

Whole Game 2: Malaria and Mosquito Nets

Malcolm Barrett

RStudio, PBC

2021-09-01 (updated: 2022-07-23)

- 1 Specify causal question**
- 2 Draw assumptions (causal diagram)**
- 3 Model assumptions (e.g. with a propensity score)**
- 4 Analyze propensities (diagnostics)**
- 5 Estimate causal effects**
- 6 Conduct a sensitivity analysis**

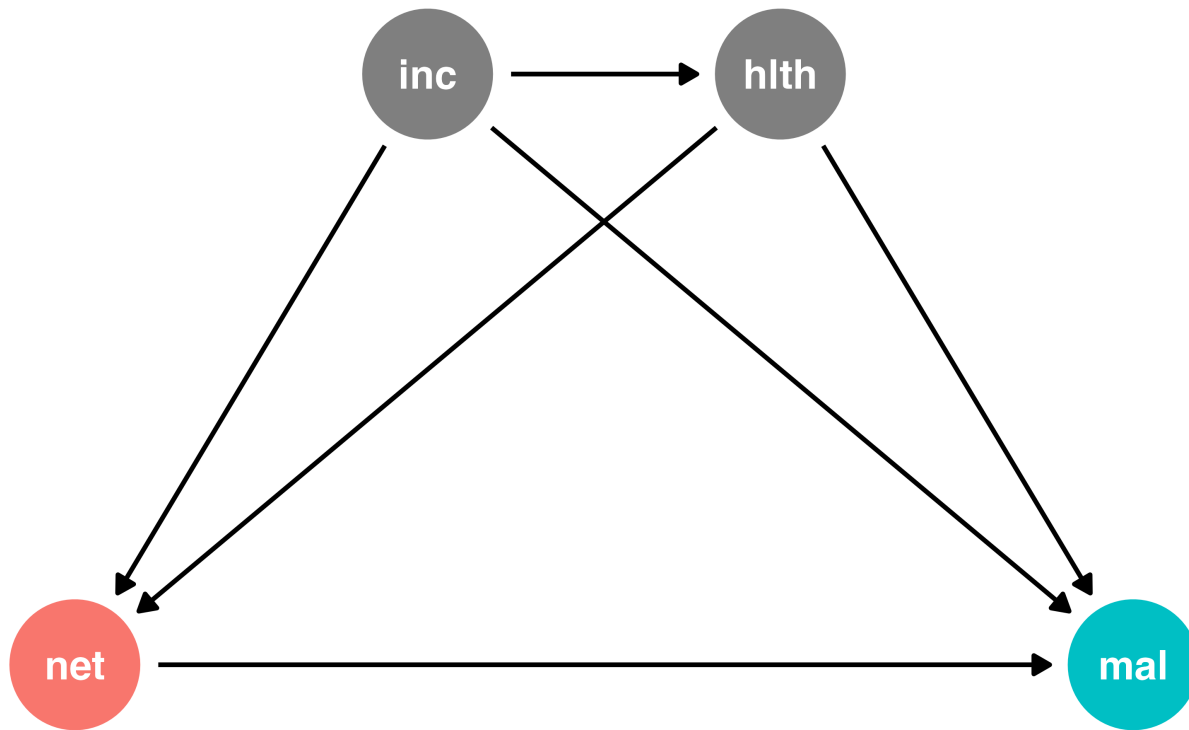
**Does mosquito bed net use
reduce malaria risk?**

The Data

```
library(causalworkshop)
net_data
```

```
## # A tibble: 1,138 × 5
##       id income health  net malaria_risk
##   <int> <dbl> <dbl> <int>      <dbl>
## 1     1     409.   63.1     0       45.1
## 2     2     521.   83.5     1       23.4
## 3     3     581.   73.0     0       36.5
## 4     4     324.   60.6     0       58.7
## 5     5     532.   73.4     1       32.7
## 6     6     538.   42.6     0       52.5
## 7     7     457.   41.3     1       41.8
## 8     8     459.   79.1     1       33.1
## 9     9     458.   61.8     1       33.8
## 10    10     433.   71.5     1       32.5
## # ... with 1,128 more rows
```

Proposed DAG



Thanks to Andrew Heiss for the data!

Your Turn!