Share your Fab Stuff! #FabAwards23

Title of innovation / initiative

- *Summarise your innovation / initiative – try to make it engaging!*

How We Made Data Count!

The development of a one-stop web portal to integrated information and intelligence across performance, quality, workforce, and finance.

Key to this has been the rendering of statistical process control measures at scale across the organisation. In displaying evolving information in this way, we are now able to support effective and responsive decision-making in line with the NHSE initiative Making Data Count.

Problem

- *Please clearly and concisely describe the problem that you were trying to solve.*

With so much data available across the NHS, managers and clinical staff can feel overwhelmed and unsure of where to look or what can be reliably used to make day to day and longer-term decisions.

It was important for us to have a 'front door' through which staff could locate information quickly without additional logins or having to remember where things were. Fundamental to this would be the ability to utilise statistical analysis to aid effective decision making.

While we were keen to roll out the principles around the Making Data Count initiative, the current tools – Excel and Power Bi – where limited when scaling up. We also wanted end-users to be able to quickly establish their own customisable dashboards; a pick and mix from a library of established measures.

To be successful we knew that we needed to be responsive to what services and staff needed.

Aim

- *What were you trying to achieve? Try and make it specific - how much and by when?*

We wanted a single destination on our intranet where staff could:

- At a glance find out everything they needed to know about the organisation's operational performance. We consider this our 5-minute briefing where colleagues can understand pressures within operational areas.

- Gain oversight of trends using robust statistical analysis so that appropriate interventions can be planned.

- Explore (Power Bi) Apps, reporting links and useful resources in a single easy to access Directory.

Plan

- *What did you do and how did you do it?*

  Work began on the development of our web reporting portal approximately 18 months ago with functionality developed in collaboration with colleagues with core functionality delivered through:

  - Interactive tiles providing high-level information about performance and productivity measures with drill-through to more comprehensive structured reporting.

  - A single directory containing links to all reporting resources which are available to colleagues within the organisation.

  - Urgent and Emergency Care daily SITREP management functionality, harvesting data from operational systems and presenting it in an easy-to-understand view.

  However, the heart of our portal is:

  - A library of measures covering performance, quality, workforce, and finance developed by our Information Service team. These can be annotated and step changes in performance can be applied.

  - Customisable dashboards where colleagues can 'pin' measures and view together to provide greater oversight of related areas e.g., Productivity, Quality, Sickness

  - Variation identifier which provides the functionality to view sets of related measures which are showing improvement or concern variation, helping to see the wood for the trees.

  Following incorporation and application of NHS Digital Service design standards and style guide the application was fully launched in July 2023.

- *What were the key steps / actions you took and changes you made?*

  Everyone within the immediate team was involved – from the naming of the site, identification of key measures to the development of code. We now have a library of 400+ measures, each created by a subject matter expert within the team.

- *Did you use any improvement methodology or tools?*

  We built on the work of the NHSE's Making Data Count initiative, standardising presentation to align with their accessibility colour scheme, applying the four SPC rules and adapting their SQL code across SPC chart types. We also utilised the Pareto analysis code in one of our Power Bi App reports.

Benefits

- *What were the benefits of the innovation / initiative for patient experience, staff satisfaction, health outcomes and costs?*

  Statistical process control identifies significant variation and avoids overaction. Fundamentally we should be about good decision making because this underpins patient experience, staff satisfaction, health outcomes and costs. Staff can quickly access and better use the available data through the

SPC prism to support effective decision.

Pareto and correlation analysis has been utilised to consider inpatient, outpatient and diagnostic activity (including cancer and specialised services) to understand the delivery themes (initially for adults). This is in support of potential health inequality actions.

- ***If you can quantify the improvement or savings please also include numbers – this can help others produce a business case. If you have patient or colleague quotes, you can also include these here.***

One of the most exciting aspects of SPC is that the system can give assurance as to whether a target is being met or not. Managers and clinicians can implement actions or re-design a system based on reliable intelligence.

The embedding of Making Data Count principles has extended to directorate, divisional and Trust reports with discussion around performance now more focussed with a move towards action-driven narrative when planning recovery or transformation.

