

How to Analyze Drugs Used by Route of Administration and Frequency

Step 1:

Organize your data. Make sure you have a clean and well-organized dataset with all of the relevant variables for drugs use, route of administration, and frequency of use ideally as separate variables. However, it is ok if you collected some of these data in combination. An example of this would be the question “Did you inject heroin?” which collects information on both the route of administration and the drug that was used. The same could apply for a question that asks, “How often did you inject heroin?” which includes frequency of use in addition to route of administration and drug used. It is advisable to still think of this question as three distinct entities during analysis: 1) what drug was used, 2) what the route of administration was, and 3) how often that drug was used via that particular route of administration.

Step 2:

Determine the research questions you want to answer. In this case, you might be interested in questions such as: What is the prevalence overall of drug use among the sample or for a specific drug or drug class? You may want to know which drugs are most commonly used or what is the most common route of administration overall or for specific drugs? Additionally, how frequently are drugs being used overall is important; however, looking at it by different drug type is more informative?

Step 3:

Calculate frequencies and percentages for each variable of interest. This can be done using statistical software such as Excel, R, or another software. For example, you might calculate the percentage of respondents who report using each drug, the percentage who report using each route of administration, and the percentage who report using above a certain frequency of use like what percentage of people use drugs once a day or more.

Step 4:

Create frequency tables and graphs to visualize your results. This can be done using the same statistical software as in Step 3. For example, you might create a bar graph showing the percentage of respondents who report using each drug, or a pie chart showing the percentage of respondents who report using each route of administration.



Step 5:

Conduct cross-tabulations to explore relationships between variables. This can be done using statistical software as well. For example, you might cross-tabulate drug use by route of administration or frequency of use. Cross-tabulations help us think about how different drugs are being used in terms of routes of administration as well as frequency of use. Cross-tabulations are important for answering questions that involve two variables or more and can be done effectively in Excel with pivot charts ([link to demo](#)).

Step 6:

Analyze your results and draw conclusions. Look for patterns and trends in your data and think about what they might mean. For example, you might notice that certain drugs are more commonly used than others, or that certain routes of administration are more prevalent among certain subgroups of respondents. Before conducting your analysis and seeing your results it can be beneficial to think about what associations you expect to see in the data beforehand and to compare your expectations with the results from your data.

Step 7:

Interpret your findings and draw conclusions. Think about what your results mean in the context of your research questions, local situation, and the broader literature on drugs use, route of administration, and frequency of use.