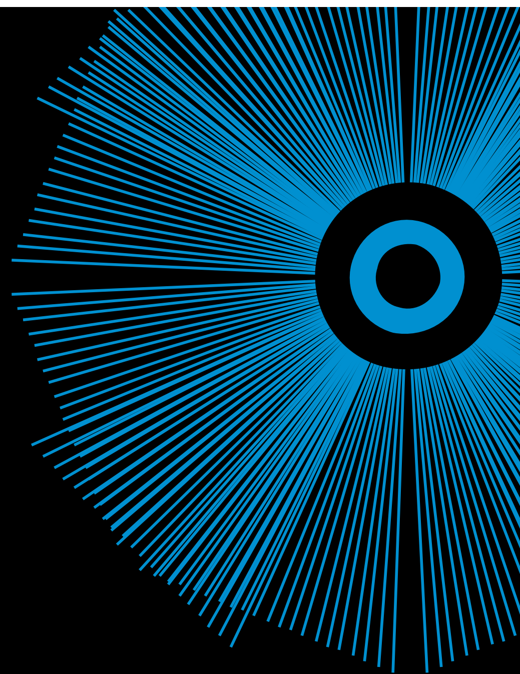

# Shine 2012 final report

Royal United Hospital, NHS Trust, Bath.

May 2014

The Health Foundation
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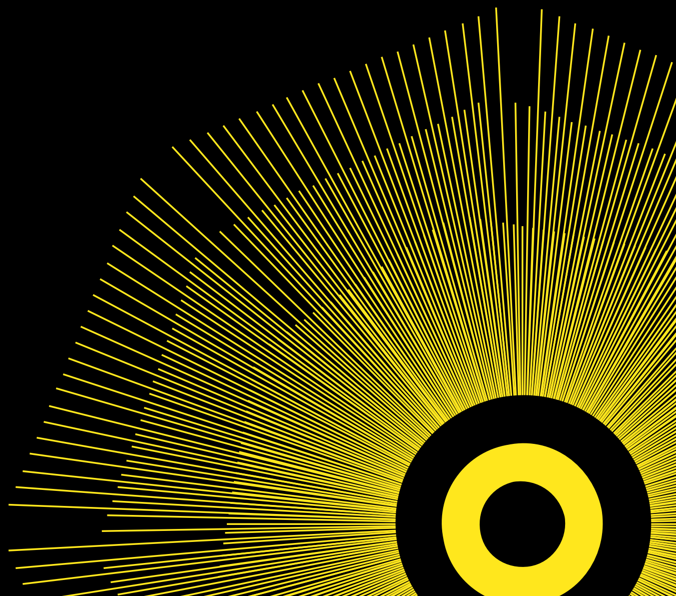


## Part 1. Abstract

**Project title: Changing the culture around patient safety using multi media communication strategies.**

**Royal United Hospital, Bath**

**Lead Clinician: Carol Peden**

**Abstract**
Please describe your project as a narrative account (up to 800 words) that reflects the experience of the project team of implementing the project. You should include:

- Background in brief including the local problem and intended improvement
- Description of innovation
- Methods used for testing / implementation so far including ethics, plans, measures, methods for evaluation & analysis
- What you achieved – (method, process, context, challenges)
    - What went well?
    - What have been the challenges and how have these been overcome?

***In completing this section please imagine this is the information that will be used to describe your project on your website.***


Abstract

**Background**:
Despite a great deal of work patients are still at risk when they come into hospital. Estimates of risk vary, but for the UK the National Patient Safety Agency suggested that one in ten patients will be harmed by health care. To reduce risk organisations must learn from events that harm patients in order to prevent the same errors occurring again. The incidents that are reported to organisational risk registers are thought to represent only a fraction of incidents that actually occur, losing valuable potential opportunities to identify dangers in our health care systems. Creating a safety culture requires staff to report incidents and to trust that learning will be fed back to them showing what action has been taken. This is a widespread problem in healthcare with the literature showing that the most frequently stated barrier to reporting for doctors and nurses is lack of feedback. Patients who have been harmed wish to be reassured that the same thing will not happen to “someone else”.

