Epidemiology Chapter 4 Cheat Sheet Cheat Sheet

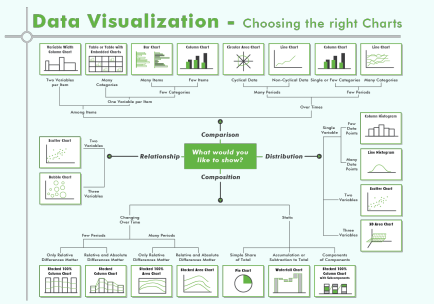
by fahmed2555 via cheatography.com/144263/cs/30941/

Descriptive Study Designs

Case Report	Case Series	Cross sectional Surveys	Ecologic study
A report of one individual which descriptive research is written.	A small group of people who have similar diagnosis	A survey that is done in a short period of time and its focus is an individual	Comparing variables when the unit of analysis is aggregated data
This qualitiative information is in chronological order	Descriptive information about research on the groups	There is control with population and measurements	Can help evaluate policies, rules, or programs
There is information on only one person	The information is only about the small group	Rare conditions are difficult to survey and could be response bias	Possibility of confounding factors

https://www.ncbi.nlm.nih.gov/pmc/articles/-PMC6371702/

Tables and Charts



Types of data

Nominal data	Ordinal data	Continoues data	Discrete data
The order is not intrinsic and the difference between level is meaningless	There is an order made among categories	In a range there can be any value	the values are integers with fixed amounts
gender, race, ethnicity	ranges, stage of cancer	age, weight, temperature	number of meals eaten in three days

https://www.cdc.gov/csels/dsepd/ss1978/-lesson4/section1.html

Tables and Charts

The most simple table is frequency distribution is a summary of frequencies. Relative frequency is dividing the number of people in each group by total number of people.

Bar charts

spot map

box plot

histogram

two way scatterplot

line graph

steam and leaf plot

area map

Ratios and Rates

Ratios and Rates (cont)

: Incidence rate= new cases occurring/population at risk *10^z

: Point-Prevalence rate= existing cases at point in time/total study population at point in time *10^z

: Attack rate= new cases occurring during short time/population at risk at start of short time *10^z

Measures of Association

A contingency table is when every entry of data is classified by variables. The independent variable is an exposure and the dependent variable is the health related event. Correlation coefficient measures the strength of association between two variables. The geometric mean compares to the arithmetic mean on a logarithmic scale. Standard deviation is used in epidemiological studies.

https://www.cdc.gov/csels/dsepd/ss1978/-lesson2/summary.html#:~:text=The%20geometric%20mean%20is%20comparable,smallest%20to%20the%20largest%20value.

A ratio is two values that are compared and it is calculated by dividing the numerator and denominator then multiplying 10^z (0,1,2,3,4,5 which equals 1,10,100,1,000,-10,000,100,000). Rate is a measure of frequency in which a health related outcome occurs in a short period of time. Incidence rate is the number of new cases occurring in a given time. Prevalence rate is the frequency of existing cases at a given period of time. Point-prevalence is the proportion of a health related outcome at a point in time. An attack rate is when new cases occur during an outbreak. Person-time incidence rate is the frequency at which new health related cases start to occur in the population. Crude rate is an outcome calculated not including restri-ctions such as age or gender.

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