

# Sampling Techniques and Methods



# Difference between Sample and Population

## WHAT IS SAMPLE?

- ▶ It's a small group of members selected from the population to represent the population.
- ▶ Subset of population.

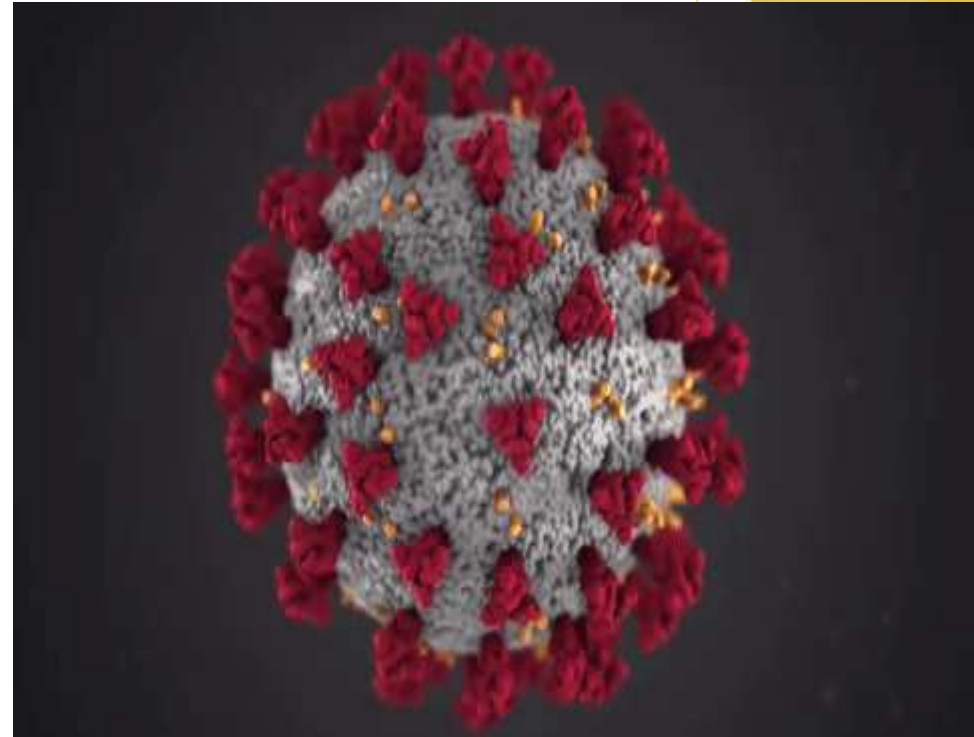
## WHAT IS POPULATION?

- ▶ Group from which sample is drawn
- ▶ Exact population will depend upon scope of study

