

Data: is it just about numbers?

Within healthcare, we use a range of data at different levels of the system:

- Patient level - blood sugar, blood test results, expressed wishes for care
- Service level – waiting times, outcomes, complaint themes, patient experience
- Organisation level – staff experience, financial performance
- Population level – mortality, quality of life, employment



Quality within a complex system

It's a family affair...

- Outcome measures (1 or 2)
- Process measures (a small number)
- Balancing measures (1 or 2)

And all about time...



Outcome measures (linked explicitly to the aim of the project)

- *Aim*—To reduce waiting times from referral to appointment in a clinic
- *Outcome measure*—Length of time from referral being made to being seen in clinic
- *Data collection*—Date when each referral was made, and date when each referral was seen in clinic, in order to calculate the time in days from referral to being seen

Process measures (linked to the things you are going to work on to achieve the aim)

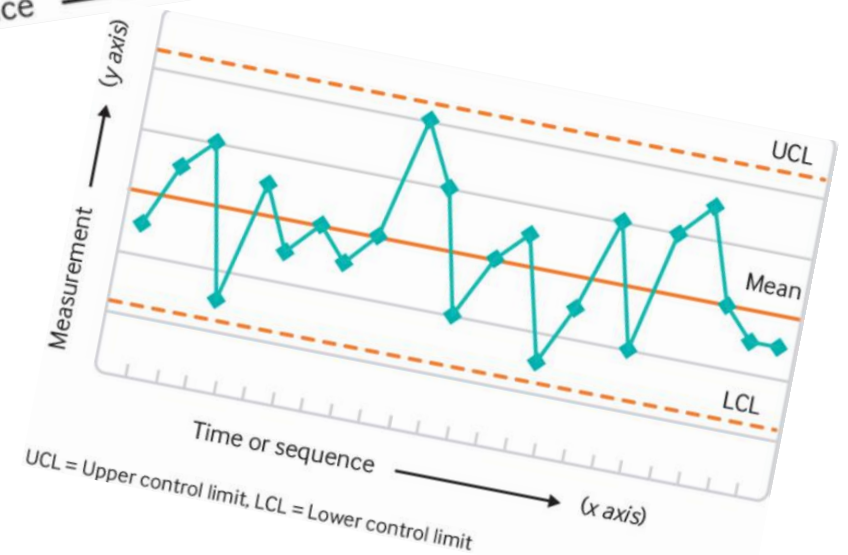
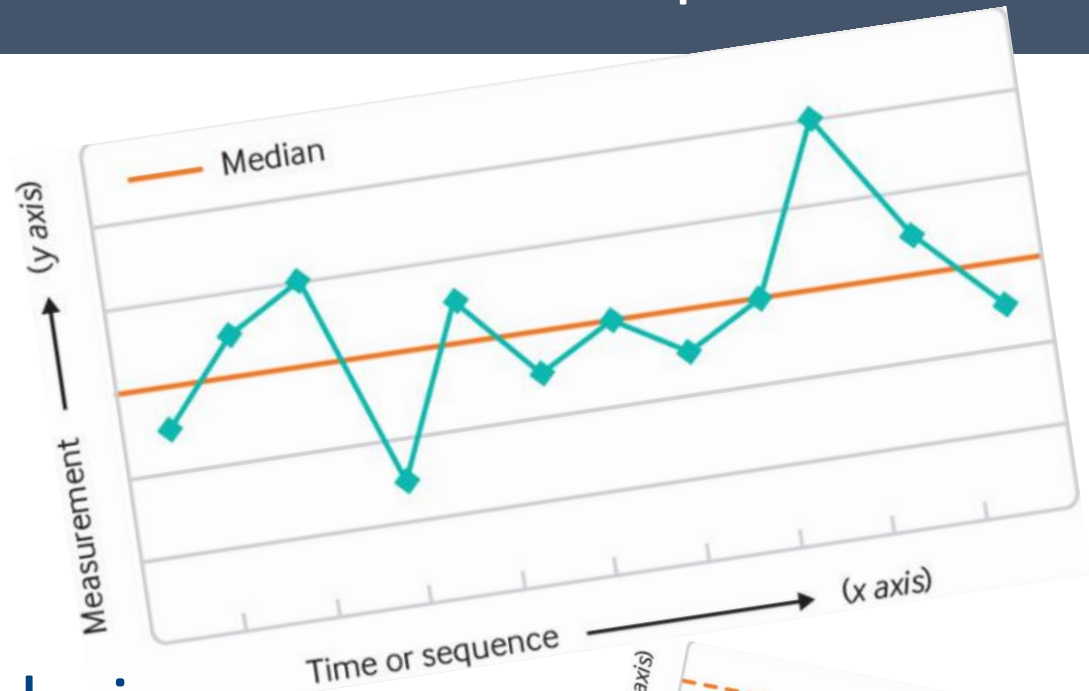
- *Change idea*—Use of a new referral form (to reduce numbers of inappropriate referrals and re-work in obtaining necessary information)
- *Process measure*—Percentage of referrals received that are inappropriate or require further information
- *Data collection*—Number of referrals received that are inappropriate or require further information each week divided by total number of referrals received each week

