Accidental Lean - Performance improvement in an NHS hospital and reflections on the role of Operations Strategy

Introduction

This chapter reviews a management consultancy intervention at a Wing of a Northern Hospital (NH) where the consultants were engaged to execute a performance improvement project to train the general public how to behave more responsibly in a hospital with regard to hospital acquired infections (HAI) such as MRSA[1]. The Strategic Health Authority (NHSA) commissioned the work because the Northern Hospital (NH) had among the highest rates of infection in the region, falling far short of Department of Health targets regarding HAI. The chapter's contribution to Service Operations Management and the study of healthcare is to consider the implications of piecemeal improvement programmes and reflect on whether a more studied approach towards operational performance objectives, developing an Operations Strategy, might result in behavioural and performance step-change improvement.

The work belongs within an existing body of research on performance improvement in Healthcare, much of which discusses the application of tools and techniques deriving from the Toyota Production System (TPS) collectively known as Lean (Krafcik 1988). A brief comparison is made between the case and other research before reflecting on service delivery and performance within the UK's National Health Service (NHS). Consideration is given as to whether the use of an Operations Strategy, another manufacturing-derived approach, could help the NHS have greater success in achieving its objective of using resources to best effect to deliver improved patient care (NHS_Plan 2000). Typically, an operations strategy provides the broader conceptualisation of service delivery and 'value'

[1] MRSA **(**Methicillin-resistant Staphylococcus aureus): a bacterial infection resistant to many widely-used antibiotics. It spreads in crowded environments where there is frequent skin-to-skin contact, making it more common in people who are in hospital or nursing homes.

creating organisational knowledge and enabling planning to reconcile market requirements and resources (Slack and Lewis 2011). The purpose of this chapter is to reflect on that reconciliation, or its absence, in the NHS in conjunction with the concept of 'patient value', a key priority area for health policy (Currie *et al.* 2008) and a driver of the consulting intervention described.

Healthcare is perhaps the most personal and important service people experience. It is also a service people need but do not necessarily want (Berry and Bendapudi 2007). Patient perceptions of safety and care are what make up the 'patient experience', something that transcends a purely medical perspective. Unlike other services where demand increases supply, in healthcare supply increases demand. More physicians or hospital beds in a given region translate into more medical services rendered on a per capita basis without necessarily improving the overall health status of that population group (ibid).

Service quality is an approach to achieving better health outcomes, with both quality and value determined by the beneficiary, and has become an important corporate strategy for healthcare organizations. Groonroos (2007) suggests there are two distinct components to quality, the technical aspect, or what is provided, and the functional aspect, or how the service is provided. It is the functional aspect that patients perceive and receive. Patient satisfaction therefore demands consideration of both the service concept and the customer characteristic (Anderson *et al.* 2008).

The NHS Context Leading to the Consulting Intervention

"Infections are the price we pay for advances in medicine which allow survival in patients who are unlikely to have survived their illness a few years ago" (Department of Health 2006).

At its inception in 1948 it was assumed that quality would be inherent in the service offering of the newly formed National Health Service (NHS) through the skills and ethos of the health professionals working within the system (Nicholls *et al.* 2000). The culture of the

organisation has been historically based upon clinical excellence and the assumed leadership of clinicians. Since the introduction of the “internal market”, numerous changes have occurred, including those of staff attitudes and perceptions, culture, patient expectations, and medical technology (Burgess and Radnor 2012, Graban and Swartz 2012).

In the NHS, quality is seen as a “prevailing purpose”, having become a statutory requirement in 1997, incorporating the principles of corporate governance and applying these for the first time to quality and clinical governance (Cullen *et al.* 2000). The NHS Plan (2000) specified that funding was linked to modernisation. Implicit was an acknowledgement that in order to deliver the aims of the clinical governance agenda the culture of health care organisations needed to be changed (Waring and Bishop 2010, Graban *et al.* 2012). A ‘patient-led’ perspective does not challenge clinical excellence but suggests a better balance be struck between the perceived ‘value’ of clinical safety and care and the perceived ‘value’ of more general patient safety and care.

This has made healthcare a fast-mover in policy reform although change is beset with professional and policy constraints, burdened by a mosaic of professions, large-scale structural change and the presence of central targets (Currie and Lockett 2011). Structural change in the NHS is framed by an increasingly prescriptive and centrally-driven set of performance measures (Currie and Suhomlinova 2006) and makes radical change within a culture such as the NHS problematic (Esain *et al.* 2008, Radnor and Osborne 2013). Consequently most initiatives within Hospitals and within the NHS in general tend to follow the path of incremental change and improvement rather than breakthrough (Ritchie 2002:4, Umble and Umble 2006). Choosing the tools and deciding the degree of emphasis in order to maximise the potential benefits and outputs of an action is difficult. It requires knowledge and planning. The former is not always easy to harness in a large organisation, and the latter, to be done properly, requires time, a sometimes rare commodity (Ritchie 2002:4).

A number of consulting projects have been carried out across UK hospitals, conforming in the main to Ritchie's contention, and increasingly choosing the 'business' tools of quality and continuous improvement such as Kaizen and Lean (Antony *et al.* 2007, Patwardhan and Patwardhan 2008, Boaden 2009;), alongside the adoption of the models of performance management (Smith 2002). Probably the most famous UK example is Gerry Robinson's televised improvement intervention at Rotherham General Hospital in 2006 (Towill 2009). Burgess (2012) provides comprehensive coverage of such improvement projects. Given the already stated objective of operations strategy as the conceptualisation of service delivery and organisational knowledge so that market needs can be effectively met, consideration of the multiple Lean interventions across the NHS raises a number of questions. The most obvious one is why are there so many interventions? Also, what lessons are learned from each one? How are, or indeed are, these lessons disseminated throughout the NHS? Are they used to encourage systematic learning, performance improvement and consistent service delivery, to leave quality deposits, as advocated by Dale *et al.* (2002)?