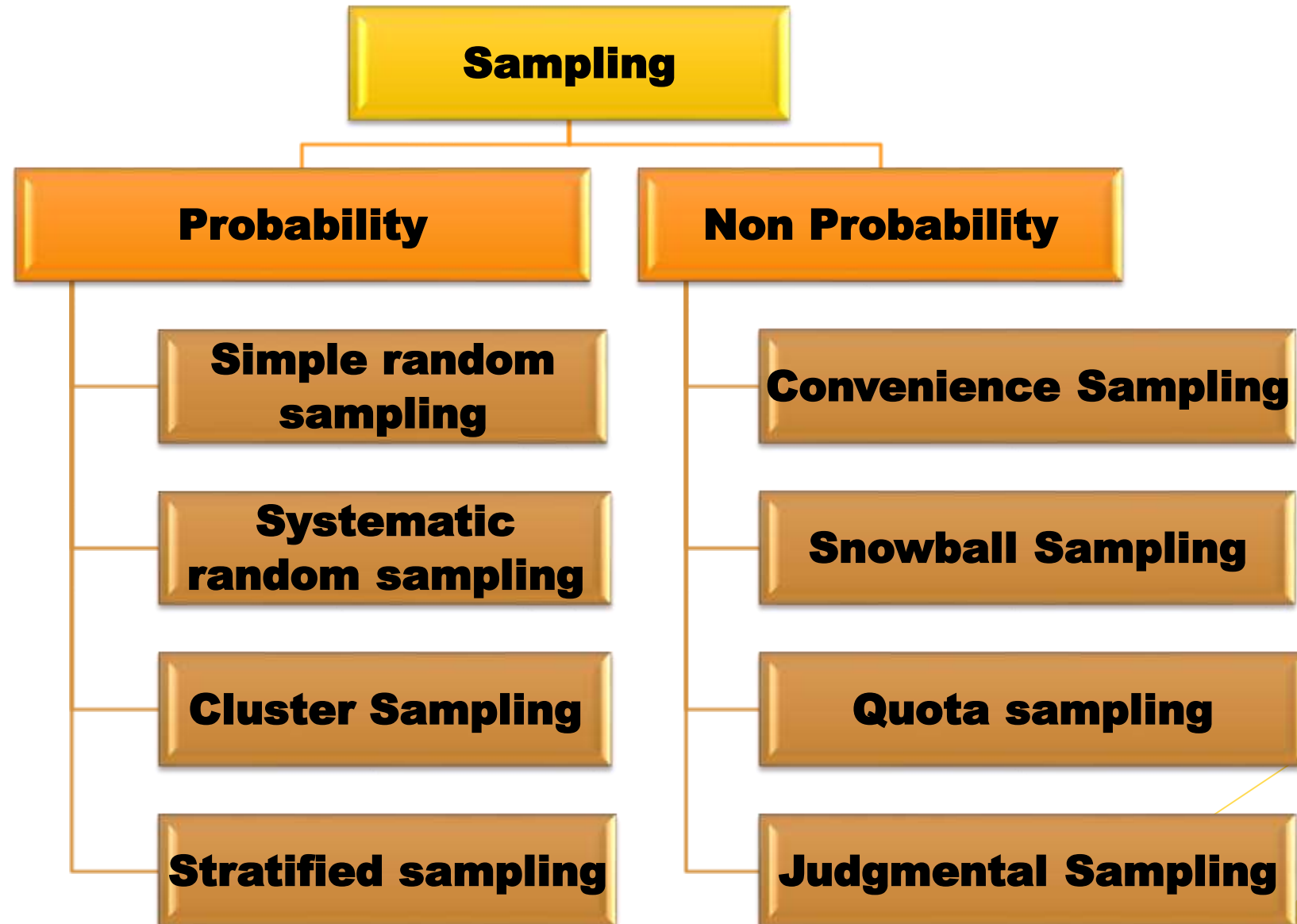


# Let's understand Sampling

It is a method that allows researchers to infer information about the population based on results from *sample*.



# Types



# Sampling Types:

## Probability sampling

- ▶ Based on the fact that every member of a population has a known and equal chance of being selected

## Non Probability Sampling

- ▶ It involves non random selection based on convenience.

# Probability Sampling

▶ Example



50/50

# Simple Random Sampling

A probability sample in which every member of a study population has an equal chance of selection

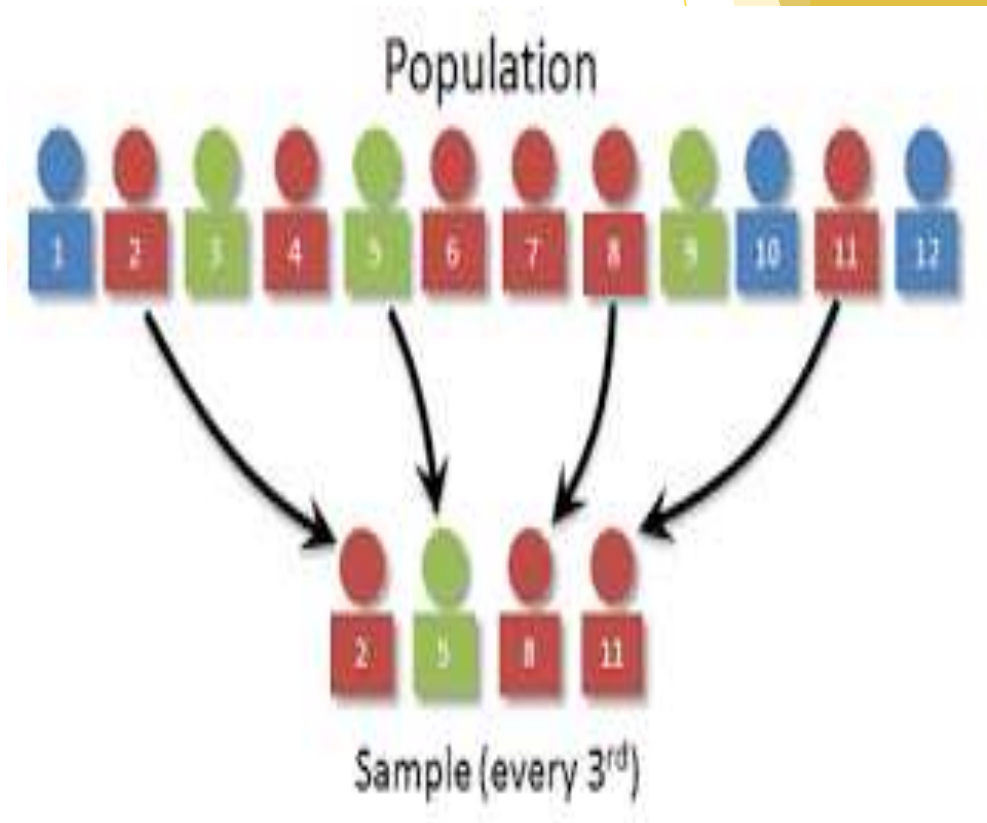
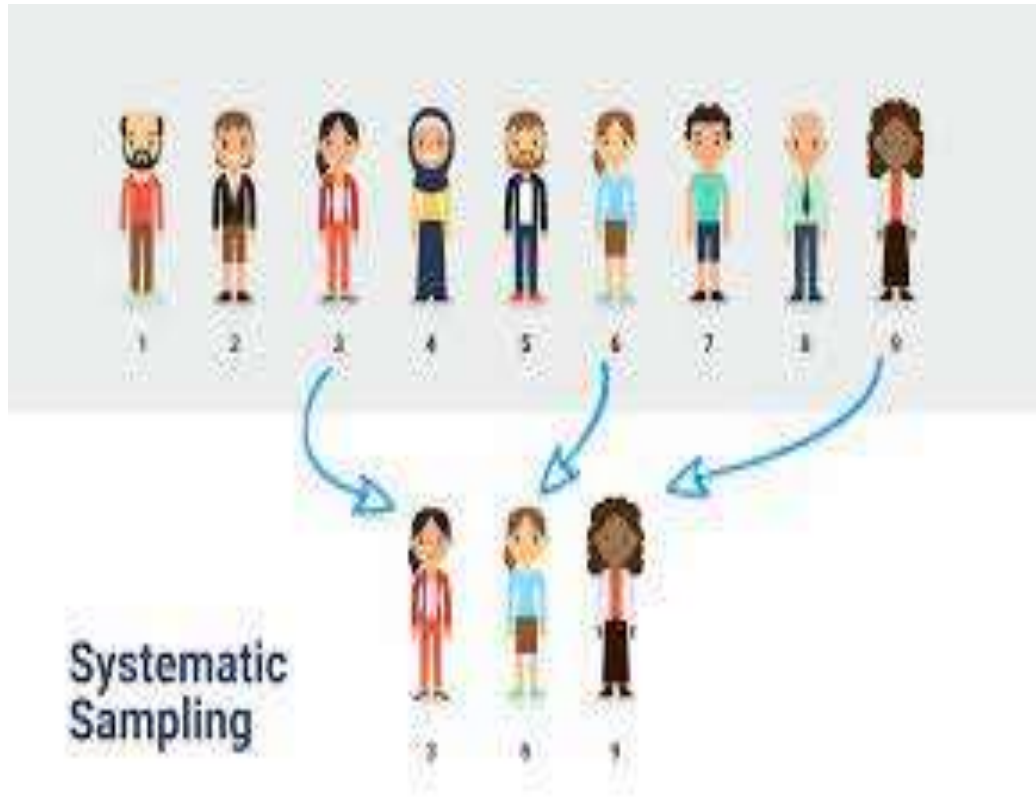


