

PROCESS IMPROVEMENT

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ACI

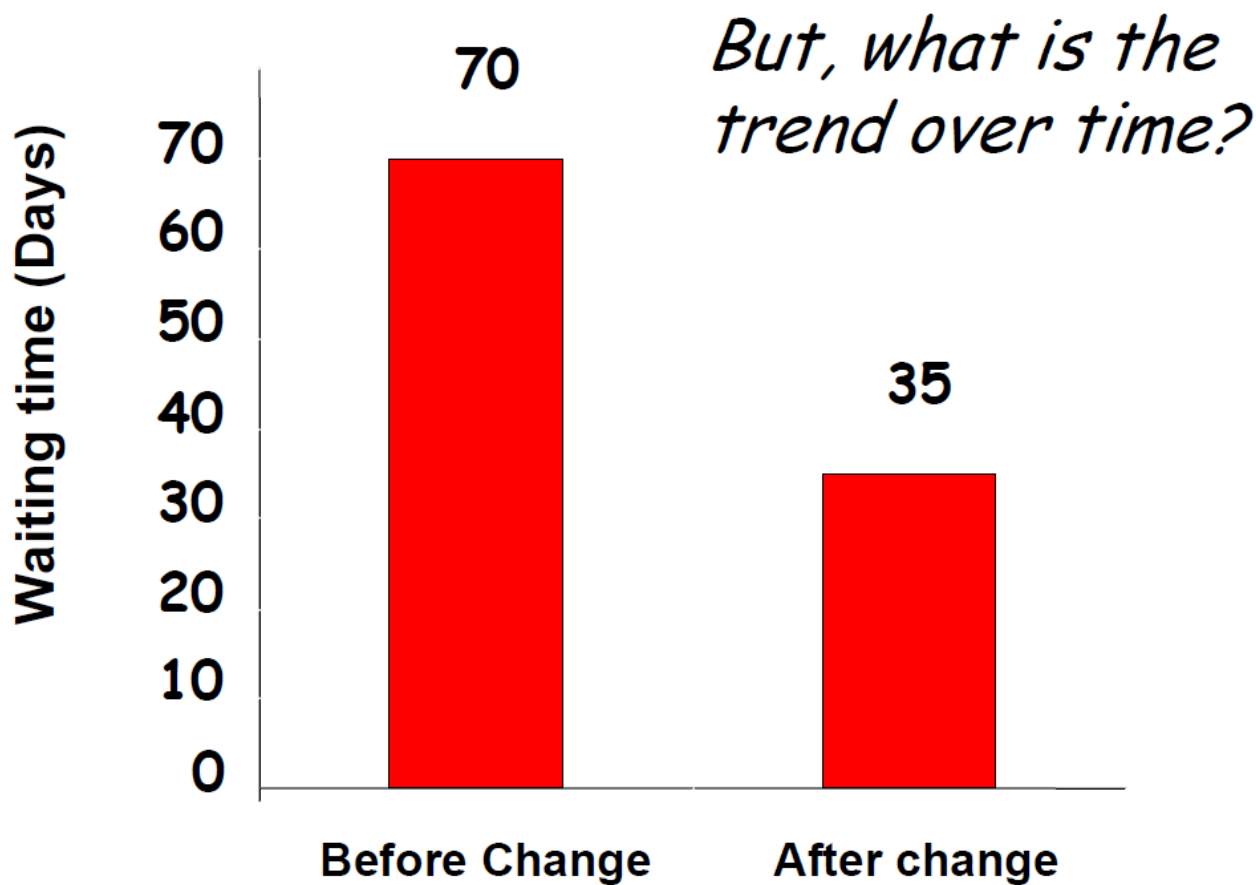
What is a Process?



Improving a Process?

