fuse Quarterly Research Meeting, Tuesday 27th January 2015

Health economics: the potential contribution to priority setting

Brighter futures begin with GCU

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Basic premise

- Resource scarcity is a global phenomenon
- We have to become smarter in managing scarcity, especially in a period of austerity and even disinvestment
- Integration, CCGs will not solve this basic problem

Principles and challenges: outline

- Statements from (integration) policy relating to potential for scarcity management:
    - what questions arise from these?
- How can we get there? Economic framework to address the questions:
    - two principles
    - five questions and 10 steps
- How has it worked to date and how does this fit with the world of public health?
    - focus on disinvestment
- Some questions for the future

Platitudes of service reform

- We are going to adopt a ‘balance of care’ model

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Question

“OK, what’s your process for deciding on the balance of care?”

Platitudes of service reform

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- **It’s about effectiveness <u>and</u> efficiency**

Platitudes of service reform

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- It’s about effectiveness and efficiency

Question

“OK, what process for decision making results from these two concepts?”

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- **We are going to focus on outcomes and take an evidence-based approach**

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Question

“OK, what is the process into which an outcomes focus and staff engagement will be fed?”

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- We are going to involve front-line staff
- **We are going to examine how we are using resources and how can we use them differently?**

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Question

“Why then do we need to bring these bloody health economists down from that (potentially) rebellious part of the UK?”




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Question

“Have we decided on a process for doing this?”

Principles before practice: some 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 margin:
  - Technically, the extra cost/benefit associated with one more unit of production

“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 per cent of cases undetected by the previous test.

Screening for cancer of the colon

Cases detected and costs of screening with six sequential tests

No. of tests	No. of cases	Total costs ($)	Av. cost ($)
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 cancer of the colon

Incremental cases detected and incremental (and marginal) costs of screening with six sequential tests

No. of tests	Incremental cases detected	Incremental costs ($)	Marginal costs ($)
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**

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 (or proposals) is (are) more effective for the £s at stake (allocative efficiency)
- measure costs and benefits of care
- often about how much rather than whether
- economists don't have the answer to the meaning of life!

Programme budgeting and marginal analysis: what is it?

PBMA addresses priorities from the perspective of resources:

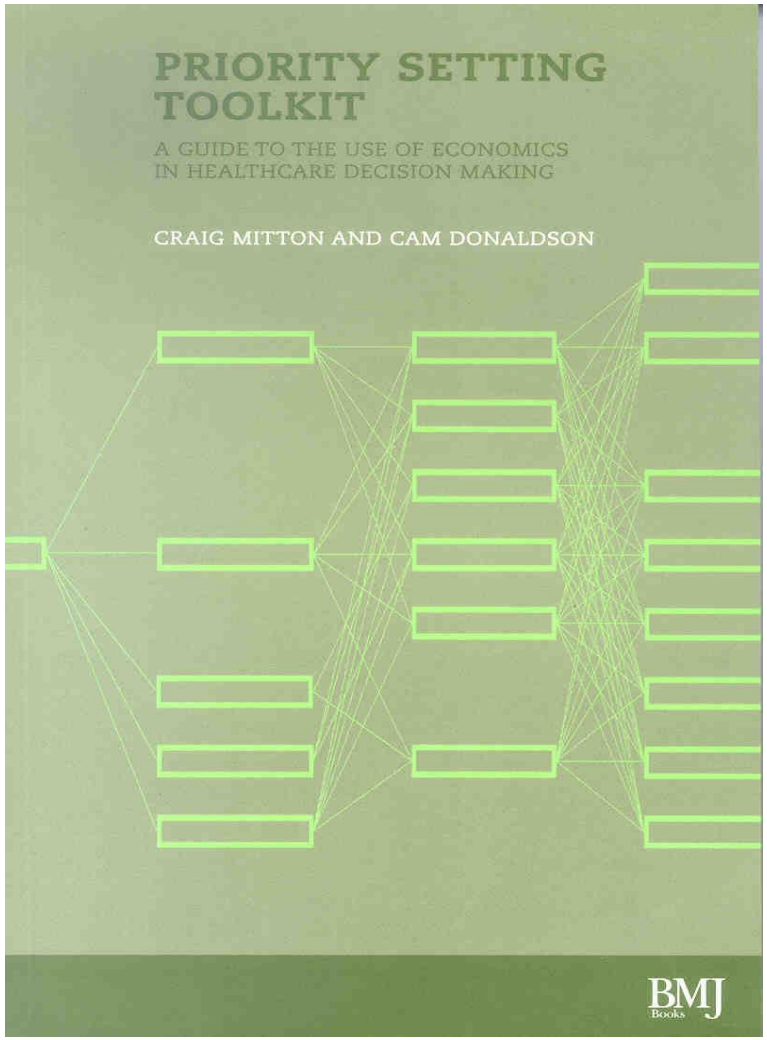
1. What resources are available in total?
2. In what ways are these resources currently spent?
3. What are the main candidates for more resources and what would be their effectiveness and cost?
4. Are there any areas of care which could be provided to the same level of effectiveness but with less resources, so releasing those resources to fund candidates from (3)?
5. Are there areas of care which, despite being effective, should have less resources because a proposal (or set of proposals) from 3. is (are) more effective (for £s spent)?

