

Running a hospital patient safety campaign A qualitative study

Piotr Ozieranski

Department of Health Sciences, University of Bath, Bath, UK

Victoria Robins

Renal Medicine, St James University Hospital, Leeds, UK

Joel Minion and Janet Willars

Department of Health Sciences, University of Leicester, Leicester, UK

John Wright

Bradford Institute for Health Research, Bradford, UK

Simon Weaver

Department of Sociology and Communications, Brunel University,
Uxbridge, UK, and

Graham P. Martin and Mary Dixon Woods

Department of Health Sciences, University of Leicester, Leicester, UK

Abstract

Purpose – Research on patient safety campaigns has mostly concentrated on large-scale multiorganisation efforts, yet locally led improvement is increasingly promoted. The purpose of this paper is to characterise the design and implementation of an internal patient safety campaign at a large acute National Health Service hospital trust with a view to understanding how to optimise such campaigns.

Design/methodology/approach – The authors conducted a qualitative study of a campaign that sought to achieve 12 patient safety goals. The authors interviewed 19 managers and 45 frontline staff, supplemented by 56 hours of non-participant observation. Data analysis was based on the constant comparative method.

Findings – The campaign was motivated by senior managers' commitment to patient safety improvement, a series of serious untoward incidents, and a history of campaign-style initiatives at the trust. While the campaign succeeded in generating enthusiasm and focus among managers and some frontline staff, it encountered three challenges. First, though many staff at the sharp end were aware of the campaign, their knowledge, and acceptance of its content, rationale, and relevance for distinct clinical areas were variable. Second, the mechanisms of change, albeit effective in creating focus, may have been too limited. Third, many saw the tempo of the campaign as too rapid. Overall, the campaign enjoyed some success in raising the profile of patient safety. However, its ability to promote change was mixed, and progress was difficult to evidence because of lack of reliable measurement.

Originality/value – The study shows that single-organisation campaigns may help in raising the profile of patient safety. The authors offer important lessons for the successful running of such campaigns.

Keywords Quality, Patient care, Safety, Behaviour, Hospitals, Executives

Paper type Research paper

Introduction

Health systems worldwide face challenges in ensuring the delivery of safe, high-quality care (Wachter, 2010); adverse event studies indicate that approximately 5-10 per cent of hospitalised patients in high-income countries experience harm, and about one-third of harmful events are preventable (Vincent et al., 2001; Baker et al., 2004; Thomas et al., 2000; Baines et al., 2013). The need to find ways of addressing these problems more effectively has been given added urgency in the English National Health Service (NHS) by the recent findings of Sir Robert Francis's inquiries into Mid Staffordshire NHS Foundation Trust (Francis, 2010, 2013). The evidence about how patient safety problems can best be tackled remains contested and conflicting (Shojania and Grimshaw, 2005; Shekelle et al., 2011), but one potentially attractive approach is that of the patient safety campaign.

Though no consensual definition of campaigns exists, they are generally characterised by their purposeful attempts to achieve planned effects in their target audiences within a specific time period using organised communication (McQuail, 2010). They have been a feature of patient safety improvement efforts since the early 2000s, with the US "100,000 Lives" campaign (Berwick et al., 2006) an early example. Research on patient safety campaigns has typically focused on large-scale, multi-organisation efforts, including the US "Door to Balloon" campaign (Krumholz et al., 2008), the UK "cleanyourhands" campaign (Stone et al., 2012) the German hand hygiene campaign (Reichardt et al., 2013), and the international "Surviving Sepsis" campaign (Levy et al., 2012). Studies of these campaigns have offered important lessons for those seeking to undertake improvements across multiple organisations. For instance, they have identified the need for shared goals among participants, clinician engagement, clinical champions, and the importance of well-designed, theoretically sound interventions (Soo et al., 2009; Benning et al., 2011b; Fuller et al., 2012). Some of the advantages of large-scale campaigns include their ability to create conditions known to be important to achieving change on a large scale, including developing and standardising technical interventions (Pronovost et al., 2009), establishing data collection systems, mobilising peer norms, and competitive pressures across different organisations, sharing learning, and providing the infrastructure for improvement (Dixon-Woods et al., 2011a, b, 2012; Aveling et al., 2012).

Yet the campaign approach to patient safety is also one that single healthcare organisations may pursue internally, particularly when, under policy moves such as those currently underway in England (Department of Health, 2010), responsibility for how quality and safety are secured is increasingly devolved to local providers rather than orchestrated at national level. Individual organisations may be highly motivated to take action at local level, especially when confronted with evidence of poor performance or weaknesses in systems (Dixon-Woods et al., 2013a, b). Internally run campaigns may be especially tempting when opportunities for joining large-scale campaigns or programmes are not be aligned with priorities of organisations or their timescales for securing improvement.

In business settings, internal marketing campaigns have a long history; the literature in this area suggests that such campaigns have a particular role when shifts in staff behaviour must be effected rapidly (Ballantyne, 2000; Hogg et al., 2010). However, the conclusions of the corpus of research on what makes internal marketing

campaigns work are divergent, and the transferability of learning from these settings to healthcare organisations is unclear. Some evidence exists of challenges in single-organisation patient safety campaigns (Niegsch et al., 2013), but it has remained under-studied as approach. There is need to optimise understanding of how single-organisation patient safety campaigns can best be designed and executed.

