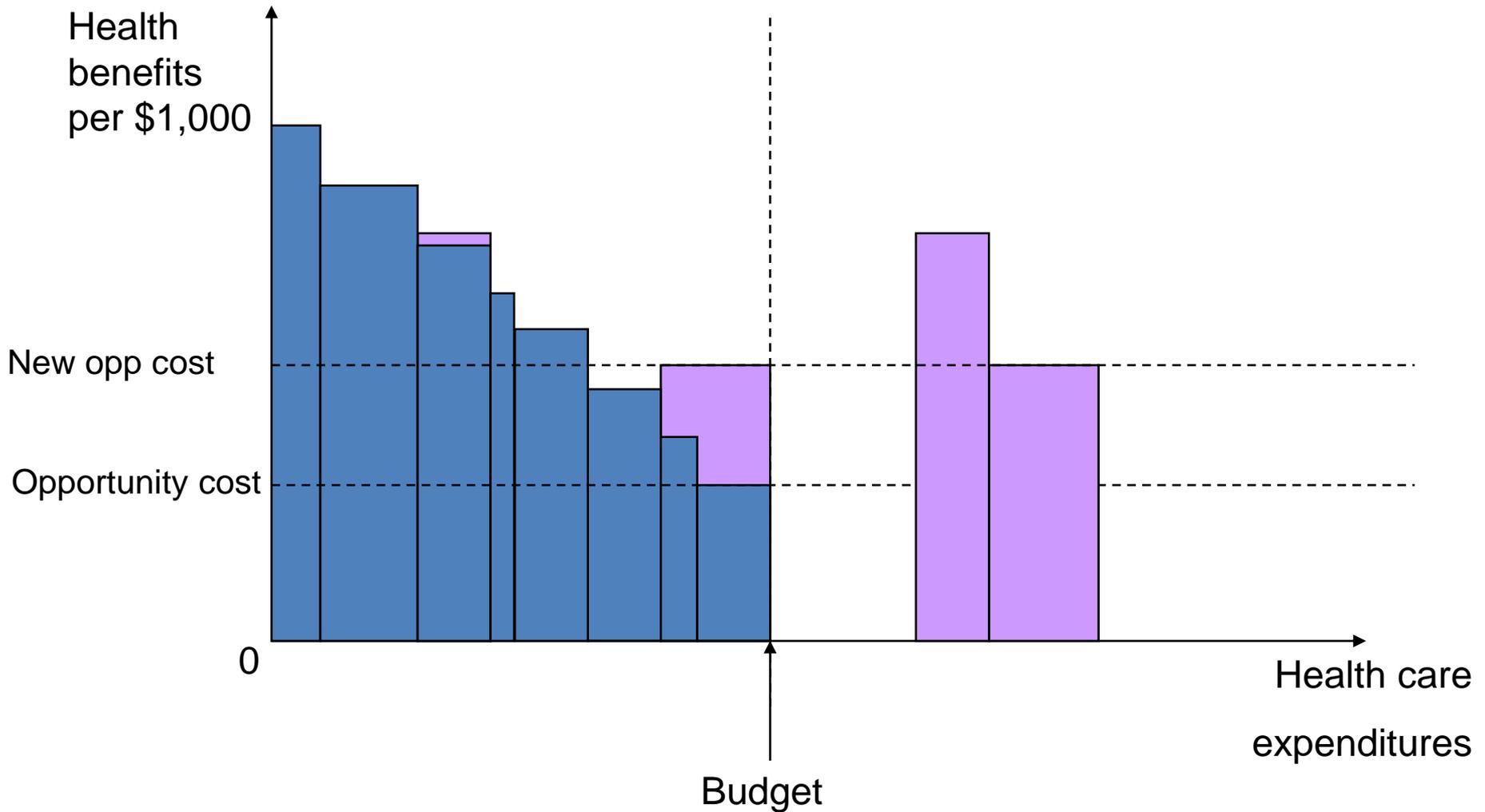
# **Value of health to inform marginal investment & disinvestment decisions under a fixed health care budget**