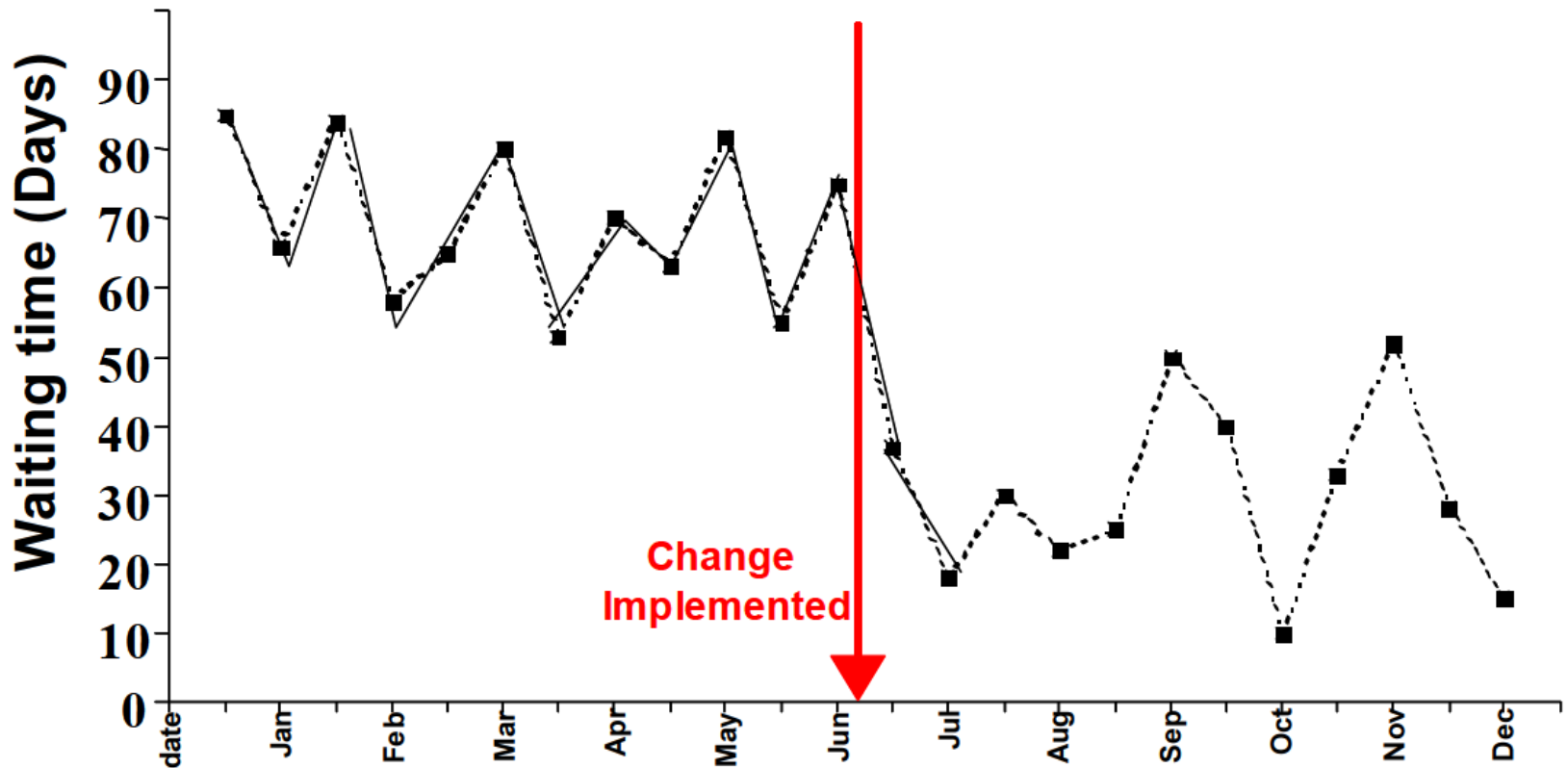


Reduction in waiting time: Is it an improvement?