Prior to this project our organisation was identified by the Care Quality Commission as being in the bottom quartile of hospitals reporting safety incidents; low incident reporting can be associated with a poor safety culture. We identified that staff failed to report incidents or

near misses because they perceived reports to enter a “black hole”. Discussion of these problems with a wide range of colleagues demonstrated the need for different methods of communication for different staff groups. We also needed to raise the levels of enthusiasm to learn about safety incidents to promote a real culture of safety.

We planned to use multimedia approaches to reach different staff groups in different ways.
**Assessment phase**: We process mapped the whole incident reporting pathway to understand difficulties at each step of the process. We performed initial interviews, a safety culture survey and focus group work to identify how different groups of staff wished to be communicated with. We concentrated on junior doctors and nurses. Junior doctors were keen on an “App” as they move around the hospital and use their mobile phones for information; nurses preferred ward based information. All staff groups were keen on a traditional “newsletter” highlighting safety issues.

**Development phase**: Based on our initial groundwork we developed an App, which gave general safety information, and focused on key areas of harm in the hospital. We developed four animations telling stories of real patient safety incidents, and provided detailed information. The concept of a “safety triangle” to be placed in the notes was tested for ward based information, as it was often difficult to tell from the notes that an incident had occurred. We worked to get a regular slot in the updated hospital newsletter on safety. We used a designer to produce a strapline “Learn, Prevent, Protect” and a pleasing logo to bring all developments together into a brand format. We worked with the business analysis team who were developing a ward dashboard to include safety information.

**Evaluation phase**:
Following development of the products we then tested in key areas and with junior doctor and nurse focus groups. We used a media consultancy “Randall Fox” to evaluate response to our multimedia communication tools and develop ideas for further refinements. We tracked rates of incident reporting throughout the hospital and in the key areas we worked with, namely Critical Care, the Respiratory Unit and the Surgical Admissions Unit.

**Results**: Incident reporting increased over the whole hospital, and the focus areas, over the time of the project.
The evaluation showed that the concept of the App did work for junior doctors, however they did not find the real incident information helpful and wanted a tool to seek out information to help them work more safely – rather than the briefing tool we had provided. They found the animations slightly childish and expressed a wish, if video was to be used, for “storytelling”

from senior clinicians they respected. The safety sticker had instant initial appeal, although staff worried about anonymity and blame. The logo and branding was felt to be visually engaging and appealing, and the ward dashboard received a positive response from nurses, although currently not easily accessible by junior nurses or doctors.

**Challenges and successes**: This was an ambitious project in a short time frame and is therefore still going on; the feedback from our post-product evaluation is being used to further develop our tools and communications strategy. The Randall-Fox evaluation was highly informative and we believe we now have an important piece of learning on how to communicate with key staff groups about patient safety, which is applicable to all healthcare organisations, not just our own.

## Part 2. Quality impact: outcomes

This section is intended to explain the measures of quality that you used and to detail the outcomes (up to 500 words). You should address the following points:

- Nature of setting and innovation i.e. description of where
- Course of intervention, tests of change, adjustments
- Please describe the primary and secondary data that you used to demonstrate impact on quality, including:
  a) The source of the data and how easy it was to access
  b) The validity and reliability of the data
  c) Changes made demonstrated by data (please summarise using run charts, bar charts, tables or any other format that best shows changes made)
- Description of confidence; to what extent is the data on quality that you have collected clear and in line with original targets? How satisfactory are your baseline numbers in terms of data quality?
- What adjustments, if any, have you made to outcome measures from your original application?
- What is your assessment of the effect of your project on the quality of the service and the experience of patients?

The project was conducted in a 650 bed District General Hospital serving a population of around 500,000 people. The hospital has an active safety programme and a low (i.e. good) HSMR. However, it also has a low incident reporting rate relative to other English hospitals, which can be used as a marker of the safety culture within an organisation.

