



Exercise #1. Solution



What's wrong with this economic evaluation?

The Measure, Learning & Evaluation (MLE) project performed a cost-effectiveness analysis of the Urban Reproductive Health Initiative using the formulae below and published it on their web site

Question: What's wrong with this economic evaluation? (Hint: Examine the construction of the formulae)

**Cost-Effectiveness and
Relative Cost-Effectiveness**

The cost-effectiveness of program component or activity A is

$$CE_A = \frac{\text{Change in mCPR due to activity A}}{\text{Cost of activity A}}$$

The relative cost-effectiveness of activity A compared with activity B is

$$RCE_{A/B} = \frac{CE_A}{CE_B}$$

Typically, across a suite of program activities one wishes to consider, one activity (in this case activity "B") is chosen as the yardstick against which the relative cost-effectiveness of the other activities are assessed.

Answer: There are two issues with the design of this study:

1. The initial ICER is calculated incorrectly. The authors calculated it as Effect/Costs instead of Costs/Effect
2. (Advanced answer): Relative cost-effectiveness is *not* calculated by taking the ratio of two ICERs. Relative cost-effectiveness is net cost between two interventions divided by the net change in health outcomes.

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