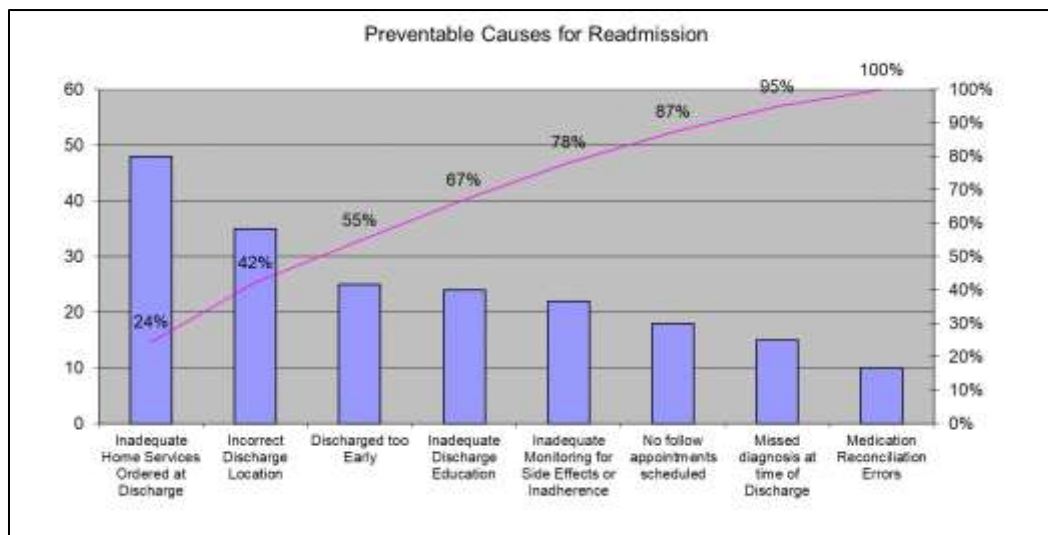


## The Pareto Rule and Pareto Charts

### The Pareto Principle

The Pareto Rule officially states that “80% of a problem comes from 20% of the causes of that problem,” but in practice these quantities are an estimation. The principle that a critical sub-set of causes can be identified whose contribution to a problem outweighs that of other causes is generally true. The Pareto Principle can be used to narrow the focus of an improvement project to only the causes that contribute most to the problem to avoid inefficient use of resources.

### Using a Pareto Chart



The Pareto Rule can be represented visually by a Pareto Chart. The number of occurrences of each cause is represented by the bars, while the cumulative percentage of the contribution of these causes is represented by the line.

One can focus improvement efforts on the causes that seem to have the highest yield for improvement. In this example, the team might consider putting resources into improving discharge planning to ensure patients are being discharged to the right location and receiving the right equipment when discharged home, which will probably reduce readmissions more substantially than improving the medication reconciliation process.

### Making a Pareto Chart

A number of templates exist for creating Pareto Charts. The one above was created using this one:

- <http://asq.org/sixsigma/2007/06/problem-analysis-using-pareto-chart.xls>

There is also a Pareto Chart template embedded in MS Excel.