Background
There is a requirement within the Lothian Health and Social Care Partnerships (HSCPs) to understand patient demand on health and social care services. For quality improvement purposes, activity data should be presented in a manner which is easy to interpret, yet statistically meaningful. Previous paper-based reports did not meet this requirement. Using Tableau, a statistical method of identifying unusual behaviour within a process which:

- helps to understand variation
- differentiates type of variation
Understanding variation allows us to:

- improve systems
- test changes
- enable prediction
- identify process capability.

Methodology

Statistical Process Control and the four rules
SPC is a statistical method for identifying unusual behaviour within a process which:

- understanding variation
- understanding control limits
- using control limits
- identifying performance.

Four main rules being used:

- Shift
  - Average
  - Lower Control Limit
  - Upper Control Limit
- Outlier
  - Lower Limit
  - Upper Limit
- Trend
  - Lower Limit
  - Upper Limit

Outcome
Dashboard Detail
An overview page allows users to see hospital current activities at a glance.

A&E:
- Attendances
- 4-hour performance
- Referral route / destination

Admissions:
- Planned / unplanned
- Specialty
- Length of stay
- Mid-night bed count

Delayed Discharges:
- Reason for delay

The three main tabs are:

- A&E
- Admissions
- Delayed Discharges

Current Status
The dashboard has been rolled out across the four Lothian partnerships: Edinburgh City, Mid, East and West Lothian.

- Currently used for quality and performance reporting by:
  - NHS Lothian Chief Executives
  - LOC managers
  - Strategic Planning Managers

- Data from the dashboard is used:
  - in Performance and Operational meetings
  - daily by local HUBs to support quality improvement work
  - to examine the effectiveness of Winter Planning Projects.

- A support network in place for Edinburgh localities, with named contacts from council and LIST colleagues

- Attracted interest from other HSCPs for example Glasgow, Angus, Perth and Dundee

Working Example 1: A&E attendance and performance

Each tab can be filtered by: Partnership, locality, GP Practice, hospital, gender and age.

Working Example 2: Identifying a shift

The dashboard shows how the start of a new service within the Flow Centre has impacted on A&E attendance:

Next Phases...
Continued support for the Partnerships in using the dashboard, future steps include adding:

- Social Care dashboard
- Assessed Bed information
- Ward Bedside dashboard
- Further charts for delayed discharges.