In this paper, we present a qualitative study of one organisation's patient safety campaign. The campaign, which we anonymise as Building and Expanding Safety Together (BEST), took place at a large NHS foundation teaching hospital trust in England. It sought to improve the organisation's performance against 12 patient safety goals (list below), focusing on one topic per month over a 15-month period. Our concern in this study was not to determine the campaign's effectiveness in meeting its goals or to assess its outcomes, but to examine its design and implementation by investigating the views and experiences of those who introduced the campaign and those at the "sharp end" of practice charged with its implementation. With the aim of guiding those who may consider internal patient safety campaigns as an improvement strategy, we sought to characterise the mechanisms by which BEST attempted to achieve change, the extent to which these processes were realised in practice, and the possible unintended consequences of deploying a campaign approach to patient safety.

BEST campaign topics 2010-2011:

- . Protecting patients from thromboembolism.
- . Improving the quality of patient observations.
- . Identifying and managing the deteriorating patient.
- . Conducting effective ward rounds.
- . Improving communication in health records and at handover.
- . Eliminating delays in investigations for patients who are acutely unwell.
- . Ensuring best practice for oxygen therapy.
- . Identifying patients correctly.
- . Eradicating medication errors.
- . Optimising the patient journey.
- . Supervision and training to support patient safety.
- . Preventing avoidable pressure ulcers.

Design and methodology

Our approach was an organisational case study (Yin, 2009) where the whole hospital trust was the unit of analysis. The study was conducted approximately mid-way through the BEST campaign run at the trust and involved staff at the "blunt end" (executive/board, which we refer to as the senior team) and the "sharp end" (Woods et al., 2010) (where staff provide care to patients) of the hospital. Data were collected both by an independent external team comprising three researchers and by four interviewers internal to the organisation. Author Martin from the external team conducted semi-structured interviews with the senior team. Authors Minion and Willars from the external team undertook non-participant observation and informal chats with staff on wards and units of two clinical areas (surgery and maternity) of the hospital over the course of one week. During this time, they also conducted semi-structured interviews with sharp-end staff. In order to increase the amount of data available to the study and ensure that a wide range of clinical areas was represented, author Robins plus three other interviewers internal to the organisation (see acknowledgements) conducted semi-structured interviews with staff at the sharp end

in three medical wards and one unit using the same prompt guide as the external team. The internal team did not conduct observations.

Sampling for interviews at the sharp end was largely opportunistic according to availability of staff, and included senior and junior doctors, nurses and midwives, healthcare assistants, operating theatre personnel, and ward managers. Researchers' observations and discussions with staff were attentive to cultural and behavioural issues in relation to patient safety and quality of care, but included a specific focus on aspects of the BEST campaign. They looked, for instance, at what methods of dissemination were used, explored staff's awareness and views on the campaign, and sought to understand staff's perceptions of the impact on the campaign on their practices. Interviews were recorded and fully transcribed; ethnographic observations were captured in fieldnotes.

Data analysis of interviews and fieldnotes was based on the constant comparative method (Glaser and Strauss, 1967). The research team initially generated "open codes" based on transcripts and fieldwork notes, which were subsequently grouped into higher-order organising themes relating to the delivery of the BEST campaign. We also used some sensitising concepts (Charmaz, 2006), derived chiefly from the literature on public campaigns. Coding of transcripts was supported by NVIVO 8 software. The analysis was subject to extensive discussion within and between the internal and external research teams, leading to the development of shared interpretations reported in the paper.

Approval for the study was obtained from an NHS REC. Signed consent was obtained from staff who took part in an interview, and permission for observational work was obtained verbally. Quotations are numbered to indicate different participants and preserve anonymity.

Findings

We conducted 19 interviews with members of the executive and board teams (the "blunt end"), 24 interviews with staff on three medical wards and one medical unit, 15 interviews in the surgery directorate, and six interviews within the maternity department (thus 45 at the "sharp end"). We conducted 56 hours of observations, including 54 in clinical areas and two at meetings. We begin by explaining the senior team's rationale for and design of the campaign, and then describe the response of the sharp end.

Rationale and design of the campaign

Interviews with senior team members suggested that they had several motives for the campaign. First, the team reported that it took its responsibilities for quality and safety seriously, seeing these duties as central to the organisation's mission. Second, they identified a need to achieve rapid institutional change following some serious incidents (then known as serious untoward incidents (SUIs)) at the hospital. These events, including one incident involving manifestly poor care, created a sense of shock and appetite for change among the hospital leadership. The senior team reported that they felt galvanised to take swift, decisive action, and that the incidents provided a "burning platform" that could command attention and enhance the legitimacy of that action.

Third, the hospital had previously taken part in campaign-style initiatives that the senior team considered to have been useful in providing a mission and focus around which action could cohere. The senior team were especially persuaded of the

potential of campaign approaches by their apparent success in driving down healthcare-acquired infections across the organisation:

What we're trying to do is get a message out there which says you're a part of this organisation [that] is taking the patient experience and the quality of patient care very seriously [59].