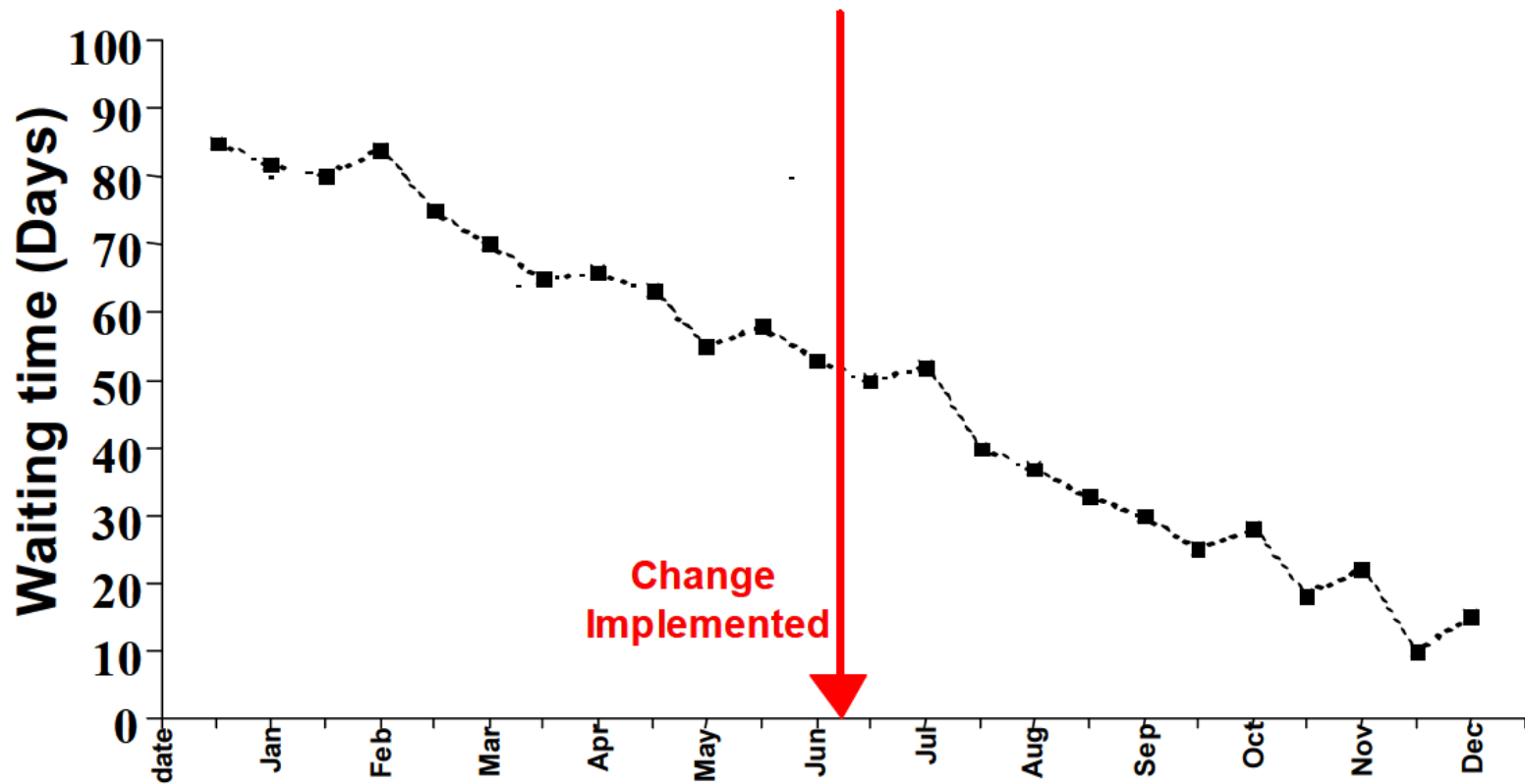
Reduction in waiting time

Hospital A - seemingly real improvement



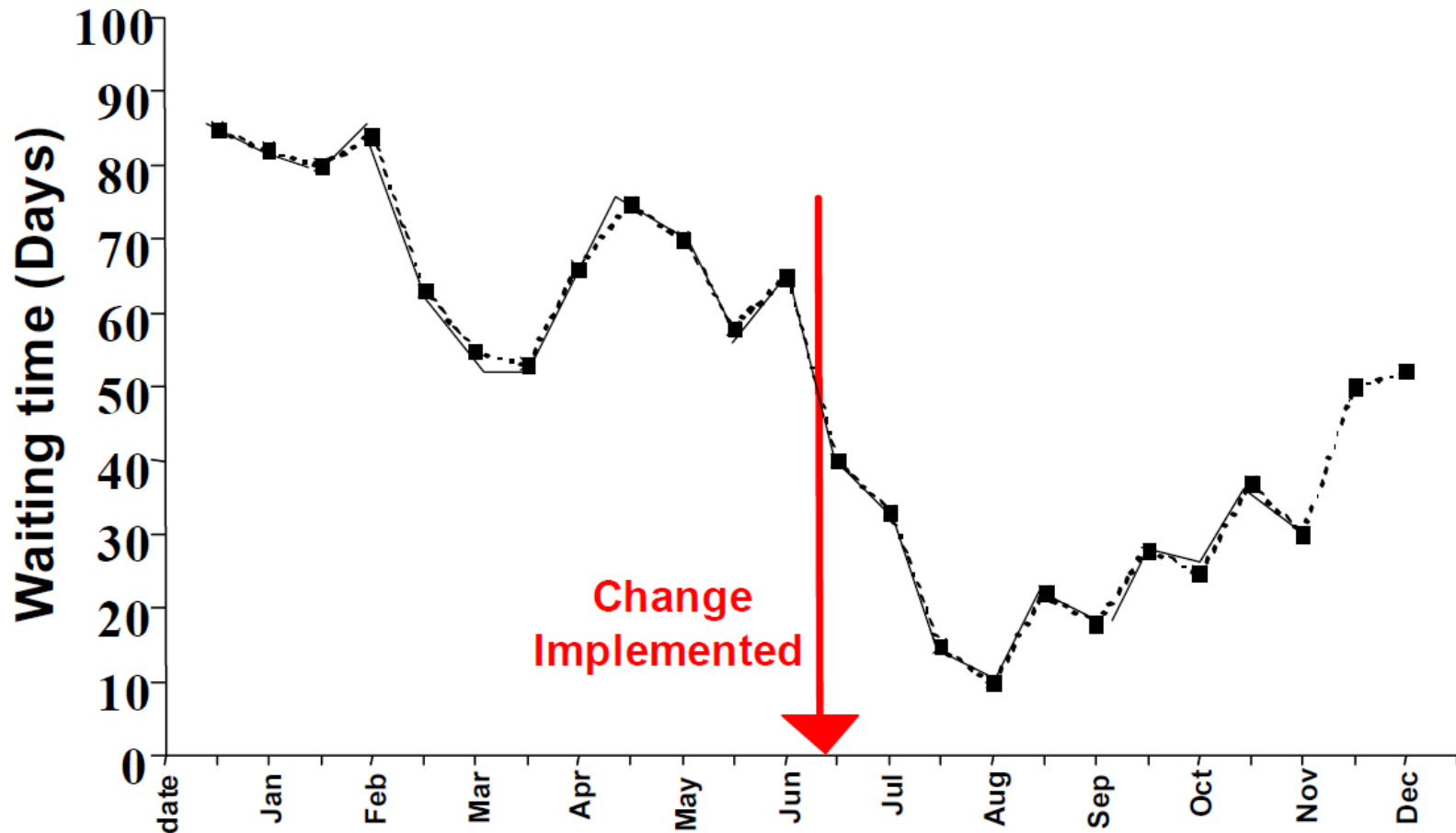
Reduction in waiting time

Hospital B - existing trend, did the change make any difference?



