

# Measuring harm

A summary of learning from a Health Foundation roundtable

**Event report**

October 2013

# Introduction

## Background

Over the past decade, efforts to improve patient safety have largely focused on measuring and tackling specific healthcare-associated harms. We have seen, for instance, significant reductions in MRSA and *Clostridium difficile* in hospitals as a result of successful local and national improvement initiatives. These have been driven by the high priority government has given to reducing these harms, through the setting of national targets.

There can be little doubt of the benefit of reducing the incidence of these avoidable harms in hospital. However, reflecting on this targeting of specific harms also leads to a number of questions. *What lessons have we learned as a result of implementing this approach? Have there been unintended consequences of focusing on selected harms? Can we have confidence in what the data is telling us? Can we continue to deliver significant improvements in patient safety by continuing with the same approach alone? Do we need to think differently about how we measure harm and safety?*

On 13 June 2013, the Health Foundation hosted a roundtable event to probe some of these questions by reflecting on the successes and limitations of current approaches to measuring harm. Experts from the fields of academia, public policy, regulation and improvement came together to share their knowledge and experience and to consider a more comprehensive approach to measuring harms in healthcare, as proposed by Charles Vincent and colleagues from Imperial College London in *The measurement and monitoring of safety*,<sup>1</sup> a spotlight report commissioned by the Health Foundation. A list of attendees is provided on page 6.

## Towards a proactive approach to patient safety

The Health Foundation is working hard to lead a stepwise change in thinking about patient safety. This event formed part of a programme of work we are undertaking to develop a framework to answer the question *How safe is care today?* We want to build on a culture that has focused almost exclusively on measuring past harm and enhance this to incorporate a proactive approach to measurement that also establishes the presence of safety.

This was the third in a series of roundtable discussions looking at potential future improvements in patient safety involving a broad approach which:

- incorporates greater involvement of patients and citizens in their own safety and the safer design of services
- measures and monitors the multiple dimensions that make up a safety culture
- develops ‘leading’ (before the event) as well as ‘lagging’ (after the event) performance measures to more accurately assess the current experience of people using healthcare services.

## Key themes of the roundtable

- The primary purpose of measurement is to drive improvement; in other words, it is a means to an end and not an end in itself. Secondary uses of measurement are to maintain a cultural surveillance on what we are doing, and to provide accountability to external bodies.
- Using measurement for comparison can be valuable in engaging people at all levels in the subject, but this must be done with caution. The publication of comparative data must be accompanied by analysis and explanation to help attach meaning to the information.
- Measurement is most effective when people are inspired rather than mandated to do it; when there is guidance, resource and support from the leaders of organisations to undertake it; and when frontline staff understand how it will directly lead to improving quality and safety.

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<sup>1</sup> [www.health.org.uk/publications/the-measurement-and-monitoring-of-safety](http://www.health.org.uk/publications/the-measurement-and-monitoring-of-safety)

- Efforts to measure and tackle specific harms like MRSA are rightly celebrated, but not enough is being done to fully understand and attribute the reasons for their success.
- Constructive debate around the use of measurement has often been replaced by judgement and misinformation around contentious subjects such as the use of mortality statistics.
- The group suggested a range of actions to improve understanding of, and approach to, the measurement of harm:
  - **Boards** must use safety information to determine their priorities locally rather than solely responding to an agenda set nationally.
  - **Organisations** publishing performance data need to provide context and explanations so that the public, and the media, engage constructively in the debate around safety.
  - **Professional bodies** need to embed measurement for quality improvement as a key part of professionalism.
  - **Patient groups** should provide guidance that enables people to use data to support decisions about their care.

## Discussion

### What have we learned from measuring harm?

The overall view of the group was that many things were working well in how harm in healthcare is currently assessed, but they tended to operate in isolation – the challenge was to find enough of them done consistently across multiple organisations in a sustainable way. The group explored three case studies to understand the successes and challenges of current approaches to measuring harms.

#### MRSA

The reduction of MRSA in hospital was cited as an example of the successful measurement and subsequent reduction of a healthcare-associated harm. It was suggested that its success was due in part to developing a very simple measure i.e. that was easy to define and ‘count’. Along with a clearly defined target, there was support and information that went along with it. Other bacteraemia like bloodstream infections linked to central lines are more difficult to measure because they are not so clearly defined (we explored this and the difficulties of measurement in our report *Lining Up: How is harm measured?*<sup>2</sup>). It was later remarked by the group, however, that it would be unhelpful to think of any measure as ‘simple’ given the difficulties of collection and the challenge of what to do with the information once it has been collected.

