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Advanced AI Assessment

CEA

Cost Effectiveness Analysis

CEA

- Cost-effectiveness analysis (CEA) is a form of economic analysis that compares the relative costs and outcomes (effects) of different courses of action;
- Should do as much good as possible with scarce public resources;

→ Decision makers may also be concerned about reducing unfair differences in health ("health inequities")

Cost Effectiveness Analysis

- Limited resources;
- Growing demand for care;
- Many options for improving outcomes.

WHICH ONE IS THE BEST ALTERNATIVE?

Cost Effectiveness Analysis

OBTAINING EFFECTIVENESS DATA

- Cost considerations
- Assumptions about clinical evidence
- Existing medical literature
- Alongside clinical trial

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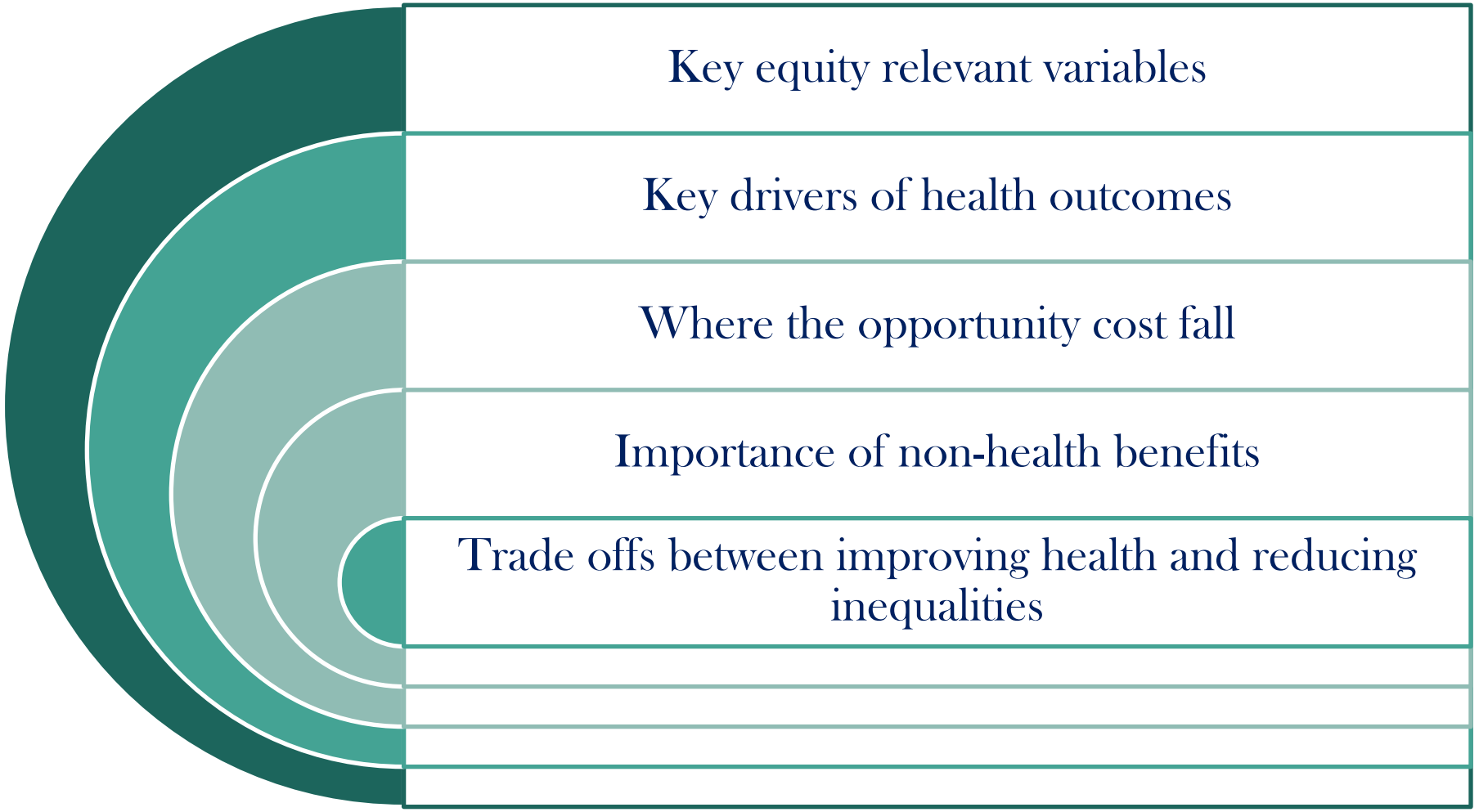
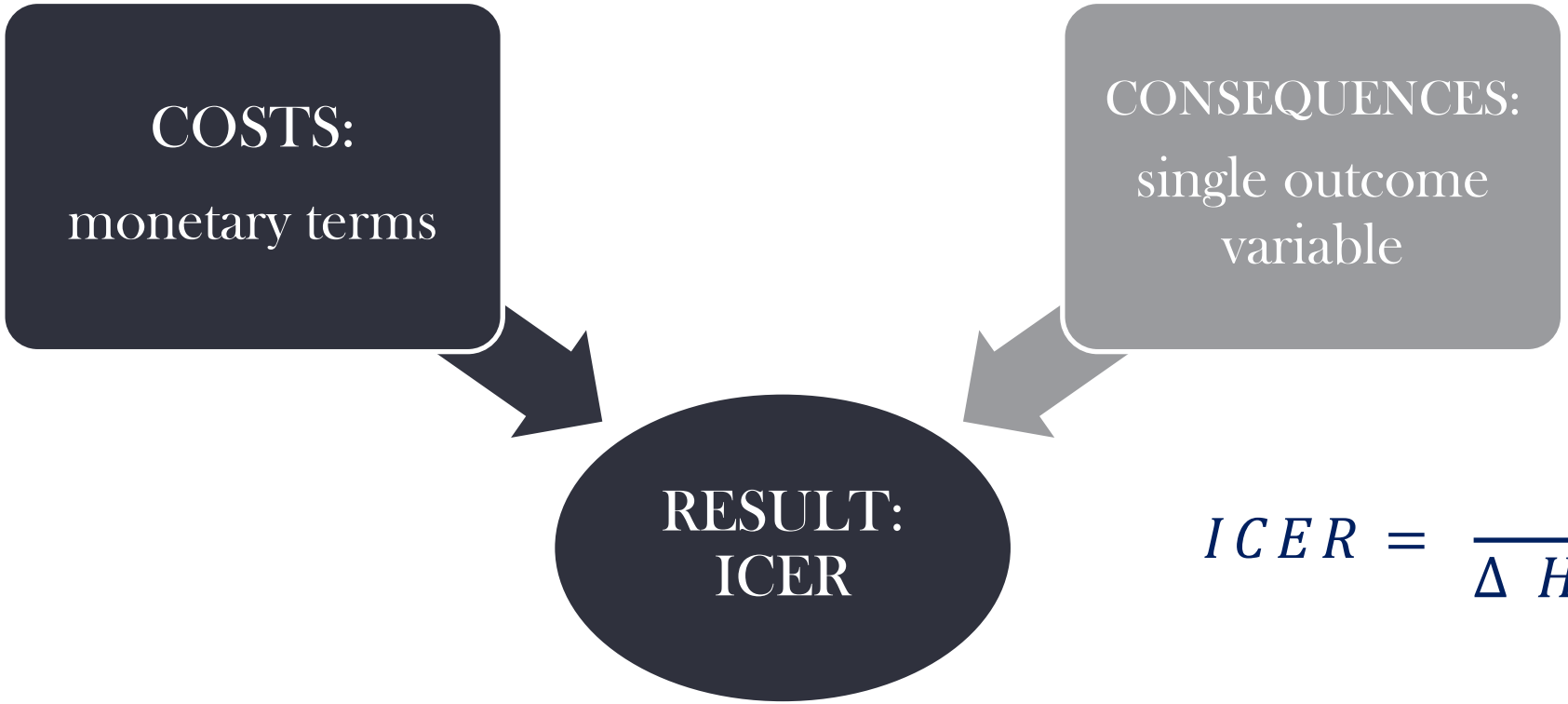
Cost Effectiveness Analysis

QUESTIONS TO BE ANSWERED BY THE CEA



Cost Effectiveness Analysis



$$ICER = \frac{\Delta\ Costs}{\Delta\ Health\ Benefits}$$

Cost Effectiveness Analysis

INDICATORS FOR DECISION MAKING

DALY – DISABILITY ADJUSTED LIFE YEAR

Measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. It was developed in the 1990s as a way of comparing the overall health and life expectancy of different countries.