Balancing measures (to spot unintended consequences)

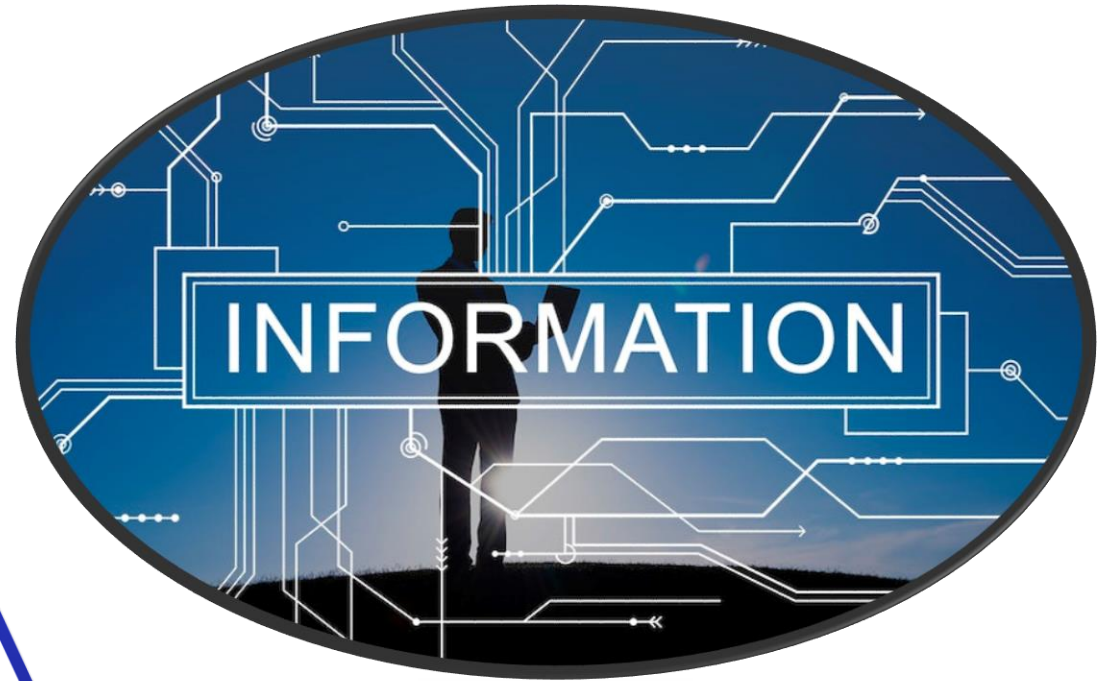
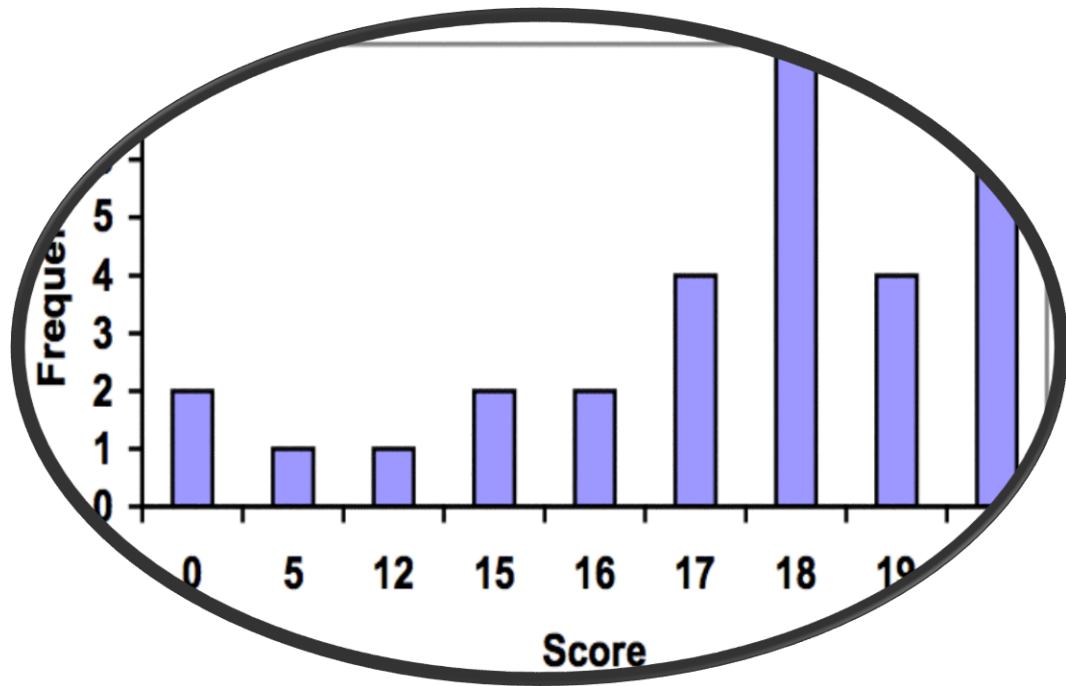
- *Measure*—Percentage of referrers who are satisfied or very satisfied with the referral process (to spot whether all these changes are having a detrimental effect on the experience of those referring to us)
- *Data collection*—A monthly survey to referrers to assess their satisfaction with the referral process
- *Measure*—Percentage of staff who are satisfied or very satisfied at work (to spot whether the changes are increasing burden on staff and reducing their satisfaction at work)
- *Data collection*—A monthly survey for staff to assess their satisfaction at work