The Operational Context for the Management Consultants at Northern Hospital (NH)

While professionals and patients may define quality in different ways, Hospital Acquired Infections (HAI), especially MRSA have become synonymous in the public eye with poor quality service. Centrally-collated DoH statistics (2006) show that MRSA occurs in the main outside hospitals, and in fact people come to hospitals to be cured of it. As a response, the DoH 'ring-fenced' funding in order to address specific hygiene issues within limited timescales. DoH targets surrounding infection control have a temporary impact and help to focus the minds of both clinical and non-clinical management for short periods of relatively intense self-examination, although Boaden (2009) suggests they are not always effectively embedded.

Arising from the obligation to comply with specific Department of Health demands regarding MRSA, and in an attempt to effectively embed improvement, the Northern Strategic Health

Authority (NSHA) undertook to review the specific approaches to reducing MRSA infection rates at the Northern Hospital (NH), which had among the highest rates of infection in the region. The NSHA saw patients and the public as implementers of change, and in looking for a practical, systematic, long-term sustainable solution, saw 'some form' of social marketing as the best way to proceed. Budget allocations were set aside to address service improvement objectives within NH, a Steering Group was set up, a broad engagement process scoped out, and an initial project plan developed. As such, the remit of this project differed from typical improvement projects in that although its orientation was primarily within patient care, the initial impetus was process improvement in the public through social marketing techniques. It was hoped performance improvement within the Wards would follow. Despite beginning with the public, at the project's core lay the idea of 'sustainable patient value', ensuring that the whole focus and energy of the Hospital was placed behind meeting the needs of the various audiences served – hospital staff, Health Management, patients and the wider public - so that the Hospital could be seen to have met its organisational quality and performance imperatives.

The Approach Taken by the Management Consultants at Northern Hospital (NH)

Against this backdrop the Northern Strategic Health Authority (NSHA) secured additional funding for social marketing support, intended to assist NH to meet its immediate objective of reducing MRSA infection rates. The NSHA believed that the best possible outcomes would be realised using a social marketing approach, whose purpose is to achieve specific behavioural goals for a social good. Its primary focus is on "*benefiting the target audience and general society"* not the marketer (Andreasen and Kotler 2003:329). The NHSA believed if the behaviour and perceptions of external groups (patients and public) were understood, *internal* behaviours could be informed and developed accordingly. This is perhaps a counterintuitive view of how an organisation should plan its services.

To this end, a specialist change management consulting firm was hired to implement best practice approaches to social marketing to encourage patients and the public to behave differently. An initial Review Phase was the first step in the programme.

The Review Phase

'Review' was based on a preliminary assessment of the Hospital's original proposed action plan. Its focus was to assess the extent of existing knowledge of MRSA and the actions required to control infection rates. A combination of data collection techniques was used. Partly this was to effect data triangulation, and partly because the target population varied in profile and accessibility. Survey and group discussions were employed for all the internal and external stakeholder groups. Internal stakeholder groups were Hospital management, clinical management, nursing, clinical and support staff. External Stakeholders were the patients and wider public. To strengthen generalisability the selection sample of individuals from a number of groupings was random: members of ward staff, four patient groups and seven employee groups:

Medical	Theatre	Matrons	Porters
Ward 29	Phlebotomy	Renal	

Individual interviews, were conducted face-to-face or over the telephone, lasting around 45 minutes. The questions asked are shown in Figure 1.

1	What do you think is the current public perception of MRSA infections?
2	How do you think that means that patients feel when they enter hospital?
3	What actions do you and your colleagues take at present to address these feelings?
4	What could you do in the future to ensure patients feel more reassured about the real causes and likelihood of infections?
5	What could you do in the future to reduce the causes and likelihood of MRSA infections?
6	Where such initiatives have been tried / are in place, what stops them being adopted on an organisational-wide and sustainable basis?
7	How many of these initiatives have already been tried in the past and/or are currently in place in some areas?
8	How could these changes be made to work and to stick on a long-term basis?

Figure 1: The interview questions

For external stakeholders, four focus group sessions of 90 minutes each were held. The same questions were asked as in the staff sessions, re-worded for relevance. Participants were recruited against the following criteria:

- Mix of males and females in each group
- MRSA Involved Group
  - definition:
    - have had a close friend or relative involved in an MRSA 'episode' within the past 24 months
    - have visited, *for any medical reason (self/other)*, NH within the past 24 months
- Non-MRSA Group
  - definition:
    - have visited, *for any medical reason (self/other)*, NH within the past 24 months
    - aware of MRSA

All respondents within the consultation were broadly conversant with the challenges facing the NHS in its battle against HAI, and their profiles are shown in Figure 2.

	MRSA involved groups	**Non-MRSA groups**
Wednesday 28 November	**25-44, C2D**	**25-44, C2D**
Thursday 29 November	**45+, C2D**	**45+, C2D**

Figure 2: Age and Socio-Economic Profile of Focus Group Respondents

Findings from the Review Phase

Employees showed an underlying commitment to care and awareness of the wider cultural and organisational issues:

"We've all lost the focus of why we're here" (Nurse)

"'The focus needs to shift to good practice rather than targets" (Matron)

"We don't work well as a team at an organisational level"(Nurse).

Staff focus was strongly on quality, performance improvement and cultural change. The recurring theme was the requirement for greater clarity and consistency of leadership across the organisation. Accountability and silo working were raised as issues, both identified by Klein (2010) as areas to be addressed across the NHS. Encouraging people to work together in multi-disciplinary teams toward a common patient-centred goal was identified as necessary – something already practised to good effect in the Mayo Clinic (Berry 2004).