We were very keen to get it off the ground quickly part because of the SUIs [y] you didn't want to lose the impetus of the effect of the SUIs [61].

The infection control [campaign] worked, so there's actually an appetite for it, because people see it as a load more work but also they can't argue because the infection control one worked [45].

In order to take advantage of the profile afforded by the serious incidents, and to secure rapid change and high visibility, the campaign was implemented quickly and at a fast tempo, initially planned to be one topic a month for 12 months. The intention was that once the initial boost had been provided by the campaign, higher standards of practices would be embedded and would endure:

Because there's been such a big change, we decided [that] rather than do it little by little, let's do a big change all at once, to make everybody think this is new, we have to think about it [44].

They're not meant to be one-month projects, I think that's the key bit about them [y] They're launched in that month but they're forever [17].

The campaign involved a new focus each month. Each of the topics was intended to refer to basic standards of care that were equally relevant to all patient groups, and would thus be implemented throughout the hospital in all clinical areas. Reference groups, overseen by a programme board, were established for each of the topics to determine action plans to achieve best practice. These were then implemented through a process we termed "communication and compliance": the standards were signalled through a variety of communication methods, and then compliance was monitored through a system of spot checks and audits, often involving staff both internal and external to clinical areas (sometimes including members of the senior team) making inspections. The data were collected from different clinical areas at different times, and were not standardised audits. High-quality outcome data were therefore not available.

Determining the details of implementation was mostly left up to the individual directorates. The campaign provided guidelines and outlined best practice, and it was assumed that change could be led by local "champions" in the clinical areas who would have the capability and capacity to drive change. All materials were funded from a small campaign budget but the initiative was not supported by additional financial resources. Where appropriate to the topic, for example in the area of Modified Early Warning Scores (MEWS) and oxygen prescribing teaching, training, and competency assessments for staff were offered:

It was done on the cheap, it was done very quickly. The budgets stayed small for it [y] There's a bit for publicity with all the posters and everything but BEST has been done on the cheap. And maybe it doesn't have to be expensive, because you are relying on champions [21].

Our professional development worker makes sure we all go on training and that we do attend T raining and then obviously that training is put into practice, so yeah I think it's definitely made an impact [27].

Among the senior leadership, the intention was to take action reactively in the event of non-delivery on project aims; areas found to be failing would then be subject to remedial action:

I've clearly set out what our expectation is about, we've provided the training for those staff with the fact that the competence of all of the BEST campaign has these elements in it. What we then do is if somebody fails to adhere to that policy, we go back through that training and competency assessment process again. If they repeatedly do it then we will go through the disciplinary process, and we have. So where we've got areas where people have repeatedly failed to follow policy in respect of patient safety, we really use the disciplinary process [54].

Interviews suggested that the campaign was largely successful in creating energy, focus, and enthusiasm among the senior executive and board team, as well as among those directly involved in campaign design:

Front line, I think people are signed up and certainly [y] we have a collective group in medicine where the – you know we've got a mixture of consultants, matrons, sisters who meet on a weekly basis [y] And we've got really good engagement and they're really keen [17].

Though there was no systematic evidence of how the 12 patient safety goals had been met, some improvements were reported over the campaign's course. Increased use of MEWS for detecting deteriorating patients, improved staff competence in measuring blood pressure, and increased awareness of need for venous thromboembolism assessment were reported by some staff at the sharp end as strengths of the campaign:

Yeah, I think when it's in front of you in black and white you can't play ignorance or anything like that [39].

It's to make sure you've got good protocols in place that all the trust members are aware of, and that everybody is supposed to adhere to them, it's about making sure your patients are safe and the priority [66].

Several staff also reported a more generally increased focus and attention to the importance of safety, and some staff reported feeling increased empowerment:

It has raised or reminded everybody that things like clinical observations are really important, 'cause my personal view is that people just thought it was another quick job to do and not realised the significance of the results

you were recording, and it's also highlighted some areas of poor practice that probably we did think we knew about but were a bit blinded to [32].

Everyone is more aware of what we're trying to achieve essentially, and as a result I think everyone's making sure they're doing things in a safe environment and a safe method [y] to eradicate mistakes really [5].

All kinds of different things really, we've been doing the oxygen prescribing, dignity with the patients that we do every day on the ward. Infection control – hand hygiene, we've got them all round the ward, corridors, things like that for relatives, so in all different ways. We've got lots of different information around the wards for the people to access all the time [40].

The campaign did, however, encounter challenges relating to communication, mechanisms for securing change, and tempo.

Communication

Methods for communicating the campaign topics included e-mail, high-visibility posters displayed in clinical and non-clinical areas, staff newsletters, staff meetings, and contact with middle managers. The effectiveness of these methods in creating awareness among staff at the sharp end was variable. Generally, we found higher levels of awareness on medical wards than in the surgical and maternity directorates: all 24 staff on medical wards demonstrated some awareness of the campaign, and 22 demonstrated reasonable understanding though only five were clear about why the campaign started. Of the 21 staff in the surgical and maternity areas, 17 showed awareness of the campaign but only eight showed a clear understanding. Some of the persuasive power of the campaign was thus diminished:

I think every hospital [within the trust] is aware of the BEST campaign, everyone is more aware of what we're trying to achieve essentially and as a result I think everyone's making sure they're doing things in a safe environment and a safe method to ensure [y] to eradicate mistakes really [75].