Simple Random Sampling



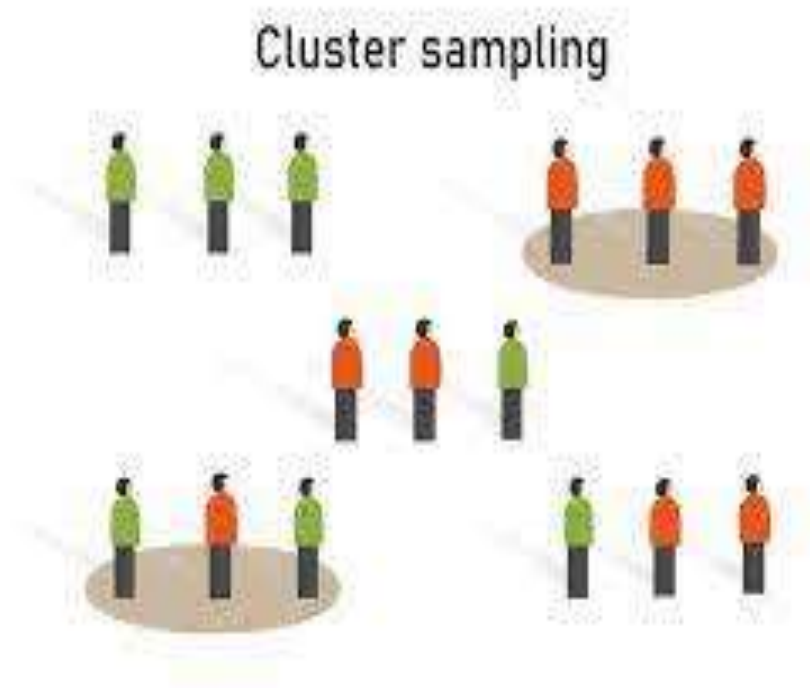
# Systematic Sampling

The first element is selected randomly from a list or from sequential files, and then every  $n$ th element is selected