Data to support improvement – best practice

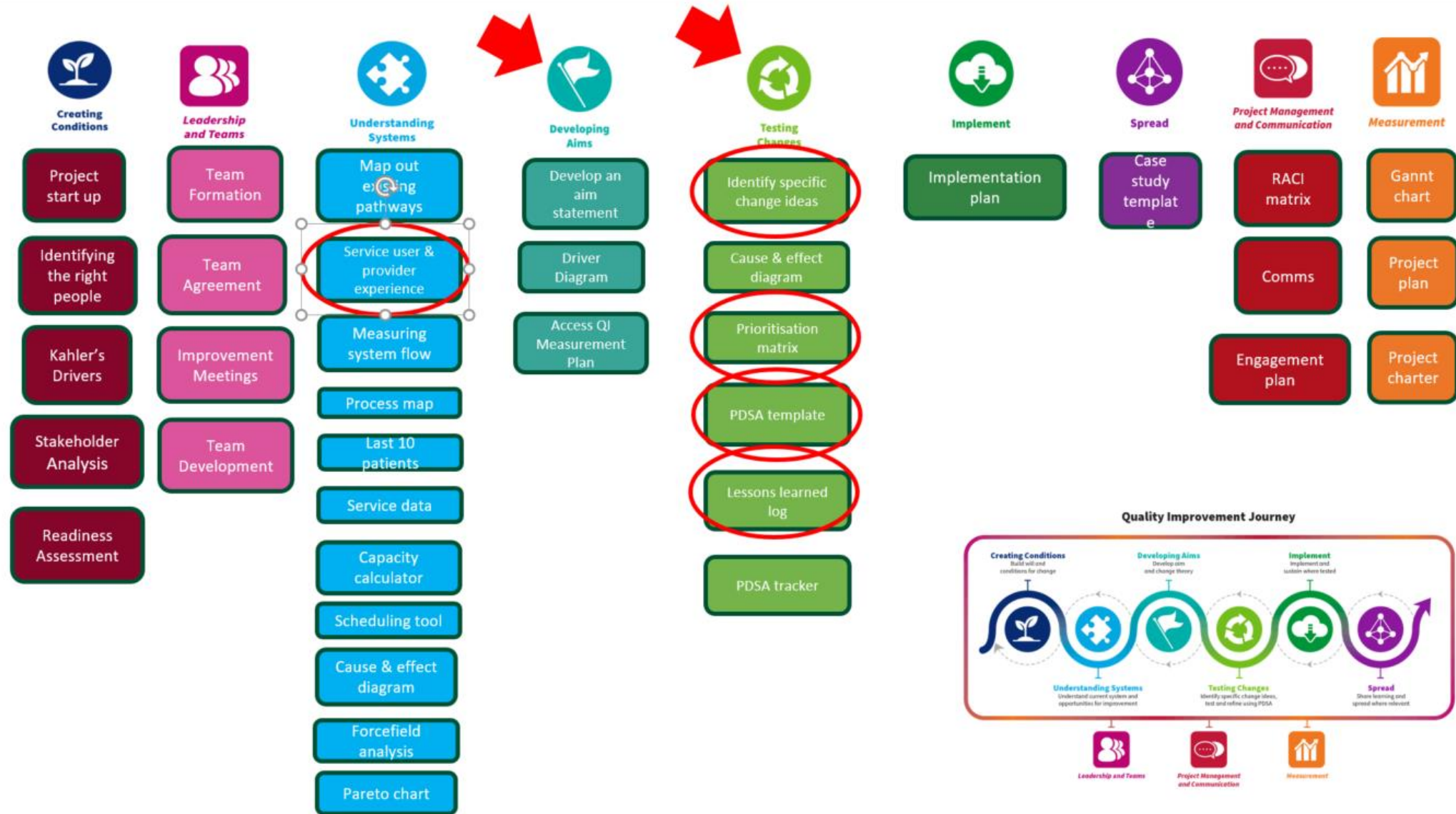
- Small number of measures
- Measures openly displayed
- Displayed as time series analysis
- As close to real-time as possible
- Prompts discussion and action



Is it just about the numbers?

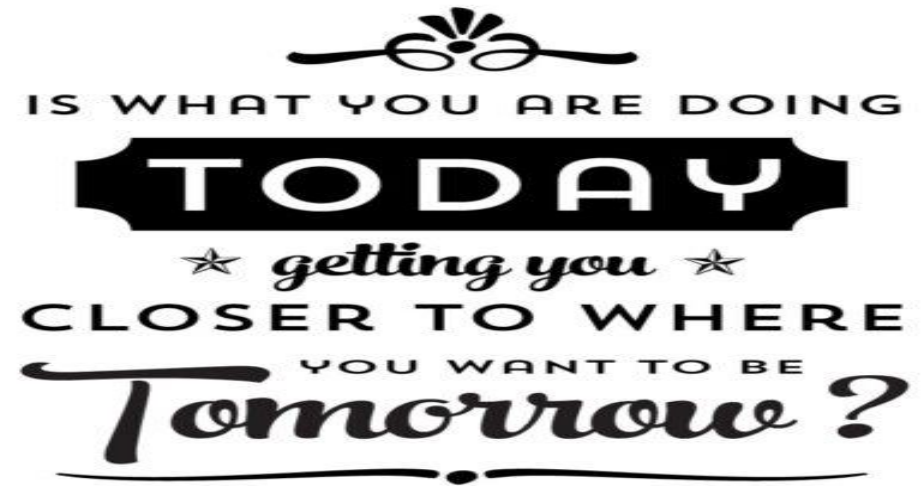


Key qualitative data points



In summary

- Both qualitative and quantitative data are critical for guiding and evaluating improvement
- A family of measures incorporating outcome, process and balancing measures should be used to track improvement work
- Time series analysis, using small amounts of data collected and displayed frequently is best practice



- *What are the key measures for the service that you work in?*
- *Are these measures available, transparently displayed and presented over time?*
- *What qualitative data are you using to guide your improvement work?*