Measuring impact with ActivityInfo and post intervention surveys
Presentation outline

Overview

1. Design
2. Sampling
3. Field work
4. Analysis
1. Design
Quantitative impact evaluation

Case study

Case study: Pennsylvania Maple Syrup

https://www.activityinfo.org/support/webinars/2023-02-07-activityinfo-for-development-assistance-projects.html
Key indicators - outcomes

Case study

- Total yield per farm increases 20% among participants
- Yield per tap increases 10% among participants by end of program
Database design

Set up forms and reports

Reference forms
- Geography
- Categories
- Macro statistics

Registry forms
- Individuals
- Farms
- Firms
- Loans

Trackers
- Activities
- Training
- Farm visits
- Communication

Surveys
- In depth sample
- Measure outcomes
Try it yourself:

Development assistance for projects

Track outputs, outcomes, impact with reference, registry, trackers and survey forms.

Try this template

https://www.activityinfo.org/support/templates/development-assistance-project.html
2. Sampling
Population and sample

Sampling

Population is the entire 20,000 IDP households about which we are concerned.

A sample is the specific 200 households we will interview.

Sample frame: the list of all those within a population who can be sampled, and might include individuals, households, farms, firms, etc.
**Scenario 1**: Sampling only from your participants.
Your **Registry** forms will typically serve as your sample frame.

**Scenario 2**: Sampling from both participants and non-participants
You should add a separate sample frame form with a reference to your Registry
Sample form in ActivityInfo

The sample form is a list of the selected members of the population to survey.

Should include weights.
Form design

Sampling

Registry
Name
Age
Education

Sample
ID
Individual
Survey year
Weight

Survey
Sample ID
Yield
Drawing a sample

Sampling

Excel:

Simple random sampling and basic stratified sampling

=RAND() and sort

R

Complex sampling

library(survey)
library(activityinfo)

SPSS

Complex sampling
Inclusion probabilities

Sampling

**Inclusion Probability (IP)**: the probability that an individual member of the population will be included in the sample.

**Simple Random Sampling (SRS)**: every member of the population has an equal and independent probability of being selected.

\[
\frac{\text{Number sampled}}{\text{Total population}} = 10
\]

\[
\frac{\text{Number sampled}}{55} = 10
\]
Each respondent’s weight (W) is equal to the reciprocal of their inclusion probability.

\[ \text{IP} = \frac{\text{Number sampled}}{\text{Total population}} = \frac{10}{50} = 0.20 \]

\[ \text{W} = \frac{\text{Total population}}{\text{Number sampled}} = \frac{50}{10} = 5.0 \]
Let’s try it!
3. Field work
Preparing the field plan

Field work

- Your Sample form provides a roadmap for interviewers
- Include data linked from the Registry form to orient field staff
Invite surveyors

Field work

- Define a role for Surveyors
- Invite surveyors by email
- For casual staff, use the Google account associated with the Android device.
- When inviting new users, be sure to select the right language
Train surveyors

Field work

- Install app from Android Play Store, or from the website for iPhones
- Download the database offline
- Collect!

Demo…
Analyzing one survey

Analysis

- Weight data using the inclusion probabilities from the sampling
- Use notebooks to assemble analyses
- Weights