The public surveys highlighted inconsistency of service delivery, with puzzlement that an organisation could get things right and 'quite so wrong' at the same time. Some saw politicians as the root of all evil, but generally the buck came back to the Hospital's senior management. Doctors and nurses were largely exempt from being responsible for any professional shortcomings:

'It's a shame they can't they give proper support to the nurses and free them up to do what they do best, which is to care for the sick' (Member of the public)

'I wouldn't want to work in those conditions. How can they think it's OK to carry on like this in the 21st century?' (Member of the public)

Patient and public focus was on service delivery and outcome (Groonroos's (2007) functional and technical quality). The assessment from the Review Phase indicated that internal issues were greater than the intended process improvements with the public. An internal change programme was recognised as vital to engender performance improvement and cultural change to create an improvement in overall service quality. Consequently, social marketing was removed from the project remit.

The Internal Change Programme

Four phases, Engage, Embed, Energise and Evaluate, referred to as the '4Es' were proposed, each with a specific thrust of activity, broadly based on 'capturing the hearts and minds' of staff (Figure 3).

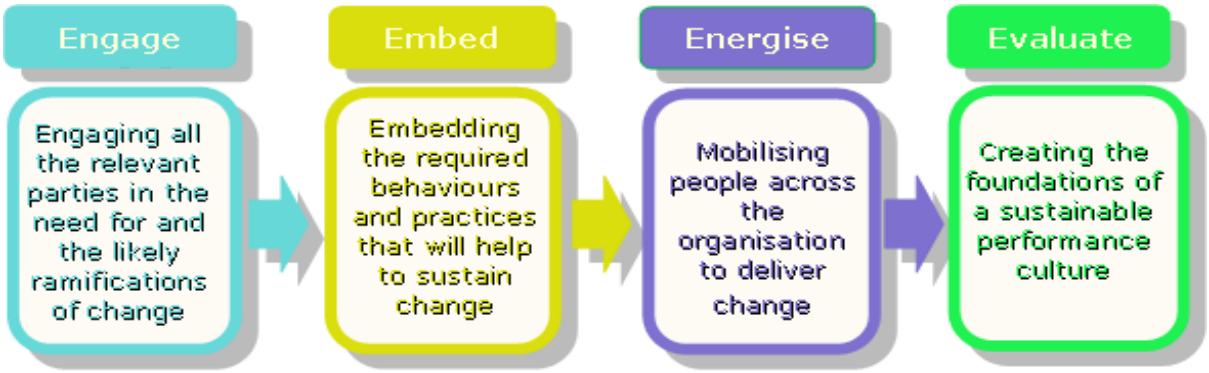

Figure 3: The Generic Change Process (Management Consultants proprietary)

The Engage Phase

Key to engagement was a simple vision for change, emphasising that patients had to be prioritised as it was felt that being 'patient-led' would enable multifunctional teams to form, improving staff motivation as well as outcomes. The message (Figure 4) was communicated visually throughout the Ward:

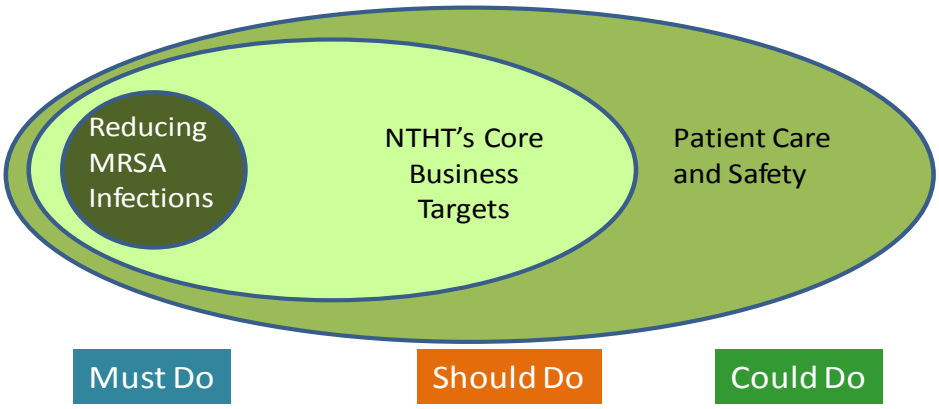

Figure 4: The Vision to Engage Change

Priorities were outlined as ‘must do’, ‘should do’ and ‘could do’, and an action plan developed, attempting to define the central organising principles for the Hospital to shape and express ‘*the way things are done here’.*

The Engage Phase centred on short-term initiatives with little or no reference to the cultural context for attempting to change internal behaviours, grouped around the headings of People, Process, Practice and Performance, with the main orientation on Process and Performance. To become a patient-focused organisation, the Hospital had to provide a consistent, organization-wide response to public and patient concerns over healthcare associated infections.

The ‘patient-led’ perspective was intended to suggest a balance between the perceived ‘value’ of clinical safety and care and the perceived ‘value’ of patient experience. Staff were encouraged to work towards a common goal, to consider addressing all issues that impact upon the total patient experience. The initiatives were developed under the overall umbrella of ‘Safe Hands’ rather than a specific change programme so that they could be embedded into everyday working practices. The Chief Executive of the Hospital stated:

‘This should not be seen as just another change initiative but core to the organisation’s renewed focus on patient safety.’

The Embed and Energise Phases

The Embed phase used the tools of lean, process improvement and change management. The focus was for staff to understand if not create the ‘need for change’. Toyoda’s ‘5 Whys’ technique was used because it addresses single-problem events rather than broad organisational issues and gets to the root cause of the problem. This is necessary when dealing with the MRSA issue because it directs the receiver to the desire to create a “P*ositive and Consistent Hospital Experience”*, which can only be done through the meaningful engagement of all staff with the same message and actions working towards

this. Two parallel work streams were embarked upon, emanating from the core idea of "*creating a positive and consistent hospital experience*" (Figure 5) for the Energise phase:

- **Evolutionary change:** to embed sustainable, patient/customer-focused change across the organisation.
- **Transformational change:** to make a quick and significant impact in the worst performing areas