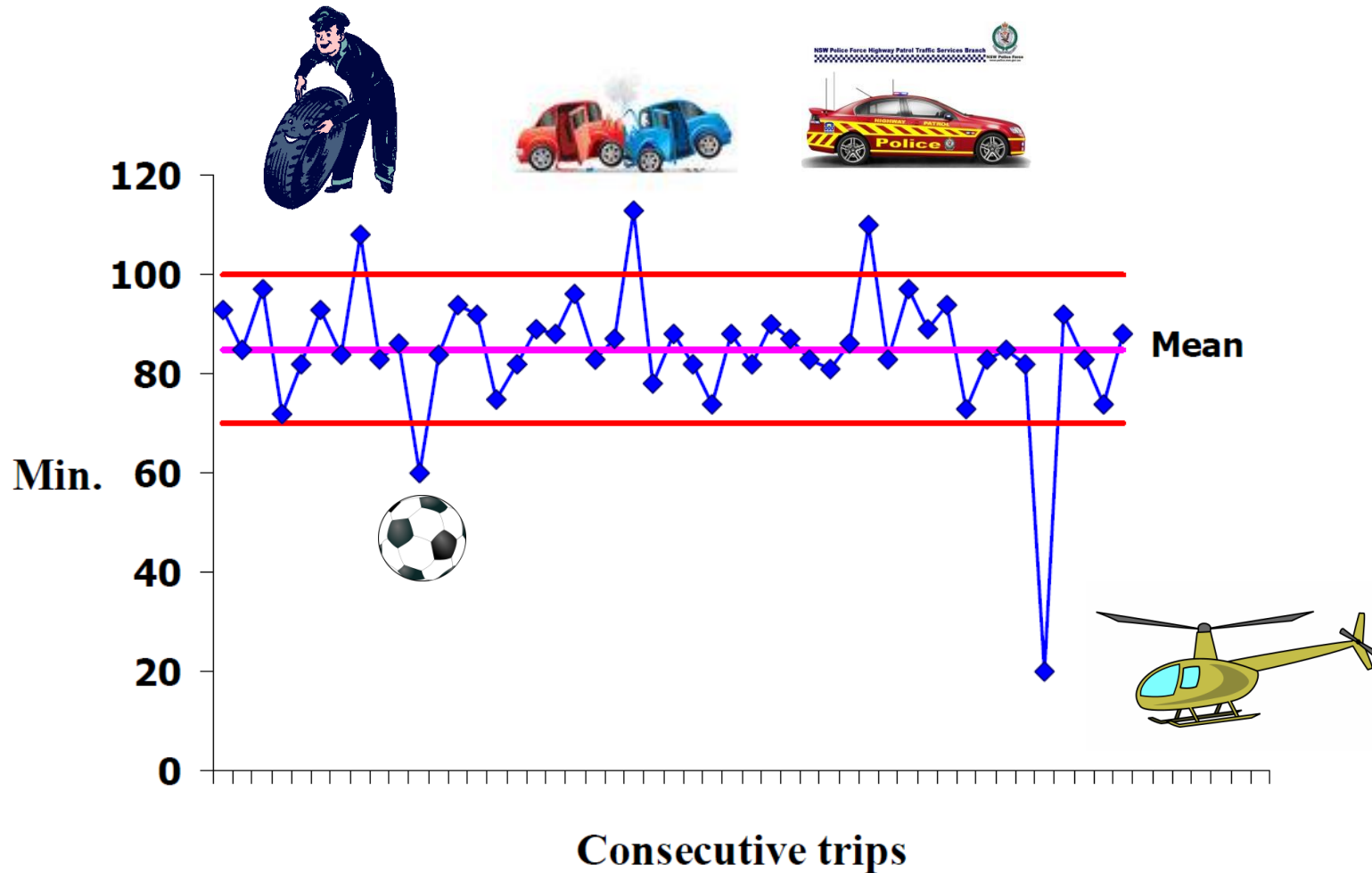
Reduction in waiting time

Hospital C - sustaining the gains?



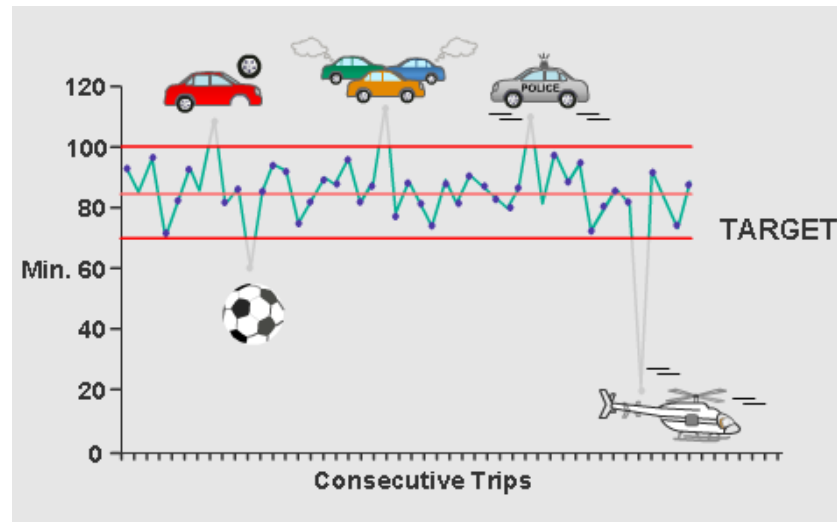
SPC is a tool that uses statistics to examine variation (both common & special cause) in any given process