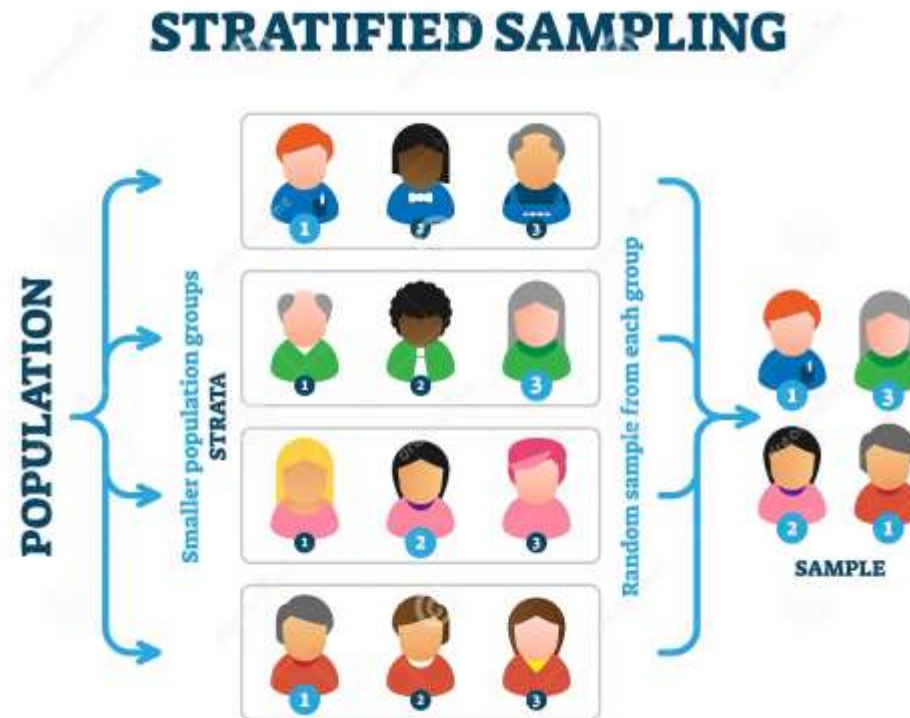
## Cluster Sampling

That involve randomly selecting clusters of elements from a population and subsequently selecting every elements in each selected cluster for inclusion in the sample.



## Stratified Sampling

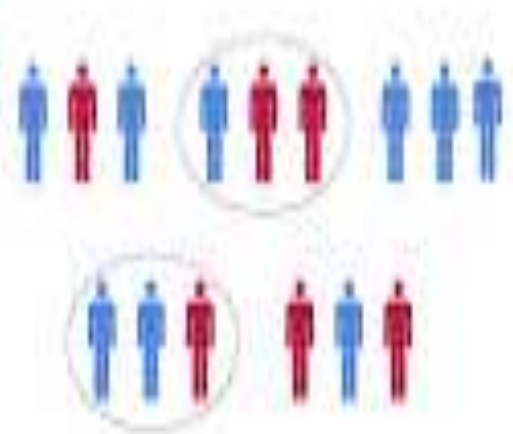
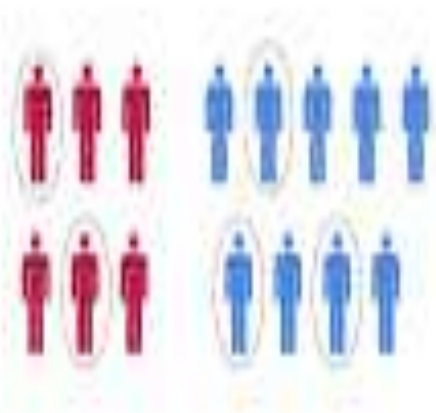
It involves dividing the population in groups or strata defined by the presence of certain characteristic and then random sampling from each stratum



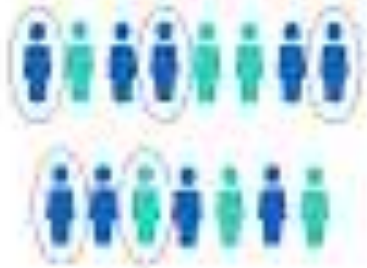
Stratified random sampling

Cluster sampling

VS



### Simple random sample



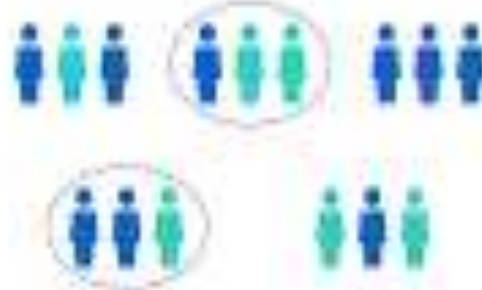
### Systematic sample



### Stratified sample



### Cluster sample



## Non Probability sampling:

Convenience Sampling/ Accidental - Involves selecting samples based on convenience