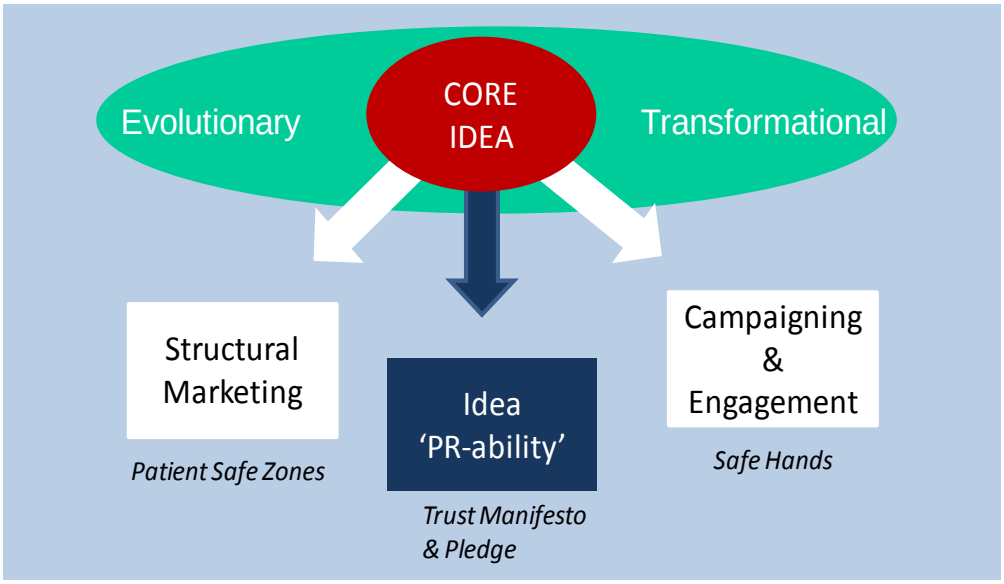

Figure 5: A Balanced Response to Embedded Improvement (Management Consultants proprietary)

'Patient Safe Zones' were created at ward level through Instant Impact Interventions initially focused on 'Hot Spot' areas. They were based on a combination of transformational change, lean and kaizen principles. Cross-functional teams were formed, facilitated by transformational change experts. This phase followed the RIE format typical of Lean change initiatives in the NHS which provides short bursts of improvement activity over 5 days with a cross-section of workers involved in a particular process (Burgess 2012).

To promote the overall 'Safe Hands' principle of patient safety and care, internal and external communications campaigns were developed. Designed to focus on ***'creating a positive and consistent hospital experience'*** through the 4P's: Public/Patient, People, Place and Performance, these interventions echo Glouberman and Mintzberg's (2001:60) model in 4 quadrants where they discuss the four worlds of "care, cure, community and

control". The intention of the 4 P's approach was to demonstrate transparency and commitment of purpose, weakening the 'curtains' (ibid) that inhibit communication and collaboration.

The 'Safe Hands' campaign (Figure 6), combined for NH the RIE approach, 5S and the consultants' proprietary phased approach shown in Figure 3.

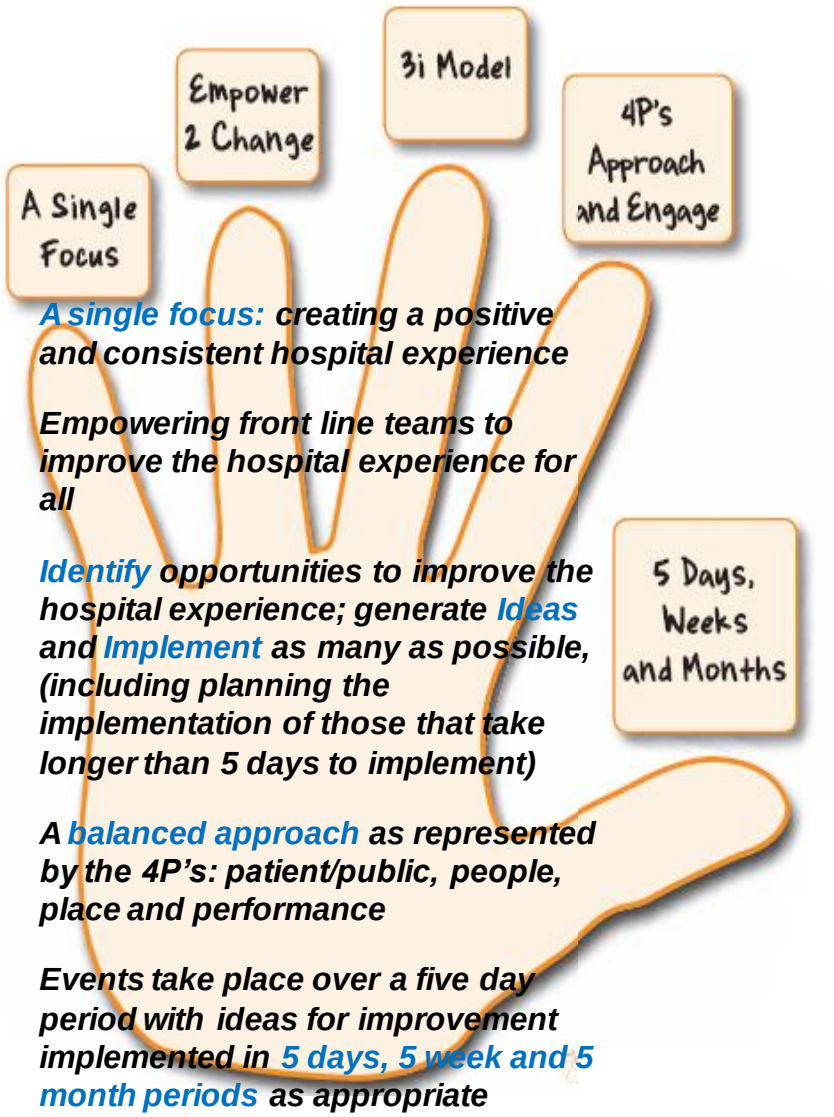

Figure 6: The Safe Hands concept (Management Consultants proprietary)

Of 124 ideas generated on the first ward alone, 85 were implemented. A total of 5 Wards were involved.