The project was ambitious with several phases, by nature necessitating adjustments; at the start we did not know what we were going to do, we had to establish what was needed. Initially we had to assess the different ways staff groups wished to receive feed-back and

learning from incidents. The next phase was to develop multi-media products to meet the needs identified then we had to evaluate how those products were received. The final phase was to develop the products further, and embed them within the organisation.

The primary source of data tracked by the Care Quality Commission, of relevance to this project is the rate of incident reporting. The outcome measures made in our initial application were a 20% increase in staff reporting incidents and a 50% increase in incidence in all staff groups able to recall and discuss the five key current risks to patients in their clinical area. We have seen a relative doubling in numbers of incidents reported across the time frame of the project (although of course this measure is subject to multiple other factors). See Figs 1 and 2. While we did not explicitly test recall of five key incidents, the App and animations focused on the five high risk areas for the organisation and were discussed in our focus groups and have been subjects of articles in our new “safety slot” in the staff newspaper. We await evaluation of the safety culture survey. Patient experience (as measured by the Friends and Family test) improved over the time of the project and patient harm as measured by the Global Trigger Tool remained at low levels see Fig 3.

Fig 1.

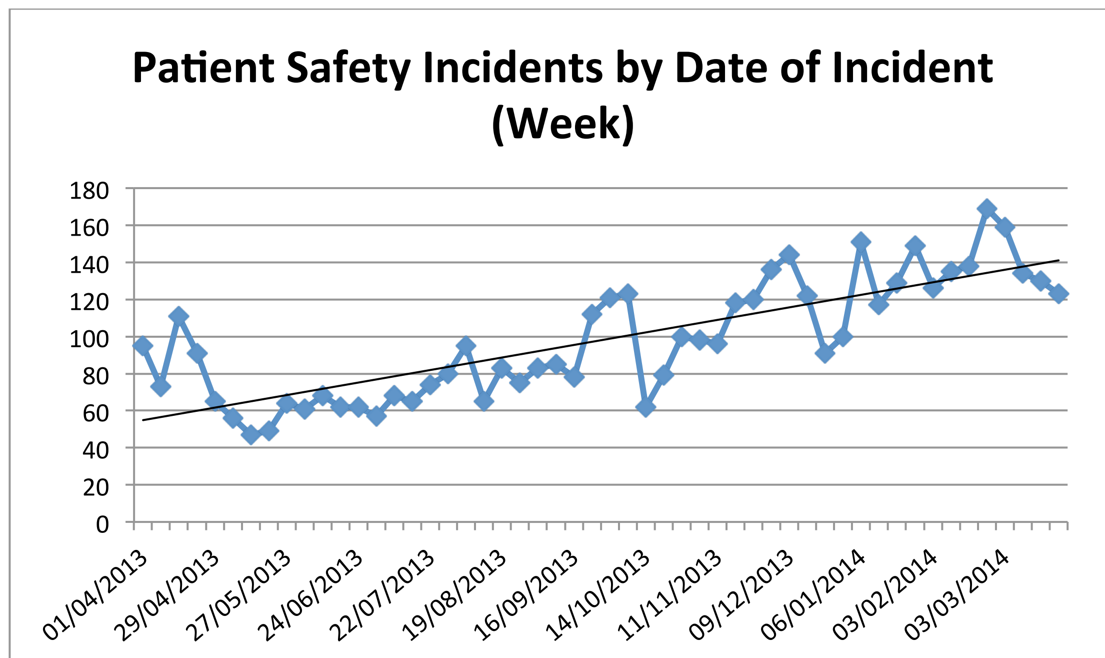


Fig2. (CCU= critical care unit). Incidents reported in project focus areas.