My trip to work



Common Cause Variation

- Variation within the upper & lower limits is called common cause variation

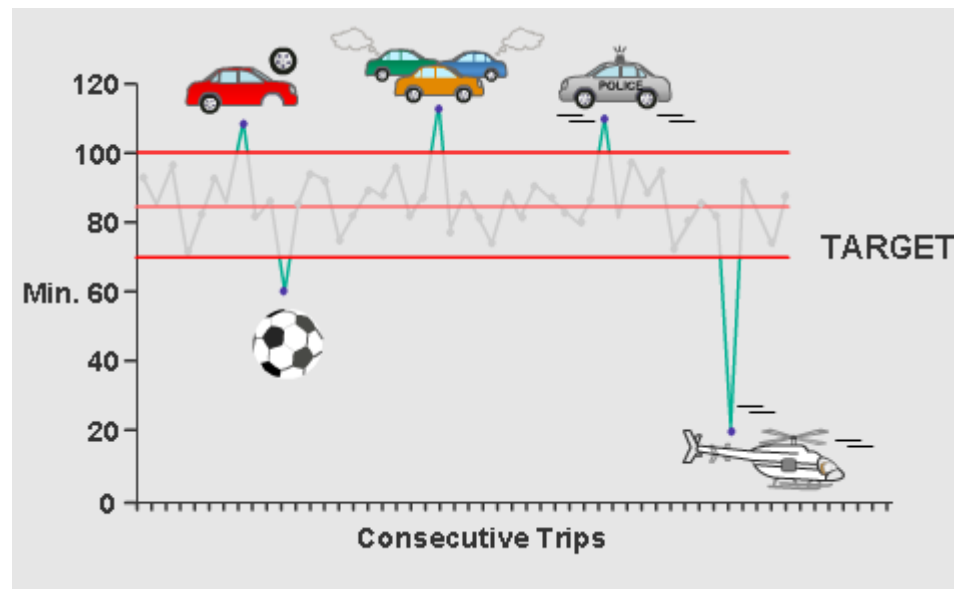


- ➔ If common cause (controlled) variation is displayed in a SPC Chart the process is **stable & predictable**
- ➔ If you want to **improve** the process you will have to **change the whole system**



Special Cause Variation

- Main Special Cause Variation is when the data points fall outside the upper & lower limits





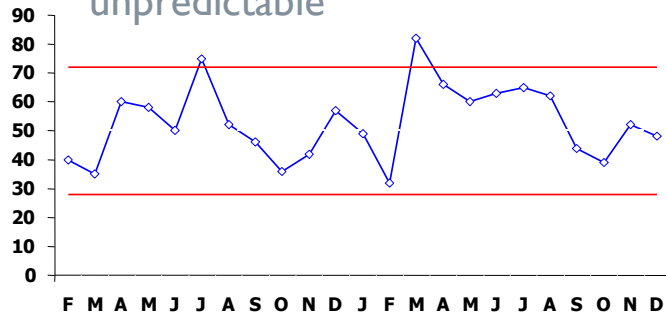
What can SPC do for me?

- Recognise variation
- Evaluate and improve underlying processes (is it stable? Can it meet targets?)
- Help drive improvement (has the process really improved or is it just chance? Is it sustainable?)
- Prove/disprove assumptions and misconceptions
- Predict the range of values likely to see in the near future (where appropriate) - use the pattern of past events to predict, with some degree of certainty, where future events should fall
- Reduce data overload (data for the sake of data)

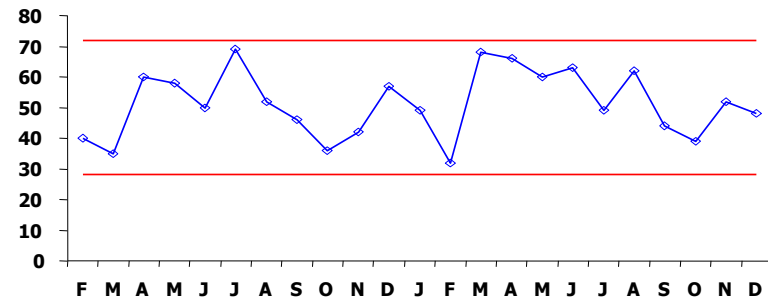
<https://gem.workstar.com.au/public/?action=login>

Using SPC to Improve Processes

1 Special causes present - process out of control & unpredictable



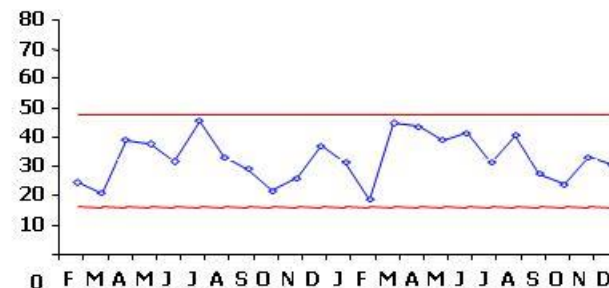
2 Special causes eliminated – process under control & predictable



