



# *SAMPLING METHODS*

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# *Steps in Determining Sample Size*

- ◆ Who are you sampling?
- ◆ What method will you use?
- ◆ How large should sample be?



# *Who Are You Sampling?*

- ◆ To what group are we going to generalize?
  - The State
  - Specific Groups (SMI, SED) within the state
  - Local provider or facility



## *State Sample*

- ◆ Each provider or facility contributes a portion of subjects for the required sample.
- ◆ With large population, approximately 400 in final sample needed to be representative at confidence interval of +/- 5%.



## *Samples Representative of Specific Groups*

- ◆ Once groups are identified, samples must be selected to be representative of the different groups
- ◆ Looking at example table, at confidence interval of  $\pm 5\%$ , 370 SED and 380 SMI consumers would need to be included in sample



## *Single Agency or Facility Samples*

- ◆ To describe each provider or facility's performance we need an adequate sample from each provider
- ◆ For each local provider and facility, the sample size depends on their own population



## *Single Agency or Facility (cont.)*

- ◆ For example, for a local provider with 2000 consumers in the population, the final sample would be 322
- ◆ For a provider with 100, the final sample would be 80
- ◆ Total sample size would be the sum of the samples for each provider



# *How Are You Sampling?*

- ◆ Sampling procedures
  - Population
  - Random
  - Stratified
  - Convenience



## *How Large Should Sample Be?*

- ◆ Must be sufficient to allow us to generalize to the entire population that the sample represents
- ◆ Must be sensitive to the burden and cost of data collection.



# *Sample Size*

- ◆ There are computer programs on the web that will calculate sample sizes
  - [www.surveysystem.com/sscalc.htm](http://www.surveysystem.com/sscalc.htm)
  - [www.members.aol.com/trane64](http://www.members.aol.com/trane64)
- ◆ Need to know:
  - Confidence Interval
  - Confidence Level
  - Population Size



## *Decisions Required to Determine Sample Size*

- ◆ How close to the “real” figure do you want to be?
  - If confidence interval is  $\pm 5\%$
- ◆ When 70% of consumers in sample report being “satisfied” -- between 65% and 75% in population would report being “satisfied”



## *Decisions Required to Determine Sample Size (cont.)*

- ◆ How “sure” do you want to be of your sample’s results?
  - If confidence level is 95% and confidence interval is  $\pm 5\%$
- ◆ In the previous example, you can be 95% certain that the true percentage of the population that is satisfied is between 65% and 75%



# *Recommendations*

- ◆ Sample specific groups (adult and child) at a minimum
- ◆ Use the standard 95% confidence level
- ◆ Use the +/- 5% confidence interval