QI Top Tip: Data Collection for Improvement Work

By Kuldeep Singh

Improvement data is essentially facts and numbers, collected to be examined and considered and used to help decision-making. Data collection is an important part of any improvement project, it can be helpful with measuring progress of your QI project and results of your changes or improvements. With good planning, systems, and tools, you will be all set to collect data you need for your project in no time.

It is recommended to use various data or a family of measures to track improvement work, including data collection for: outcomes, processes, and balancing measures. The gold standard for using data for improvement is time series analysis which uses small amounts of data, collected, and displayed frequently over a period of time.

So, are we talking just about numbers?

When using data for improvement, it is important to incorporate both qualitative and quantitative data to help us learn about how the system is performing and to see if we improve over time. Quantitative data express quantity, amount, or range and can be measured numerically—such as waiting times, seclusion episodes, blanket restrictions, mortality, cash flow, etc. Quantitative data are best visualised over time as time series analyses (run charts or control charts) to see whether we are improving. (Trust data sources include Eclipse, Insights, Blackhole, etc.)

One of the big challenges faced by healthcare teams is being able to access data that is routinely collected, in order to use it for improvement. One way to work around this is to have a simple form of measurement on the ward, unit or clinic that the team own and update locally. This could be in the form of a safety cross such as the ones used by the Trust's Reducing Restrictive Practice (RRP) collaborative.
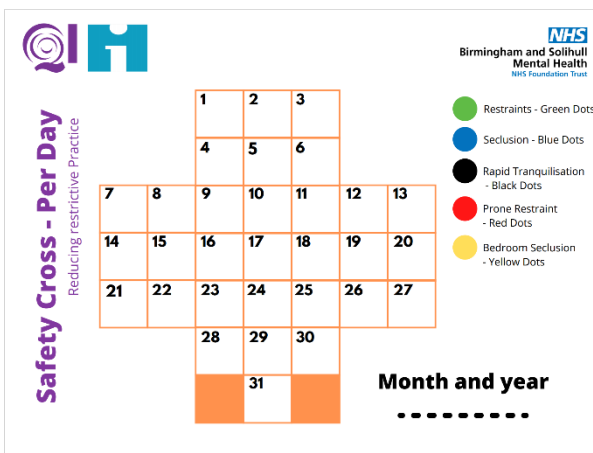
A safety cross (pictured) is a simple visual monthly calendar on the wall which allows teams to identify when a safety or a restrictive practice event occurred on the ward. The team simply use different coloured dots each day to record different types of restrictive practices occurring on their area or the day is left blank if none occurs. It allows the team to own the data related to restrictive practice events that they care about and easily see how many events are occurring over a month. Being able to see such data transparently on a ward allows teams to update data in real time and be able to respond to it effectively.

Besides quantitative data, we should also be capturing, analysing, and learning from qualitative data throughout our improvement work. Qualitative data are virtually any type of information that can be observed and recorded that is not numerical in nature. Qualitative data are particularly useful in helping us to gain deeper insight into an issue, and to understand meaning, opinion, and feelings. This is vital in supporting us to develop theories about what to focus on and what might make a difference. Examples of qualitative data include change idea observations, feedback about experience of care, free-text responses to a survey, etc.

One key point in an improvement journey when qualitative data are critical is at the start, when trying to identify "What matters most?" and what the team's biggest opportunity for improvement is. The other key time to use qualitative data is during "Plan, Do, Study, Act" (PDSA) cycles. Most PDSA cycles, when done well, rely on qualitative data as well as quantitative data to help learn about how the test fared compared with our original theory and prediction.

Once you have your data you'll need somewhere to store, visualise and analyse it. Life QI which the Trust uses as the QI project management platform, is specifically designed to collect, store, analyse and question QI data. This helps streamline working processes and provides you with the tools to save time accessing and interpreting your data while simplifying QI data analysis. If you are undertaking a QI project and want to use Life QI, please get in touch with the QI team.