



## Sampling vs. Population Studies

When gathering satisfaction data from a population - whether employee or patient groups - survey firms are presented with two different survey methodologies: “**population studies**” and “**sampling**”. Both methods can provide meaningful and accurate data, but distinct restrictions can be encountered or advantages gained from each method.

### Population Studies

A population study is achieved by surveying as close to 100% of the total population as possible. The Jackson Group typically uses a population study when surveying an employee group, medical staff group and in select patient survey situations. The general rule of thumb is to receive survey responses from **at least 68%** of the population in order to achieve certainty of reliability and validity.

To ensure that the survey responses from a population study are viewed as representative of the full population - regardless of response rate - the makeup of the data can be compared to the makeup of the full population by using demographic information. For example, if a full employee population consists of 50% Day Shift, 30% Night Shift, and 20% Evening Shift, the survey data obtained should be made up of relatively similar percentages. If the demographic percentages are similar, it can be assumed that the survey responses are representative of the total population.

Of course, the higher the response rate on a population study the less there is a need to examine demographic percentages and makeup. With a population study, the overall response rate becomes the key factor in determining the validity of the responses gathered.

Conducting a population study on any group can produce several advantages:

- When a population study produces a strong response rate, it is possible to provide not only a total report of the findings but also various “sub-reports” such as reports broken out by department, demographic, or any other item within the survey. This is why employee surveys are typically conducted using population studies – so each department can receive a report of their group’s results for effective action planning. If the organization had conducted a sample for the survey process, individual departments would not be able to obtain useful results unless a sample were to be drawn from each department, thereby greatly increasing the number of people from which responses must be received.

- A population study can be extremely useful in a patient survey process when it comes to “service recovery”; if all patients leaving a department or office are presented with an on-site survey, then there is a mechanism in place for notifying key individuals in the organization when the patient provides low scores on their satisfaction. This allows the opportunity for quickly following up with that patient to learn more about their dissatisfaction and the possible resolution of some outstanding issues. Although service recovery could be managed in a survey sample as well, the organization would only be able to follow up with a small number of “dissatisfied patients” who happened to have been selected at random.
- A population study also helps the organization stress the idea that all opinions are welcome, and that it is important to hear from everyone - whether employee or patient. When a sample survey is conducted, it can be perceived by people not offered a survey that their opinion is not needed or valued. By offering the survey to all individuals, the organization is stressing the idea that comments and suggestions are desired from everyone.

However, conducting a population study survey has the following restrictions or issues connected with it:

- Efforts must be made to provide the survey to everyone in the target population or the results will not be representative of the total group. If more efforts are made to provide an on-site patient survey to day shift discharges but not night shift discharges, then the data will be skewed in favor of day shift discharges. If an employee survey is offered only on the Internet, those without computer access will not be fairly represented in the total population results. A total population study generally takes more manpower to administer than a sample survey.
- Generally, conducting a total population study can be more expensive than conducting a sample survey. Although **The Jackson Group does not charge for the number of employee or patient responses when using electronic means** (web, touchpads, etc.), most firms charge by the number of responses for phone and written vehicles. and this can escalate fees when gathering data from everyone in a target population.
- If an organization attempts to survey using a population study but ends up with a low response rate, the data may be viewed as non-representative of the total and less useful to the organization.

## Sampling

When an organization wishes to understand a target population (patient, visitor, community, etc.) but avoid surveying each individual they can utilize “sampling”. Drawing a sample means pulling a random group of individuals from the target population that, if the entire sample complete the survey, will provide the organization with a **representative look at the total population**. Provided that the sample drawn is truly random, this is a very effective way to learn about a large population by receiving information from a few representatives.

Many patient and community perception surveys are conducted using random samples. It is nearly impossible for an organization to survey every member of a surrounding community to learn their perception of the organization's customer services efforts, but when that total community can be examined by surveying 200-300 representatives in a random sample the same overall results can be learned. Typically, an organization surveying its patients via telephone will opt to use random samples due to the costs and efforts involved in trying to survey all discharged patients.

As with population studies, there are distinct advantages to using sampling during a survey process:

- The cost and time involved in conducting a survey project are reduced dramatically when using samples versus population studies. Although The Jackson Group does not charge by the number of responses for electronic data gathering methods (web, touchpad), the timeframe involved to collect the required number for a random sample is significantly less than trying to collect data from everyone. For an on-site survey where participants are asked their opinions before they leave the organization, more staff time may be required to offer the survey to all discharges versus just those included in the random sample.
- If a valid random sample is drawn, and the required number of responses is gathered, the results can represent, with a **90-99% confidence level**, the total population you are attempting to survey. A specific sample target number has to be determined at the onset of the survey process to ensure that the final results meet the required confidence level threshold.

Sampling also has several limitations and restrictions those interested need to be aware of:

- Although the sample's results should be representative of the total population, you do not have the capability to "drill" down to sub-levels and see representative information. For example, if a random sample of 300 patients are surveyed the results from that sample should represent the total population of discharges for that time period. However, if you wished to look at a sub-group of those results - Evening Shift discharges, for instance - those results would not be representative since they are a smaller portion of the sample. If Evening Shift discharges only made up 20% of the total discharges in that time period, then there would only be around 60 responses from the sample that could be reported for this breakout analysis. To effectively receive representative data at all levels and within all subgroups of a population, a full population study would be needed.
- As with a population study, using a random sample means that only a select group of individuals are given the opportunity to take a satisfaction survey. Some individuals, when not offered a survey, may question whether their opinion is valued or if the organization has a commitment to listening to their patients or employees. Although this is generally not an issue on telephone surveys since patients do not know about the

follow-up survey process when the leave the organization, this could prove to be an issue with on-site surveys.

- If a particular patient was extremely dissatisfied with their visit or experience, there is a high probability that this individual would not be surveyed under a random sample process. For many organizations, being able to identify those negative situations (especially when the words “lawsuit” and “safety concern” are mentioned in their feedback) is extremely important and could be missed under sampling. At least under a population study, efforts would be made to give each patient or employee the opportunity to provide their thoughts and feedback.

## **Conclusion**

Both population studies and sampling can provide effective, representative data to an organization wishing to receive information from any of their target populations. Each method has its own advantages and disadvantages that need to be weighed before engaging in a survey process.

Typically, The Jackson Group recommends the following approaches for the types of projects listed below. This list is not meant to be inflexible, but can help an organization learn what a past history of surveying has shown:

### ***Population Studies***

- Employee satisfaction surveys
- Medical Staff surveys
- Exit Interviews / Exiting employee surveys
- Department-specific patient satisfaction surveys
- Surveys where immediate “service recovery” could be required

### ***Sampling***

- Community perception surveys
- Broad patient satisfaction surveying (total inpatient, total outpatient, total ED)
- HCAHPS (mandated by CMS and the CAHPS initiative)

If you have any questions about this document or wish to discuss survey options with The Jackson Group, please contact us at 800-554-0373 or by email at [info@thejacksongroup.com](mailto:info@thejacksongroup.com).