

... about cost-effectiveness

- ◆ When resources are limited, comparing the **costs** and **benefits** of interventions can help inform decisions about funding choices. When economic evaluations are favourable, an intervention is often termed "cost-effective".
- ◆ "Cost-effective" can also refer to a specific type of analysis used for economic evaluation.

How effective is this intervention, and at what cost?

- ◆ Cost-effectiveness analysis is used to compare interventions that have outcomes measured in the same, natural units or health effects (e.g. cases detected, life-years gained, symptom-free days).
- ◆ This type of analysis is used to compare interventions within disease areas; an intervention for prevention of myocardial infarction cannot be compared with one that prevents vertebral fracture.
- ◆ For independent interventions, cost-effectiveness ratios (CERs) can be calculated and compared:

$$\text{CER} = \text{cost of intervention} / \text{health benefit}$$

How much more effective is this intervention, and at how much greater cost?

- ◆ When interventions are mutually exclusive, i.e. implementing one intervention excludes or affects the use of another, incremental cost-effectiveness ratios (ICERs) are calculated.

$$\text{ICER} = \text{difference in costs of interventions} / \text{difference in health benefits}$$

This ratio reveals the cost per unit of benefit for switching from one intervention to an alternative.

- ◆ Therapies that are less effective are usually rejected, and those that are more effective and less expensive are generally accepted.
- ◆ Decisions regarding the availability of therapies that are more effective but more expensive are usually made after careful consideration and debate involving the extent of additional benefits relative to the additional resources required and available.