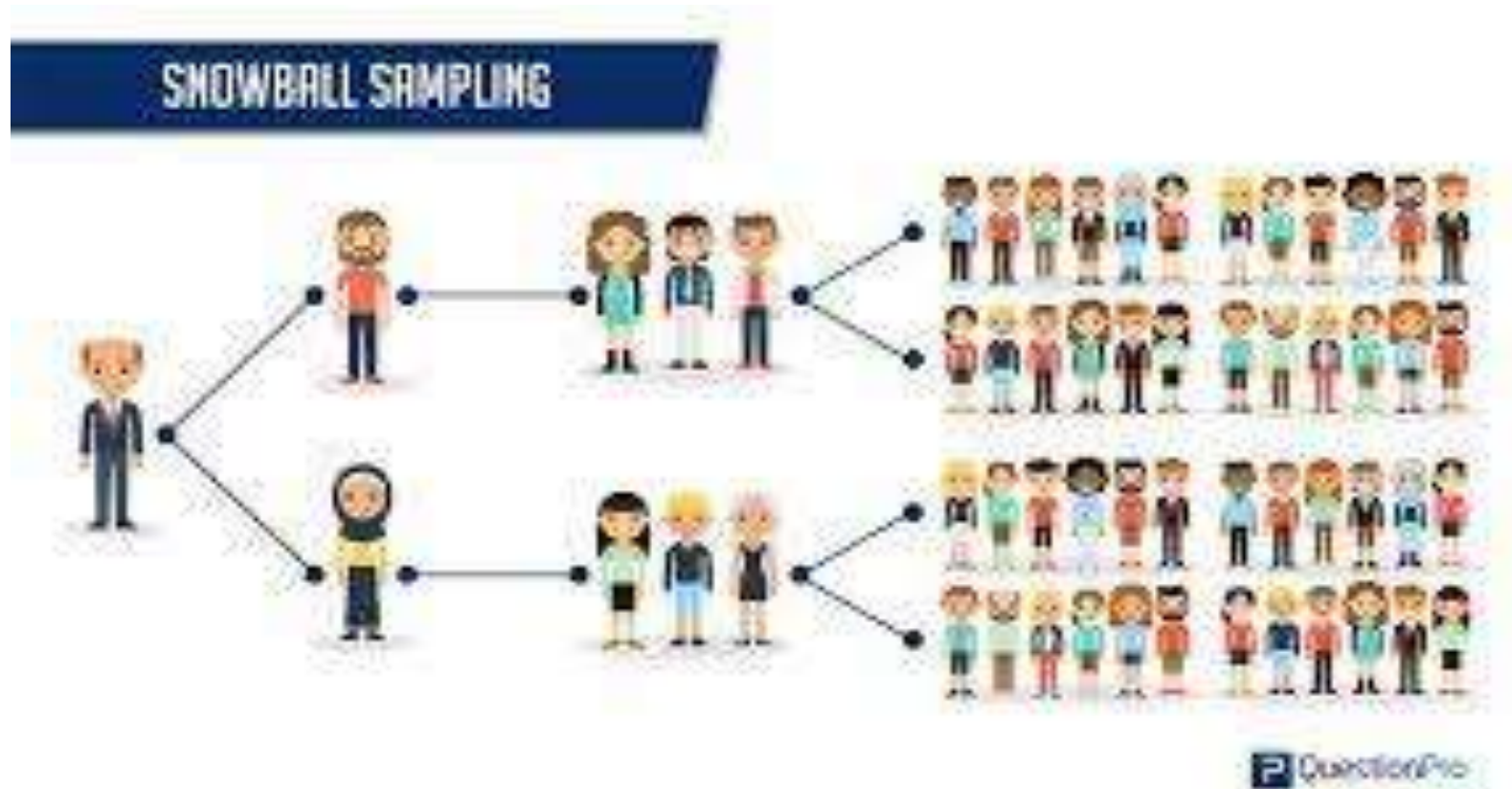


# Non Probability Sampling academy

- ❖ Involves non random methods in selection of sample
- ❖ All have not equal chance of being selected
- ❖ Selection depend upon situation
- ❖ Considerably less expensive
- ❖ Convenient
- ❖ Sample chosen in many ways