3 Common Cause Variation Reduced – process improved

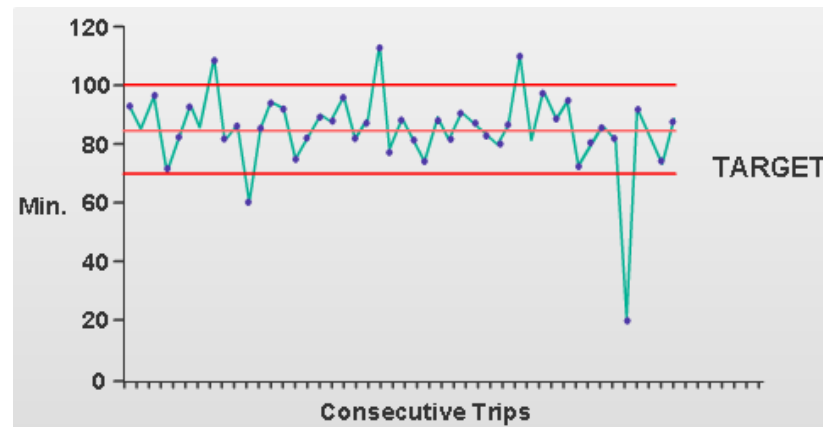


4 Improve nominal/average

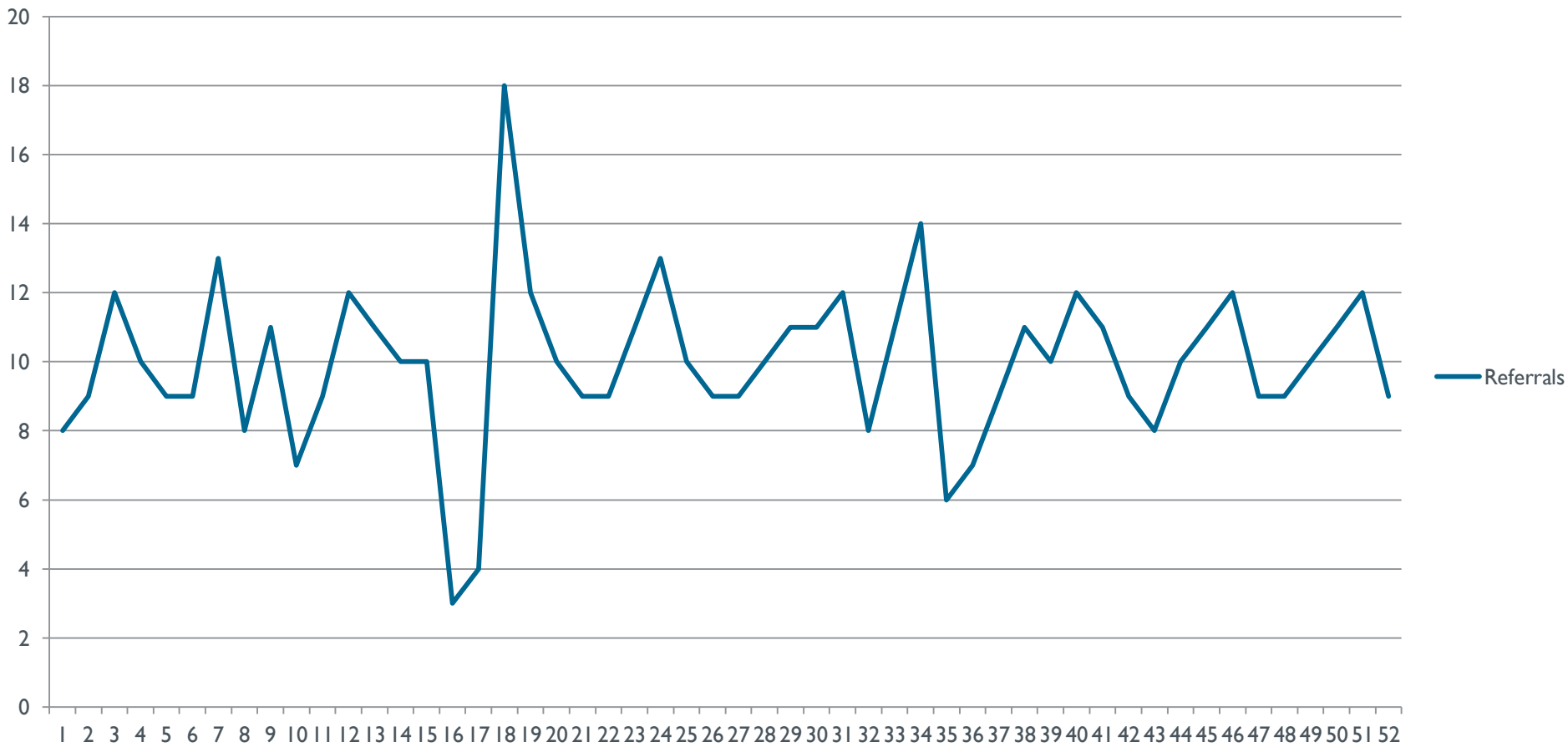


Control Charts

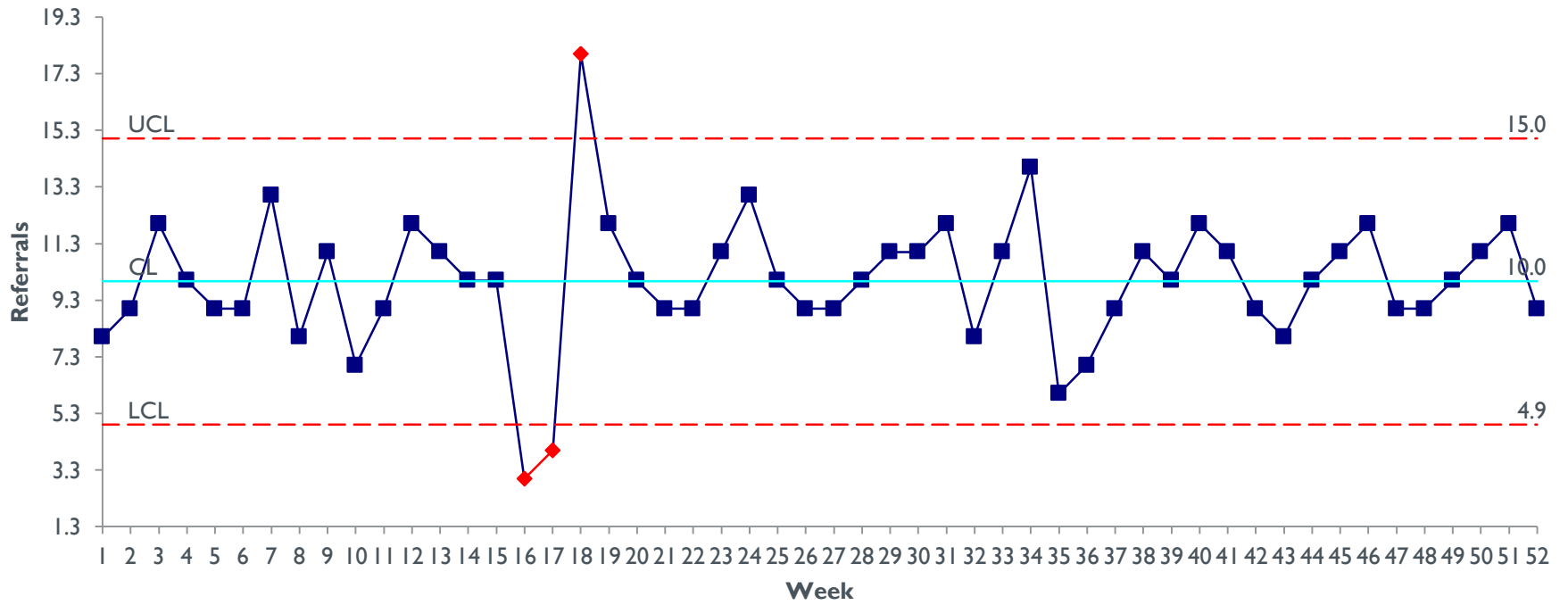
- Minimum of 20 consecutive data points (weeks not months)