[I]t came through posters. It should have come through the team management but it didn't. [y] [I]t wasn't disseminated down [31].

I was chatting to this midwife and another midwife in the room about BEST and neither of them really knew the term BEST [fieldnotes].

Though for the senior team the serious incidents at the hospital had provided some of the motivation for the campaign and the opportunity to capture attention and direct action, staff at the sharp end varied in their knowledge of the rationale for BEST. Some knew of the incidents, but they were far from common knowledge:

The number of SUIs at the beginning of last year were centred very much round the MEWS and staff escalating concerns and I think that's brought it very much to the forefront, definitely [76].

I don't know of any specific event that triggered it [53].

I don't know 'cause I don't know much about it [70].

A further important challenge of communication was that of customisation to the specific circumstances, needs, and priorities of distinct clinical areas. Though the designers of BEST had taken steps to identify standards that should apply to all areas of care, the reality turned out to be more complex. In some medical areas, the campaign was generally perceived as broadly appropriate, but in the surgical and maternity areas staff at the sharp end saw some campaign themes as less relevant:

I think it's quite relevant and applies to most of what we do so I think we can implement it in all areas really [16].

Some of the topics might not be applicable as much in our area as an inpatient ward but I think the ones that are, are very, very relevant [11].

Different parts of this BEST campaign have been generic. They have gone, the whole trust has to be doing this particular thing and it doesn't let you take account of a particular area and the particular needs of an area [20].

Perhaps the most negatively viewed topic was oxygen prescribing. Practitioners reported that they were being told how to do something they already knew how to do or that it was not something used frequently in their clinical areas. Here the challenges of communication were evident: staff were unaware that oxygen prescribing had been the subject of a National Patient Safety Agency alert, and of the significance of oxygen prescribing in one of the SUIs that had occurred at the hospital:

I have given oxygen for 28 years, and now I am going to get somebody who is probably, I am old enough to be their grandma coming in and seeing if I can put an oxygen mask on somebody correctly, that does hack you off [15].

She was quite negative about it in many ways because she associated it with scoring, particularly with oxygen scores and saying how it just does not apply to the maternity unit [y] this is something that is so rarely used in the maternity section, that she felt as though it was a bit of a waste of time [y] Again she sort of shrugged her shoulders when talking about the BEST campaign [fieldnotes].

Mechanisms of change

Implementation of the campaign fell largely to middle managers, such as ward matrons. Their implementation strategies involved talking to staff, training, and highlighting areas for improvement. The principal enforcement mechanism was assessing compliance through spot checks and audits:

What I've done is going round every single member of staff and explained the process of [oxygen] prescribing and monitoring and we've already started running with that so that we can iron out all those problems and we can start competency assessing people in this area. So the staff on the shop floor know what's happening because I'm coming out telling them "this is what we're doing, this is what we need to be doing and I'm going to come round and audit it" [26].

However, many middle managers were already stretched. They reported considerable frustration at not having additional resources for the campaign, particularly to support training, and unrealistic expectations of how rapidly change could be achieved. Staff perception of the spot checks was mixed; though some staff in medical wards reported positive experiences of this approach, others found them punitive, imbued with a language of "failure":

We were trained how to do it at the start, and then obviously you'd do it and you'd be assessed to make sure you were doing it properly, so I think it's all been successful [25].

Then they arrived to do a spot check [y] So then we failed [y] for the auditors to come and include the next topic in their audit and they just caught us completely on the hop this time because we had not [implemented it], it was too big, in two weeks [y] so that's frustrating because you feel like you are just setting us up to fail every time [39].

Many staff at the sharp end reported that they would have preferred an approach to change that went beyond signalling, monitoring, and then enforcing standards through managerial mechanisms. Some, for example, indicated that they would have welcomed coaching and peer learning:

I don't think I have been in anyway other instructed; I just read as it comes along really [48].

That has been the case with all of it really, they have brought different things in they haven't always explained, what you are supposed to be doing with it and when you are supposed to be doing it [20].

I am not sure if some of the good practice [y] that is happening in other directorates has been shared [y] I would love to know what have other areas done [12].

The value of sharing learning seemed to be underlined by evidence that practices across the hospital were not always standardised, and that good ideas and simple innovations (such as using a sticker on patients' notes to indicate correct oxygen saturation levels for that patient) did not always disseminate beyond local clinical areas.

