



## 8 Reasons why IT Matters to Patient Safety



## **1. Quality Healthcare = Quality Decisions**

Quality Healthcare is about making quality decisions for your patients. This is obvious enough but to make quality decisions you need more than qualifications and experience, you need access to the collective experience of the organisation and the right information at the right time.

High quality decision making – both on the ground and in the board room- requires access to real time information about the current state and access to both historical and predictive data. Whilst linked, the former is a learning event, the latter is a predictive event.

Without learning from the past, your future decisions are flawed and without sufficient or timely data about the present, you cannot accurately decide on the correct course of action.

## **2. You can't manage what you can't measure**

Whilst the NHS has a multitude of measurements, the delay between data capture and its analysis renders it useless for real time management. Operational Management is real-time and to be effective needs real-time data to support that decision making. This is particularly relevant to patients and safety. Air traffic controllers manage with real time - not just historical - data.

This subtle difference is one reason why getting into a plane is far safer than getting into a hospital bed.



### 3. You can't Prevent what you can't Predict

Ensuring high quality outcomes is more complicated than simply implementing best practice. There are a myriad of factors and variables that can negatively affect a patient's outcome and it is this complexity that goes beyond the human ability to analyse in real time.

Here lies the true power of IT: The ability to enhance human decision making by providing real time analysis of all the factors and variables that go into making a quality decision about patient care.

Just as important is the recording and correlating of these variables to patient outcomes that over time provide enormous insight and increase predictability and prevention of poor outcomes. But none of this can be achieved through a paper-based operational view of healthcare.

The report by PWC identified savings of £4.4 billion by moving to a paperless NHS. From a cost saving perspective this makes financial sense, but the additional positive impact on organisational learning, continuous improvement, quality and safety could dwarf any such figure.

This is because the real value of IT is not what it replaces, but what it enables.

A more informed discussion of IT should focus not simply on how IT saves money, but on how it can help improve quality and save lives. A focus on quality will invariably deliver savings, but a narrow focus on cost reduction will likely result in just automating an existing process. Technology can help improve Quality through enabling *process transformation* not simply automation.



#### **4. Policies and Processes without constant monitoring make compliance impossible.**

Today most credit card companies automatically monitor every single transaction we make, looking for activity and trends that suggest identity theft and fraud. They do not pull a report at the end of the month, rely on anecdotal feedback or policies and processes. They monitor and they monitor in real-time. They could not do this in a paper-based world, and neither can the NHS without making this transition.

If you need to be compliant 100% of the time then you need to monitor 100% of the time and this requires the introduction of computerised systems.

#### **5. You need to measure lead indicators, not just lag.**

Currently the NHS still relies heavily on recording (often through inaccurate paper based systems) and learning from the past (lag indicators) rather than adopting lead indicators that help professionals identify and prevent potential problems before they occur. If you talk to a patient about managing their weight, you wouldn't just advise them to weigh themselves once a month (lag indicator) but also instruct them to count their calories every day (lead indicator). Prevention is still better than cure and healthcare organisations need to adopt the same approach.

A report by The Health Foundation said this; **“Common to all industries is the recognition of the need to move away from an over-reliance on lagging indicators to a mixed model that combines both lagging and leading indicator. But where is healthcare in this evolutionary process?”**

Indeed the answer is lagging behind.



## 6. Quality is a continuous learning circle

Continuous improvement, Total Quality Management and 6 Sigma have been widely used in the commercial sector for many years to ensure errors are minimized, yet healthcare still lags significantly behind. Why?

Whilst human physiology is undoubtedly far more complex, the reality is that healthcare has not evolved quickly enough or achieved the same level of operational knowledge as these other industries. However, IT can deliver the same accelerated learning within healthcare as it has with other industries.

The publication by the Department of Health in 2000 called “**An organisation with a memory**” laid the foundation stones, but without adequate systems to gather data at every level of the organisation, individual trusts will struggle to develop its own learning capability. Centralised data, that can be easily analysed and correlated, is critical in understanding outcomes, causes and translating that into a predictive model that can aid future decision making.

This also introduces a novel change in the IT landscape and one which IT providers will also need to adapt to over the years; many healthcare IT solutions are too brittle to adapt to an organisation focused on continuous learning and improvement.

New solutions are required that not only address current practices, but can adapt and help model future practices based upon the data collected and analysed. However, without the systems in place today providing real evidence-based insight we will still be debating in 10 years which acuity models are right, what staffing levels are appropriate, the right skill mix, the right Early Warning Score measures etc.

Opinions matter, experience is valuable, but evidence is critical.

## 7. Ignorantia non excusat

As the ramifications unfold from Mid Staffs and the Francis report, a clear principle is starting to emerge often expressed as accountability but the subtext is clearly from the legal principle *ignorantia non excusat* or **Ignorance is no excuse**. Yet when it comes to quality information, the further you go up the management hierarchy the darker the picture becomes, and the longer it takes before problems are discovered.

If that sounds very much like Mid Staffs then that's because it was.

Whilst NHS organisations will point to many reports and measurements, they often cannot answer some very basic operational questions in real-time;

- Where are my patients?
- How sick are they?
- Which ones are deteriorating?
- Where are my staff?
- Do I have enough staff on the ward to meet the changing needs of my patients?

Most organisations rely on staff professionalism, policies and processes to get them through the day. But when patients get sicker and staff get busier that is exactly when it all starts to break down. Naturally you can telephone round the wards, just as air traffic controllers could ring round the pilots every so often to check on where they are, but would we seriously accept that solution from BAA?

If we wouldn't accept it at our airports, we should be even more determined not to accept it within our hospitals. After all, taking a flight is elective, being in hospital often isn't. So whilst there are many good recommendations in the Francis report, there are some fundamentals to management that only IT can solve.



## **8. Compare with the best not the rest**

If you believe that with only a few minor tweaks and improvements to your policies and procedures you can become – or perhaps already are – above average or in the top quartile of trusts in the UK, then you are probably right, but then your benchmark is wrong. The benchmark is not how an individual trust compares with another trust or the national average; it is how your organisation compares with the aviation industry. That is the real benchmark and nothing less is justifiable. It should be as safe – if not safer – to be in a hospital as it is to fly in a plane. If you compare your organisation to airline safety (1 accidental death per 10 million passenger flights) then it becomes clear that mere tinkering is insufficient to meet this level of safety.

This is no flight of fancy. Not only have airlines achieved this level of safety, but they have achieved it whilst also making a profit. They, like any other organisation, have to balance safety and cost and have made it work. They do not have any special knowledge that can't be learnt and adopted to ensure the NHS continues to treasure its patients as much as the public treasures the institution.

## **Conclusion**

The goal of a harm free environment will never be achieved if we set our sights low, attempt to explain away the differences or indeed put the blame on unprofessional behaviour, poor management and wrong culture. These are easy explanations because wherever you go (in whatever industry) you will find occurrences of all three – including aviation. Airlines do not have better managers than the NHS, just better tools to help managers make better decisions and systems in place that help catch errors before they occur. We have seen IT transform almost every industry and our own lives and now is the time to leverage these tools to empower NHS managers to make the kind of quality decisions we need to keep patients safe every day.