**Outcomes for HTA Summary (Weeks 5 & 6)**

* Government intervention is required to address market failures in healthcare
* Economic evaluation is used to reconstruct the missing market, by assessing value of interventions
* Economic evaluation frameworks differ by the **outcome measure** used
* QALYs, used in Cost-Utility Analysis, measure years lived weighted by the **utility** in which those years are lived
* Preferences are measured in order to calculate utility.

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|  | **Advantages** | **Disadvantages** | **Examples** | **EE Framework** |
| **Preference-based measures** |  |  |  |  |
| Direct elicitation | Can be designed specifically for study population – improves sensitivity  Allows calculation of utility values | Time & resource intensive to design & administer  Must trade-off between complexity (TTO & SG) and reduced rigour (VAS) | Time Trade-Off  Standard Gamble  Visual Analogue Scale | Cost-Utility Analysis |
| Multi-attribute utility instrument | Off-the-shelf & cheap to administer  Comparable across multiple disease areas  Value sets allow utility value calculation | May not be sensitive to small changes in health | EQ5D  SF-6D (utility instrument based on SF-36 responses)  CHU9D (children & adolescents)  ICECAP-O (capability, targeted to elderly) | Cost-Utility Analysis |
| **Non-preference-based generic QoL measure** | Off-the-shelf & cheap to administer  Comparable across multiple disease areas | Cannot directly calculate utilities (can use mapping algorithm or SF6D)  Difficulty in trading off across dimensions if there is no aggregate score (SF-36) | SF-36  SF12 | Cost-Effectiveness Analysis  (Cost-Utility Analysis if mapping used) |
| **Non-preference-based disease specific QoL measure** | Focus on relevant outcomes for a disease – improved sensitivity to small changes  Usually easily understood by clinicians | May not capture side effects  Cannot directly calculate utilities (mapping algorithm may exist)  Cannot compare across disease areas | PDQ-39  Asthma quality of life questionnaire | Cost-Effectiveness Analysis  (Cost-Utility Analysis if mapping used) |
| **Clinical outcome** | Sensitive to clinically meaningful changes in health  Easy for clinicians to understand & interpret | Unable to compare across disease areas  Unable to calculate utility values | Deaths averted  Cases averted  Falls prevented  Blood pressure change | Cost-Effectiveness Analysis |
| **Monetary outcome** | Can measure both **absolute efficiency** and **relative efficiency**  Comparable across disease areas (depending on approach)  Readily understood by policymakers | Controversial to translate health & life into monetary value  DCEs to measure WTP are time & resource intensive | Human capital approach  Revealed preference  Stated preference - Willingness to pay (DCEs) | Cost-Benefit Analysis |

Choosing an outcome measure should be based on:

* + Research question & objectives
    - Do the stakeholders require a Cost/QALY (ICER) measure to make a decision around implementation of an intervention?
    - Do you need to be able to compare results across disease areas?
    - Do you need to understand disease-specific outcomes?
    - Do you need to know the net monetary benefit of an intervention?
  + Disease area and availability of disease-specific measures
    - Is there a mapping algorithm to translate a disease-specific measure to utility values?
    - Might there be an issue with sensitivity using a generic measure?
  + Study design and data availability
    - Is this an economic evaluation alongside a clinical trial?
    - Are you developing a decision-analytic model using secondary data?

A diagram of a flowchart

Description automatically generated with low confidence

Whitehead SJ, Ali S. Health outcomes in economic evaluation: the QALY and utilities. Br Med Bull. 2010;96:5-21. doi: 10.1093/bmb/ldq033. Epub 2010 Oct 29. PMID: 21037243.

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