The Evaluate Phase

The impact of 'Safe Hands' was measured with existing performance management data within the Hospital. Hand Hygiene Audit, Hand Hygiene e-learning and MRSA e-learning scores improved by 24%, 44% and 60% respectively.

The performance of all five wards in the Wing had converged at a significantly higher level. 'Soft' aspects of the work were also evaluated by means of a staff questionnaire. A summary of the key points is provided in Figures 7 and 8.

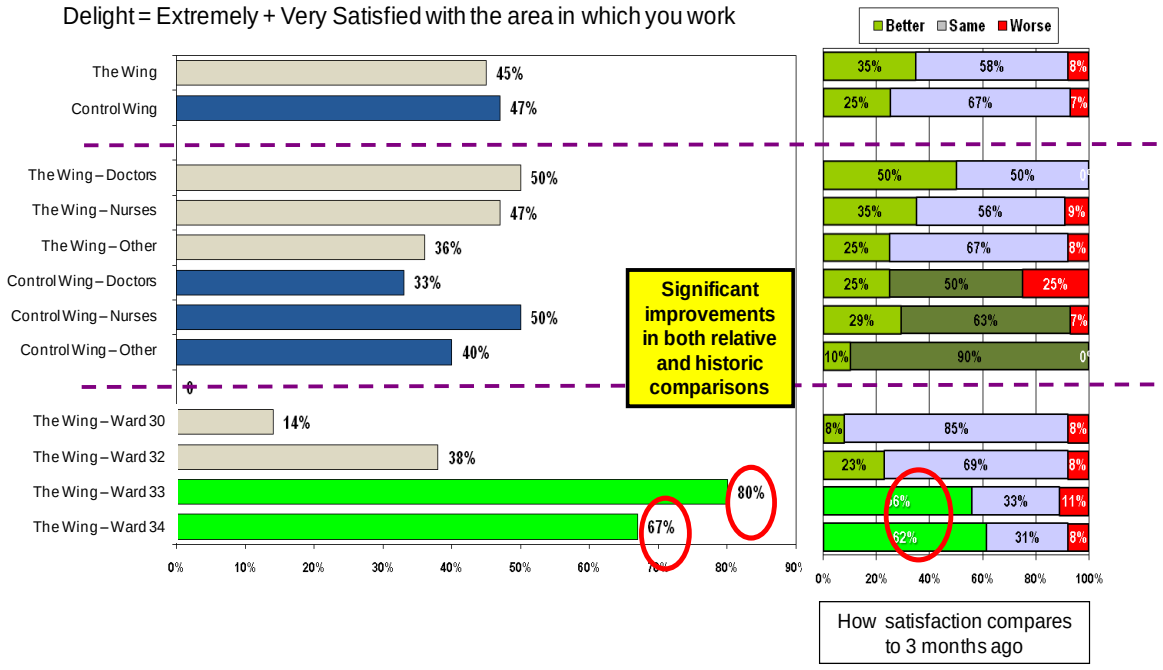

Figure 7: Staff delight with their work area (physical environment)

Figure 7 shows that staff in wards 33 and 34, the first two wards to complete the 'Safe Hands' process, were significantly more satisfied with their area of work. Overall, staff noticed change and the significant impacts achieved, demonstrated in terms of relative to Control Wing and over time, (compared to three months previous). Specifically, the improvements related to layout, cleanliness, availability of equipment and an emerging sense of teamwork.

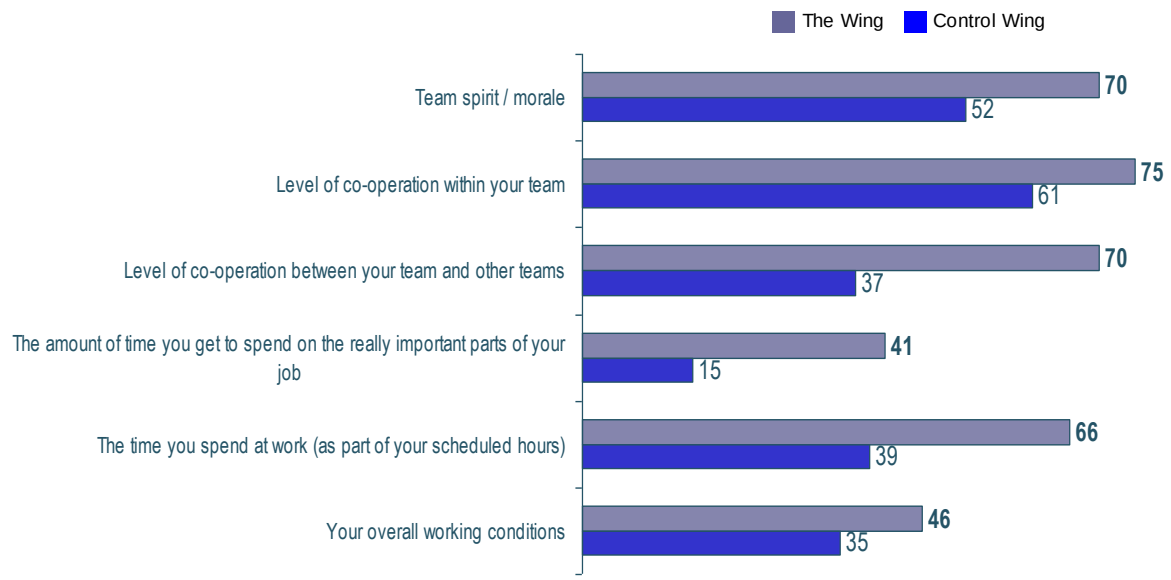

Figure 8: Staff satisfaction with their working lives

However, Figure 8 shows there was less willingness to tackle longer-term issues around culture, leadership, engagement and evolutionary change. This may have been because of general resistance to change than to overall aims. This corresponds with the lack of accountability identified in the findings analysis as a significant issue at NH. It is also anecdotally representative of NHS culture as a whole, particularly in the hierarchies that exist within and between different professions, (consultants, doctors, nurses and managers), the evolution of which is detailed in Klein (2010).