- Single data set only
- Centre line= mean
- Upper & lower control limits = thresholds at which the process outputs is considered 'statistically' unlikely (Mean \pm 3 Sigma)



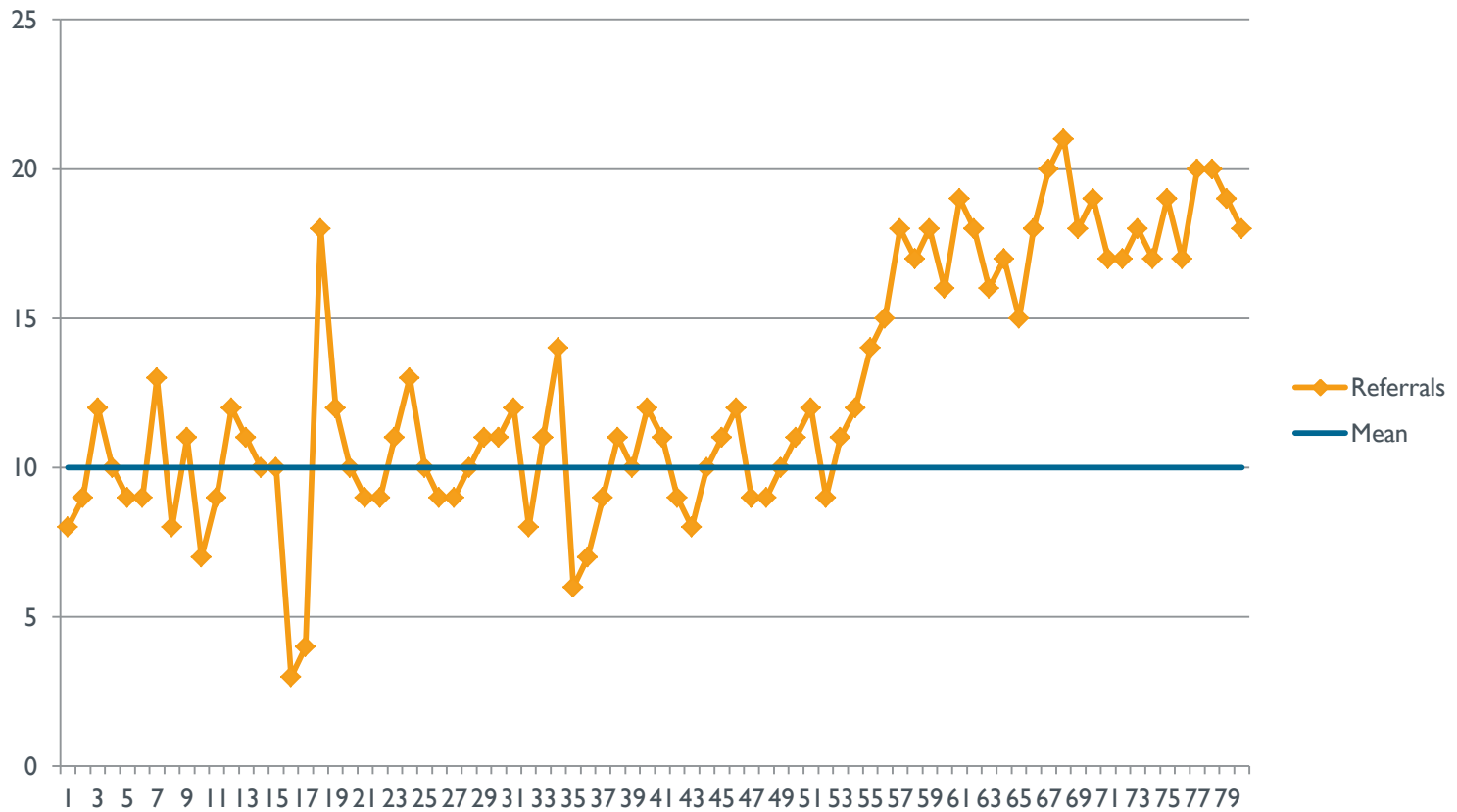
Plastic Surgery Referrals Recieved each week



