

STEP 1:
DESCRIBE
EXPERIMENT

STEP 2:
SPECIFY
STATISTICAL MODEL

STEP 3:
DEFINE STATISTICAL
QUERY

STEP 4:
CONSTRUCT
ESTIMATOR

STEP 5:
OBTAIN
INFERENCE

STEP 6:
MAKE SUBSTANTIVE
CONCLUSION

What is the causal risk ratio in mortality between treatment groups?

$$\psi_{causal} = \frac{P(Y_1 = 1)}{P(Y_0 = 1)}$$

What's needed to ***identify*** ψ_{causal} from the observed data?

1. No unmeasured confounding / randomization / exchangeability
2. Positivity / experimental treatment assignment (ETA) assumption