Chapter 9
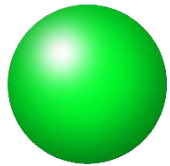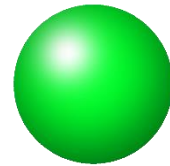# Drawing Policy Lessons

Tim Nees

Common Mistakes

Benedikt Gottschlich

Generalizability

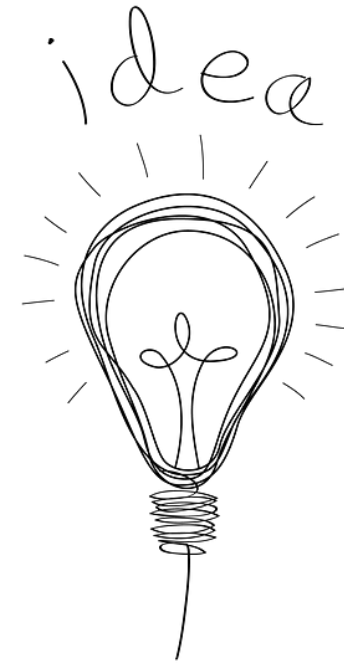Jenny Chen

Cost-Effectiveness
Research to Policy

Common Mistakes

Design

Designing an underpowered study

- Confidence Interval too large
- Sample size too small

Forgetting to cluster when calculating sample size

- Different levels of randomization

Ignoring Spillovers

- Information gets passed on to control group

Implemenation

Allowing high levels of attrition
- People drop out of experiment

Failing to monitor compliance
- Monitoring of implementation
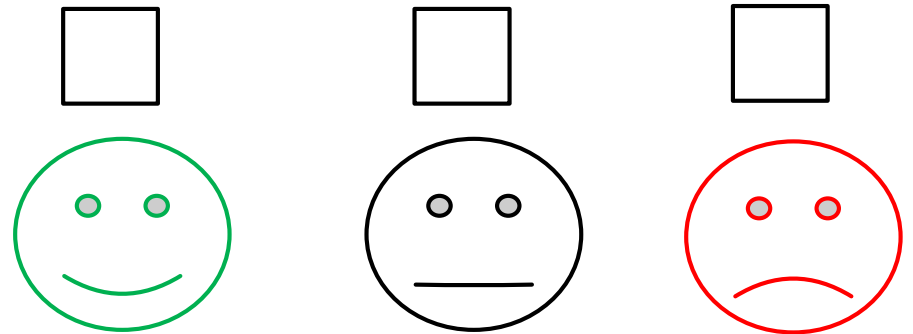
Using unreliable outcomes measure
- Trusting people's self-assassment

Collecting data differently in treatment and control groups
- Different time or circumstances

Questionnaire

Has your ability to focus on the presentation increased?

Analysis

Having too many subgroups or outcome measures
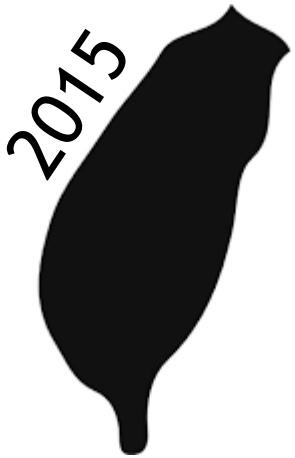-	Failure to group outcome measures into families

Dropping non-compliars
-	Assigning non-complier to comparison group
-	Not taking non-compliers into account

Generalization

Internal validity

External validity

▶ With randomization: unbiased estimate of the true impact in this context

2015

necessary

~~sufficient~~

2020

?

Do large-scale, multinational studies generalize easier? Not necessarily.

Solutions:
1) Paying attention to representativity when designing the experiment (at least on a local level).

COMPARING results from multiple randomized evaluations

DECIDE whether a particular program is right for a given context.

Cost Benefit Analysis (CBA)

Cost Effectiveness Analysis (CEA)

Improved Public Health:

*In fiscal year 2013, users traveled almost **2.5 million miles** and b* Cost Effectiveness Analysis *Over 25 percent* Cost Benefit Analysis *respondents indicated that they **had lost weight and felt health** since joining Capital* Cost ($) / a Kg to lose *Bikeshare.* Health benefits ($)/ Cost ($)

*A study conducted in Portland, Oregon, found that significant investments in bicycling infrastructure could, over the next 30 years, have **health care cost savings of $400-$600 million**.*

Capital Bikeshare in Washington DC

	Cost Effectiveness Analysis	Cost Benefit Analysis
Cost	Dollars	Dollars
Consequences	Non-monetary units	Dollars
Calculation ratio	Total Cost/ Units of Effectiveness	Total Benefit/Total Cost (Net Benefit)
Number of Outcome	Single	Multiple
When to Use?	• Know the desire outcome • Major outcomes are difficult to monetize	• **Single** Program: Whether **B/C >1** • **Multiple** Program: **Comparing** which one achieves the greatest benefit
Output	**Subject** judgment	**Absolute** judgment

How are we to decide which to invest in ?

However...

CBA:

▶ Requires a number of **assumptions**

▶ Different organizations or people may have different views.

▶ Time-Consuming

CEA:

Good starting point

▶ Leaves the **RELATIVE** valuation of different outcomes up to the user

▶ Allow those using the information to impose their own relative values on different outcome.

From Research to Policy Action

Many governments and NGOs around the world **charge user fees** in an attempt to prevent resources from being wasted, believing that **charging encourages use.**

But does it work? The balance of evidence is that it does not.

Will those who receive a **FREE** long-lasting insecticidal **bed net** be more or less willing to pay for a bed net one year later?

Free Bed Nets: Long-term effects of free distribution

Phase 1

▶ Subsidy levels for bed nets were **randomly assigned** across households within **six villages.**

▶ Prices varied from $0 to $3.80

Phase 2

▶ **A year later**, all households in **four villages** were given a second opportunity to acquire a bed net

▶ But this time everyone faced the **same price** ($2.30).

Those who had been offered free nets previously were **41 percent more likely to buy a bed net** than those who had been offered nets at a subsidized price.

These results suggest that individuals may not resent having to pay after having received a product for free in the past.

What did we learn?

▶ Overall goal of policies: improving people's life.

→ Correct randomization and reliable generalization essential for conducting "right" policies

→ Cost Effectiveness Analysis and Cost Benefit Analysis essential for evaluating and revising policies