![UKKA KQuIP - UK Kidney Association]

# Measurement for Improvement

## Leeanne Lockley

# Aims and Objectives

To provide you with an understanding of measurement for improvement
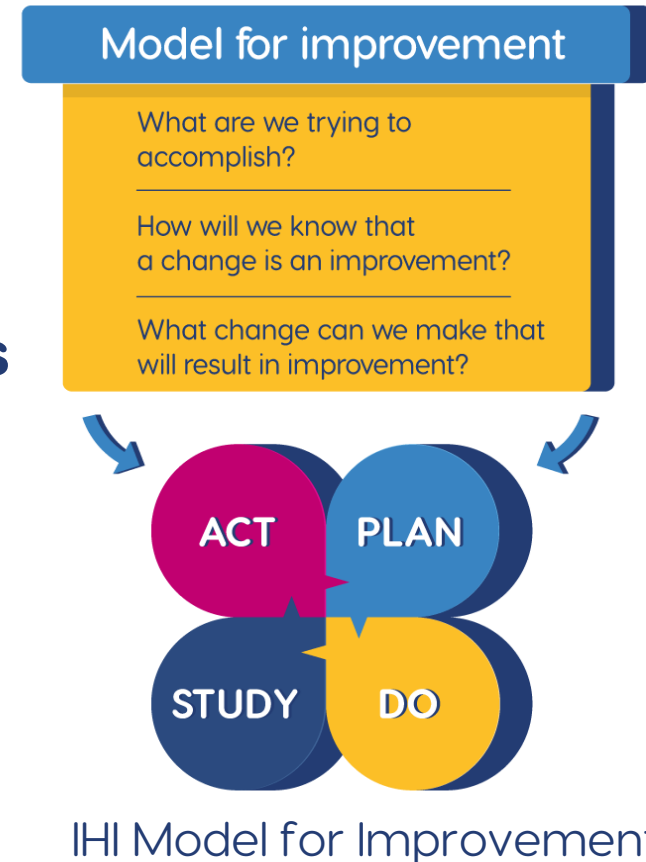
By the end of the workshop you will understand:
- Importance of measurement for improvement
- Different ways of measuring (defining outcome, process, balancing and patient experience measures)
- Presenting data in a meaningful way – Run charts

**KQuIP**

# 10 steps in QI

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**KQUIP Methodology** ↓

1. **Agree an area for improvement**
2. **Involve and assemble your team**
3. **Understand your problem/ system**
4. **Define project aim and scope**
5. **Choose 'just enough' project measures**
6. **Develop change ideas**
7. **Test change ideas (PDSA)**
8. **Measure impact of changes**
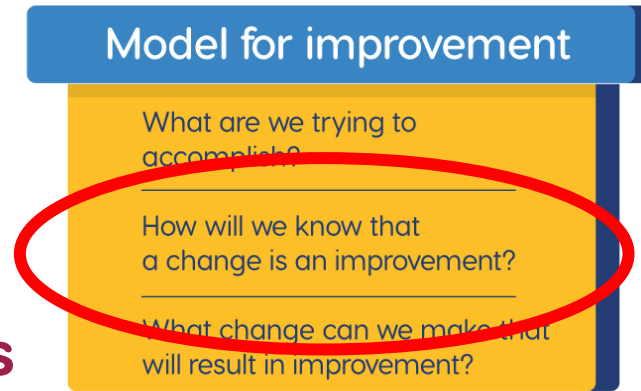9. **Do further PDSA cycles**
10. **Implement successful changes**