The business intelligence leads presented this work at the Making Data Count Analyst Network July 2023. This is a national network established by NHSE's Making Data Count team to champion its initiative and share good practice. Feedback from attendees at the meeting was overwhelmingly positive and supportive. This was illustrated in feedback to our Chief Operating Officer from the Director of Making Data Count:

> "I know that you will already be aware of what an amazing BI team you have at the Trust! Earlier this week Neil and colleagues presented at our analyst network sharing the work that they had undertaken over recent years which is truly ground breaking. We had 170 people on the session. My team were BLOWN AWAY by what we saw (we are not easily impressed….) ! I have never seen so many emojis used by participants in a meeting (the love and surprise ones!)

> I have already been in touch with Neil about running a more technical session later in the year as a large number of Trusts have the potential to benefit vastly from this amazing work.

> I just wanted to make you aware of how great we think this work is! Well done to the whole team !!"

> Samantha Riley, Director of Making Data Count
> National Team for Intensive Support – Chief Operating Officer Directorate

> This session was recorded and is available here:

> [Analyst Network Meeting 19 July 2023 - Making Data Count - FutureNHS Collaboration Platform](#)

Measures

- ***Please share any measures that you used to discover if your initiative resulted in an improvement.***

We now have a library of 400+ high level measures that cover the domains Performance, Activity, Quality, People and Organisational Development and Finance many of which are now presented as part of Divisional Integrated Performance reviews and the Trust Integrated Board Report.

The team no longer needs to spend time manipulating data into specific formats for reporting and

with all SPC reporting available at the click of a button which releases time and allows them to support colleagues better.

The solution has been implemented in another organisation which has a completely different data and reporting architecture, demonstrating portability and extensibility.

We are also sharing our work more widely with other organisations helping them to understand our approach and solution. The key message being make a start and don't let perfect be the enemy of the good!

Resources / team

- *What did you need to make the change (equipment, budget etc)?*

This work has been designed and developed within the existing multidisciplinary team of analysts and developers. It was important that any development did not impact on existing service delivery during and realised efficiencies once live so that analysts can spend more time analysing and less time wrangling data.

- *Who was involved in making the change – did you involve patients and carers?*

A key partner is championing this work and the importance of statistical process control has been our Chief Operating Officer, Leanne Cooper who joined the organisation in spring this year. She has championed the importance of the Making Data Count amongst operational colleagues and invited the national team to Board Strategy Day.

Making Data Count were also unfailingly responsive to our many questions around their code and tools.

- *Did you use evidence or build on ideas from other trusts or organisations?*

There is a strong evidence base that we make better decisions when we analyse data using statistical process control techniques.

https://bmjleader.bmj.com/content/leader/5/4/252.full.pdf

https://qualitysafety.bmj.com/content/12/6/458.short

Key learning

- *What have you learnt from this project?*

We consider this an evolving initiative and that we are still learning. We encourage feedback from the team and end-users and continue to add additional functionalities – annotation, different types of SPC charting more appropriate for certain data types etc.

We have recognised that some colleagues within the organisation need additional support both from an application use perspective as well as analysis perspective. To address this we are in the process of planning education and learning sessions to maximise the benefits of the application. In addition to this we will also be developing more general sessions to help ensure everyone can get the most from their data.

- *What would you do differently if you did it again?*

  The only change in approach would be to introduce the education and training element earlier in the process to help embed a culture of making data count. This would also help with engaging colleagues to help them understand they can suggest and propose improvements or changes.

- *What would you do the same?*

  This work did not come from any formal requirement or ask from within the organisation, it was developed from a concept of "what can I do…". The importance of embedding a culture of innovation is vital so that team members are free to explore the art of the possible.

  Being open and not precious about the work as it is a tool that needs to meet the needs of the organisation not the other way around.

Tips for others

- *Who else can benefit from this work?*

  Any organisation that wants to understand their data more effectively and embed Making Data Count principles can benefit.

  Our approach, and technical solution, is already being adopted in a neighbouring trust with all the potential benefits described above.

  There are huge efficiencies for all the teams involved from Information Services to those organising meetings or making operational decisions.

- *What advice would you give to others doing the same thing?*

  Share, share and share again. The solutions/expertise to roll out at scale is there and everyone has a part to play, whether it be writing SQL code for one measure to developing the web portal.

Contact name: ……………………………………………………………..

Contact email address: ……………………………………………………………..

Date of innovation / initiative: ……………………………………………………………..

Do you have any attachments?

- "A picture is worth a thousand words". Are there any photos or graphics that could help bring your story to life?
- Are there any supporting materials, documents, communications or other outputs that you used or produced that you could share to prevent others reinventing them?

If so, please upload them to the Fab site with this completed template.