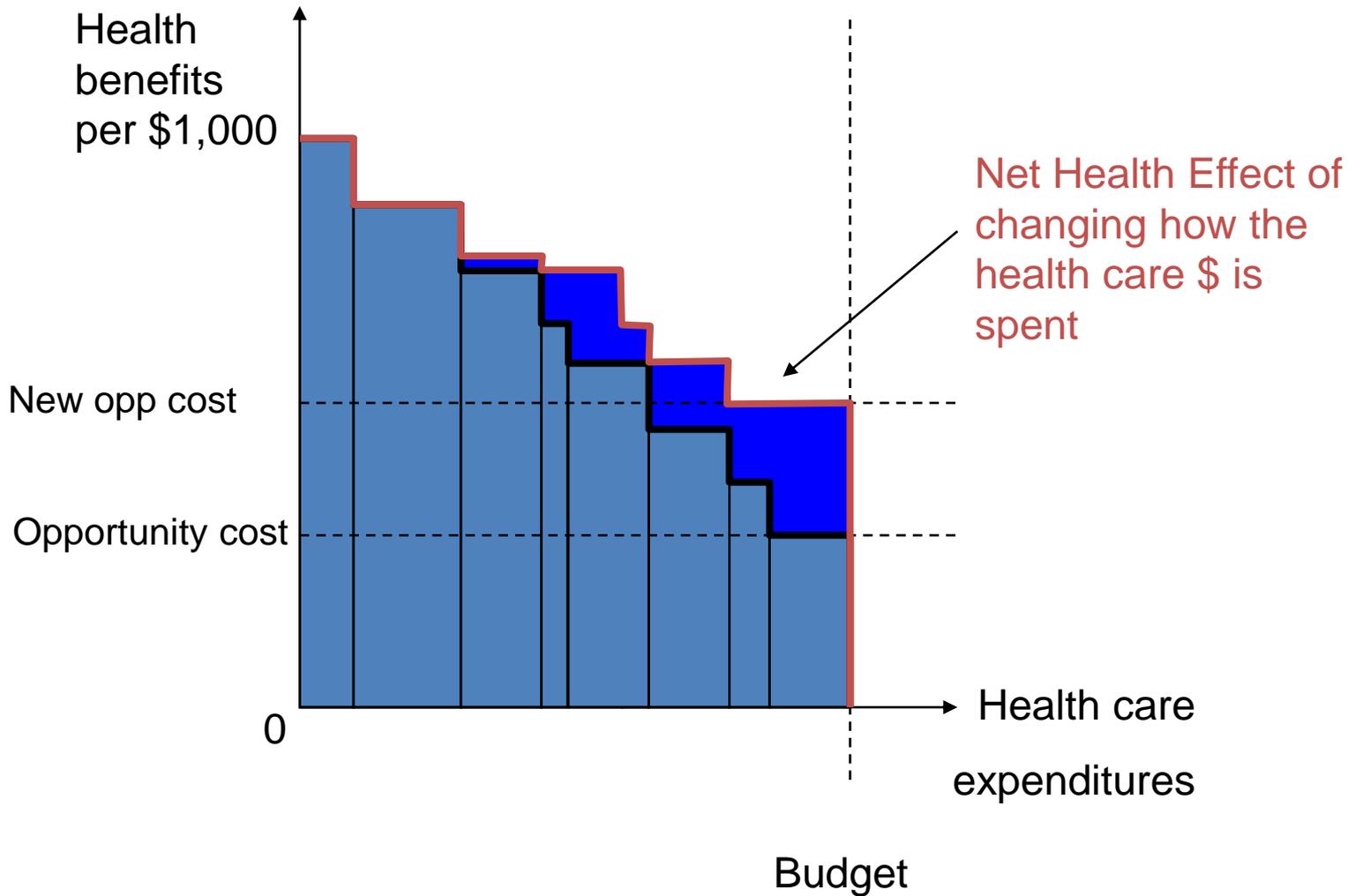
# Value based health care



# Value based health care



# Value based health care



# Implications for decision makers

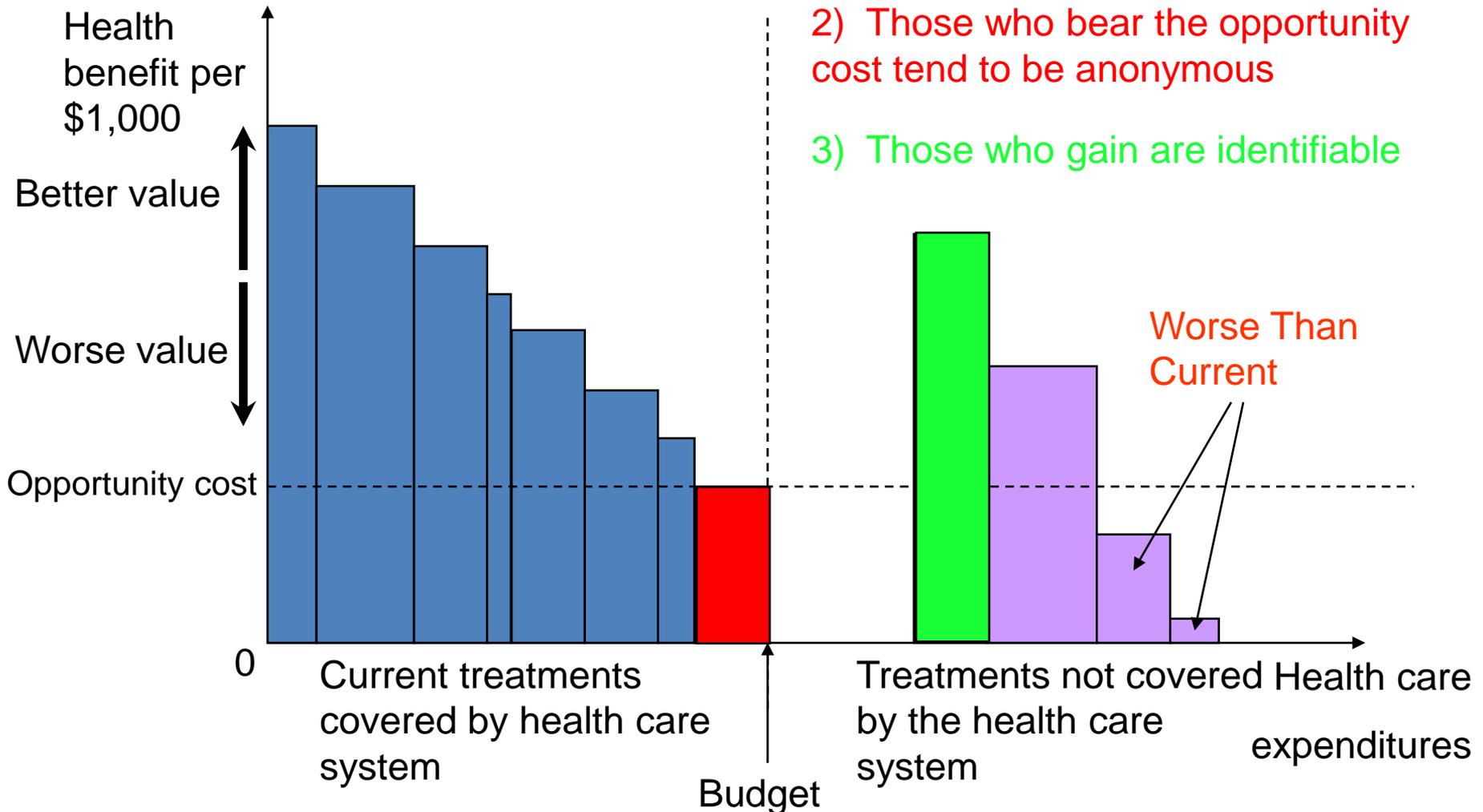


# What it means

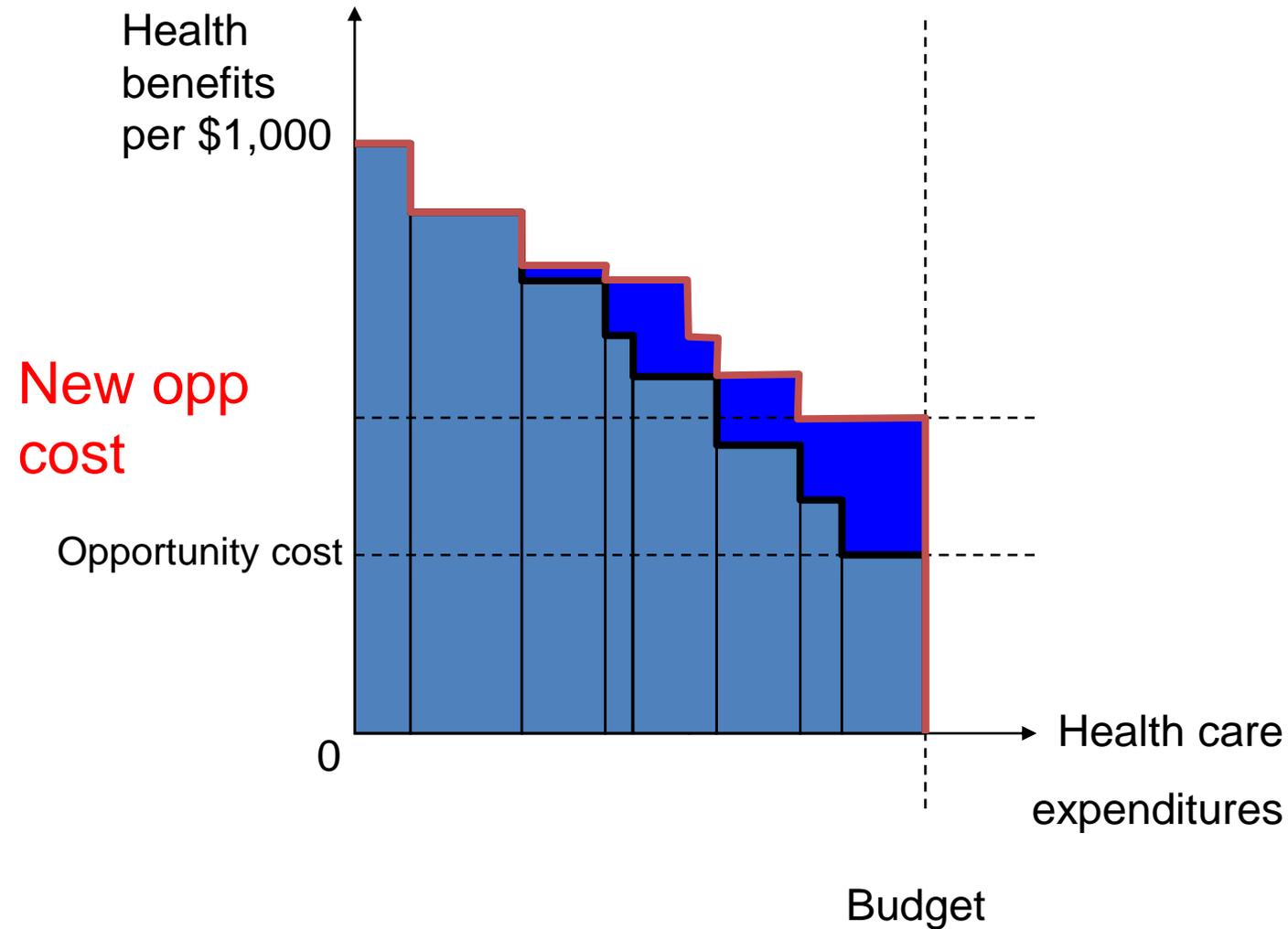
1) Each decision affects at least two groups of patients

2) Those who bear the opportunity cost tend to be anonymous

3) Those who gain are identifiable



# What it means



# Estimating the value of the threshold



# How can we estimate it?

Informal judgement about the cost-effectiveness of things the NHS does and doesn't do

Infer a threshold from past decisions

NICE threshold range

Find out what gets displaced and estimate its value

Estimate the relationship between changes in expenditure and outcomes



# Relationship between expenditure and outcomes

- Martin et al (2008, 2009)
  - Variations in expenditure and outcomes within programmes
  - Reflects what actually happens in the UK NHS
  - Estimates the marginal productivity (on average) across the NHS