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Share your progress

## Model for improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

ACT PLAN STUDY DO

IHI Model for Improvement

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## Model for improvement

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ACT    PLAN
STUDY    DO

IHI Model for Improvement

Share your progress

# Types of measurement



Research

Target

## Quality Improvement
eg. No. of transplants per month



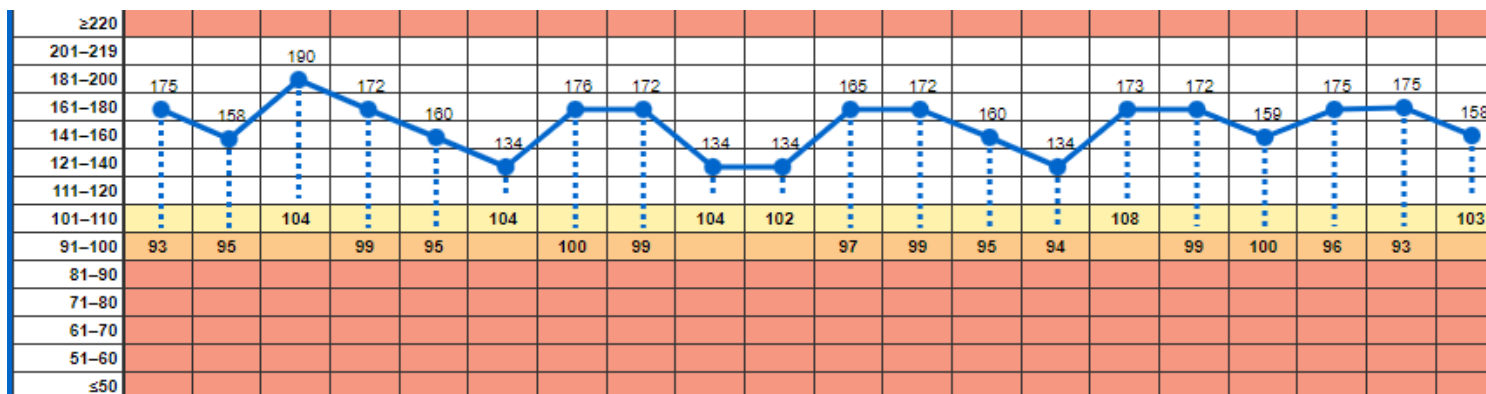CL - Median

Measurement (y axis)

Time or sequence (x axis)

Data line crosses median once so only two runs, too few runs according to statistical table.

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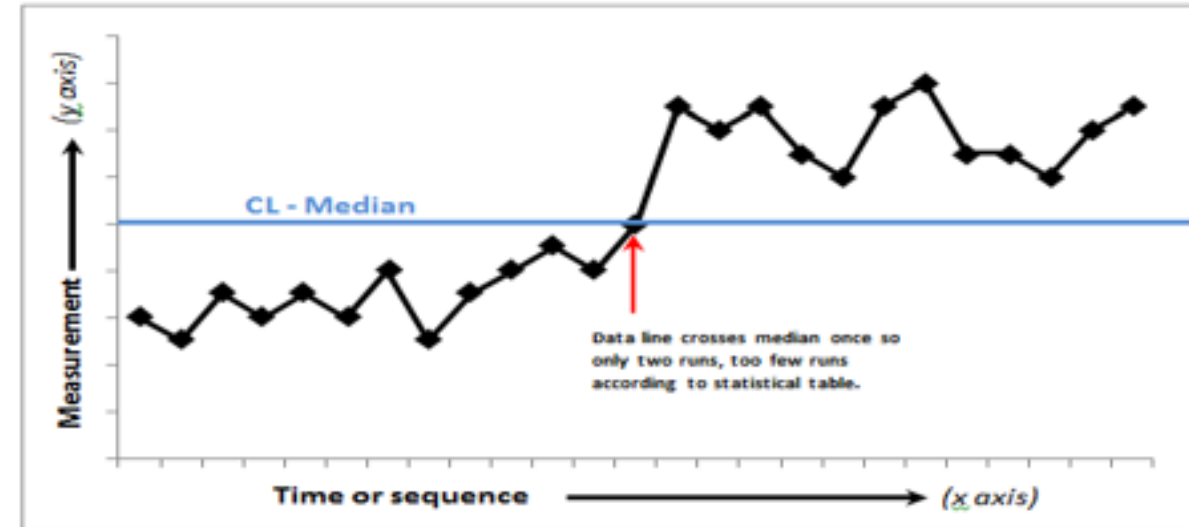
# Measurement



## Blood pressure record chart

Name: _____

Address: _____

| Date and time | Systolic blood pressure | Diastolic blood pressure | Comments |
|---|---|---|---|
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# Why do we need to measure?

We measure to understand:

If we have achieved change

If the change has had the correct effect

Whether we are maintaining the change

What we need to focus on next

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# Measuring Impact

Outcomes

Process

Balancing

Patient experience

# Outcome measures

- Focus on clinical outcomes

- Have we made things better for patients?

- The ultimate aim

- Often take time to demonstrate results
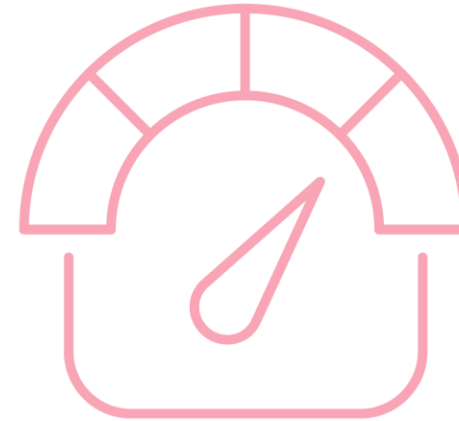
# Process Measures

- Have you changed your processes?

