

Setting measures for an improvement project

Midland Regional Learning Session Zero
29 October 2014

Improvement data

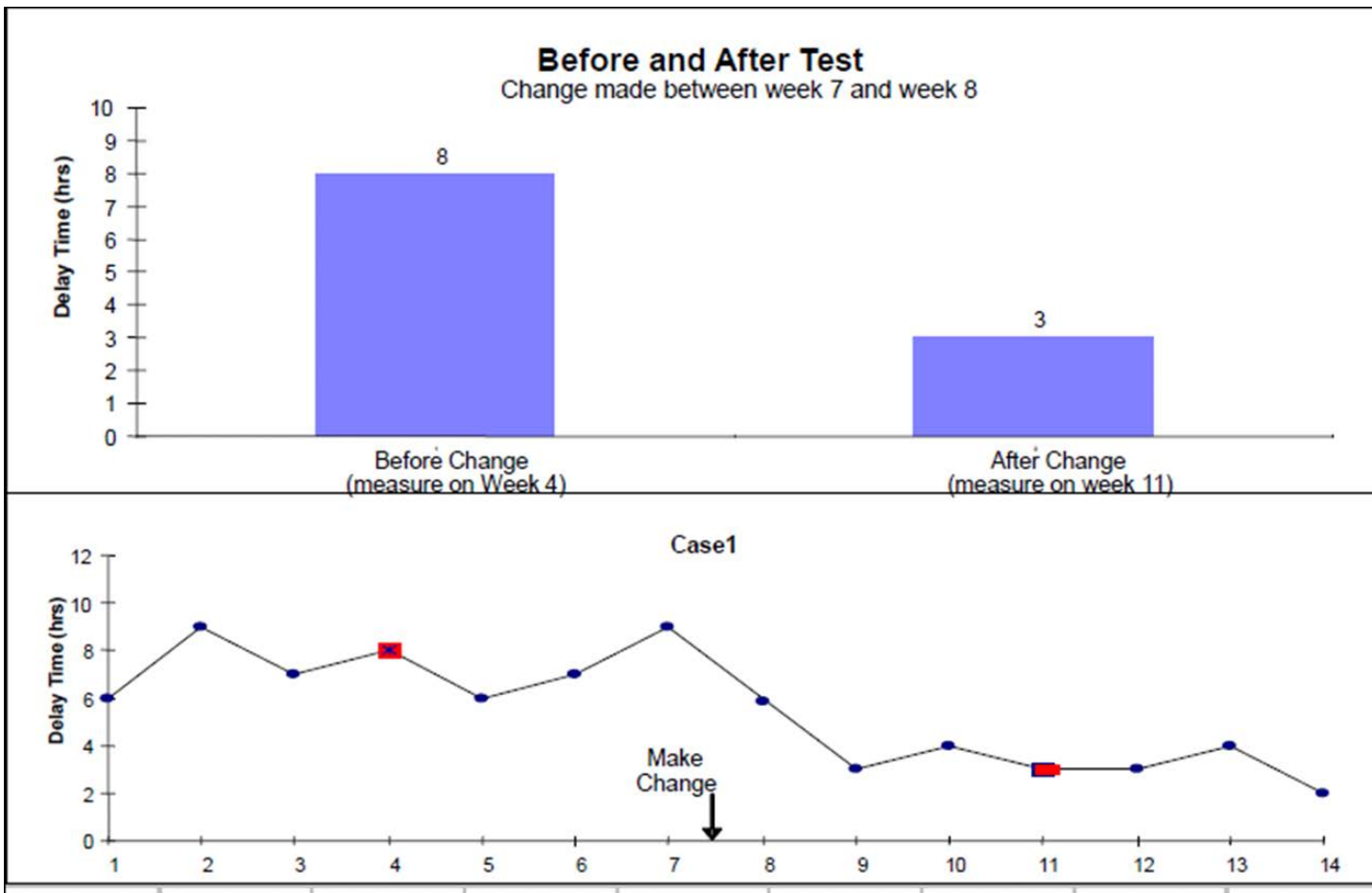
Aspect	Improvement	Accountability	Research
<u>Aim</u>	Improvement of care	Comparison, choice, reassurance, spur for change	New knowledge
<u>Methods:</u>	Test observable	No test, evaluate current performance	Test blinded or controlled
• Test Observability			
• Bias	Accept consistent bias	Measure and adjust to reduce bias	Design to eliminate bias
• Sample Size	"Just enough" data, small sequential samples	Obtain 100% of available, relevant data	"Just in case" data
• Flexibility of Hypothesis	Hypothesis flexible, changes as learning takes place	No hypothesis	Fixed hypothesis
• Testing Strategy	Sequential tests	No tests	One large test
• Determining if a change is an improvement	Run charts or Shewhart control charts	No change focus	Hypothesis, statistical tests (t-test, F-test, chi square), p-values
• Confidentiality of the data	Data used only by those involved with improvement	Data available for public consumption and review	Research subjects' identities protected