	Cancer	Circulation	Respiratory	Gastro-int
04/05 per LY	£13,137	£7,979		
05/06 per LY	£13,931	£8,426	£7,397	£18,999

- Need to estimate:
  - How changes in overall expenditure gets allocated across all the programmes
  - How changes in mortality might translate into QALYs gained
  - More (all) programmes

# Questions

What's the point of knowing what it is if we don't know how big it is?



Is it better to use an uncertain estimate of the right parameter or a more certain estimate of the wrong figure?



# Conflicting values of health

**Social agents can allocate budget on basis of stated value of health**

**If the allocated budget is not consistent with stated value of health what are the implications for:**

- (a) efficiency of health system; and**
- (b) population health?**



# Summary

**There are many reasons to be interested in the social value of health**

**There are many potential sources of values**

**For marginal investment/disinvestment decisions – the shadow price of the budget constraint is appropriate.**

**Conceptually this framework has the advantages of:**

- (a) Respecting the decisions of the socially legitimate agent that set the budget; and**
- (b) focusing the decision maker on the opportunity cost and the unidentified victim.**

**Although currently we don't know the value, we do know it is the opportunity cost**





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# THANK YOU

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**Acknowledgement: I thank all my colleagues and the Capital Health Chair in Emergency Medicine Endowment at the University of Alberta. The views expressed in this presentation are mine and do not necessarily represent the views of Capital Health.**



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For more information on the technical details on estimating the cost effectiveness threshold:

[www.york.ac.uk/che/research/teehta/methodological-research](http://www.york.ac.uk/che/research/teehta/methodological-research)