Greater cultural allegiance to the profession than the employer is typical of organisations aligned as professional bureaucracies ((Mintzberg 1983). Yet alignment with professional not patient-focused mores runs counter to the idea of 'creating a positive and consistent hospital experience' in terms of its impact on consistency of service delivery. Measuring culture to foster change for improved quality and performance is acknowledged as being important (Karp 2008), yet existing tools may be inadequate, given the paucity of information around understanding the culture measurements.

"This sounds fantastic – if we could have the same – but empowering staff needs to be backed up by both physical and financial resource" Consultant from Control Wing

"Staff are happier at work – knock on effects to other staff and to patients" Consultant from The Wing

So What?

This project was a resounding success in the Ward. MRSA infection rates had been reduced, which was the original objective. However, this had been achieved through an internal change programme and not a social marketing exercise, a consequence of which was that there were also a number of unintended staff-related improvements, highlighted in Figure 8. Morale had improved. Traditional silo working had reduced. The effects of greater co-operation were being felt by patients and shown in productivity figures the NH collated.

The smallest improvement area, "Your overall working conditions" highlights in this hospital issues around systematic learning and consistent service delivery, identified earlier in the Chapter. Given the evidence of this intervention, why did the hospital's management not use this project as a pilot and implement the same changes throughout NH? Why were the service outcome improvements not seen as important enough to be replicated hospital-wide? Further questions arise regarding the overview taken by both hospital management and the NSHA, such as why did neither body consider the wider results from the project and the potential implication for the hospital itself or the whole NSHA? Why did they simply accept that MRSA infection rates had fallen to 'acceptable' levels and therefore consider the project a success, and thereby completed?

How does the NH project compare with other NHS initiatives?

Research on NHS performance improvement projects using Lean provides observations and commentary on specific situations. Service quality and effectiveness have become significant priorities and have led to the naïve application of external, business sector managerial policies, with the tools of Lean and short-term activities as the primary focus,

ignoring the over-arching cultural ethos and the centrality of the customer (Currie *et al.* 2008, Klein 2010, Radnor and Osborne 2013). Operating processes and systems have internal indicators of success, focused on the reporting of centrally-set targets. Cannon (2013) assessed that as much as 90% of work, and improvement projects, within the NHS are driven by failure demand, caused by a failure or an error. He argues systematic increase in demand is a function of the way the system has failure designed into it rather than inevitable. Cannon states the eradication of non-value-adding work is the only way to improve performance in the NHS. To do this, the NHS must only do what matters to the user. Cannon's exhortation epitomises the ethos of Lean. As others have stated (Millard 2011, Radnor *et al.* 2012), success lies in patient-centred definitions of value and waste.

Burgess (2012) evaluated Lean implementations in 143 NHS Hospitals to explore the context, process and content of Lean implementation by English hospital Hospitals. The findings from the Case Studies are shown in Table 1. NH has been added to this Table for comparison purposes.

	Case Study				
	UHCW	**ELHT**	**RBH**	**SHK**	**NH**
Drivers					
Performance targets and finance	✓	✓	✓		✓
Quality	✓		✓	✓	✓
Chief Executive			✓		
Impact					
Small simple changes	✓	✓	✓		✓
Focus on patient	✓		✓		✓
Learning to see	✓	✓	✓		✓
Implementing new standards	✓	✓	✓		
Challenging steps	✓	✓	✓		
Reduced 'did not attend'		✓	✓		
Improved morale			✓	✓	
Changing culture			✓		
Improved performance			✓		

Table 1: Lean Implementation – Drivers and content (Adapted from Burgess 2012:261/257)

Typical of Lean projects within the NHS, the NH project was also concerned with the organisation of work, and with the specific tasks and responsibilities therein. As explained, this is core to Lean and could explain why the consultants gravitated towards using these tools having uncovered during the Engage phase that problems were internal and not something the patients and public could change. Whilst the stated focus for the consulting engagement was the end-user and the public the actual driver was a response to DoH targets with regard to HAI. Clearly, a reduction in infection rates improves quality. The 15% year-on-year improvement resulting from the NH project is in keeping with other performance improvement projects where tangible outcomes are noted. However, less typically, the NH project also evaluated cultural change (Figure 7) and although it identified a reluctance to tackle longer-term issues, it did at least highlight the need for them to be considered.

In practice at NH Lean was used as a constellation of activities related to a pre-existing, target-led problem and not the wholesale organisational change ethos which true Lean is (Radnor *et al.* 2012). It used the most prominent tools encountered elsewhere, such as RIEs, looking at micro-level improvements to raise service quality and patient experience. However, as stated previously, this project differed from typical change programmes embarked upon within NHS hospitals in that the commissioning NSHA did not identify the problem correctly. It saw patients and the public as the implementers of change and for this reason wanted social marketing to be used to engender change in performance regarding MRSA in a wing of NH. It was the management consultants, who, once engaged and embarked on investigating the situation in the 5 wards in the Wing, found through the Review phase that staff and the public saw internal issues to be more pertinent for resolution rather than external ones. Staff and the public showed a greater awareness of operational issues than management. Once again this highlights problems with the prevailing organisational culture and with accountability. This is interesting of itself, but does prompt

questions about what service quality means to NHS management, and how they see their role in fulfilling this 'prevailing purpose'.

For this reason, this project was Lean by accident. Lean was not the primary purpose. Instead the tools of Lean provided the most suitable mechanism for resolving the immediate issues, identified in the Review phase. In typical Lean fashion, the root causes were found to lie elsewhere, and not in the stated identified problem. Yes, MRSA infection rates had exceeded the centrally-set target and contravened centrally-driven performance measures. The Review phase showed that working practices had led to this, and once they were changed, the corollary was that MRSA infection rates reduced. The CEO of NH announced on 17th January 2014 that they had achieved 135 consecutive days of an MRSA-free hospital, a sustainable performance improvement of note.

