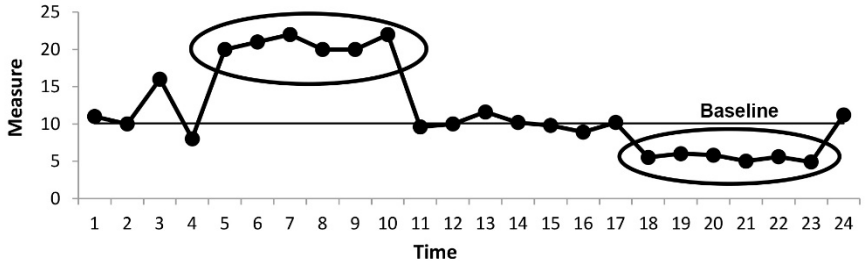
Do your results indicate an actual improvement or merely random variation?

Shift

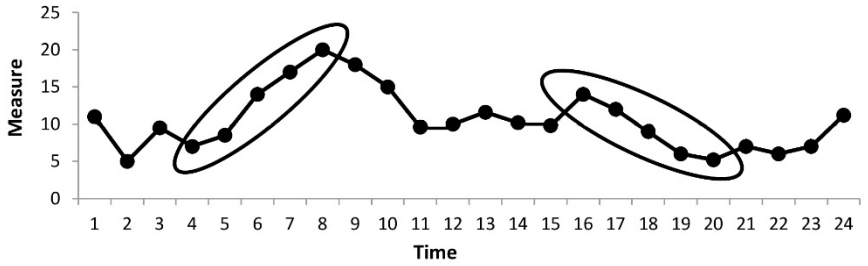
A shift is found when six or more consecutive points are either all above or all below the baseline level.



Trend

A trend is likely when five or more consecutive points are all going up or down.

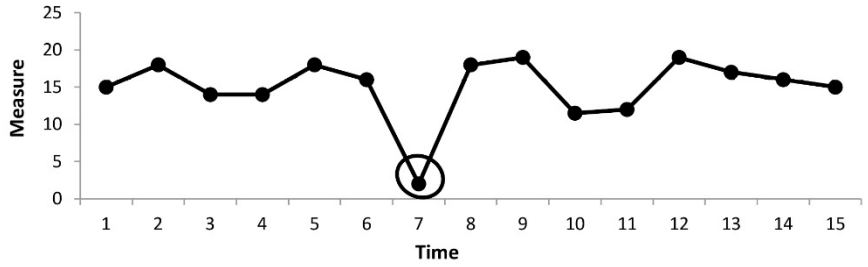
If two or more consecutive points are the same, only count the first and ignore the repeating points.



Outlier

An outlier is obviously different from the rest of the points. It is subjective based on visual examination of your run chart. An outlier is not the same as the lowest or highest data point, which all run charts will have.

An outlier might mean something led to a dramatic change.



Reimagining health care, together.

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Comagine Health

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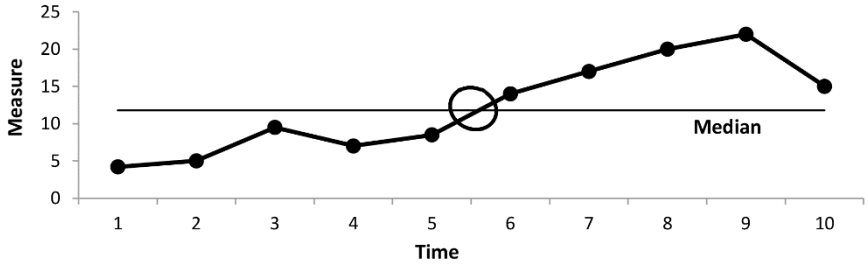
Reimagining health care, together.

Number of Runs

A run is a series of consecutive points on one side of the median. Determine the number of runs by counting the times that the line between data points crosses the median, then add one.

Compare the number of runs to the table below. If your number of runs is less than the minimum or greater than the maximum shown, then your run chart is likely showing non-random variation.

Total Number of Points That Do Not Fall on the Median	Expected Runs	
	Minimum	Maximum
10	3	9
11	3	10
12	3	11
13	4	11
14	4	12
15	5	12
16	5	13
17	5	13
18	6	14
19	6	15
20	6	16
21	7	16
22	7	17
23	7	17
24	8	18



Get the Tool

Use Comagine Health's run chart tool to record and graph data from your Plan-Do-Study-Act cycles.

Further Reading

Perla RJ, Provost LP, Murray SK. "The run chart: A simple analytical tool for learning from variation in healthcare processes." *BMJ Quality & Safety*. 2011 Jan;20(1):46-51