Lief Solberg, Gordon Mosser and Sharon McDonald *Journal on Quality Improvement* vol. 23, no. 3, (March 1997), 135-147.

Improvement data – key points

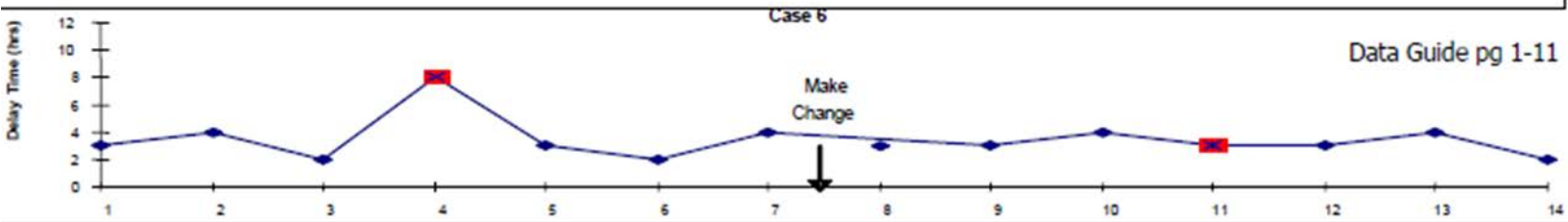
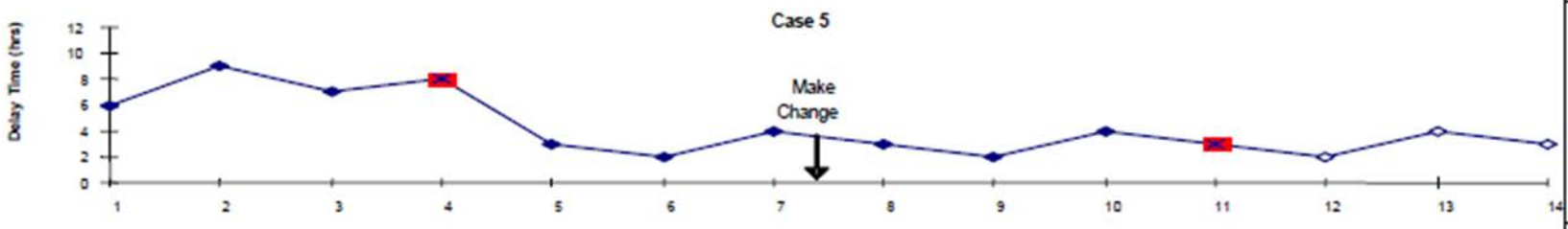
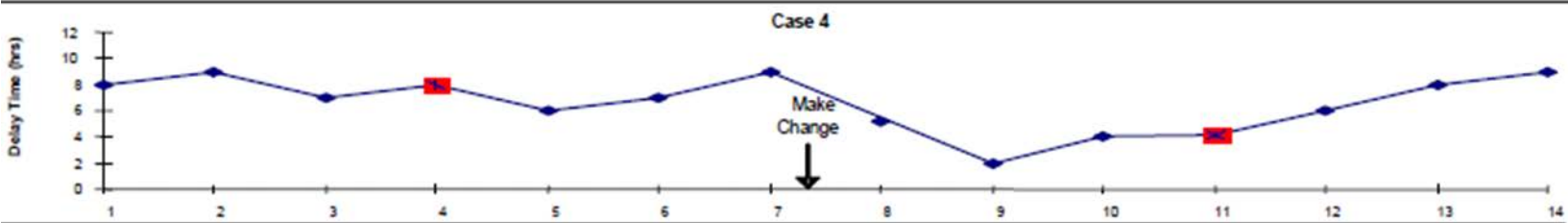
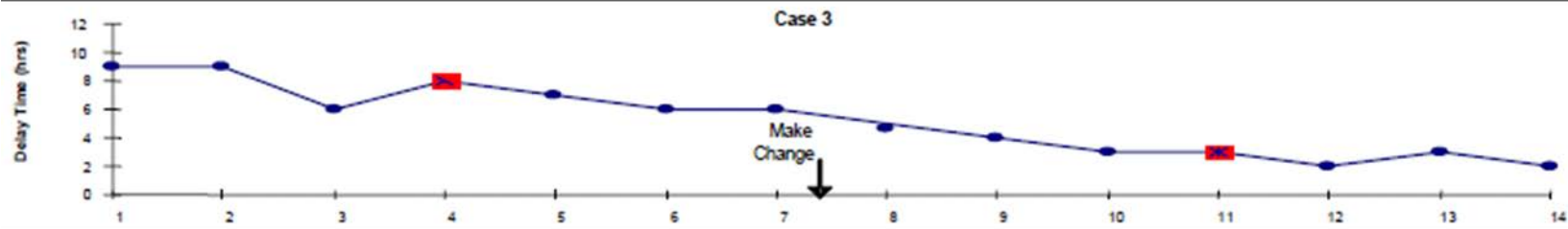
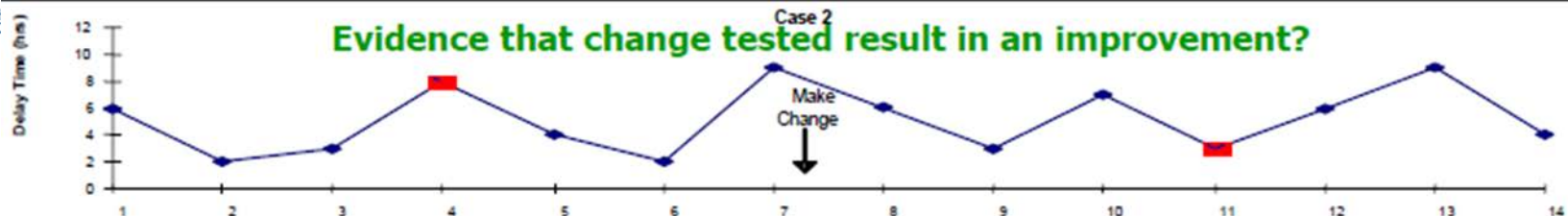
- Smaller sample but more often
- Consistent bias is acceptable

