SISCC
Scottish Improvement Science Collaborating Centre

Why measure healthcare quality and safety?

Across NHSScotland there is a significant amount of activity focused to improve the quality and safety of healthcare. Measurement of the impact and outcomes, is the underlying technique to evaluate the benefits of the approaches used to improve the health and wellbeing of the population.

Measurement of quality and safety can be evaluated through qualitative and quantitative measures. Qualitative methods such as interviews, observation, and inspection are commonly used to highlight priority areas and ideas for change. Quantitative measurement is more closely aligned to the monitoring of progress towards aims and objectives.

Types of measurement

The types of measurement associated with quality improvement, can serve many purposes. Three of the most commonly used are:

- **Measurement for assurance, performance management or judgement** (sometimes characterised as measuring the performance of services against agreed targets, often done relatively infrequently, i.e. annually). As well as those being measured, the audience in this case includes government, management and the public (to exercise choice or voice).

- **Measurement for improvement** (often characterised in terms of fairly rapidly repeated measurement, i.e. weekly or monthly, associated with a change in practice). The audience in this case is usually a clinical team or service who are more likely to be measuring changes to processes or outcomes, rather than 'being measured'. For example:
    - Data to plan for improvement (diagnosis stage to identify problems and potential interventions/improvements; in this context qualitative and semi-quantitative assessment of quality may be particularly valuable). Data for testing changes (Plan Do Study Act cycles but also clinical audits if cycles are completed)
    - Data for tracking compliance (e.g. less regular measurement to ensure continued high performance)

    - Data for determining outcomes (e.g. as distinct from more regular measurement of process)
    - Data for monitoring long term progress (which can shade into assurance

- **Measurement for research** (where the purpose is to develop new knowledge but not usually to immediately apply or act on it). The immediate audience could include other academics, although some research findings will be applicable and/or acted on by the service (eventually).

Exploring the measurement challenges

Often, a particular tension can be identified between measurement for judgement and measurement for improvement. Some of the consequences of using data for judgement rather than improvement, are summarised (Davies, 2005) below:

- tunnel vision (concentration on what is measured to the detriment of other areas);
- sub-optimisation (pursuing narrow objectives at the expense of achieving larger strategic goals);
- myopia (focusing on short term rather than long term change);
- convergence (avoiding being an outlier rather than aiming to be outstanding or being content to be the 'cream of the crap');
- ossification (being less innovative because it risks performing poorly on performance managed measures);
- gaming (altering behaviour to maximise measured performance without making meaningful changes to actual care);
- misrepresentation (from selective data gathering, classification and coding to maximise measured performance, through to fraud).

All measurement risks one or more of these dysfunctional consequences. However, it is generally believed that risks can be minimised by engaging professionals and organisations to develop measures that consider appropriate use, emerging concerns, are flexible in their deployment, and focus measurement on driving improvement rather than promoting judgment.

Aim and methods

To understand current perceptions of measuring the quality and safety of healthcare; fifteen semi-structured interviews and two focus groups were conducted. These explored the context within

which quality is measured, the aims of measurement, and whether those aims are delivered. We were particularly interested in the extent to which:

- the measurement framework in Scotland addresses and/or balances (or not) different purposes of measurement;
- dysfunctional consequences are common or problematic (and if not, then why not notably in relation to whether the way measures are used mitigates problems);
- existing measures cover important domains (for example, structure, process and outcome). Including whether process measures are strongly linked to outcome, or measures at lower levels of the NHS Scotland Quality Measurement Framework are linked to measures at a higher level;
- existing measures address the range of improvement purposes outlined above (or any other purposes you wish to discuss), and the best way to address those purposes (diagnosis, testing changes, assurance etc.).

Preliminary results

A major emergent theme, which was more important to participants than tightly-linked measures, was the purpose and design of measures at different levels of NHS Scotland, for example at clinical team, larger organisation and national levels. This is linked to wider debates in the literature about centralised vs locally developed and owned measurement and target setting, and about measurement for improvement vs measurements for judgement.

We have completed an initial analysis of this data and will finalise a paper later this year (2016).