

Final thoughts

- Unlikely that $\hat{\beta}_1$ from simple regression captures true effect of x on y .
(unbiased)
- Need $u \perp x$ uncorrelated.
- Randomized trials help in some cases.

say y : health

x : w/ or w/o insurance

u : unobs. factors such as diet,
lifestyle, age, etc.

Random manipulation: coin toss determining
 x

\Rightarrow on avg. the 2 groups are comparable
(provided large enough sample)