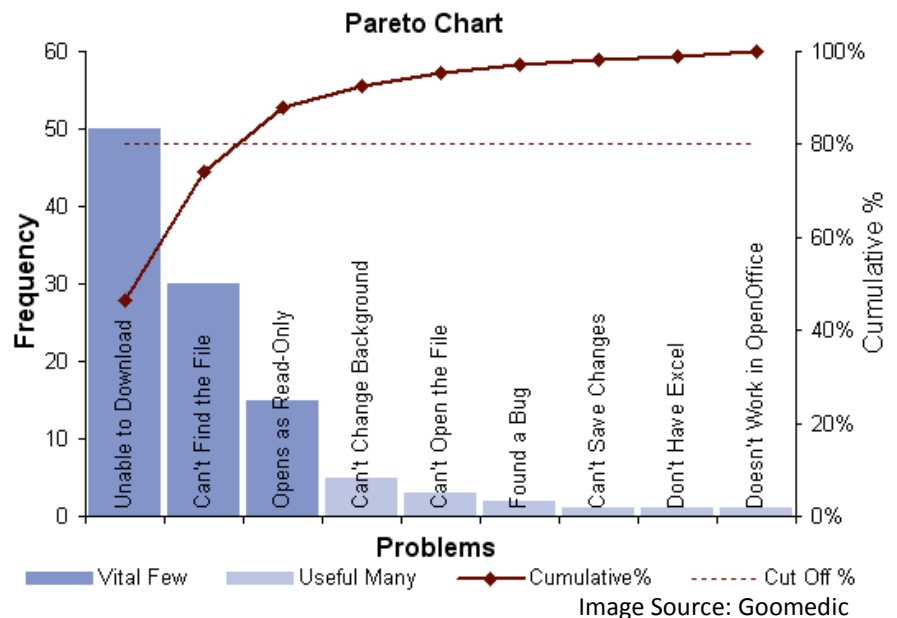


Pareto Chart

What is a Pareto Chart

A Pareto Chart helps a team focus on problems that offer the greatest potential for improvement, by showing different problems' relative frequency or size in a descending bar graph, which highlights the problems' cumulative impact. Teams can then focus on problem causes that could have the greatest impact if solved or improved.

The Pareto principle: **20% of sources cause 80% of problems.**



How to Construct a Pareto Chart

1. Choose Problem, Potential Causes

Select a problem for your team to analyze.

Next, choose potential problem causes, which your team will monitor, compare, and rank-order with an affinity diagram (QI Toolbox: Affinity Diagram), or by using existing data.

2. Choose Measurement Units

Choose units of measurement common across all potential causes, like cost or frequency.

Choose a time period long enough to accurately represent the situation. Remember, the interval should take seasonality into account, as well as different patterns within days, weeks, or months.

3. Gather Data

Gather data on your team's variables, and store in a spreadsheet.

4. Construct Pareto Chart

Start to draft the Pareto Chart, which is constructed in the same way as a histogram (QI Toolbox: Histogram): the chart's horizontal axis contains the problem categories and the vertical axis contains the measurement (cost, frequency, etc.).

Arrange the bars in descending order to assess which problem causes are occurring in the greatest amount—and therefore have the greatest potential to positively impact your problem if solved or improved.

You might also wish to draw a line that shows the cumulative total of each problem cause, as you progress across the chart. This line might help you assess which sources are causing "80% of the problems."