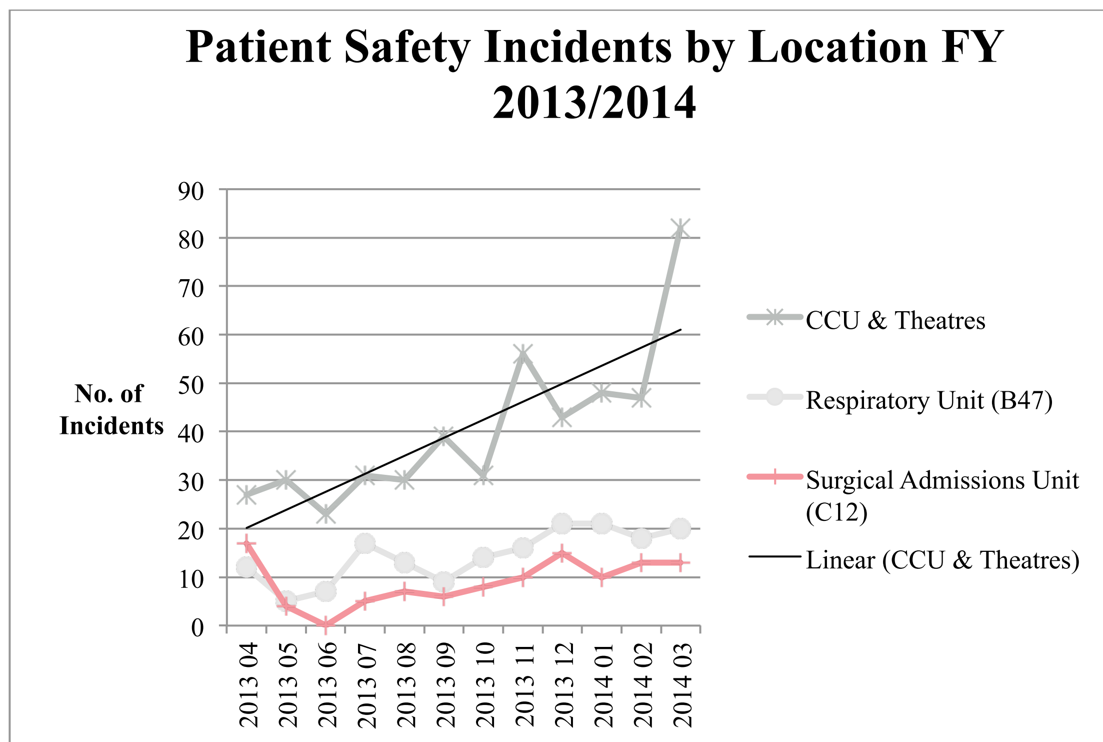
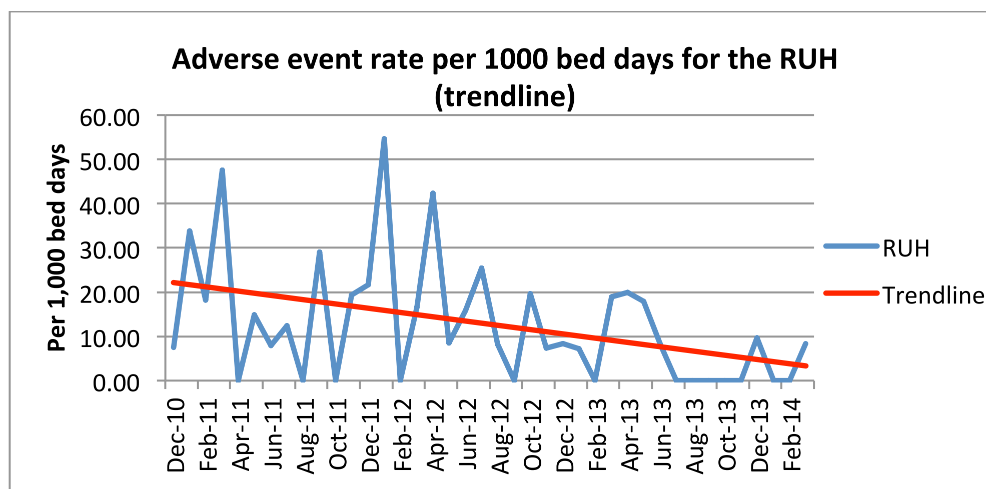



Fig 3.