So why were the cultural changes not recognised and celebrated? Why was the link between the imperative of cultural change to the delivery of the clinical governance aims expressed in the NHS Plan firstly not acknowledged, and secondly not communicated throughout the organisations (locally, and the broader NHS)?

Papadopoulos *et al.* (2011) have noted, use of Lean as a label for interventions in the NHS is widespread but the interpretation is varied. Lean should be a cultural transformation that changes how an organisation works. It requires new habits, new skills and a new attitude throughout the organisation in order to fulfil the underlying goal of improving value for the patient (Toussaint and Berry 2013). Yet the reality appears to be that Lean follows a line of service improvement that brings to the fore tensions between clinicians and service leaders around the organisation and the delivery of healthcare work (Mazzocato *et al.* 2010). It seems Lean principles have become entangled with other reforms and the competing voices of policy-makers, managers, clinical leaders and management consultants and illustrates the desire of policymakers to reorder clinical work thought the introduction of management philosophies and techniques (Waring and Bishop 2010). This leads to question whether

more could be achieved within NHS hospitals if government preoccupation with centralised control and micro-management through targets was replaced with a template intended to reduce boundaries within and across organisations and organisational members, synchronising policy aspirations with existing power arrangements (Currie and Suhomlinova 2006, Klein 2010).

Would an Operations Strategy approach make a difference?

Control is a necessary aspect of managing an organisation since it provides information and a starting premise for decision-making. However, at the micro-level that hospitals have to respond to, it becomes a static concept. The culture of continuous improvement, which emerges from a holistic Lean implementation introduces a dynamic concept into an organisation. It requires choices to be made about the tools to use, in which order and in which emphasis (Garvin 1992). These are surprisingly difficult decisions to make, and especially so without an over-arching framework within which to place thinking. Operations Strategy encourages an organisation to focus on a holistic understanding of needs in order to fully realise potential benefits. For a hospital, the primary need would be that of the patient, yet generally the policy-setter has been deemed the priority stakeholder, a situation which has resulted in value as specified by the public user at odds with the best use of resources against a backdrop of budget cuts and efficiency targets. The environment driven by policy and spending reviews means the requirement to engage with process improvements and other concepts is driven from management, making staff management-facing and not patient-facing, responsive to internal measures and targets and not patient requirements (Seddon and Caulkin 2007). Indeed, the case outlined in this chapter illustrates that point exactly since the driver was a response to achieve DoH HAI targets, albeit the targets, being to reduce infection rates, in this case are patient-focused.

Currently, there are a number of issues which make an already complex situation more difficult to unravel. Patient value and patient needs can take on a variety of forms depending

on who is expressing the need – the commissioners, the clinicians, the taxpayer or the patient (Radnor *et al.* 2012). Costs in the healthcare sector are too high and growing too quickly, which places pressure on government budgets and threatens the availability of timely care and best treatments (Graban and Swartz 2012). The strategies for patient care and meeting centrally-set performance targets appear to be pointing in different directions and removing an integrated care ethos (Currie and Suhomlinova 2006).

Organisations in all industries develop strategies to respond to environmental factors and competitive challenges such as these. These strategies drive operational decisions. The idiosyncratic nature of the environment in hospital settings suggests the need to develop models that are specific to this industry and which align good overall system performance and minimise dysfunction effects between strategy deployment and operational practice (Goldstein *et al.* 2002, Esain *et al.* 2008). Good service operations management should lead to better or more appropriate services and experiences providing 'triple bottom line' benefits - better for patients, staff and the organisation (Johnston *et al.* 2012).

To deliver better or more appropriate services, the NHS, like all service businesses needs to have over-arching strategies in place to try and prevent non-aligned and disjointed activities and decisions. A number of approaches exist, largely discussing similar principles but espousing different thinking or activities as a purpose and way of developing this strategy. Two of these approaches are now examined and their potential usefulness to the NHS reflected upon. Firstly, the Slack and Lewis Operations Strategy framework is shown in Figure 9. According to Slack and Lewis (2011) the application of an operations strategy should be central to senior managers.

Figure 9: Operations Strategy framework (Slack and Lewis 2011:2)

To understand how an organisation works, they say, the interaction between all resources needs to be examined. In the context of the NHS, this framework is useful because it brings together the four views which encompass an organisation - operational resources, market requirements, operational experience and corporate strategy. Examination of each view exposes the dilemmas inherent within an organisation, notably the tension between market requirements and the operational response possible according to resource capabilities. Part of the 'content' of operations strategy is concerned with the organisation structure and the responsibility relations within the operations function. For a hospital this encompasses the complexities of the power relations already discussed between commissioners, clinicians and managers.

One of the problems with this framework for hospitals, or the NHS, is that it does not help identify what the priorities are and in what order they could be addressed. The diagram appears to show that everything should be treated equally at the same time. It is not clear

whether it matters what we do, in what order and what the difference would be. Yet as Garvin (1992) and Ritchie (2002) have both stated, it is knowing the order of priority and the degree of emphasis to place on it that is critical if long-term success is to be achieved. The case presented confirms this, albeit through omission rather than commission. The potentially far-reaching development of new working-habits and the unlearning of some old working practices that could help deliver sustainable, accountable, patient-focused, quality healthcare was overlooked in favour of recognising an immediate performance indicator improvement.

The Sandcone model (Figure 10) is another way of developing an Operations Strategy. Unlike the Slack and Lewis approach, it provides an order for the journey of continuous improvement. Ferdows and de Meyer (1990) state that excellence is built on a common set of fundamental principles. The sand imagery is a stand-in for management effort and resources. The sequence represents building a stable foundation which as you continue to pour sand you move up the path towards the development of lasting organisational capabilities, needing exponentially more effort and therefore a broader foundation as you move up through the steps. The sequence outlined helps organisations achieve substance and not just form. Cost is last not because cost improvements are an ultimate consequence of resources and management efforts invested in the improvement of quality, dependability and speed.

