Cancer.Net

Oncologist-approved cancer information from the American Society of Clinical Oncology

Statistics Terms

Absolute risk: The *difference* between two risks, usually smaller than a relative risk

Average/mean: The middle value of a set of numbers, calculated by adding all of the values and dividing by the number of values in the set

Clinical significance: An assessment that a research finding will have practical effects on patient care

Cohort: A group of individuals who share a common experience, exposure, or trait and who are under observation in a research study

Confidence interval: A measure of the number of times out of 100 (similar to a percentage) that test results will be within a specified range. It is a measurement used to indicate the reliability of an estimate.

Confounding variable: A factor in a scientific study that wasn?t addressed that could affect the outcome of the study, such as smoking history in a study of people with cancer

Control group: A group of individuals who do not receive the treatment being studied. Researchers compare this group to the group of individuals who do receive the treatment, which helps them evaluate the safety and effectiveness of the treatment.

Endpoint: The results measured at the end of a study to see whether the research question was answered

Incidence: The number of new instances of a disease or condition in a particular population during a specific time period. Learn more about statistics used to estimate risk and recommend screening [1].

Lifetime risk: The probability of developing a disease or dying from that disease across a person?s lifetime

Median: The middle value in a range of measurements ordered by value

Mortality rate: The number of deaths in a particular population during a specific time period

Odds ratio: A comparison of whether the likelihood of an event is similar between two groups; a ratio of 1 means it is equally likely between both groups.

Outcome: A measurable result or effect

Prevalence: The total number of instances of a disease or condition in a particular population at a specific time. Learn more about statistics used to estimate risk and recommend screening [1].

P-value: Describes the probability that an observed effect occurred by chance. If a p-value is greater than or equal to 0.05 (p ? 0.05), the effect could have occurred by chance and is, therefore, ?not statistically significant.? If a p-value is less than 0.05 (p < 0.05), the effect likely did not occur by chance and is, therefore, ?statistically significant.?

Randomized: Refers to a clinical trial in which participants are assigned by chance to different groups receiving different treatments so that the comparison of treatments is fair

Relative risk: A *ratio*, or comparison, of two risks, usually larger than the absolute risk

Risk: The likelihood of an event

Sensitivity: Refers to the proportion of the time that a particular test will accurately give a positive result (indicate that a person has a specific disease)

Specificity: Refers to the proportion of the time that a particular test will accurately give a negative result (indicate that a person does not have a specific disease)

Survival rate: The proportion of patients alive in a particular population at some point after the diagnosis of a disease

Statistically significant: Refers to an observed effect that is not likely to have occurred by chance (See definition of p-value)

Links:

[1] http://www.cancer.net/node/24960