What is a QALY?

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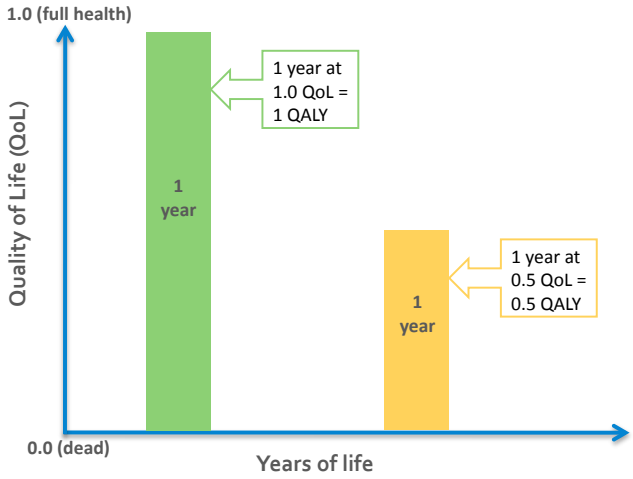
A **Quality Adjusted Life Year (QALY)** is a measure of health that takes into account both the *quantity* and *health-related quality* of life (HRQL) generated by healthcare interventions.

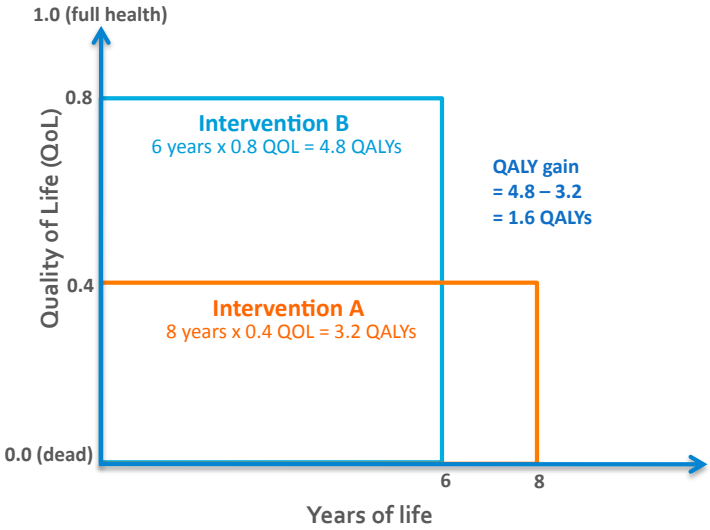
QALYs provide a common currency to assess the extent of the benefits gained from a variety of interventions in terms of health-related quality of life and survival of the patient.

Where does the "Q" in the QALY come from? Quality of life weights used in calculating QALYs are obtained from instruments called preference based or utility measures, such as the **EQ-5D** . The EQ-5D index score is the "Q" in the QALY in applications using this measure.

QALY = (length of life years) x (HRQL)

One QALY equates to one year in perfect health. See examples below:





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Intervention A (or usual care, or current practice) extends life by 8 years with a quality of life at 0.4 (3.2 QALYs), and intervention B extends life by 6 years, however improves quality of life to 0.8 (4.8 QALYs). The QALYs gained resulting from implementing intervention B versus A is 1.6 QALYs.

After calculating QALYs gained, the costs associated with these gains (e.g., costs of intervention B versus A) are estimated. When QALYs are combined with the costs of providing the interventions, cost–utility ratios result; these indicate the additional costs required to generate a year of perfect health (one QALY).

Comparisons can be made between interventions, and priorities can be established based on those interventions that are relatively inexpensive (low cost per QALY) and those that are relatively expensive (high cost per QALY).

QALYs can also be used in different population health interventions to measure health outcomes.