Incident reporting rate may reflect an improving culture but there may be other background reasons for increased reporting. We also performed a Safety culture survey at the start of the project and are awaiting analysis of a second survey.

The rest of our project analysis was qualitative. Initial focus groups and media questionnaires were performed to identify what we would develop, the second evaluation was done after product development was performed by a media consultancy. Significant learning evolved from these latter focus groups with patterns emerging. Going beyond

communication strategies staff need to actually see and experience changes made resulting from incident reporting to believe that the feedback loop is working.

We believe this project has significantly contributed to our understanding of how to create a "learning" culture. We did not evaluate patients directly (a change from the initial application, limited by the scope of the project and the need for ethics approval within a short time frame), evidence supports our impression that the organisation continues to improve as a safe place for patients.

## Part 3. Cost impact

This section is intended explain the measures of cost you used and to detail outcomes (up to 500 words). You should address the following points

- Please summarise your key cost measures and explain how your understanding of the financial impact has moved on since the beginning of your project.
- Describe how you have estimated the cost of existing services / pathways / packages of care. Are there any issues or limitations that need to be taken into account?
- How have you calculated the cost of the Shine intervention? Are there any issues or limitations that need to be taken into account?
- How have you accounted for the implementation costs (e.g. staff time for training and change management activity)?
- How have you demonstrated a cash-releasing saving from your Shine project? Has a benefit been realised and who has benefited financially?

The cost spread sheet is attached with further details in Appendix 1. Our main cost was the project manager, the idea of this role was to have an individual who would bring together and co-ordinate a team of artists and journalists to develop and deliver our multimedia strategy. Our Arts Co-ordinator was to facilitate working with artists. However, our initial assessments found that there was no real desire amongst staff for a very creative approach, and in fact somewhat disappointingly the most popular option in our initial media surveys were for a newsletter. The project manager therefore worked directly with the animation and App designers to develop our initial products and commissioned an evaluation strategy from "In-perspective", as well as collating the clinical information to go onto the App and into the safety bulletin in the staff newsletter. We did not appoint a quality improvement facilitator; as the project evolved it did not require a QI approach but more in-depth evaluation qualitative provided by In-perspective and Randall Fox.

Artists costs were for the animator and App developer and additional funds (not used elsewhere in the project) were allocated for a cameraman for the short video films developed out of the final evaluation phase, and for updating and improving the App.

Our freelance journalist costs were almost exactly as costed and Randall Fox performed a very extensive evaluation and consultation around safety beliefs and values for the project – the executive summary was presented to Trust Executives.

As evaluation was a key part of this project we used money costed for junior doctor time, and unable to be used because of working time directives (a learning point for other projects), to commission Prof. Peter Spurgeon to run a Safety Culture Index survey for us.

The costs in this project were principally spent in two areas, evaluation and development of product. We now understand much better what we need and we have some products well developed. The App will need on-going maintenance to be of value, and there are issues around NHS information technology, which require further investigation; it would be much more efficient to have our own access to data and be able to upload to our own web-platform rather than be hosted through a company, however our current IT system does not currently support that option. Costs around maintenance and updating of the App will currently therefore relate to clinical time to update contents (although this should very much relate to the "day-job" of updating Trust guidelines) and updating of content by Southmedia.

We have not released cash savings from this project directly, however improvements in patient safety will reduce the costs of managing harm. It may be that the increasing sophistication of the organisation in understanding the processes around "closing the loop" of incident reporting may be reflected in reduced NHS Litigation Authority insurance premiums.

