**QALY package**

*adjusted\_life\_year()*

Want to provide set-up info in different ways but which gives us all the necessary info to go calc QALYs later.

Take in individual level data of:

-start year

-end year

-age at start (could be an age group)

-time horizon

-utility (this may change over time or be fixed. Could provide as a list of length end-start or as say list(c(2,3), c(u1,u2)) like in WinBUGs data)

-discount rate (could fixed or a (continuous) function e.g. negative exponential)

Don’t need to supply all of these otherwise there would be redundancy and possible conflicts. E.g. time horizon can be got from start and end year.

Need to calc QoL which is discounting due to age from start to end year.

*inflation\_adjusted\_cost()*

This is to bring past costs up to present day value

Can provide a single inflation (annual) value, a time of values or a (continuous) curve.

*plot()*

Plot the QALYs over time

*total\_QALYs()*

Take an adjusted\_life\_years object (or a list of more than one) and calculate the yearly QALYs and total

1. Characterise a cohort by time to death, age, utility of each individual
2. Specify inflation and discounting
3. Calculate total and annual QALYs for each individual to death (or whatever final event is)
4. Plot QALYs over time