- Assumes process change will lead to positive change in clinical outcomes

- Often provide faster results
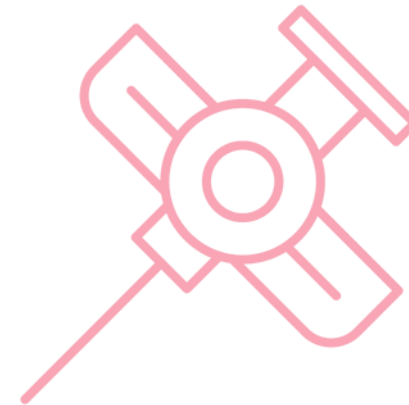
# Balancing Measures

- Identify any unintended consequences

- Generally negative

- Ensure you detect the full consequences of change

# Patient Experience

Annual Kidney PREM

Patient
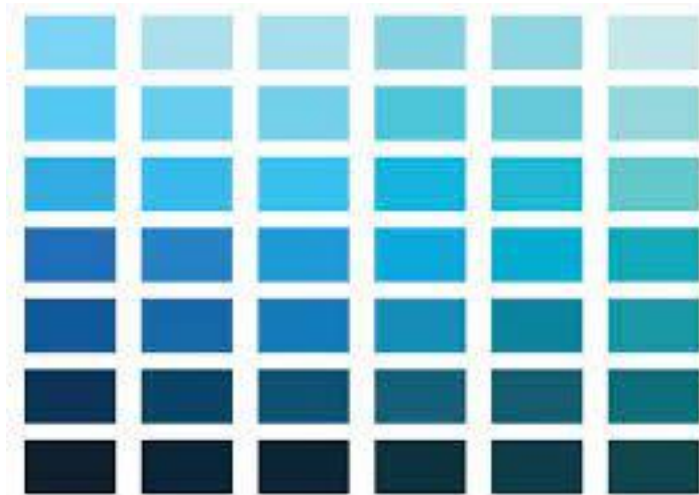Reported
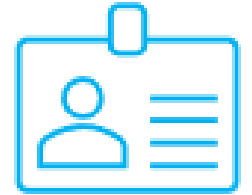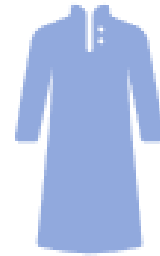Experience
Measure

# "Just enough" data

## Data collection is time-consuming

### What do you really need?
- 1-2 outcome measures
- 2-4 process measures
- 0-1 balancing measure
- 1-2 experience measures

# Defining measures

# Defining measures – Qualities of a good measure

Easy to understand

Meaningful

Appropriate

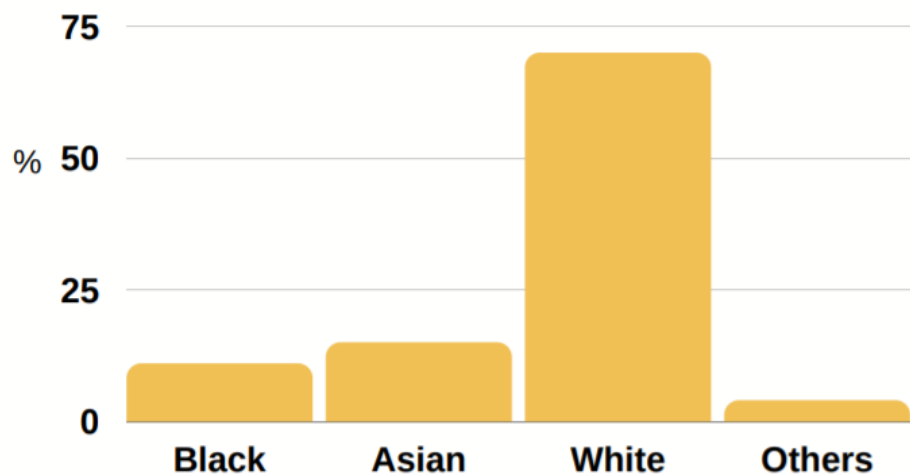Well defined & Understood

Reproducible

# Collecting data

Who
When
How
Sample size
Metrix

# The power of presenting data

## Characteristics of all people on in-centre haemodialysis in 2019

Bar chart (% on y-axis from 0 to 75): Black ~10%, Asian ~13%, White ~70%, Others ~3%.