The hazards of before and after measurement





Evidence that change tested result in an improvement?



It's all about family...



Types of measure

- Outcome measures – in this case most likely to be a measure of harm – patient safety.
- Process measures – may become more obvious once driver diagram/process mapping are completed.
- Balance measures – these serve to ensure that:
 - the intervention being tested or implemented doesn't have an unwanted side effect elsewhere in the system
 - something else in the system isn't affecting our results.

Data collection considerations

- Time requirements for your data collection
 - sometimes less is more.
- Consider electronic sources of data, particularly for outcome measures.

Operational definitions

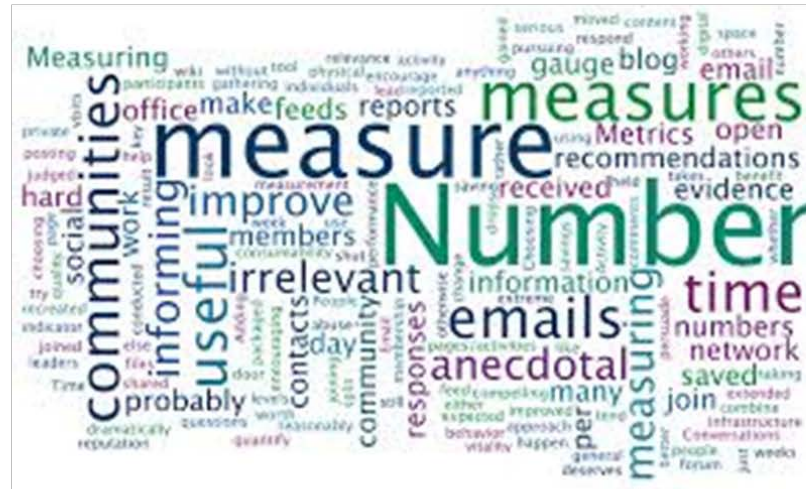








What measures might be appropriate for your team?



Reference

Provost L, Murray S; The Health Care Data Guide
– Learning from Data for Improvement. Jossey
Bass, 2011