

## Survey Sampling versus Target Population

### Example

Suppose a research team wanted to know nurses' perception of their well-being and job satisfaction in Singapore. One way is to conduct a survey, inviting nurses to complete a questionnaire. The team tried to obtain every nurses' emails from all the three healthcare clusters and those working in private and other settings. Despite their best efforts, the team acknowledged that they did not manage to obtain every single nurses' emails for various reasons. Based on the estimated participation rate of 50%, the team randomly selected 800 nurses and emailed them to invite them to participate in their study by completing a questionnaire on their perception of well-being and job satisfaction. 400 of them eventually participated.

### Sample

The individuals who actually participate in the study. In the above example, the sample is the 400 nurses who eventually participated.

### Sampling frame

The individuals who could possibly be in the study. In the above example, the sampling frame is the listing of all the nurses in Singapore from which a researcher can select a sample. This excludes the nurses whom the team could not manage to obtain the email addresses.

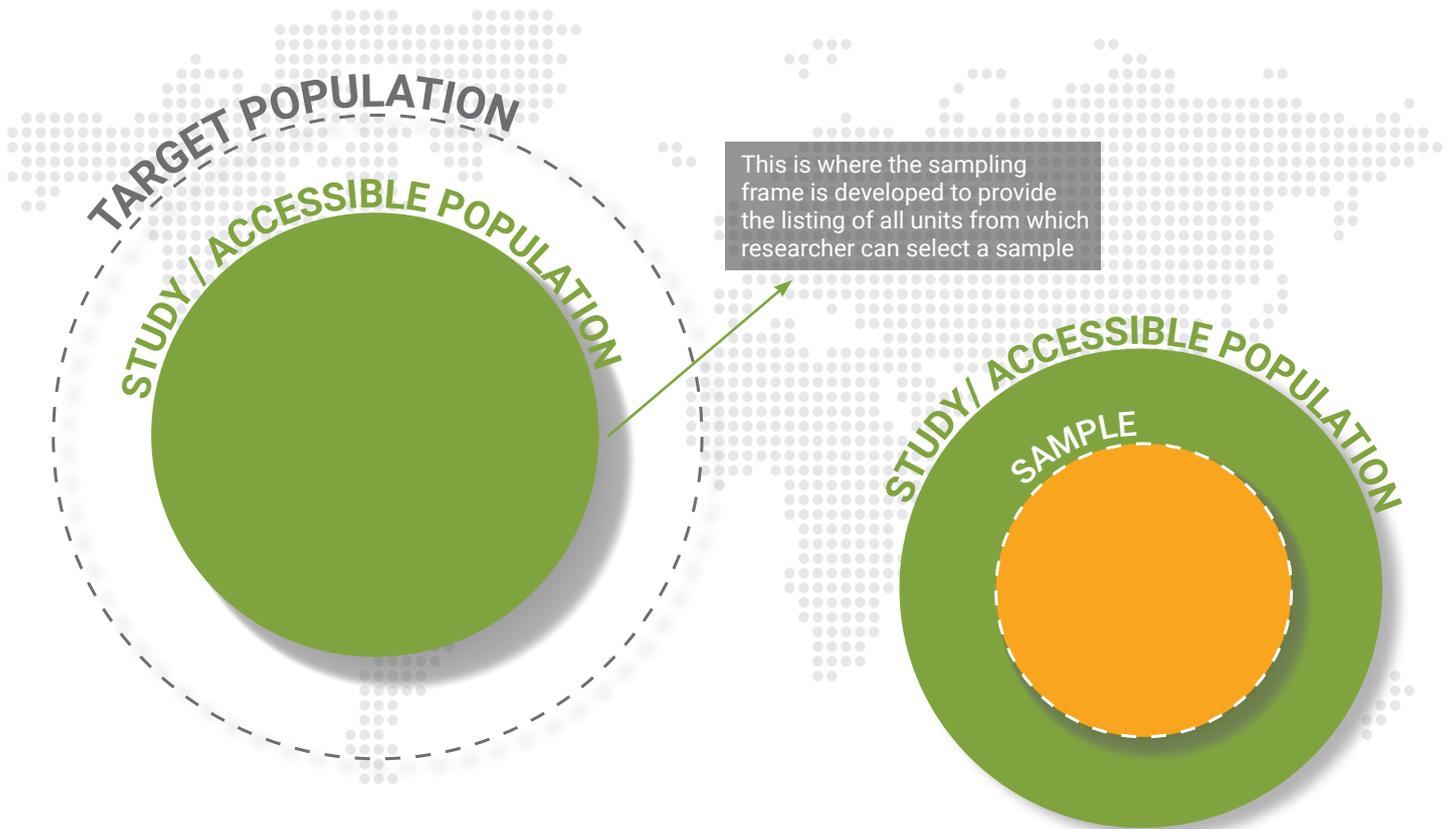
### Target population

The population is the broader group of people to whom one intends to generalize the results of one's study. In the above example, the target population is all nurses in Singapore, noting the caveat that the research team could not obtain all the nurses' emails. Thus, in reality, the population accessible to the team (i.e., the accessible/study population) is a subset of their target population for various reasons (e.g., researchers may not have access to some segment of nurses' emails in Singapore). Ideally, the accessible population should be equal to the target population.

You may read more from:

Bigelow, C. (2020). University of Massachusetts Amherst. BIOTSTATS 540 Introduction to Biostatistics – Fall 2020. Retrieved November 5, 2020, from:

<https://people.umass.edu/biep540w/pdf/5.%20Populations%20and%20Samples%202020.pdf>



### Here are some questionnaire development tips:

- Find out how others are measuring the concepts one intends to measure.
- Keep one's questionnaire short.
- Consider the order of items as survey responses may be affected by previous items.
- Avoid technical terms and jargon
- Avoid vague or imprecise terms
- Define things specifically
- Avoid complex sentences
- Provide reference frames
- Avoid double-barrelled items that measures two or more things

Extracted from:

Harrison, C. (2007, November 17). Harvard University Program on Survey Research. Questionnaire Design Tip Sheet. Retrieved November 5, 2020, from:

[https://psr.iq.harvard.edu/files/psr/files/PSRQuestionnaireTipSheet\\_0.pdf](https://psr.iq.harvard.edu/files/psr/files/PSRQuestionnaireTipSheet_0.pdf)