Questions 1 and 2 pertain to the *PROGRAMME BUDGET*

Questions 3-5 are addressed in *MARGINAL ANALYSIS*

Can be applied at 'micro' or 'macro' levels

Shameless promotion: Mitton and Donaldson (2004)



Project managing PBMA

1) Establish the organisational objectives
2) Ensure there is organisational 'readiness'
3) Establish an appropriate advisory panel structure
4) Ensure that implementation of results is feasible
5) Define the study question
6) Choose the most appropriate programme structure
7) Choose an appropriate level of detail for a programme budget
8) Use appropriate methods to identify options for investment and disinvestment
9) Identify, measure, and value costs and benefits of investments and disinvestments
10) Ensure that resource reallocation recommendations are valid and robust

Peacock S, Ruta D, Mitton C, Donaldson C, Bate A and Murtagh M. Using economics for pragmatic and ethical priority setting: two checklists for doctors and managers. *British Medical Journal* 2006; 332: 482-485.

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Commentary

QJM

Rational disinvestment

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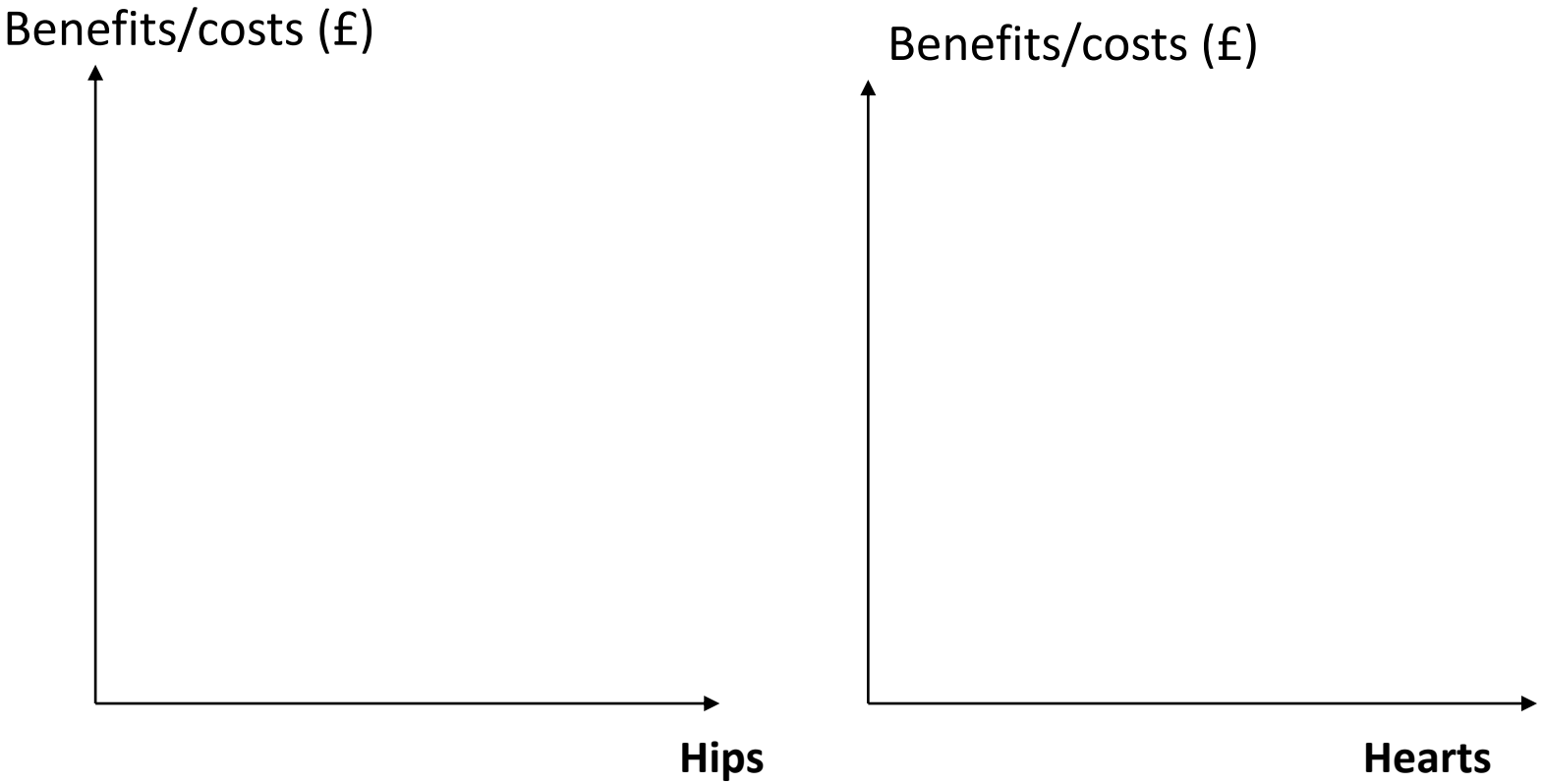
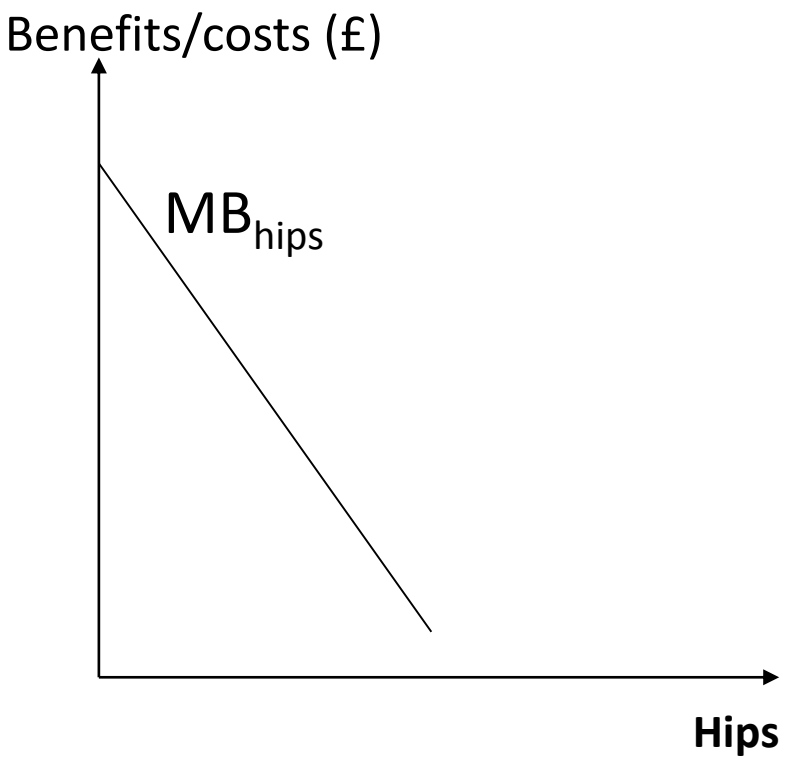
With potential budget claw backs of 20% to be found in UK health care in forthcoming years, the question arises as to how these might be achieved. Based on the long-standing economic principle of