## Part 4: Learning from your project

This section is intended to summarise your achievements and the main changes observed in the quality of care (up to 850 words). Please address the following:

- Did you achieve all of what you hoped to achieve at the start of the project? If so what helped you do so?
  - For example was it the contribution of a particular individual or group of people that made the difference? Why was this important?
  - How did you get staff buy-in to carry out this innovation? Were there any approaches more successful than others? Why do you think that was the case?
  - What have you learnt about how to collect financial information?
  - Was it an aspect of organisational culture, technology or policy (national or local) that helped you?
- Please tell us about the challenges and the things that didn't work out quite as planned
  - If you didn't achieve what you hoped for, what were the reasons for that?
  - Were there any aspects of organisational culture, technology or policy (national or local) that acted as a barrier?
  - Did staff change or leave? What impact did that have?
  - What did you do to try to overcome the challenges? How successful were these efforts?
  - Were your original ambitions realistic given available resources and timescales?
- What would you do differently next time when implementing an improvement project?

This was a challenging multi-faceted project. The initial proposal was very exciting and innovative and stated that the communication strategy would be developed not only with an

understanding of different staff groups needs, but with access to the different media available which "may include workshops with artists and patients to tell stories with art, video and animation". Our initial focus groups and surveys did not indicate a desire amongst staff for real innovation, e.g. a small media survey conducted amongst senior and junior medical staff and medical students showed the following results ranked from 1-5 with 5 being maximum interest see Fig 4. Nurses were even more traditional wanting information available at a ward level and in newsletters.

Fig 4.

| | **Senior (n=17)** | **Junior (n=15)** | **Students (n=11)** |
|---|---|---|---|
| Facebook | 1.29 | 2 | 2.18 |
| Twitter | 1.41 | 1.66 | 2.27 |
| Blog | 1,47 | 1.83 | 1.82 |
| Youtube | 1.88 | 3 | 2.36 |
| Comic strip | 1.47 | 2.33 | 1.45 |
| Newsletter | 3.11 | 4.25 | 2.55 |

Based on our initial findings we developed a number of products detailed previously. All the products would be packaged with attractive media "branding" under a logo "Learn, Protect, Prevent" again developed out of the initial focus groups (Fig 5.). The ward level safety bulletin remained through the project but as the Trust developed a ward level safety dashboard we incorporated some of our learning in to that. Figs 6 and & show screen shots form the app and the characters form the animations.

Fig 5. The media company designed logo and “branding” for our safety information”.

Fig 6. Screen shot from the App with same “branding”.

