Using Run Charts to Understand Variation

A: Create Chart B: Apply the 4 Rules C: Analyze Results D: Identify Strategies

1. **Shift?** (6 or more in a row all above or all below median, use 8 or more points if you have > 20 points, values on the median do not break a shift)

2. **Trend?** (5 or more in a row all going up or down, use 6 or more if you have > 20 data points, consecutive like values are counted as one)

3. **Number of Runs?** (Too many? Too few? Just enough?)

   A. Count the number of runs on the chart (a run consists of one or more consecutive points on the same side of the median)

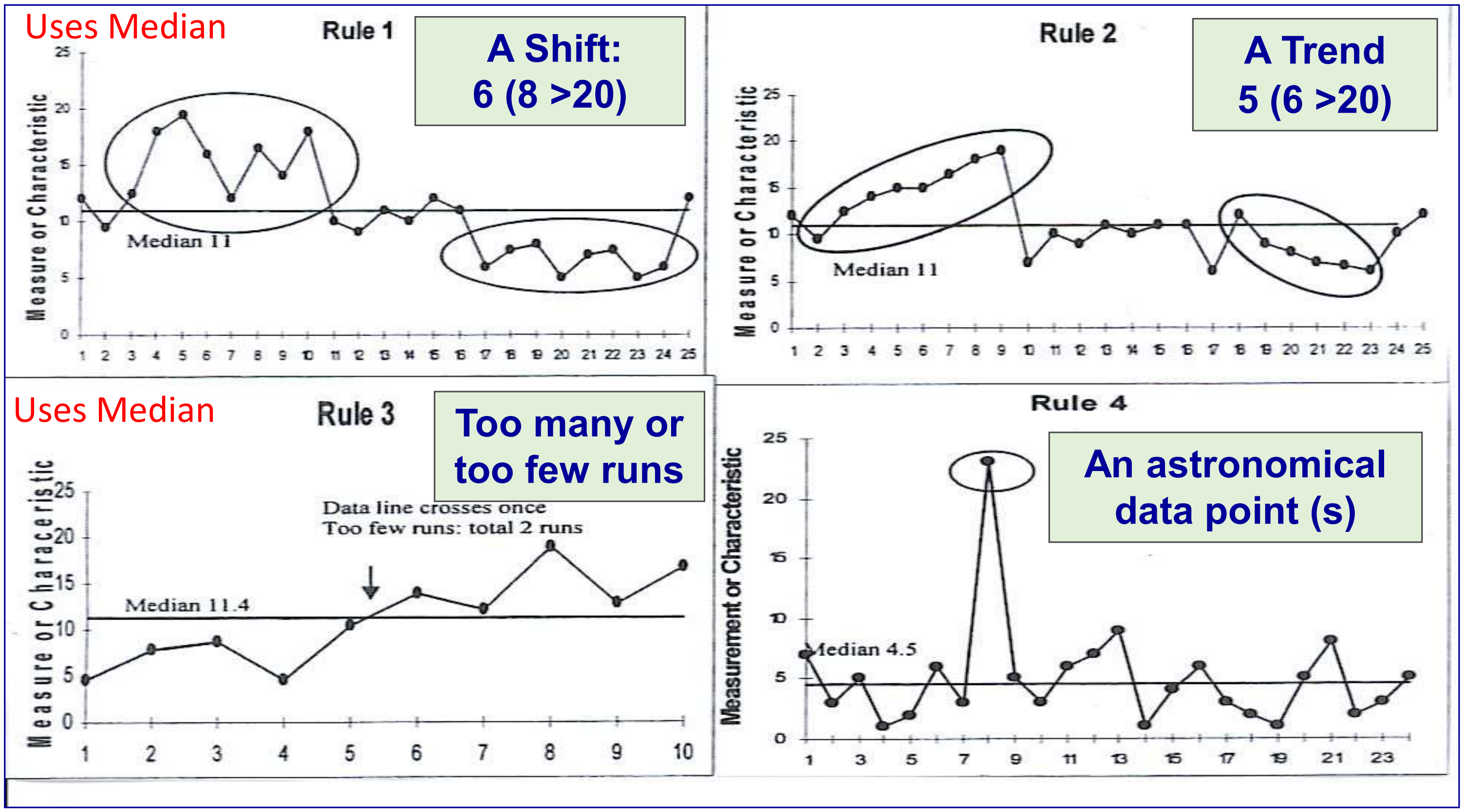
   B. Count the total number of useful observations (data points not sitting on the median)

   C. Consult Number of Runs Table (Identify the range – Too Few? Too Many? Just Enough?)

4. **Astronomical Point(s)?** (extreme points far beyond data range, all agree)

Adapted from John S. Dowd, Consultant in Continual Improvement and The Health Care Data Guide. (2022). Provost and Murray.

4 Run Chart Rules are used to identify non-random signals



Adapted from The Data Guide by L. Provost and S. Murray, Austin, Texas, 2011, page 78