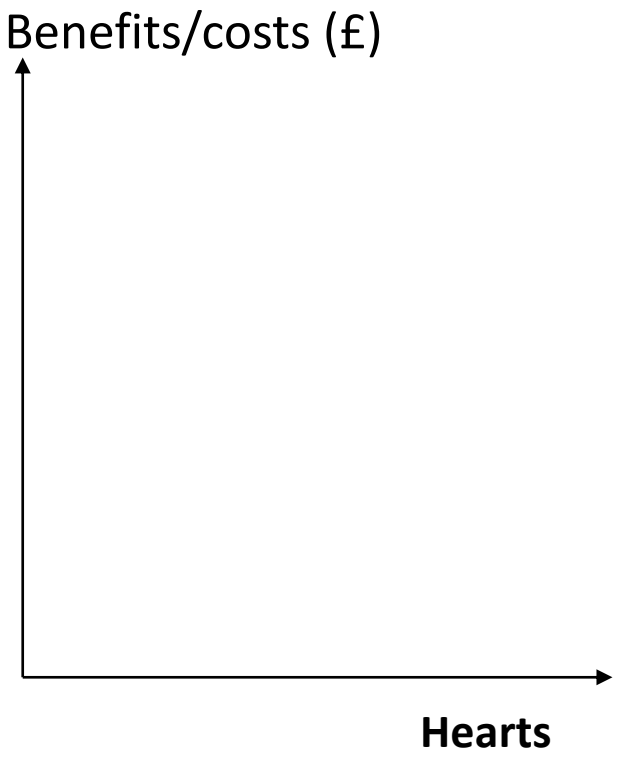
to refer to taking resources from areas of care that provide no added value, as though disinvestment will do no harm. Does anyone really believe that the scale of cuts required can be met by such

