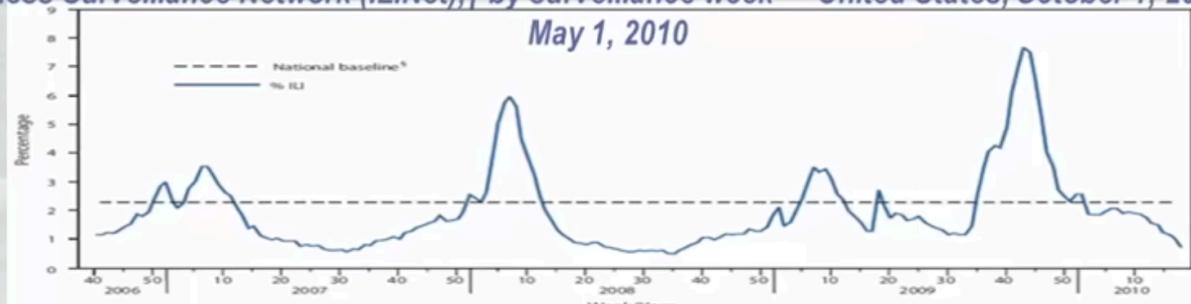


2.2 Other Graphs

Time Series Graph

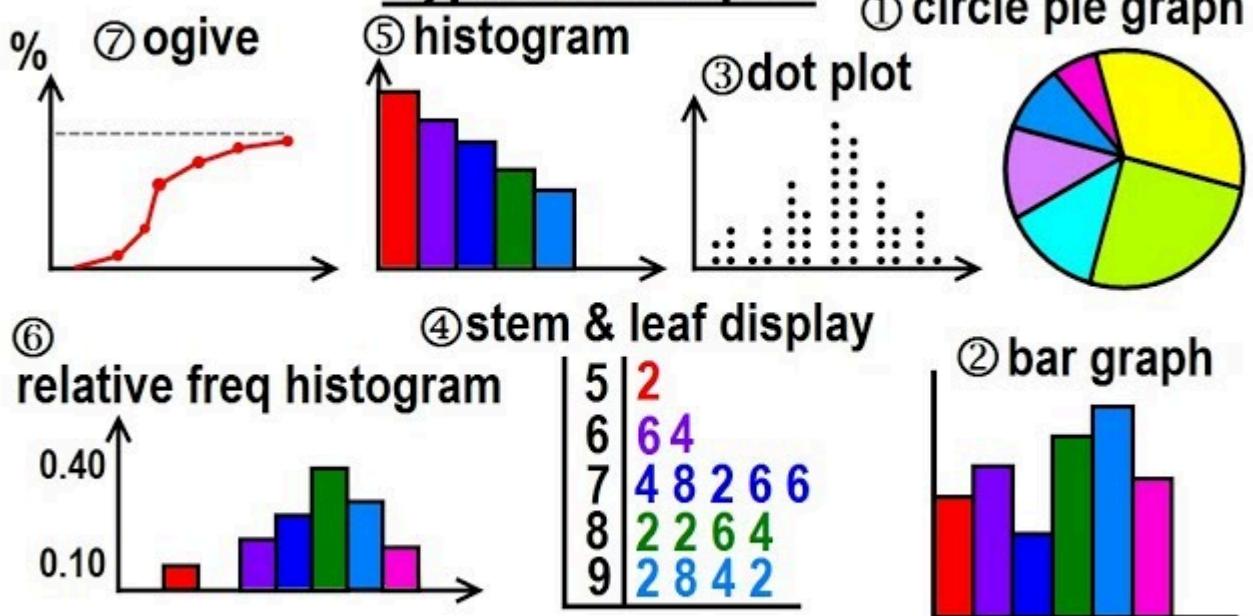
- Time series data are made of measurements for the same variable for the same individual taken at intervals over a period of time.
- Stock market prices
- Yearly rates of diseases such as influenza

Percentage of visits for influenza-like illness (ILI)* reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),† by surveillance week --- United States, October 1, 2006--



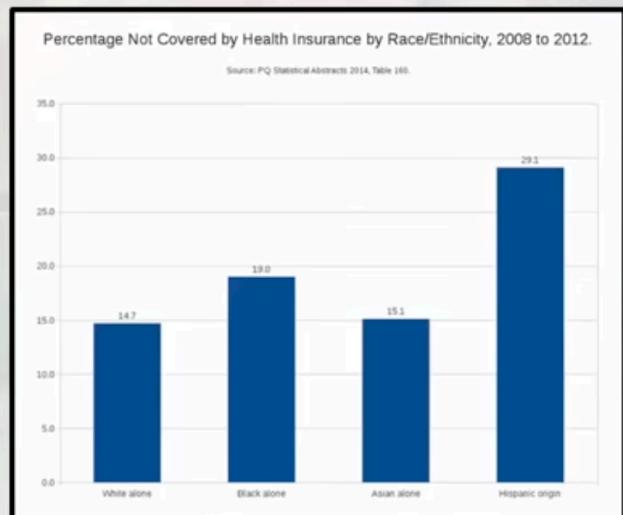
From MMWR Recommendations and Reports August 6, 2010 / 59(RR08)-1-62