Tempo

Though the topics were intended to reflect standards of care that should be reached by all care delivery areas, wards, and units varied in the extent to which they were already meeting these standards and the extent to which their systems could support change. Some staff, particularly at middle-manager level, reported feeling daunted by the effort necessary to make change in their local areas, were not always convinced that the changes were relevant or appropriate, or felt that other local patient safety risks should take priority over those identified by BEST. Consequently, rather than raising the profile of patient safety and orchestrating improvements, in some areas there was a sense that BEST was a source of distraction rather than focus:

I mean if you just look around the office there's so much – every week, we've got to do this this week, we've got to do that this week. Sometimes you just feel swamped with it. [y] Sometimes I go through my email and there's like six new things when I've been off two days and I think I've no idea what they are talking about [34].

The tempo of the campaign, with its monthly change of topic and accumulation of audits, led to some staff, again especially at middle-management level, feeling overwhelmed by the amount of work required, and frustrated by having to move from one topic to the next without having fully delivered on their aspirations for the first:

One of the difficulties with the speed of it, i.e. doing something every month, is that you're just constantly at people for things, you know, you're constantly saying 'right, so we've done obs[ervations] now, right, so are we onto oxygen now' and "how are we doing with oxygen" and, you know, I find myself doing it too, I'm asking people "right, so where are we with the plan, what's happened, where are we" and sometimes I bet they think shut up woman, you know, I'm just trying to get through the day for God's sake! [8].

Conclusions and practical implications

How to design and run patient safety campaigns so that they deliver on their goals is an important question (Vincent, 2010). Most studies of patient safety campaigns have focused on large-scale, multi-organisation efforts. However, internal campaigns may be an attractive choice for single organisations seeking to secure locally led improvement. Our qualitative study of a patient safety campaign in a single NHS trust found, like other studies of patient safety interventions (Benning et al., 2011b), evidence of sincerity, commitment, and enthusiasm among senior leadership in the hospital about improving patient safety. Though there appeared to be some gains in focus and improved practice at the sharp end, the impact was mixed and difficult to evidence – not least because of the absence of high-quality collection of data on outcomes or process improvements. Our study highlights both the potential and limitations of the single organisation patient safety campaign approach, as well as important lessons for how it can be optimised (Table I).

Single-organisation patient safety campaigns such as BEST appear to have important agenda-setting functions (McCombs and Shaw, 1993), signalling local organisational priorities and commitments, and seem capable of providing an identifiable sense of mission appropriate to the local context. BEST appeared to be successful in raising the profile of some patient safety issues, particularly in relation

to the use of early warning scores for detecting patient deterioration. It enjoyed a very high level of commitment among the senior team: they could link the campaign very clearly and explicitly to locally need, and they saw it as helpful in providing a response to catastrophic serious incidents. Such events may force problem recognition and create opportunities for achieving change (Dixon-Woods et al., 2011a, b), but many sharp-end staff appeared unaware of them. In capitalising on the “burning platform” effect, BEST might have made more effective use of patient narrative as a resource for persuasion and engagement (Dixon-Woods et al., 2012).

Both single-organisation and multi-organisation campaigns may falter if they are over-ambitious: our analysis of BEST and of large-scale programmes suggests that more may be achieved by trying to do less (Dixon-Woods et al., 2012). Though each of the goals was important in BEST, and in many senses reflected practice that staff were expected to achieve anyway, it is doubtful that a single campaign could succeed in making progress towards all goals quickly. Crowding the agenda by having too many rapidly sequenced objectives risked diluting, rather than amplifying, the energy and momentum the campaign sought to create. Such crowding risked creating what we call “priority thickets” (Dixon-Woods et al., 2013a, b). These thickets comprise dense patches of goals that may compete with one another, or obscure what staff should be focusing on, and may create a sense of failure when it proves difficult to reach goals. Making unrealistic demands on staff may lead to resentment and demoralisation: campaigns require a “balanced scope” (Bacdayan, 2001) in which objectives are appropriate to the resources available. The rapid tempo of the BEST campaign added to this problem and contributed to a sense of fatigue. There were thus significant risks that the novelty of the campaign could wear off through time, with hard-hitting messages fading into the background (Lewis et al., 2006). Setting a smaller number of goals, and a more realistic time-scale for implementation, might help to avert such risks. A slower pace of change might also enable more organisational learning during the implementation of the initiative, so that sustainable solutions are favoured over quick fixes.

In determining tempo and priorities, campaign leaders might usefully distinguish clearly between more and less demanding topics (in terms of their complexity and degree of effort needed to implement them) and adjust the pace of change accordingly. More engagement with the issues facing different functions and clinical areas of an organisation at the planning stage may also be very useful, in order to customise goals, avert an unwarranted perception of “ivory towers” designers (Gilmore, 2000), and minimise mismatches between the expectations, experiences, and perceptions of blunt- and sharp-end staff (Benning et al., 2011a, b). As a more general principle, campaigns may best be used where the issues they address are universally relevant; “targeted therapies” (narrower, more localised work) may sometimes be more beneficial than “blockbuster medicine” (organisation-wide campaigns).