It was also noted that it is difficult to attribute the reduction of MRSA to any one intervention in particular. In Scotland, for instance, initiatives included government-imposed heat maps, the Healthcare-Acquired Infection Taskforce and the Scottish Patient Safety Programme. They all played a part in the reduction, but assessing the contribution of each individual intervention is almost impossible. There was a lot of work being done at the time to improve infection control more broadly, with trusts mobilised into action following the introduction of the mandatory target for reducing MRSA. There was also some evidence suggesting that MRSA was going away anyway.

Given the size of the improvement that has been seen in measuring and tackling infection from MRSA and *Clostridium difficile*, the group noted that it was disappointing that more work had not been done to develop the narrative examining how it had been achieved. The Health Foundation has commissioned research on healthcare-associated infections (HAIs). The project will bring together the evidence to better understand the range of factors that influence the effectiveness of interventions to reduce HAIs. The findings are due to be published in the summer of 2014.

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<sup>2</sup> [www.health.org.uk/publications/lining-up-how-is-harm-measured](http://www.health.org.uk/publications/lining-up-how-is-harm-measured)

## The use of mortality statistics

The benefit of using mortality data to make comparisons between organisations is contentious. However, the group suggested that such comparisons have a valuable contribution to make, particularly in the way they have engaged trust boards on the subject of measurement and improvement. At least now the conversations are being had, in a way they weren't 20 years ago, and the data available are much richer.

The real issue, however, has been the misinterpretation of what the data means. While there is no doubting the tragedy that unfolded at Mid Staffordshire, the group thought that it was unhelpful to state with certainty that there were 1,200 avoidable deaths, when this is based on an analysis of the data alone. A lot of in-depth work is necessary to be able to attach real meaning to the numbers, as the evidence base to precisely map the relationship between mortality rates and the quality of care does not yet exist.

## The Safety Thermometer

There was general agreement that the Safety Thermometer<sup>3</sup> represents an innovation, moving from simply counting harms one at a time to focusing on what matters to the patient – having a harm-free experience. It is innovative in that it requires an interaction between the clinician and the patient, and its greatest value lies in the learning it can bring to clinicians, rather than the numbers themselves. As the Safety Thermometer data is real time, it means that action can be taken immediately, rather than having to wait three months for the data to be processed. Some teams and organisations have really embraced it and changed their practice, while others have failed to see the value of it and still see it as something you are forced to do.

The discussion moved on to understanding what happens in non-acute settings. The Safety Thermometer is 'boundary-less', and can therefore be applied in primary and community care. There has also been a successful attempt to monitor mortality rates in primary care, using the data to understand variations between practices.<sup>4</sup> It was suggested that one of the reasons for the success of the primary care study has been having a theory of variation from the beginning, where the reason for a high or low mortality statistic is not prejudged. Accompanying education programmes have helped remove the judgement and fear that can go hand in hand with such statistics, to bring insight and understanding rather than penalisation and punishment.

## The purpose and process of measurement

The group returned to the question 'why are we measuring harms in the first place?' Three reasons were suggested:

- To keep a sense of cultural surveillance on what we are doing (often referred to as mindfulness in high reliability organisations).
- To inform a feedback, learning and quality improvement process.
- To satisfy external agents.

Each of these reasons is important, but the group saw the improvement process as the most critical. It was noted that measurement itself can have effects which are positive and negative, intended and unintended. In other words, measurement is not simply measurement.

There can be a sense in some organisations, or at least in parts of organisations, that measurement is a waste of time. The principle that measurement is part of an individual's professionalism needs to be reinforced. Mandating the collection of data can be a powerful way of focusing people's attention, but the pressure of performing well can also incentivise people to 'game' the data – for example, by redefining what is classed a harm. It is therefore vital that the link between measurement and improvement is made clear to all those involved in the collection of data.

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<sup>3</sup> The NHS Safety Thermometer is a local improvement tool for measuring, monitoring and analysing patient harms and 'harm free' care. More information at: <http://www.hscic.gov.uk/thermometer>

<sup>4</sup> *A practical method for monitoring general practice mortality in the UK: findings from a pilot study in a health board of Northern Ireland*. British Journal of General Practice, Volume 55, Number 518, September 2005, pp. 670-676(7)

Often, the greatest enthusiasm for measurement comes not when it is mandated nationally, but rather where people are doing it in their own time in order to address gaps in the existing data. In whatever way people are engaged in measurement, the group agreed that support and guidance is also needed in order to collect, interpret and report data properly. There was also an awareness that investigation of incidents undertaken by external agencies can make clinicians feel removed from the harm that was caused, and limit their potential to learn from it.