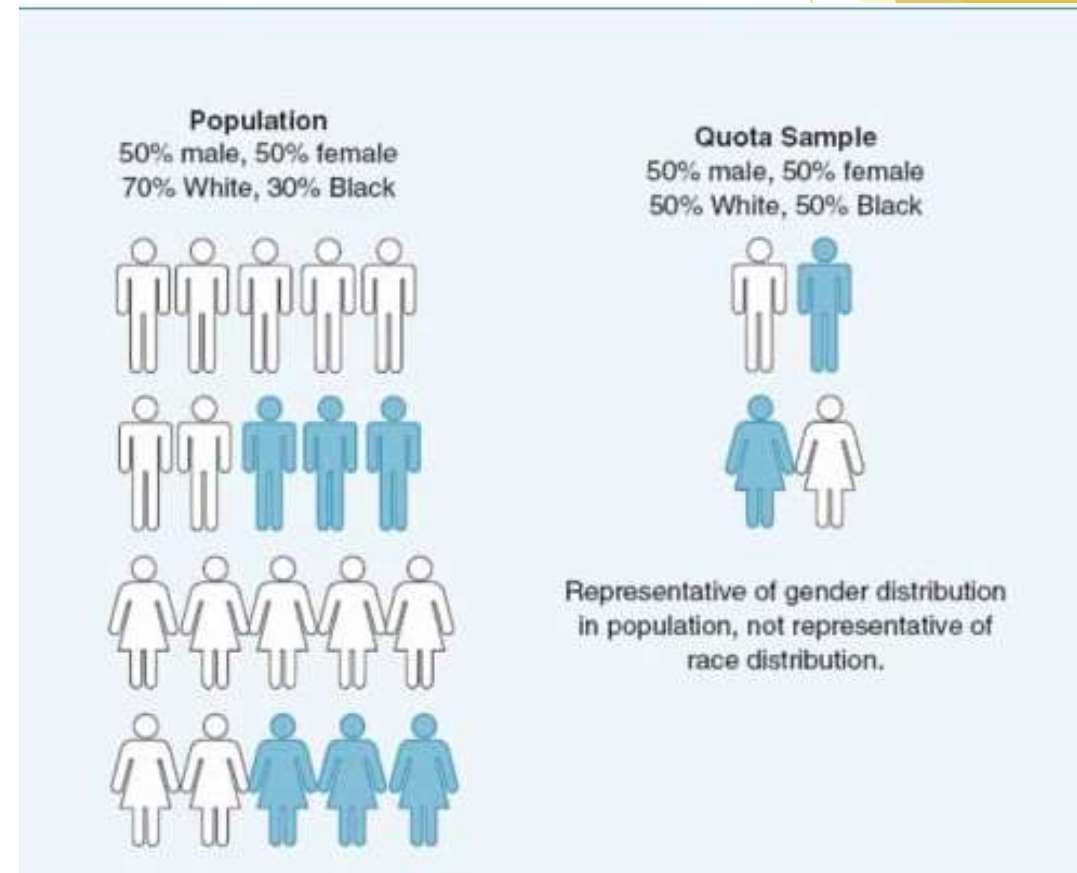
## Snow ball Sampling/ Network sampling

Select samples and ask them to refer them to refer you to others.



# Quota Sampling

To take a very tailored sample that's in proportion to some characteristic or Trait of a population



## Judgmental Sampling/ Purposive

Selecting samples based on his or her judgements

### Non Probability Sampling unacademy

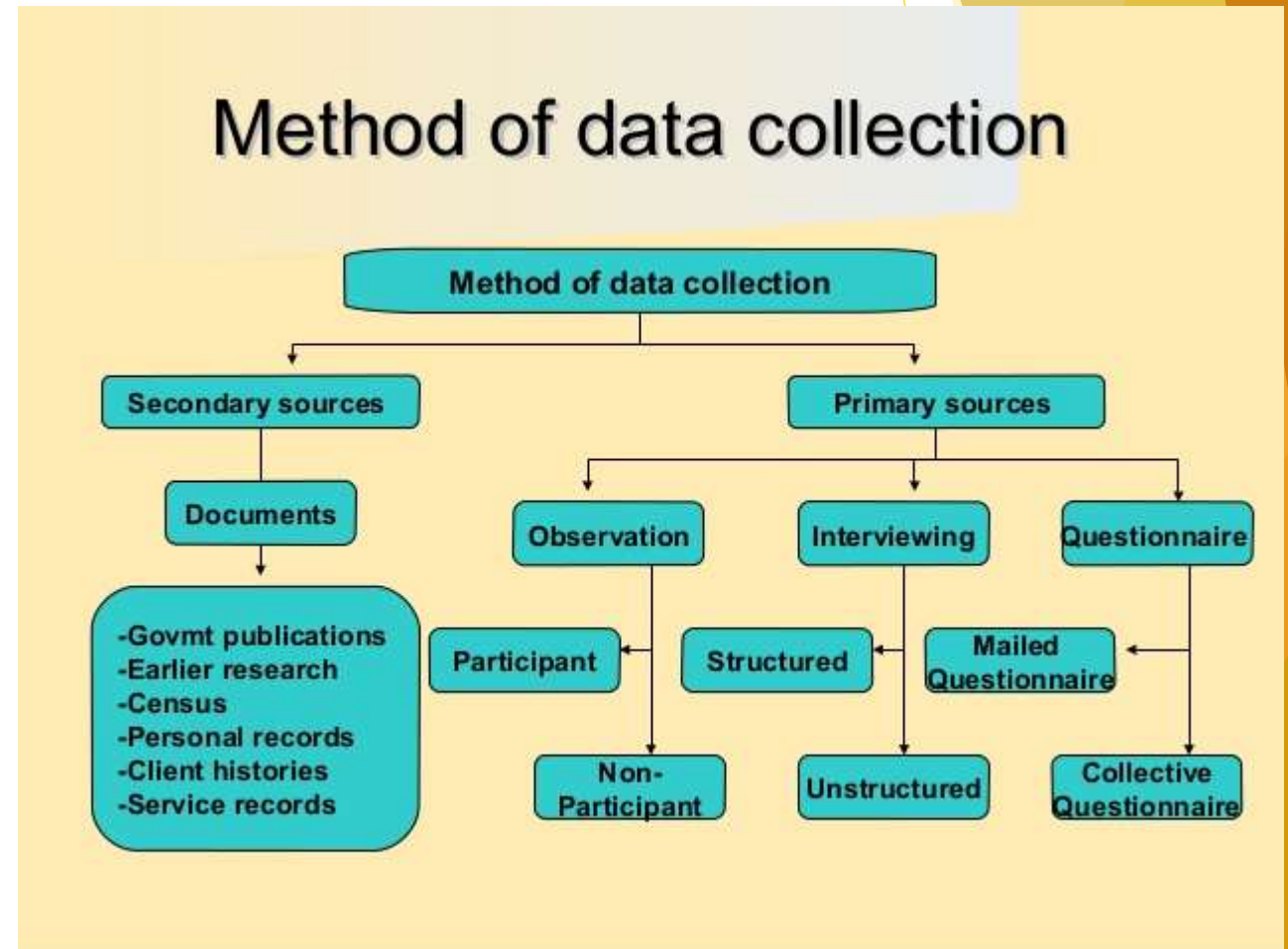
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# **INFORMED CONSENT FORM**

