We provide the microsimulation results in “Midterm\_microsim\_result(distribute).xlsx”. The result table shows costs and QALYs estimates for 20 individuals under three strategies: (1) no treatment (2) treatment A (3) treatment B

1. Calculate the mean and standard deviation of the incremental cost and incremental QALYs of treatment A and treatment B

Answer: (1: treatment A, 2: treatment B)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| mean\_inc\_c1 | sd\_inc\_c1 | mean\_inc\_e1 | sd\_inc\_e1 | mean\_inc\_c2 | sd\_inc\_c2 | mean\_inc\_e2 | sd\_inc\_e2 |
| 2374.66797 | 506.903799 | 0.67493359 | 0.10138076 | 2471.1465 | 39.5774574 | 0.6942293 | 0.00791549 |

1. Calculate the ICER of treatment A and treatment B

Answer:

|  |  |
| --- | --- |
| icer\_ta | icer\_tb |
| 3518.37276 | 3559.55374 |

1. Discuss (1) population-level value of the two treatments along with (2) the potential heterogeneity in the outcomes of adopting each treatment.

Answer: the mean estimate of ICER of treatment A and B are similar. However, treatment A has much wider distribution of incremental cost and effectiveness, compared to treatment B. This indicates that on the population-level, A and B have similar value, but the impact of treatment A can be more heterogeneous by individual than B.