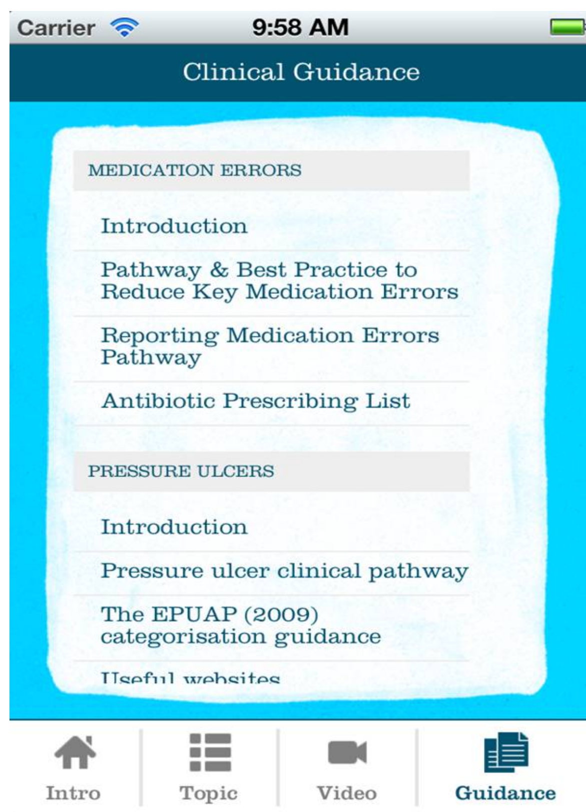
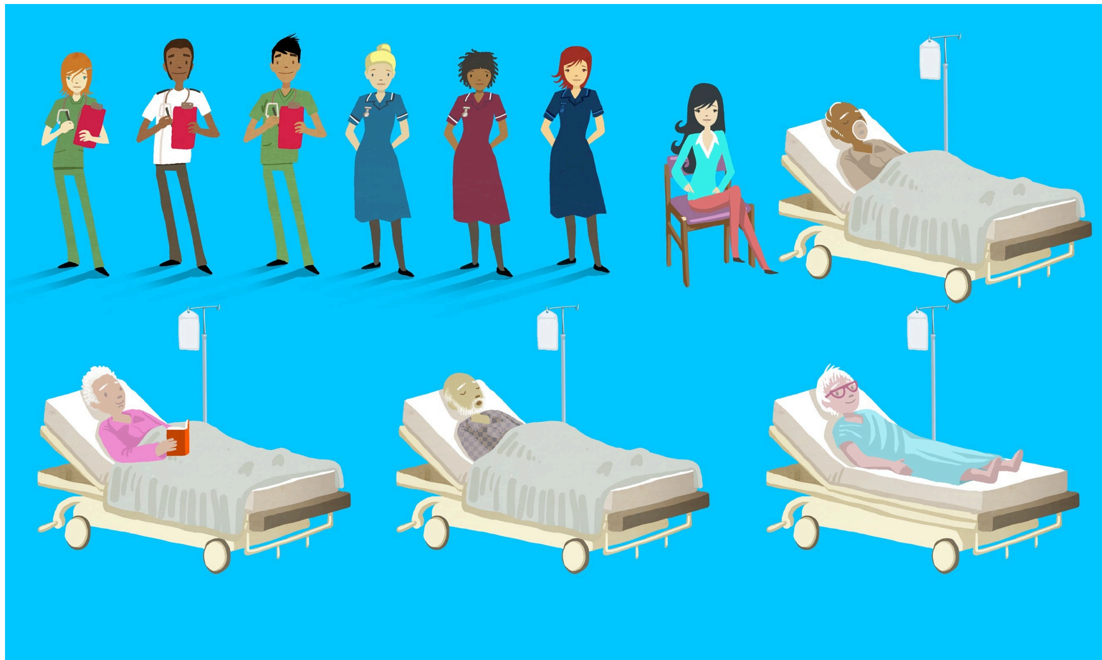


Fig 7. The cast of characters from the animated scenarios based on real incidents of harm.



At the end of the initial assessment and development phase we commissioned media consultancy Randall Fox to perform another in-depth evaluation for us of the way the products were received.

Evaluation of specific products elicited the following reactions:

- The ward **dashboard** was received very positively by nurses, due to its simple, quick access point as well as the visually engaging format, it was expected to make a real difference to ward management, helping senior nurses to identify priorities to work on, as well as areas of improvement.

- The concept of an **App** aroused interest as anticipated from initial work. Junior doctors already use their phones in the work setting, and they thought that a patient safety app would allow them to search for up-to-date guidance and feedback, as well as, ideally, report incidents through it. Unfortunately the current execution of the app was felt to be overloaded with information and difficult to navigate, and crucially it lacked the element of interaction that most people expected from this format and which might help to impact on practice.

  Amongst nurses, responses to the idea of an App were more mixed. Nurses are not allowed to access phones on the ward and most were resistant to using personal phones during their 'down-time' for work-related matters. However nurses were

interested in having quick, easy access to local and national guidance (e.g. pressure ulcer grading), and ward-based tablets came forward as a potentially strong channel.

- There was a mixed response to the **patient safety triangle stickers**. Initially, nurses and junior doctors liked the idea of using something to draw attention to important points in a patient's notes. However, on further consideration, doubts arose over the practical details of their use, such as where they would go to ensure maximum visibility, what exactly they would be communicating, and how would they fit with existing systems and this was echoed by senior staff.
- Finally, as suggested by initial assessments, there was widespread interest in **Trust-wide bulletins** about patient safety, with distinct versions for junior doctors and nurses with prompts to reflect on their own practice, tips for improving e.g. via scenarios with senior input/advice.