# Data collection in Research Methodology

- ▶ Data collection is a **process of collecting information from all the relevant sources to find answers** to the research problem, test the hypothesis and evaluate the outcomes. Data collection methods can be divided into two categories: secondary methods of data collection and primary methods of data collection.



# Primary Data Collection

- ▶ **Primary Data:** It is a term **for data collected at source**. This type of information is obtained directly from first hand sources by means of surveys, observations and experimentation and not subjected to any processing or manipulation and also called primary data.



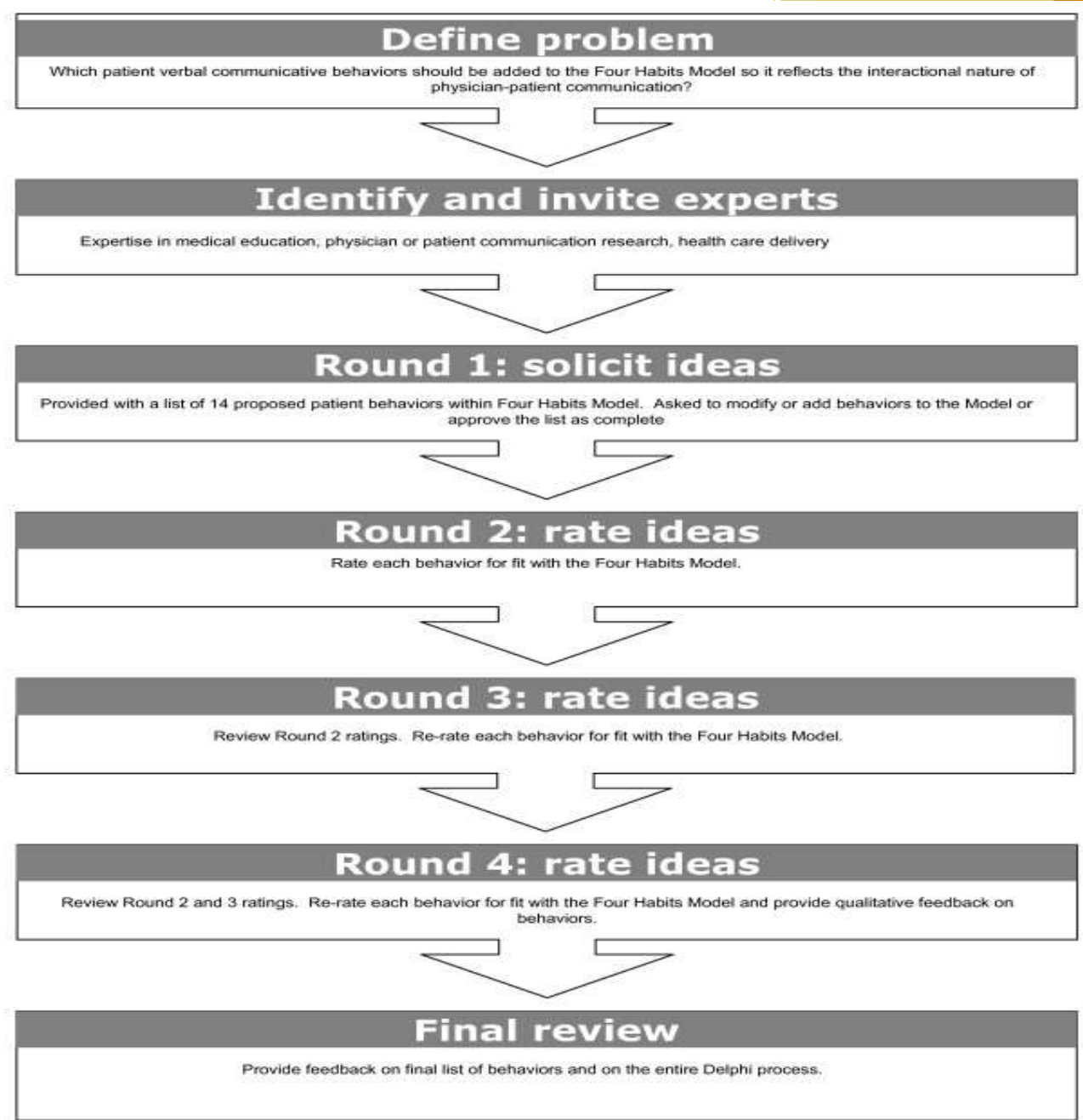
# Interview Method

- ▶ An interview is generally a qualitative research technique which **involves asking open-ended questions to converse with respondents and collect elicited data about a subject.** ... Interviews are conducted with a sample from a population and the key characteristic they exhibit is their conversational tone.



