

# WNCHEALTHYIMPACT

## Data Interpretation Terms & Definitions

Terms	Definition
<b>Age-Adjusted Rates</b>	<p>Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC SCHS).</p> <p>Age-adjustment is preferred for comparing most health data from one population or community to another. It allows for the comparison of rates of age-related health events between communities with different age structures.</p>
<b>Change (as) percent difference</b>	<p>While it is possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing the scope or significance of the difference or change.</p> <p>Converting the amount of difference or change to a percent takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, makes it easier to grasp the meaning of change.</p>
<b>Comparator</b>	<p>A tool used for comparing something (usually a number, percent or rate) with a similar thing or with a standard measure.</p>
<b>Confidence Interval</b>	<p>A range of values used to describe the margin of error around an estimate (typically 95%).</p>
<b>Data Limitations</b>	<p>Some data may have inherent limitations, due to the sample size, its geographic focus, or its being out-of-date. This data will be accompanied by a warning about its limitations.</p>
<b>Error</b>	<p>Measurement <b>error</b> is the difference between a measured value of quantity and its true value. In statistics, an error is not a "mistake". Variability is an inherent part of the measurement process.</p>

---

\*There is some error associated with every health data source.

---

**Five-Year Aggregates**

Data is often aggregated when rates are calculated based on a small number of events or a small population. The average rate over a 5-year period will produce a smaller confidence interval and a more stable rate.

\*Data is sometimes available for single years.

---

**Indicator(s)**

Measures/Number data that quantify a condition of well-being for an entire geographic population.

---

**Mean**

The average obtained by adding two or more quantities and dividing by the number of quantities.

---

**Median**

The middle value of a set of numbers, arranged in order small to large. The median is not affected by extreme data values or outliers.

---

**Morbidity**

Measures that quantify any departure, subjective or objective, from a state of physiological or psychological wellbeing. In practice, morbidity encompasses, disease, injury and disability. Measure of morbidity frequency characterize the number of persons in a population who become ill (incidence) or are ill at a given time (prevalence).

- **Incidence**

New cases of a condition during a defined time interval/persons at risk of developing the condition over that time interval.

- **Prevalence**

Total (new & old) existing cases of a disease at a specified time/people in the defined population at that time.

---

**Mortality Rate (Death Rate)**

Specific type of incidence rate. Number of deaths in the population during stated time period/persons at risk of dying during time period.

---

**P-Value**

A measure of how likely it is that a difference in rates occurred by chance alone. A very small p-value means that the calculated difference in rates was very unlikely to have occurred by chance. Common to see p-value < 0.05.

---

**Primary Data**

Data that you create (e.g. community listening sessions, survey data collected via phone, and online key informant survey data).

---

<b>Proportions</b>	A ratio in which the numerator, $x$ , is included in the denominator, $y$ . Proportions are often multiplied by 100 and reported as a percent.
<b>Public Health Data Sources</b>	<p>What are they?</p> <ul style="list-style-type: none"> <li>• National, state, local health data sets</li> <li>• Surveillance data</li> <li>• Health-related surveys</li> <li>• Administrative (registries)</li> <li>• Vital Statistics (birth/death certificates)</li> <li>• Outbreak investigations</li> <li>• Research</li> <li>• US Census</li> </ul>
<b>Qualitative Data</b>	Descriptive data that can be observed but not measured. It is often referred to as "story" data.
<b>Quantitative Data</b>	Any type of data that can be expressed as a number. It is often referred to as "numbers" data.
<b>Rank</b>	Ranking is a process of ordering items from 1 <sup>st</sup> to last, best to worst, most important to least important. A strict ranking system does not allow items to be considered equal.
<b>Rate</b>	Often a proportion, with an added dimension of time. Measures the frequency at which a health event occurs during a period of time and represents the burden of disease or health-related outcome during a specific time period.
<b>Ratio</b>	Any fraction obtained by dividing one quantity by another, such as $x$ , the numerator, divided by $y$ , the denominator, or $x/y$ .
<b>Regional arithmetic mean</b>	<p>*See definition for <b>mean</b>.</p> <p>Regional arithmetic mean was created in order to develop a representative regional composite figure from 16 separate county measures. Calculated by summing the available individual county measures and dividing by the number of counties providing those measures.</p>
<b>Secondary Data</b>	Data that exists (e.g. data pulled from publicly available sources – census or NC SCHS).

---

**Suppressed Data**

Data that does not meet minimum reporting requirements, includes missing data or unstable rates is often suppressed and replaced with n/a.

---

**Weighted Data**

Data are considered weighted when data are collected from survey respondents and are adjusted to represent the demographics of the population from which the sample was drawn.

---