Types of Graphs



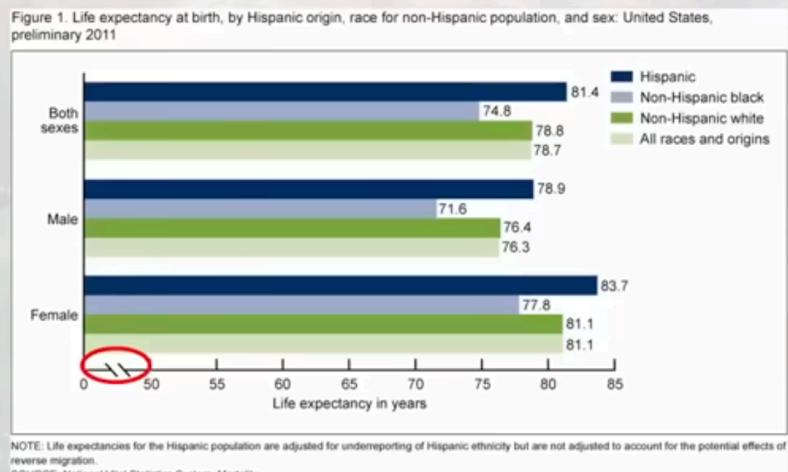
Bar Graph vs. Histogram: What's the Difference?

- The frequency histogram and relative frequency histogram are “*special cases*” of a bar graph
- They are bar graphs that:
 - Must* have classes of a quantitative variable on the x-axis
 - Must* have frequency or relative frequency on the y-axis

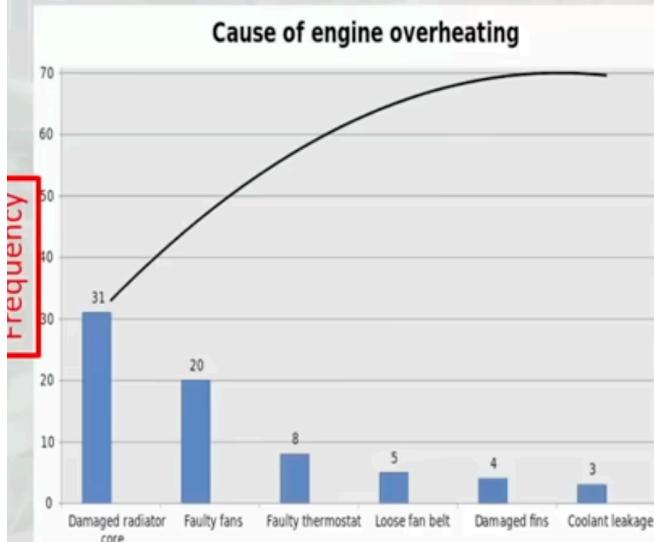


Warning About Changing the Scale

- With a taller y-axis, the differences between bars looks less dramatic.
- Clustered* means more than one bar is graphed for each category (see legend).
- Also, look for the beginning of the scale. Some do not start at zero, and then the bars do not start at zero.
- Look for the squiggle.



Pareto Chart



Graph by Zirguezi.

- The height of the bar indicates the frequency of an event.
- Arranged left to right according to decreasing height.
- Meant to graph frequencies of “problems”
- Used more in engineering than in healthcare.

Pie Charts

- Pie chart (also circle graph) used with counts of “*mutually exclusive*” frequencies
- Often made in graphing programs because difficult to do by hand
- Very common in healthcare

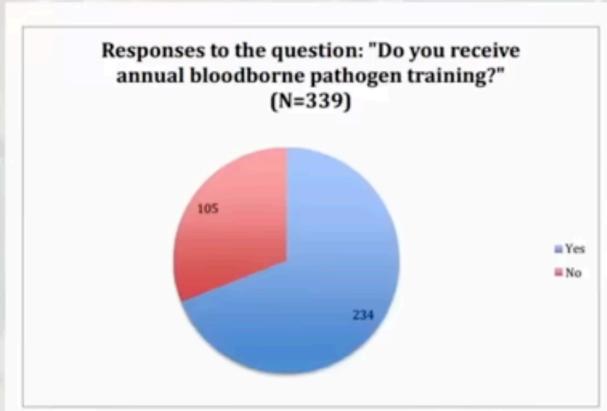


Chart from "Is a Bloodborne Pathogen Exposure Treated as an Emergency? Nurses Reveal their Experiences"

What to use?

Choosing the Right Kind of Graph

Type of Graph	Cases Where Graph is Useful
Frequency Histogram	For quantitative data, when you want to see the distribution.
Relative Frequency Histogram	For quantitative data, when you want to see the distribution. Also, good for comparing to other data.
Stem-and-leaf Display	For quantitative data, when you want to see the distribution. Easier to make by hand than histogram.
Time series graph	For graphing a variable that changes over time and is measured at regular intervals.
Bar graph	For qualitative or quantitative data, and for displaying frequency or percentage.
Pareto chart	For frequencies of rare events in descending order.
Pie Graph	For mutually-exclusive categories (quantitative or qualitative).