QALY – QUALITY ADJUSTED LIFE YEAR

Generic measure of disease burden, including both the quality and the quantity of life lived. It is used in economic evaluation to assess the value for money of medical interventions.

QALY 1 = 1 year in perfect health;

QALY < 1 = an individual's health is below this maximum;

QALY 0 = death.

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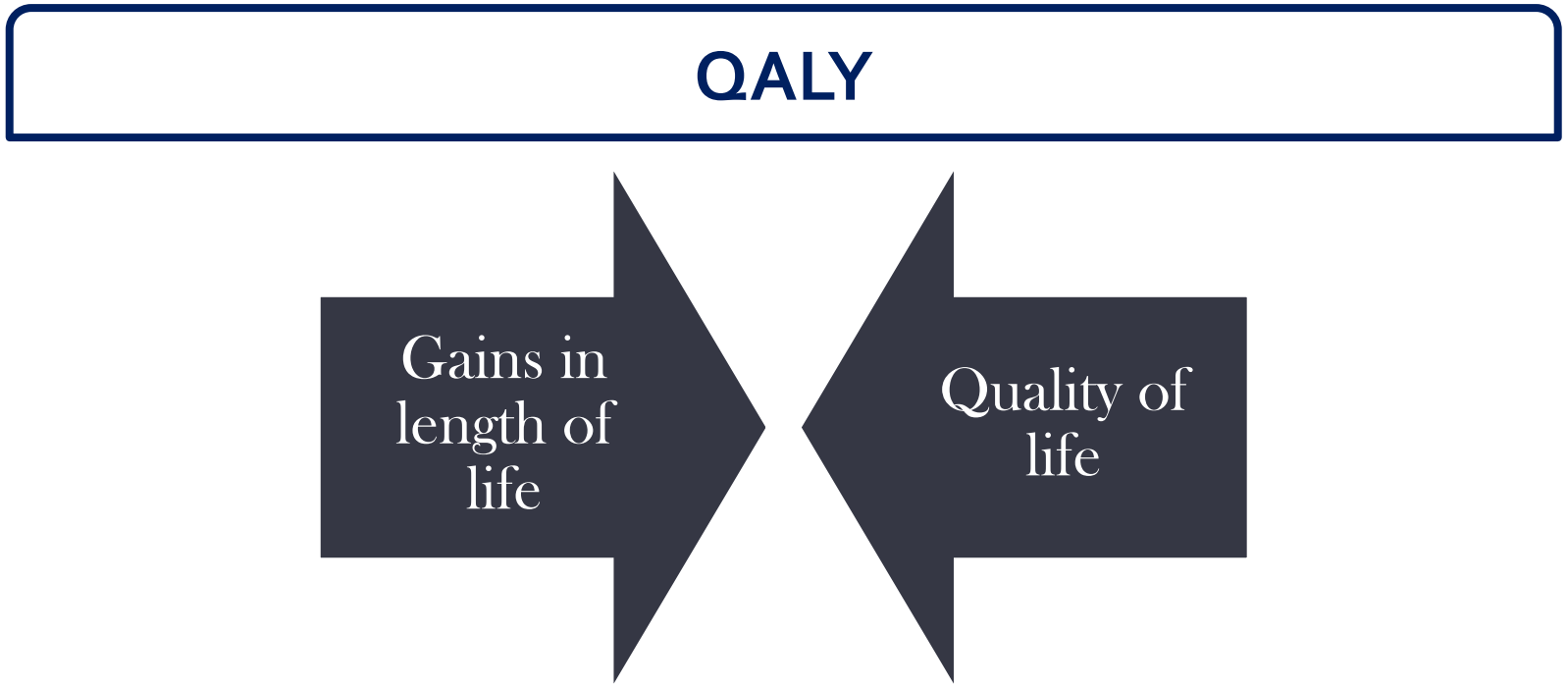
Health Outcomes



