Handout 13: Sampling

Sampling Frame

It is not possible to study everybody in the community because of time and cost limitations. Therefore community service workers who are undertaking research will need to consider selecting a sample to represent the population.

Sampling is used in a survey when it isn’t possible to interview everyone in the community. The sampling method you use will depend upon a number of things:

- time
- the number of people you feel should be included in the study
- how much data you wish to collect
- the culture of your community.

In selecting a sample you try to represent all the features of the total community. The aim is to try to select a sample so that the information you obtain does not differ significantly from the information you might have got if you spoke to everyone in the community.

The best way to do this is to locate a sampling frame. A sampling frame is a list of everyone in the population from which the sample is to be drawn. The choice of sampling frame is dependent upon the type of study being carried out. For example, the electoral roll, which contains the names and addresses of all people eligible to vote in the Macintosh shire, would be an appropriate frame from which to select a sample for a study of voting patterns in New Cedar. However, if the study was about political attitudes of tertiary students in the Macintosh shire, a much better sampling frame would be the personnel lists of TAFE, private colleges and the University.

A small representative sample can provide 'accurate' data on large populations. Fifteen hundred people in an opinion poll can give a good indicator of how twenty million will vote at a general election.

There are many different ways to work out a sample. The following section show how this can be done:

Representative Samples

The best way to get a representative sample is to select people at random. A random sample means that everyone in the community has the same probability of being included in the survey. For this reason these sample are also known as probability samples To organise a random sample you MUST have a complete list of everyone in the community or in the population you wish to study. This is called a sampling frame. This is often easier said than done particularly if parts of the community have high mobility.
Methods of Representative Sampling

1. Simple Random Samples: this process is similar to a lottery method or drawing names from a hat.

2. Systematic Random Samples: involves selecting every nth person from the sampling frame.

3. Stratified Random Samples: involves dividing the population into different groups and then randomly selecting from each group.

4. Cluster: groups which occur naturally within the population are selected at random and everyone in the group is studied eg. every north primary school is selected for study.

5. Area: a geographic area is selected for study and a random sample of household in that area is surveyed.

Non Representative Samples

Sometimes it isn’t possible to obtain a representative sample. A non representative sample, or non probability sample is one where it isn't possible to say that all members have an equal chance or probability of being selected for your survey. Non representative sampling does away with the need for a sampling frame but the results are more biased.

Methods of Non representative Sampling

1. Quota: this type of sampling seeks to duplicate the population in terms of certain characteristics that are of interest to the researcher. This is less biased than other non representative methods.

2. Accidental or convenient: this involves talking to people who are easy to access eg. a supermarket poll.

3. Volunteer: this is when participants are recruited through advertising. It is commonly used in market research where people are paid to sample products.

4. Snowball: the survey participants networks are used to recruit a sample ie the only people surveyed to determine gun safety are members of gun clubs.