Three areas were identified where providing more information and feedback seemed likely to have a positive impact by helping staff understand the role and value of the reporting system.

Feedback suggested three key areas are essential to ensure feedback is seen as useful:

- Patterns emerging from the data are much more valued than isolated incident information
- Processes and people that examine data and reports need to be visible
- Learning needs to be targeted at three levels; the individual, ward and Trust level.

**Things that didn't work out as planned**: as documented above our enthusiasm for multimedia was not echoed by staff in the initial assessment, and we did not have time or ethics approval to develop the patient focused aspect of the study. However, we felt that a lot of work has been done recently on patient stories and there was a lot to learn from focusing on staff.

Our project manager was recruited from outside the organisation. In retrospect, we probably underestimated how challenging it would be to come into a new organisation, conduct focus groups and manage other staff. We increased her hours over part of the project as development of the app and animations proved very time consuming, something which, with our lack of technical knowledge, we had not anticipated. The project manager went on sick leave for the final few months of the project – which contributed to the late delivery of the project. The project may have been over ambitious in the time scale anyway – to evaluate requirements, develop multiple products and test and evaluate before further product adaption, was always going to be challenging within a year. The project got off to a late start

as the HR processes took several months for us to recruit the project manager. I would second a project manager on a future project from within the organisation, as relationships are key to rapid implementation and success, and to minimise HR delays.

On reflection I think this project has generated a huge amount of learning, we have learnt that whichever communications channels or tools we deploy in the future, success will depend above all on the quality of the content and the extent to which this content reflects the information needs of our audience.

***"Do a small number of things consistently and do them well. Rather than have too many different approaches. It'll get diluted… So I think we should pick the things that are really top of the stack and do them well and consistently, and then consider other things." (Tim Craft, Medical Director)***

## Part 5. Plans for sustainability and spread

This section is intended to communicate your plans for sustainability and spread (up to 500 words). You should include:

- How realistic will it be to sustain the benefits of the project beyond March 2014?
- How do you plan to spread this innovation beyond the Shine award sites? What additional resources (and from who) will you need to support this activity beyond the Shine funding period?
- Please detail any external interest/potential contacts that you have identified that you need to pursue and those that you have already engaged with?

**Plans for sustainability and spread**.

This project has been very relevant to our organisation. The Care Quality Commission had raised concerns over our low incident reporting rates and this project helped to provide reassurance that action was being taken. Learning from incidents remains a high Trust priority, and one which we are aware we will continue to be scrutinised on. Developing from this project we have formed an Incident Reporting Project Board which will continue to refine the products we have developed. Quick fixes were identified during the second evaluation phase some of which are shown in Fig. 8 and several of those have already been actioned.

- Fig 8.

- At the same time as developing our products we also undertook an in-depth study using process mapping and staff interviews to understand the barriers to reporting and successful feedback. The model we developed is shown in Appendix 2. and has widespread applicability. We have presented this at conferences and on the Shine poster and it has received a great deal of interest.
- We have learnt a lot about how and why to target key staff groups differently to inform them about learning from safety incidents. We do not believe there has been other significant work in this area. Randall Fox who have worked extensively in this area with organisations such as the Health Foundation and the former National Patient Safety Agency felt this is one of the most extensive reviews they have performed or indeed seen. We therefore plan to publish our findings in a peer reviewed journal. We have already had a poster at the Patient Safety Congress 2013 and this work formed part of Carol Peden's all day session on Quality Improvement at the BMJ/IHI International Quality Improvement Forum 2014. We plan to submit this work as a stand alone session for the same meeting in 2015.

## Appendix 2: Resources from the project

Please attach any leaflets, posters, presentations, media coverage, blogs etc you feel would be beneficial to share with others.

Incident reporting model.