The PBMA theory

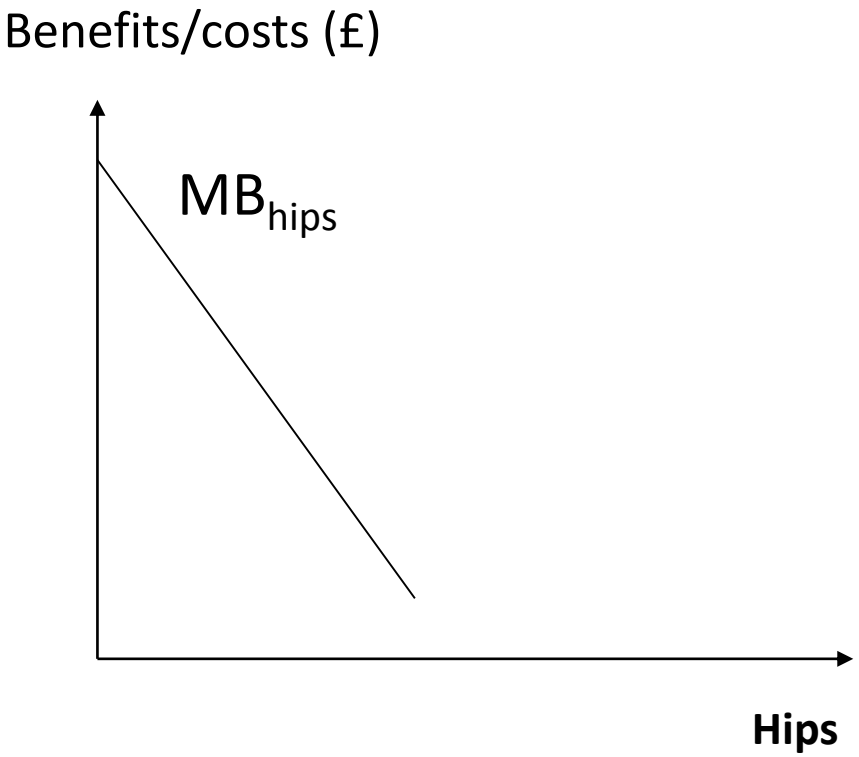


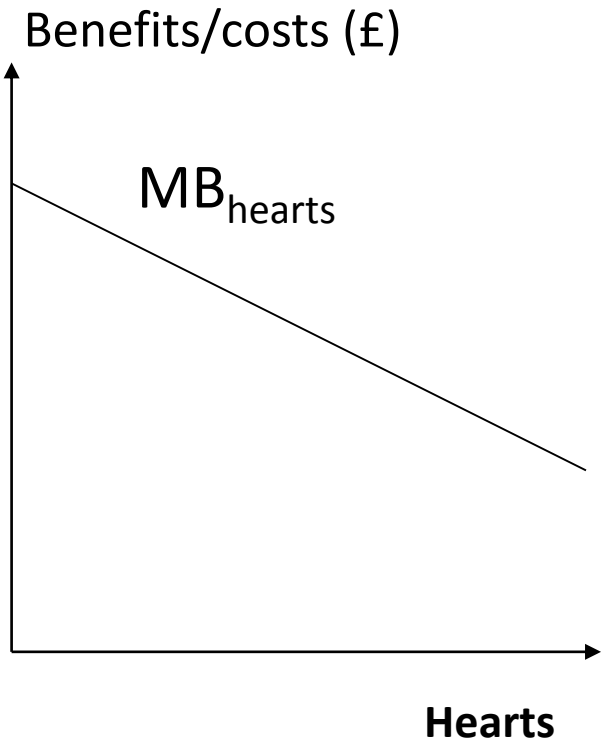
Treat those with most to gain first: benefits diminish for each additional patient treated