Being clear and focused about goals and standards and communicating them clearly are vital to any campaign, but are only part of what needs to happen. Attention is also needed to how to support staff in making change. BEST relied on a communication-and-compliance model, and was not prescriptive about how change should be achieved, instead relying on local clinical leadership. The strategy of using audits and spot checks was useful in focusing staff and demonstrating the seriousness and intent of the organisation's leadership. The physical presence of senior staff members when doing spot checks demonstrated the level of leadership interest in

what was happening on the clinical areas. However, BEST did not provide a specific package of technical and cultural support, sharing of peer learning, and formal high quality measurement, which all appear to be the features of successful improvement programmes (Dixon-Woods et al., 2011a, b, 2013a, b; Pham et al., 2012). Using multiple strategies to gain support of sharp-end staff may be more effective than one-way communication. Sharing learning and solutions across the different clinical areas may help create more momentum and more of a sense of collective purpose (Aveling et al., 2012). Standardised, longitudinal, quality-assured measurement means that the opportunity to track progress over time, and the benefits of ongoing, credible feedback on progress are not lost (Dixon-Woods et al., 2012).

Our study of BEST does, of course, suffer from some limitations. It is a single case study, and we cannot test the generalisability of our findings to other settings. We cannot link the processes we observed to the outcomes of the campaign, since these outcomes were not measured consistently or reliably. Though we conducted a large number of interviews, we did not include staff from all areas of the hospital, and thus may not have detected the full range of views or experiences of the campaign. Interviews themselves do not provide unmediated access to reality; the possibility that participants may have been providing publicly acceptable accounts cannot be excluded. In addition, our opportunistic sampling strategy was successful in gaining access to a wide range of staff at the sharp end, but may have introduced some undetected bias. Further, some of the differences we found in different clinical areas may arise because the interviews were conducted by different researchers, with some internal and some external to the organisation. On the other hand, the diversity of interviewers may have ensured that a range of perspectives was captured. Finally, the way we collected our data and undertook the analysis leaves open other possible interpretations of our material.

An internal campaign approach may be a useful way of improving the profile of patient safety within healthcare organisations, but it needs to be designed to involve more than communication-and-compliance and to contain the scope of its ambitions. Patient safety campaigns are perhaps best used alongside other techniques such as incentivisation, leadership development, training in specific improvement methodologies, and knowledge sharing between units about successful strategies (Dixon-Woods et al., 2012). Our study provides some valuable learning on how the campaign approach might be optimised.

References

Aveling, E.L., Martin, G.P., Armstrong, N., Banerjee, J. and Dixon-Woods, M. (2012), "Quality improvement through clinical communities: eight lessons for practice", *Journal of Health Organization and Management*, Vol. 26 No. 2, pp. 158-174.

Bacdayan, P. (2001), "Quality improvement teams that stall due to poor project selection: an exploration of contributing factors", *Total Quality Management*, Vol. 12 No. 5, pp. 589-598.

Baines, R.J., Langelaan, M., De Bruijne, M.C., Asscheman, H., Spreuwenberg, P., Van De Steeg, L., Siemerink, K.M., Van Rosse, F., Broekens, M. and Wagner, C. (2013), "Changes in adverse event rates in hospitals over time: a longitudinal

retrospective patient record review study", *BMJ Quality and Safety*, Vol. 22 No. 4, pp. 290-298.

Baker, G.R., Norton, P.G., Flintoft, V., Blais, R., Brown, A., Cox, J., Etchells, E., Ghali, W.A., Hebert, P. and Majumdar, S.R. (2004), "The Canadian adverse events study: the incidence of adverse events among hospital patients in Canada", *Canadian Medical Association journal*, Vol. 170 No. 11, pp. 1678-1686.

Ballantyne, D. (2000), "The strengths and weaknesses of internal marketing", in Varey, R.L. and Lewis, B.R. (Eds), *Internal Marketing. Directions for Management*, Routledge, London and New York, NY, pp. 43-60.

Benning, A., Dixon-Woods, M., Nwulu, U., Ghaleb, M., Dawson, J., Barber, N., Franklin, B.D., Girling, A., Hemming, K., Carmalt, M., Rudge, G., Naicker, T., Kotecha, A., Derrington, M.C. and Lilford, R. (2011a), "Multiple component patient safety intervention in English hospitals: controlled evaluation of second phase", *BMJ (Clinical Research ed.)*, Vol. 342 No. 7793, pp. 1-16.

Benning, A., Ghaleb, M., Suokas, A., Dixon-Woods, M., Dawson, J., Barber, N., Franklin, B.D., Girling, A., Hemming, K., Carmalt, M., Rudge, G., Naicker, T., Nwulu, U., Choudhury, S. and Lilford, R. (2011b), "Large scale organisational intervention to improve patient safety in four UK hospitals: mixed method evaluation", *BMJ (Clinical Research ed.)*, Vol. 342 No. 7793, pp. 1-14.

Berwick, D.M., Calkins, D.R., Joseph McCannon, C. and Hackbarth, A.D. (2006), "The 100,000 lives campaign: setting a goal and a deadline for improving health care quality", *Journal of the American Medical Association*, Vol. 295 No. 3, pp. 324-327.

Charmaz, K. (2006), *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*, Sage, London. Department of Health (2010), *Equity and Excellence: Liberating the NHS*, Department of Health, London.

Dixon-Woods, M., McNicol, S. and Martin, G.P. (2012), "Ten challenges in improving quality in health care: lessons from the health foundation's programme evaluations and relevant literature", *BMJ Quality & Safety*, Vol. 21, pp. 876-884.