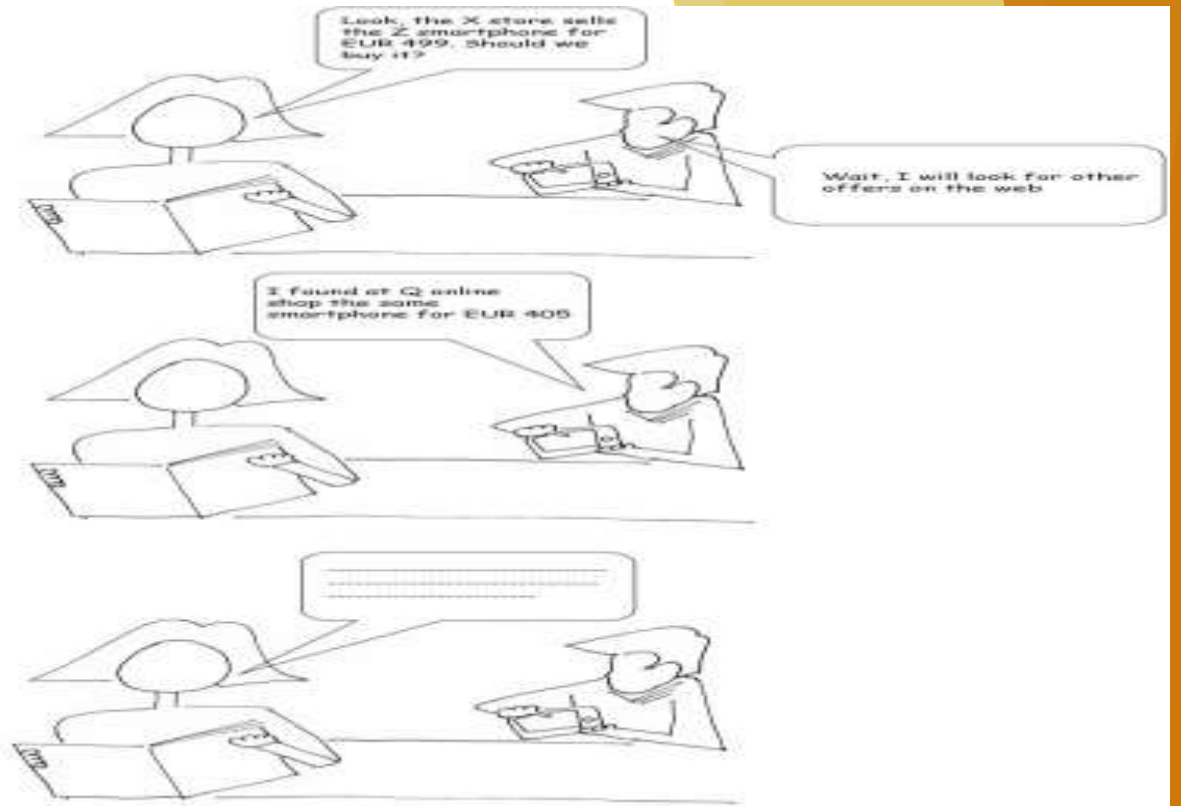
# Delphi Method

- ▶ The Delphi technique is a **well-established approach to answering a research question through the identification of a consensus view across subject experts**. It allows for reflection among participants, who are able to nuance and reconsider their opinion based on the anonymised opinions of others.



# Projective Techniques

- ▶ Projective techniques allow respondents to **project their subjective or true opinions and beliefs** onto other people or even objects. The respondent's real feelings are then inferred from what he/she says about others. Projective techniques are normally used during individual or small group interviews.



# Focus Group Interview

- ▶ Focus group research is a qualitative method with interesting properties. It is performed by planned discussion and interview with a small group of people conducted by a moderator. The participants are sampled from the study population. ... Focus group interviews is considered **to be of value in health research**.



# Questionnaire Method

- ▶ The questionnaire is the main instrument for collecting data in survey research. Basically, it is a **set of standardized questions**, often called items, which follow a fixed scheme in order to collect individual data about one or more specific topics.

## Questionnaires and Schedules with Similarities and Differences



# Secondary Data Collection

- ▶ Secondary data is **data collected by someone other than the actual user**. It means that the information is already available, and someone analyses it. The secondary data includes magazines, newspapers, books, journals, etc. It may be either published data or unpublished data.



THANK  
YOU