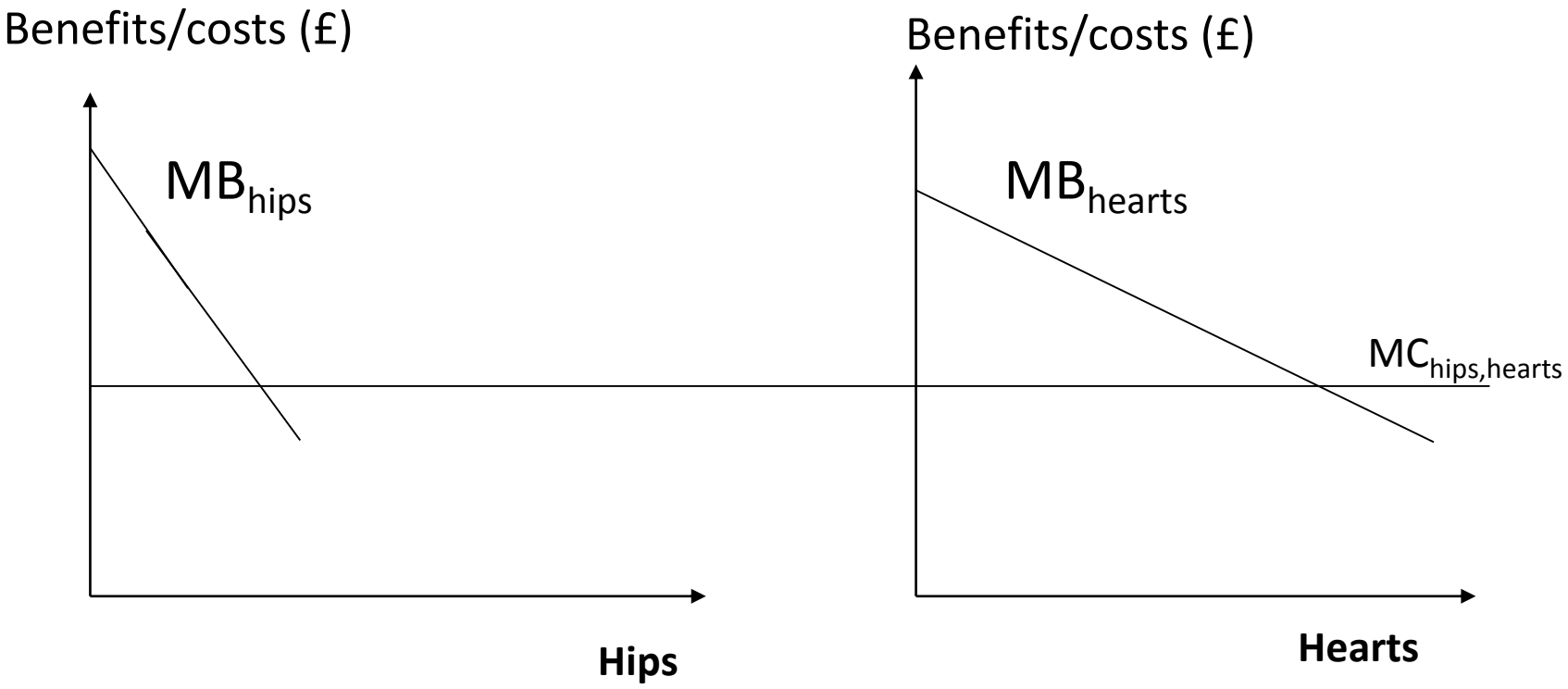


Same for hearts, but different slope

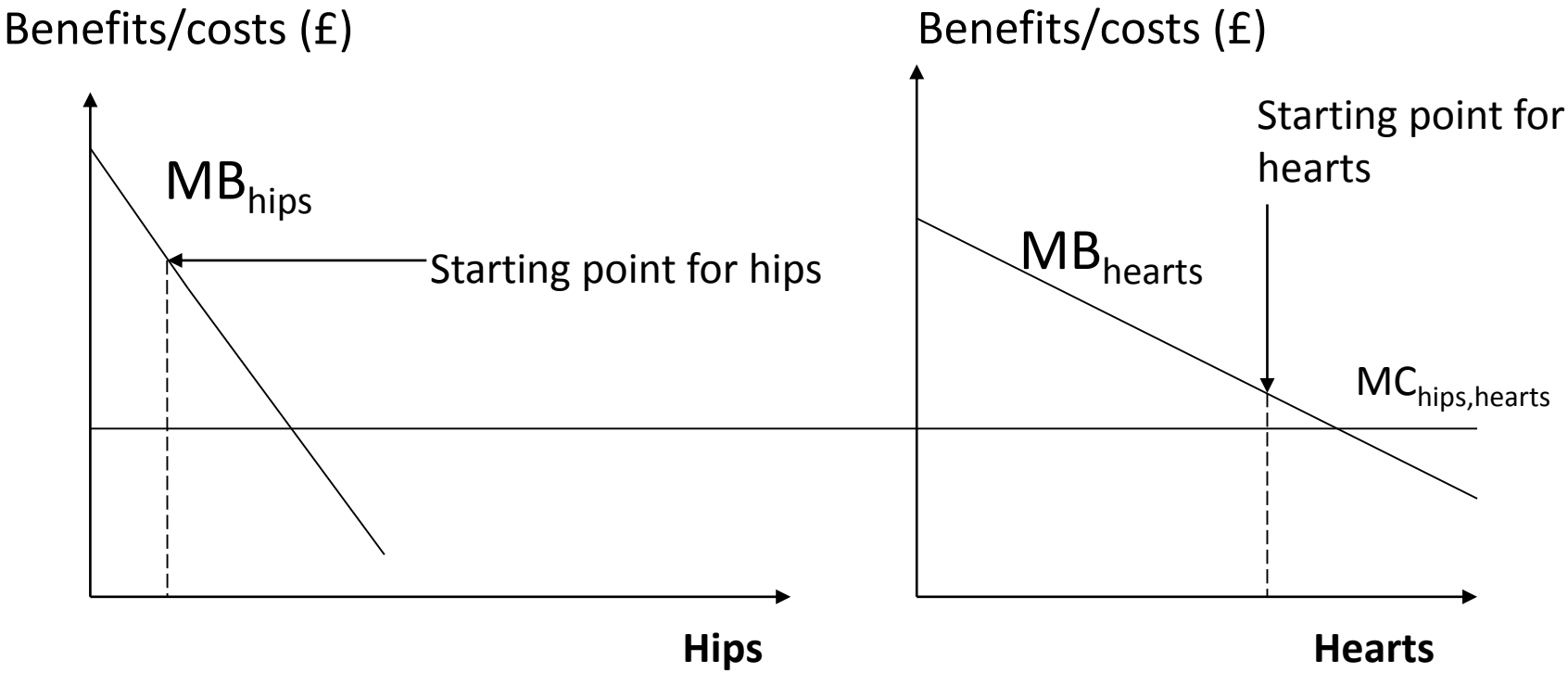




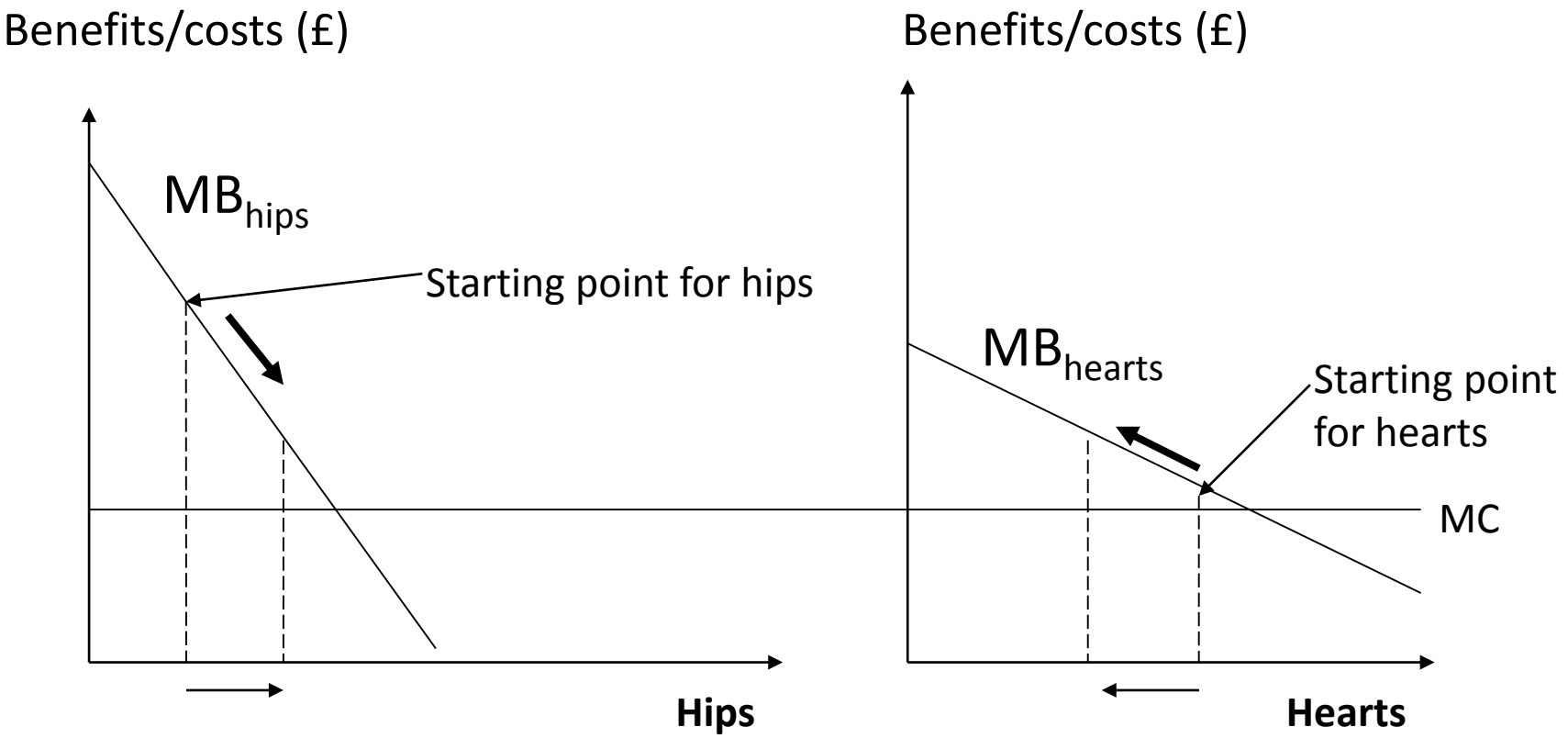
Equal marginal costs



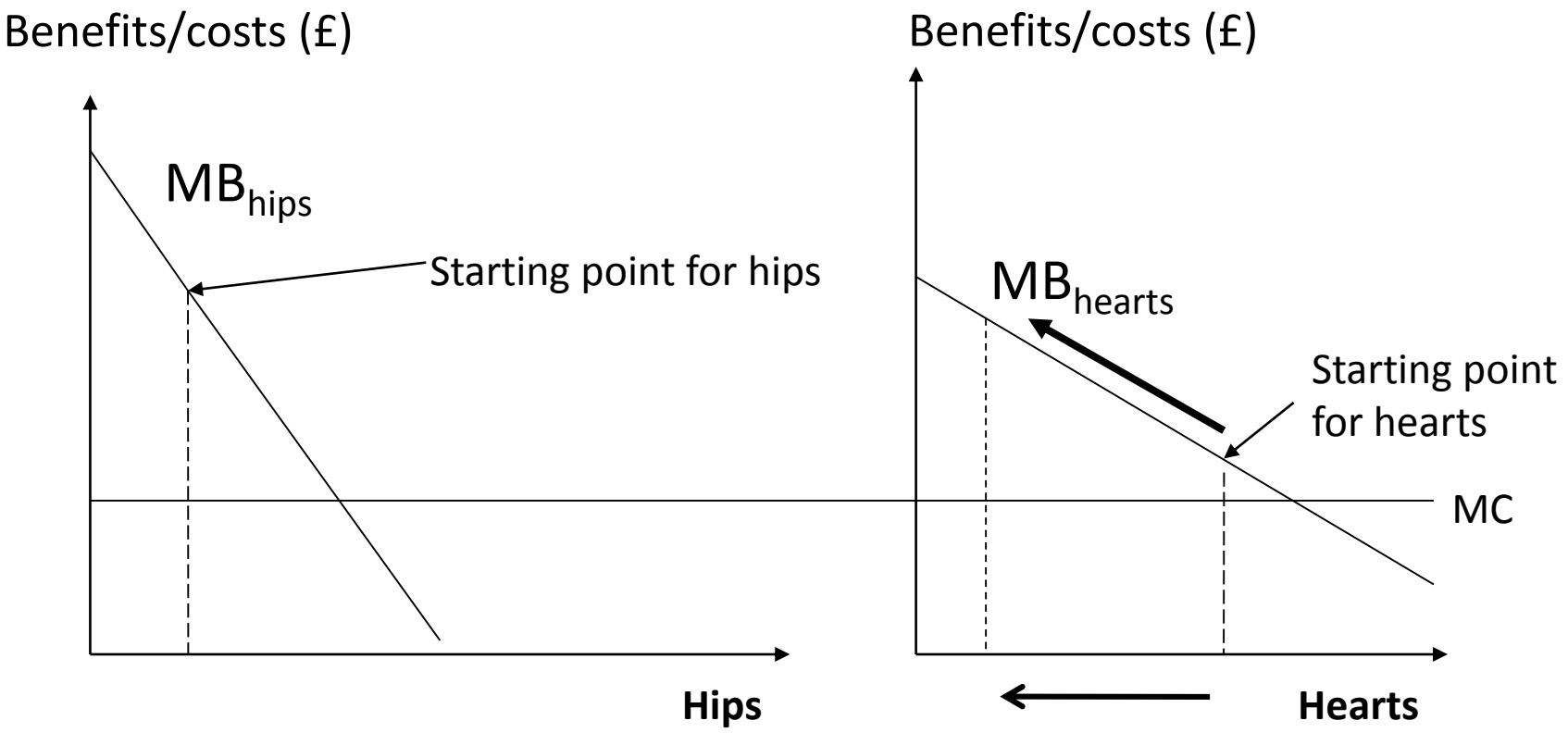
Where do we go from here?



Move resources from hearts to hibs, until ratios are equal



Rational disinvestment



Scale back hearts until MB/MC ratios are equal and then in proportion to MB/MC

Towards rational investment (and disinvestment)

Common resource allocation approaches

- history
- for disinvestment: across-the-board cuts

Rational investment (and disinvestment)

- elimination of waste and standard working
- substitution of:
    - less for more costly
    - later for now
- scale up on a greatest value basis, and scale back on a least value basis

Priority setting in total fundholding

- Nairn and Ardersier Total Fundholding Pilot Site within Highland Health Board
- Looked at chronic conditions using PBMA framework
- Combining current spending across admissions, outpatients, prescribing, consultations and tests with evidence on effective uses of resources to create more opportunities for local clinics

Scott A, Currie N and Donaldson C. *Family Practice* 1998; 15: 216-222.

Priority setting in total fundholding: views of a GP

- Clinical Decision = Purchasing Decision

  "Stress now mainly multi disciplinary teams and collaborative decisions. GPs are key players and buggeration factor if not corporate"

- GPs are well-placed to do this
  - "GP as family friend and trusted confidant with long term relationship essential for continuity of care walking financial and managerial tightrope with balancing individual care against locality/community good including value for money. Nobody else can do it!"
- Management and Finance must support and encourage GP responsibility for clinical decision
- The locality becomes the integrator for the clinical pattern/outcomes. This can be compared to current best locality outcomes and judged in value for money terms.
- PBMA says if you have a £100 you can only spend it once. Make best use of it. The best use is every patient knowing and having current best individual care plan. There will then be occasional trade offs but not many.