6/10 MALE

67.5 YEARS average age

Around **24,000 adults** were on **in-centre haemodialysis** at the end of 2019 - around **4 in 10** of all those on **kidney replacement treatments**.

In 2019 the number of adults who started kidney replacement treatment on in-centre haemodialyisis varied between 5 in 10 at some centres to all at others.

from (5 of 10 people icons) to (10 of 10 people icons)

# Run chart
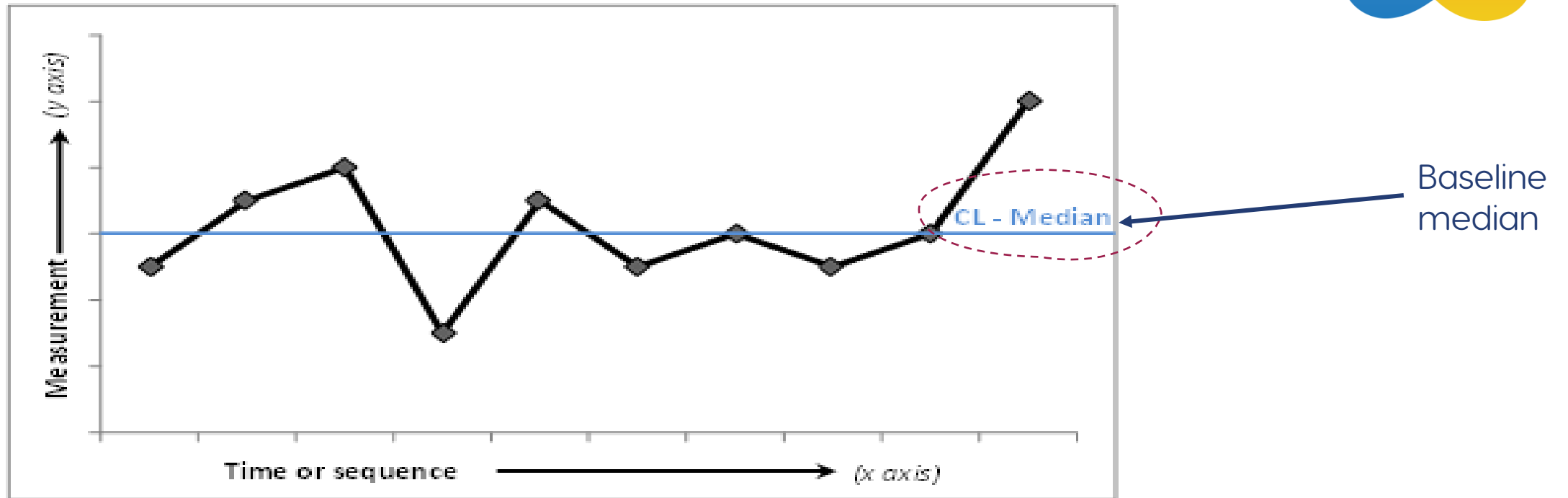


A "run" = series of points in a row on one side of the median
Need 10 – 12 data point to detect meaningful patterns
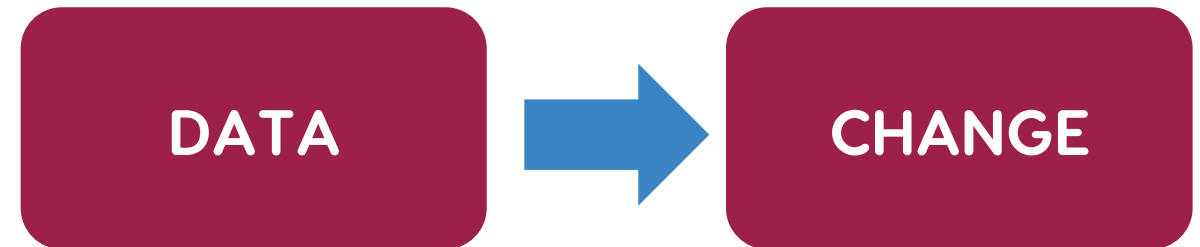Ignore any observations falling directly on the centreline (median)

# Then what do you do?

**Interpret**
- What does it tell you about your practice?
- Has something worked?
- What else needs to change?

**Share**
- Nursing staff
- Patients
- Wider team

**DATA** → **CHANGE**

# Further info on QI charts and measurement

For more info:
NHS East London QI SPC charts
NHS England QI tools SPC charts

https://youtu.be/Za1o77jAnbw   (10 min. video on QI measurement by Mike Davidge, NHS Institute for Innovation and Improvement)



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# Breakout rooms - to develop a draft regional measurement strategy