Dixon-Woods, M., Yeung, K. and Bosk, C.L. (2011a), "Why is UK medicine no longer a self-regulating profession? The role of scandals involving "bad apple" doctors", *Social Science & Medicine*, Vol. 73 No. 10, pp. 1452-1459.

Dixon-Woods, M., Bosk, C.L., Aveling, E.L., Goeschel, C.A. and Pronovost, P.J. (2011b), "Explaining Michigan: developing an ex post theory of a quality improvement program", *The Milbank Quarterly*, Vol. 89 No. 2, pp. 167-205.

Dixon-Woods, M., Leslie, M., Tarrant, C. and Bion, J. (2013a), "Explaining Matching Michigan: an ethnographic study of a patient safety program", *Implementation Science: IS*, Vol. 8 No. 1, pp. 1-13.

Dixon-Woods, M., Baker, M., Charles, J., Dawson, J., Jerzembek, G., Martin, G., McCarthy, I., McKee, L., Minion, J., Ozieranski, P., Willars, J., Wilkie, P. and West, M. (2013b), "Culture and behaviour in the English national health services: overview of lessons from a large multi-method study", *BMJ Quality and Safety*, Vol. 23 No. 2, pp. 106-115.

Francis, R. (2010), *Independent Inquiry into Care Provided by Mid Staffordshire NHS Foundation Trust January 2005-March 2009*, Stationery Office, London.

Francis, R. (2013), *Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry*, Stationery Officer, London, available at: <http://cdn.midstaffspublicinquiry.com/sites/default/files/report/Executive%20summary.pdf>

Fuller, C., Michie, S., Savage, J., McAteer, J., Besser, S., Charlett, A., Hayward, A., Cookson, B.D., Cooper, B.S., Duckworth, G., Jeanes, A., Roberts, J., Teare, L. and Stone, S. (2012), "The feedback intervention trial (FIT) – improving hand-hygiene compliance in uk healthcare workers: a stepped wedge cluster randomised controlled trial", *PLoS ONE*, Vol. 7 No. 10, pp. 1-10.

Gilmore, A. (2000), "Managerial interactions of internal marketing", in Varey, R.L. and Lewis, B.R. (Eds), *Internal Marketing. Directions for Management*, Routledge, London and New York, NY, pp. 75-92.

Glaser, B. and Strauss, A. (1967), *The Discovery of Grounded Theory*, Aldine Publishing Company, Hawthorne, NY.

Hogg, G., Carter, S. and Dunne, A. (2010), "Investing in people: internal marketing and corporate culture", *Journal of Marketing Management*, Vol. 14 No. 8, pp. 879-895.

Krumholz, H.M., Bradley, E.H., Nallamothu, B.K., Ting, H.H., Batchelor, W.B., Kline-Rogers, E., Stern, A.F., Byrd, J.R. and Brush, J.E. Jr (2008), "A campaign to improve the timeliness of primary percutaneous coronary intervention: door-to-balloon: an alliance for quality", *Journal of the American College of Cardiology: Cardiovascular Interventions*, Vol. 1 No. 1, pp. 97-104.

Levy, M.M., Artigas, A., Phillips, G.S., Rhodes, A., Beale, R., Osborn, T., Vincent, J., Townsend, S., Lemeshow, S. and Dellinger, R.P. (2012), "Outcomes of the surviving sepsis campaign in intensive care units in the USA and Europe: a prospective cohort study", *The Lancet Infectious Diseases*, Vol. 12 No. 12, pp. 919-924.

Lewis, L.K., Schmisser, A.M., Stephens, K.K. and Weir, K.E. (2006), "Advice on communicating during organizational change: the content of popular press books", *Journal of Business Communication*, Vol. 43 No. 2, pp. 113-137.

McCombs, M.E. and Shaw, D.L. (1993), "The evolution of agenda-setting research: twenty-five years in the marketplace of ideas", *Journal of Communication*, Vol. 43 No. 2, pp. 58-67.

McQuail, D. (2010), *McQuail's Mass Communication Theory*, Sage Publications, London, Thousand Oaks, New Delhi, Singapore.

Niegsch, M., Fabritius, M.L. and Anhøj, J. (2013), "Imperfect implementation of an early warning scoring system in a Danish teaching hospital: a cross-sectional study", *PLoS ONE*, Vol. 8 No. 7, pp. 1-6.

Pham, J.C., Aswani, M.S., Rosen, M., Lee, H., Huddle, M., Weeks, K. and Pronovost, P.J. (2012), "Reducing medical errors and adverse events", *Annual Review of Medicine*, Vol. 63, pp. 447-463.

Pronovost, P.J., Goeschel, C.A., Marsteller, J.A., Sexton, J.B., Pham, J.C. and Berenholtz, S.M. (2009), "Framework for patient safety research and improvement", *Circulation*, Vol. 119 No. 2, pp. 330-337.