Who said this?

“If I had a plan, it would be simply to take the poorest and least organised hospital in London and, putting myself there, to see what I could do – not touching the Fund for years, until experience had shown how the Fund might best be available.”

A novel idea!

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Florence Nightingale (1857)

Important stages (and challenges)

- Define and agree decision criteria
- Criteria weighting:
    - e.g. health gain, equity, access, sustainability, fit with government strategy
- List of options for service growth and service reduction
- Process supported by business cases. These should show how each option meets the agreed decision criteria using supporting evidence and expert opinion
- Scoring options against criteria
- Scoring of options then allows for each option to be ranked according to weighted-benefit achieved for costs incurred
- This then can allow for resources to be released from the lower-ranking service reduction options to those ranked higher
- Rankings are merely the beginning of a conversation

Discussing using this in Health & Social Care Partnerships

Aims of project

- Pilot PBMA in three areas: Highland, Ayrshire & Arran, Perth & Kinross (Tayside)

- Aim of pilots
  - Establish how well PBMA can be used, to share learning with other sites and evaluate impact of PBMA
  - Can information needs be met?

- Focus on Highland pilot – working with two localities, Caithness (rural) and Inverness (urban).

Snapshot of what we have done

Workshops conducted prior to start of process:

- Outlining the key principles and stages of a PBMA process

Ten semi-structured interviews conducted prior to start of process:

- Addressing existing priority setting processes, issues and areas for improvement
- Elements in place (but nothing formal); need to broaden criteria (to reflect social care); varying views on role and quality of evidence; need staff and public buy-in; re-focus from acute

Have worked through various stages listed:

- Programme budget, yes, but still data gaps (linking data)
- Advisory panels formed: 11 (urban); 22 (rural)
- Determined (& weighted) criteria: access; equity; improved outcomes; effective practice; sustainable; culture & values
- Urban: developed business cases but focused on ‘care@home’
- Rural: struggling with disinvestments at moment
- Next: goes to board level for validation/approval; further interviews

Some concluding remarks

- Challenges abound:
  - Data linkage; involvement (GPs and public); finding evidence; time; organisational readiness, new ways of thinking?
- But:
  - Idea has been around for some while!
  - These procedures have been used here in Scotland and in "well over 150" health organisations worldwide
  - It can be used alongside other perspectives (e.g. ethics) and management activities (e.g. needs assessments, gap analyses)
- How, if at all, might this apply to you?
  - Let's discuss that!

Questions

- Does it resonate?
- Are you doing it (or some of it) already?
- What are the challenges?
- What are the alternatives?
- Does it provide other benefits?

Access

Facilitate access to health and social care services and informal support, as close as possible to where individuals are in need. Access by public transport and the local road network should be considered for those using the service and their families and/or carers. Access should be joined up, with the provision of easily accessible information and comprehensive advice for people, their families and carers to make informed decisions, promoting choice and control.

Equity

The level of care and/or support should ensure that people are treated with equity and fairness, promoting people's rights and supporting choice.

Improved outcomes

Improved outcomes for people will be achieved as a result of any changes made compared to existing practice and available services and support.

Effective practice

Establish pathways of care and support wherever possible across the services involved. There should be continuity of care and/or treatment and/or support designed to match the needs of the individuals and their carers i.e. right service, at the right time and place, provided by the right provider. Care and support should be delivered to the highest possible standards of quality and safety, with the person being at the centre of all decisions. Risks will be assessed, managed and minimised.

Sustainable

Any changes made should be able to adapt to the changing needs of the population over the longer term. Focus on effective partnership working to encourage and support personal responsibility for own health and well-being, anticipatory care and prevention. The aim is to focus on supporting recovery, re-ablement and rehabilitation alongside longer term interventions, where required.

Culture and values

The culture should continue to change and evolve to define a health and social care system based on co-production that is enabling and empowering to people. The cultural focus will be to enable people to get back to or remain in their home or community environment and that all care and support is personalised.

Criteria weighting

Instructions:

The criteria are weighted to show their relative importance compared to one another.

For each criterion agreed, we have 10 points to allocate.

As we have 6 criteria we have 60 points to allocate across all of the criteria. These points can be allocated as you feel is appropriate across all the criteria but they must sum to 60.

Example: If we have 6 criteria and you thought each should receive an equal weight, then your table would look like this.

Criteria	Weight
Criterion 1: Access	10
Criterion 2: Equity	10
Criterion 3: Improved outcomes	10
Criterion 4: Effective practice	10
Criterion 5: Sustainable	10
Criterion 6: Culture & values	10
Total	60