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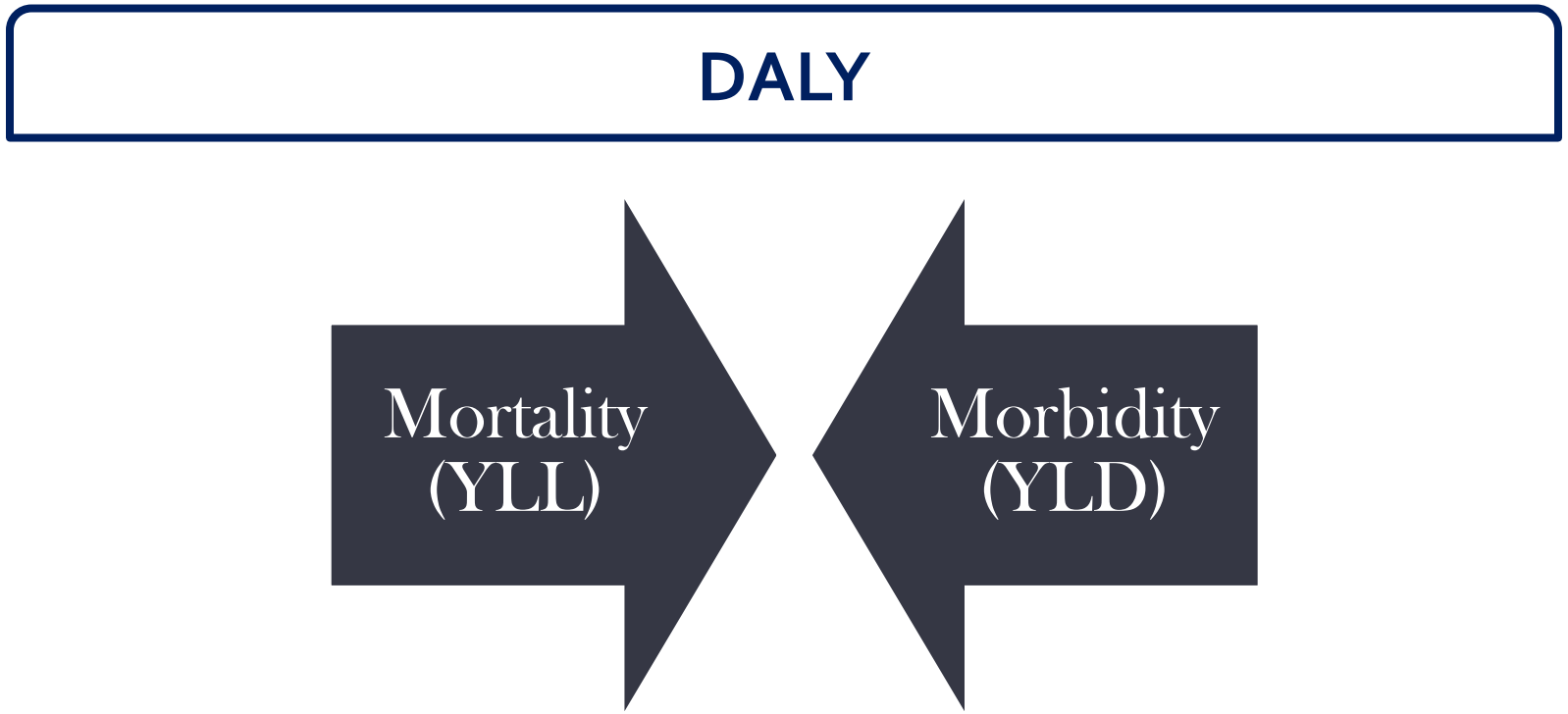
Health Outcomes



- DALY = YLL + YLD

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Cost Effectiveness Analysis

IS IT WORTH IT?

Health Benefits \ Costs	+	-
+	ICER Ratio	YES
-	NO	ICER Ratio

DOMINATED ALTERNATIVES

Cost Effectiveness Analysis

COST EFFECTIVENESS THRESHOLD

- There are broadly two approaches to understanding the cost-effectiveness threshold. Cost-effectiveness thresholds can be viewed as:
- 1) A supply-side concept:

What the health system is 'able' to provide given resource constraints. This requires assessment of the opportunity costs of scarce healthcare resources.

- 2) A demand-side concept:

The value that is placed upon health improvement. This approach is not helpful for the allocation of scarce healthcare resources though may have some merit in setting budgets. It is based upon expressions of the value of health (for example, from individuals, international organisations, doctors/experts).

Cost Effectiveness Analysis

WHICH ONE IS THE BEST ALTERNATIVE?

Correct approach is to choose the most effective strategy whose ICER is less than the threshold cost/LY after excluding dominated strategies

WHO Commission on Macroeconomics and Health provides guidance on how to define the threshold cost/LY

- Per capita GDP;
- Benchmark intervention;
- League tables.

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Thank you