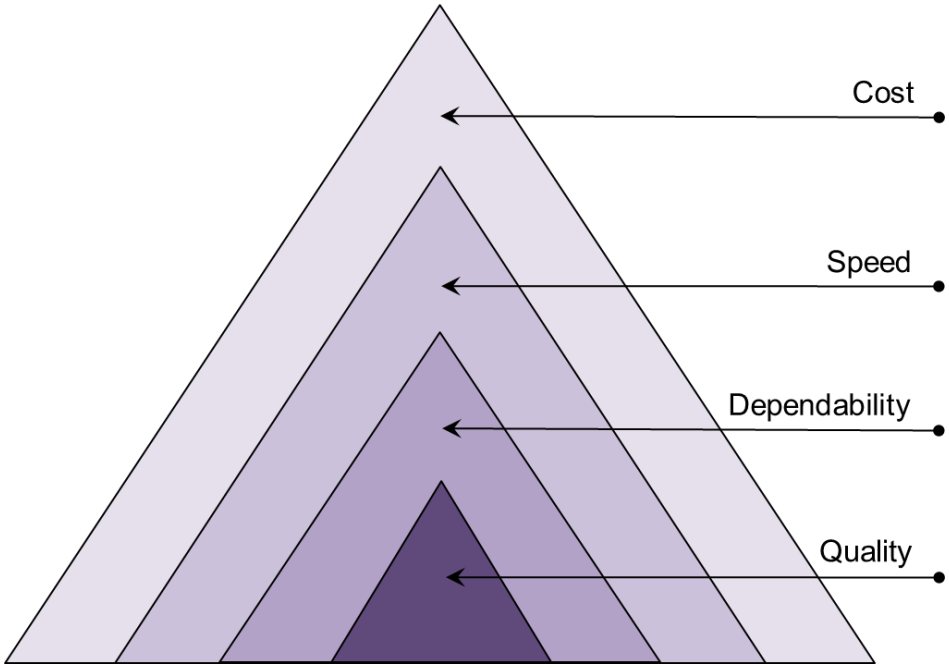

Figure 10: The Sandcone Model (Ferdows and De Meyer 1990:175)

The NH case appears to conform to this view in that the Ward had shown service quality improvements, in patient-centric and target-compliance terms, due to its clear goal of MRSA infection-rate reduction. Where it falls is in the ensuing expansion and enrichment, since there is no evidence the gains were leveraged. This is an important point to emphasise, given the literature on Lean in healthcare in the main seems to demonstrate that seeking 'low hanging fruit' seems widespread while lasting cultural improvement is scant. The NH case appears also to confirm that in the NHS form seems to be a more significant driver than substance, with the short-term goal being given more emphasis than the potential benefit of exponential gain through cultural changes leading to the embedding of new working practices.

Speed refers to elapsed service provision time and responsiveness, which provides an organisation with flexibility – and thereby further enhanced performance. For patients, responsiveness and elapsed time are key features of the functional quality they perceive and receive. This is core to the idea of 'sustainable patient value', as espoused by NH management, yet the core pursuit was conformance to centrally-set targets.

Improvements obtained in this way are more stable and likely to be more sustainable because they emerged as a result of the deeper penetration of good management practices. This is difficult at the best of times and tantamount to impossible if management effort and resources are focused on fulfilling a frequently-changing government agenda rather than on developing lasting organisational capabilities. If 'low hanging fruit' in the form of the meeting of centrally-set targets is the constant goal, then the more lasting operational successes achievable through holistic, organisational continuous improvement as advocated by the Sandcone concept will always remain a chimera.

The advantage of this model seems to be that it encourages the development and nurturing of organisational capabilities cumulatively, which appears to imply they will be more deeply ingrained and therefore longer lasting. Through its cumulative principles it takes into account the trade-off concept, suggesting the specific pattern of capability enhancement incorporates relevant trade-offs as the organisation moves up the pyramid.

Conclusion

The main contribution of this chapter is the consideration that an Operations Strategy developed specifically for Healthcare could lead to a holistic continuous improvement ethos. Lean addresses whole organisational issues, but its application in Healthcare precludes this. The tools of Lean when used in isolation tend to address single-problem events and ignore the centrality of the customer. It was the centrality of the customer to a single-issue event which drove NH and NSHA management to engage consultants. The over-riding theme from staff was the requirement for greater clarity and consistency of leadership across the organisation. External stakeholder concerns were about inconsistency of service quality and delivery. This combination emphasises the 'patient-led' perspective, and the need for multifunctional teams, balancing patient experience with clinical safety and providing a common organisational goal. At NH, embedding changes into everyday working practices

appears to have diluted organisation-wide action, resulting in keeping the changes isolated within one Ward.

In line with an estimated 90% of work within the NHS (Cannon, 2013), the NH consulting intervention was driven by failure-demand – the non-achievement of MRSA targets. This implies implying management emphasis on target-fulfilment, showing an internal, not customer, focus. As Radnor *et al.* (2012), Millard (2011) and Cannon (2013) state, success lies in patient-centred understanding of delivery and waste. Adopting an Organisation Strategy approach, like adopting Lean, means changing how an organisation works. An Operations Strategy tries to prevent non-aligned, disjointed activities and decisions whilst allowing for local variations. It means developing new habits, skills and attitudes to reduce boundaries within and across organisations and organisational members, as happened in the Ward at NH. Organising to deliver that is what an operations strategy can help achieve.

Service quality in a hospital is not just about reaching targets set by a central government department; it is about ensuring that the patient experience is consistent throughout a stay whilst nevertheless delivering a successful clinical outcome. This is probably achieved in the main throughout the NHS but the creation of an Operations Strategy would demonstrate a tangible audit trail from inception to implementation, showing patient value to all its stakeholders.

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