Reichardt, C., Köninger, D., Bunte-Schoenberger, K., van der Linden, P., Mo'nnch, N., Schwab, F., Behnke, M. and Gastmeier, P. (2013), "Three years of national hand hygiene campaign in 574 JHOM 28,4

Germany: what are the key conclusions for clinical practice?", *Journal of Hospital Infection*, Vol. 83 No. S1, pp. S11-S16.

Shekelle, P.G., Pronovost, P.J., Wachter, R.M., Taylor, S.L., Dy, S.M., Foy, R., Hempel, S., McDonald, K.M., Ovretveit, J., Rubenstein, L.V., Adams, A.S., Angood, P.B., Bates, D.W., Bickman, L., Carayon, P., Donaldson, L., Duan, N., Farley, D.O., Greenhalgh, T., Haughom, J., Lake, E.T., Lilford, R., Lohr, K.N., Meyer, G.S., Miller, M.R., Neuhauser, D.V., Ryan, G., Saint, S., Shojania, K.G., Shortell, S.M., Stevens, D.P. and Walshe, K. (2011), "Advancing the science of patient safety", *Annals of Internal Medicine*, Vol. 154 No. 10, pp. 693-696.

Shojania, K.G. and Grimshaw, J.M. (2005), "Evidence-based quality improvement: the state of the science", *Health Affairs*, Vol. 24 No. 1, pp. 138-150.

Soo, S., Berta, W. and Baker, G.R. (2009), "Role of champions in the implementation of patient safety practice change", *Healthc Q*, Vol. 12, pp. 123-128.

Stone, S.P., Fuller, C., Savage, J., Cookson, B., Hayward, A., Cooper, B., Duckworth, G., Michie, S., Murray, M., Jeanes, A., Roberts, J., Teare, L. and Charlett, A. (2012), "Evaluation of the national clean your hands campaign to reduce *Staphylococcus aureus* bacteraemia and *clostridium difficile* infection in hospitals in England and Wales by improved hand hygiene: four year, prospective, ecological, interrupted time series study", *BMJ (Clinical Research ed.)*, Vol. 344 No. 7858, pp. 1-12.

Thomas, E.J., Studdert, D.M., Burstin, H.R., Orav, E.J., Zeena, T., Williams, E.J., Howard, K.M., Weiler, P.C. and Brennan, T.A. (2000), "Incidence and types of

adverse events and negligent care in Utah and Colorado”, *Medical Care*, Vol. 38 No. 3, pp. 261-271.

Vincent, C. (2010), *Patient Safety*, Wiley-Blackwell, Sussex.

Vincent, C., Neale, G. and Woloshynowych, M. (2001), “Adverse events in British hospitals: preliminary retrospective record review”, *British Medical Journal*, Vol. 322 No. 7285, pp. 517-519.

Wachter, R.M. (2010), “Patient safety at ten: unmistakable progress, troubling gaps”, *Health Affairs (Project Hope)*, Vol. 29 No. 1, pp. 165-173.

Woods, D.D., Dekker, S., Cook, R., Johannesen, L. and Carter, N. (2010), *Behind Human Error*, 2nd ed., Ashgate, Farnham, Surrey.

Yin, R.K. (2009), *Case Study Research: Design and Methods*, 4th ed., Sage Publications, London.

About the authors

Dr Piotr Ozieranski is a Research Associate, Social Science Applied to Healthcare Improvement Research (SAPPHIRE) Group.

Victoria Robins is a Registrar in Renal Medicine.

Dr Joel Minion is a Senior Research Manager, Data 2 Knowledge 4 Practice Research Group.

Dr Janet Willars is a Visiting Fellow, Social Science Applied to Healthcare Improvement Research (SAPPHIRE) Group.

Professor John Wright is the Director, Bradford Institute for Health Research.

Dr Simon Weaver is a Lecturer in Media and Communications.

Dr Graham P. Martin is a Professor of Health Organisation and Policy, Social Science Applied to Healthcare Improvement Research (SAPPHIRE) Group.

Mary Dixon Woods is a Professor of Medical Sociology, Social Science Applied to Healthcare Improvement Research (SAPPHIRE) Group. Professor Mary Dixon Woods is the corresponding author and can be contacted at: md11@le.ac.uk

Table 1 - Key lessons from the BEST campaign

Design	Use vivid events in the area of patient safety (e.g. serious incidents) to capture attention and emotional engagement Use robust, credible, sensitive measures to evidence change and reduce risk of staff resistance, fatigue, complacency or disillusionment Select the scope of the campaign carefully. Sometimes more can be achieved by doing less.
Communication	Ensure that frontline staff see the campaign as relevant to their day-to-day activities Clearly explain and reinforce the rationale behind the campaign; use emotional engagement and high-quality data Identify elements of the campaign relevant for the entire organisation but customise where needed.
Mechanisms of	Build in support for valid measurement from the start.

- change Set challenging goals that are realistic in terms of scope and timing.
Utilise a variety of support and enforcement mechanisms, not just one.
- Tempo Avoid “campaign fatigue” by building in periods for consolidation and round-up.
Different clinical areas may be at different stages; some may require more support than others.
Look for possible unintended consequences (e.g. distraction, deterioration in areas not targeted by the campaign).