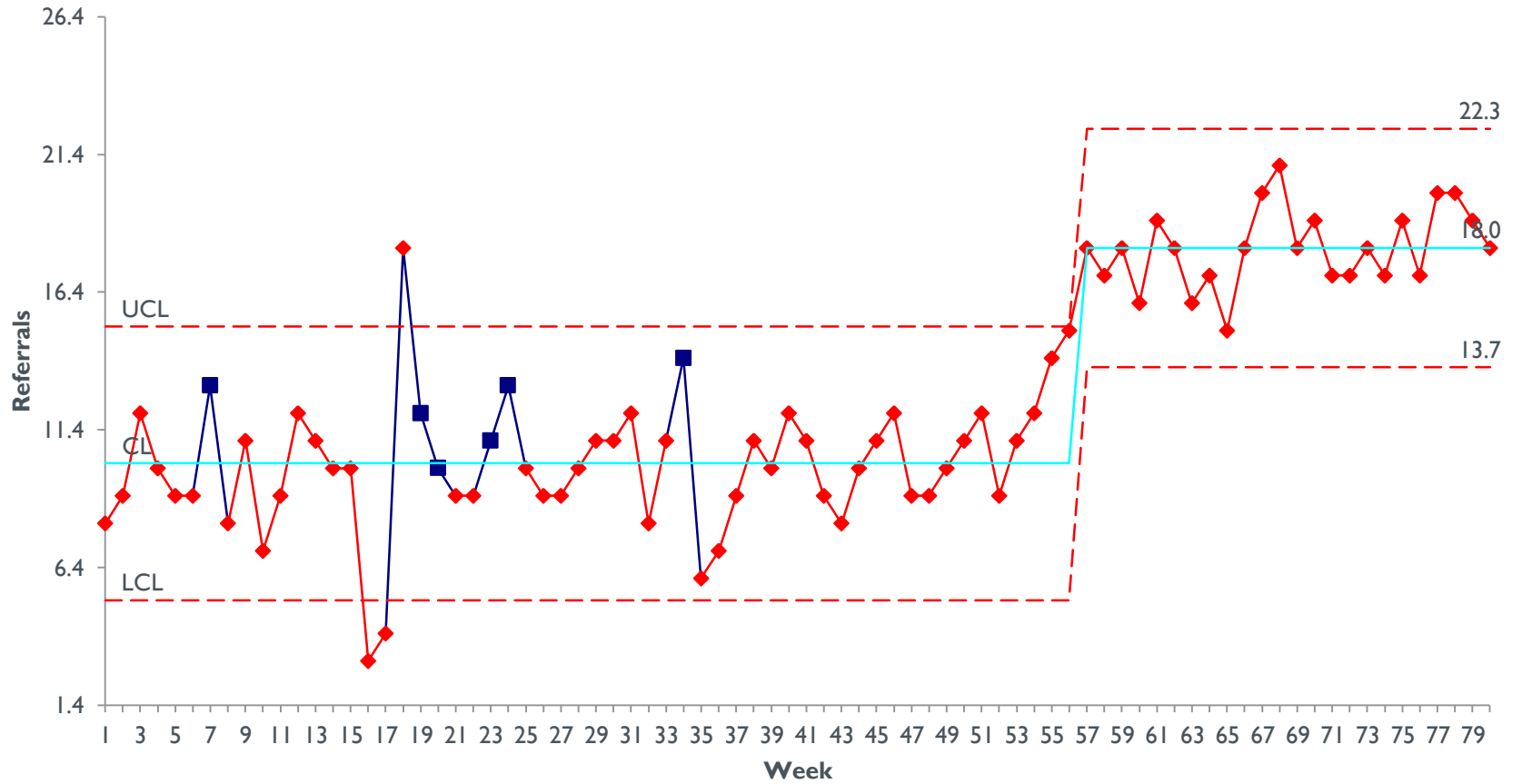
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