The group discussed the tension that exists between identifying local needs for quality improvement and national requirements for standardised measures. It's clear from the way that the Keogh Review<sup>5</sup> was reported that organisations must be ready to defend themselves against accusations of poor performance based on a particular interpretation of the data alone. Similarly, in television debates on care scandals, discussion often deteriorates into anger and judgement rather than learning and improving.

## **Roles and responsibilities in the future**

Instead of having to focus on reacting to media stories, the group thought it was more important that boards understand what the data is telling them in order to prioritise what is important locally. Unfortunately, currently more time seems to be focused on data capture than on its interpretation and establishing what lies beneath it. There is a need to educate both the media and the public so that people can constructively engage in the debate. The publication of the context and explanations alongside the data is therefore vital to help achieve this.

More than needing to see specific pieces of data, commissioners need to know the systems and culture of the hospital management and whether they can demonstrate that they have responsive systems for feedback analysis and action. Commissioners need to be able to triangulate information from a range of sources to give a more holistic picture of how a provider is performing. This would include information on sickness absence, for example, to help build a picture of the organisational culture.

The Cleveland Clinic example was cited, where each clinic has quality and experience outcomes that are both overarching and specific to their particular risks. Could a process work where services are asked to identify the biggest risks for them and to suggest ways to accurately measure them? It was commented that this is not unlike the safety case approach, which requires a thorough diagnosis to figure out what matters in a particular area, then to put into place evidence-based controls which are subsequently monitored.

It is the responsibility of the royal colleges and professional bodies to inculcate people with the idea that part of professionalism is to get involved in measurement of quality improvement. One member of the group reflected on an interview he'd heard with the pilot of the aircraft which emergency landed on the Hudson river. He explained that as long as a pilot reports adverse incidents they are involved in, then they're protected from litigation (provided the safety issue wasn't a result of recklessness), but if a colleague reports the issue then the pilot may actually be taken to court. However, even in that situation, a perverse incentive has been created for pilots to then try to decide whether an incident is likely to be categorised as an adverse incident or not before deciding whether to report it.

There is a role for patient groups to provide guidance that enables anybody interested in safety to engage constructively around safety data. An example was provided of patients being able to self-report information about their condition following surgery to spot trigger signs of surgical site infection.

The roundtable group reflected that the discussion had touched on professional education, but not undergraduate education. This was an area for further work because: 'it feels like we've got our finger in the dam with safety, unless we get students while they're in training they are constantly going to be playing catch up.'

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<sup>5</sup> <http://www.nhs.uk/nhsengland/bruce-keogh-review/Pages/Overview.aspx>

## Next steps

The issues and suggestions identified by the roundtable, and reported here, will feed in to the Health Foundation's ongoing work on how to better understand how safe care is. We have already sought people's views on a framework for safety measurement and monitoring developed by Professor Charles Vincent and colleagues at Imperial College London, as well as holding a series of workshops testing the framework at three NHS trusts across the UK.

To receive updates on our patient safety work, please visit [www.health.org.uk/updates](http://www.health.org.uk/updates)

## Roundtable attendees

Who	Title and organisation
Dr James Mountford (facilitator)	Director of Quality, University College London Partners
Professor Gerry Armitage	Professor, Health Services Research, Bradford Institute for Health Research
Professor Mary Dixon-Woods	Professor of Medical Sociology, University of Leicester
Professor Bryony Dean-Franklin	Director of the Centre for Medication Safety and Service Quality, Imperial College London
Mr John Illingworth	Policy Manager, Health Foundation
Dr Andrew Longmate	National Patient Safety Lead, Scottish Government
Ms Samantha Booth	Analysis Development Manager, Care Quality Commission
Dr Peter McCulloch	Assistant Professor in Surgery, University of Oxford
Ms Michelle Mello	Head of Commissioning, Nursing Directorate, NHS England
Dr Mohammed A Mohammed	Senior Lecturer, Public Health, Epidemiology and Biostatistics, University of Birmingham
Dr Maxine Power	Director of Innovation and Improvement Science, Salford Royal NHS Foundation Trust
Ms Cate Quinn	Regulatory Policy Manager, Care Quality Commission
Mr Paul Robinson	Head of Market Research, Capita Health
Mrs Zoe Ward	Public Affairs Manager, Health Foundation
Dr Jennie Wilson	Reader in Healthcare Epidemiology, University of West London
Dr Suzette Woodward	Director of Safety, Learning and People, NHS Litigation Authority

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