

**Improving healthcare quality at
scale and pace**
Lessons from The Productive Ward:
Releasing time to care™
programme
Full Report



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Executive Summary

The NHS Institute for Innovation and Improvement's (NHS Institute) Productive Ward: *Releasing time to care*TM (The Productive Ward) programme aims to empower ward teams to identify areas for improvement by giving staff the information, skills and time they need to regain control of their ward and the care they provide.

This research builds on the insights provided by the NHS Institute's The Productive Ward: *Releasing time to care*TM Learning and Impact Review (undertaken February-June 2009), undertaken by the National Nursing Research Unit, Kings College London.

This study (undertaken April-June 2010 by the same research team) aims to inform efforts to maintain momentum of The Productive Ward, to support NHS staff going forward, and to discuss mechanisms and arguments for continued commitment and investment. Broader objectives include; generalising the benefits from this learning, creating a set of hypotheses about the spread of large-scale change that can be tested in future change interventions, theorising about some of the implications for the spread of The Productive Ward and other large-scale change programmes across different sectors of the NHS (eg, mental health, community sectors).

What were the aims of the research, what does it tell us and what are we doing about it?

It is no secret that the NHS is facing the biggest challenge in its history and that £15-20bn in cash savings have to be found by 2014. There are countless examples of money saved and quality improved through using the tools and techniques provided by the NHS Institute's Productive Series. Some of these can be found at www.institute.nhs.uk/productives. However, we are currently finding that, although The Productive Ward has proved to be extremely successful in the NHS, so far it has been implemented in less than half of the wards in NHS England. This has to represent a huge missed opportunity – and one which needs to be addressed urgently.

It is critical that improvement programmes like The Productive Ward which have the potential to have a significant impact on cost and quality are implemented on a large scale and as quickly as possible.

To achieve this it is important to understand what is needed to support 'spread' and what actions can be taken to overcome potential barriers to widespread adoption, implementation and assimilation of such initiatives into routine practice.

The research provides significant insight into a number of questions:

1. What makes some organisations successful and others not in terms of take up?
2. Why do some organisations spread quickly and others do not?
3. What are the timescales that organisations take to spread?
4. Are there organisations that spread quickly and sustain well? What are the characteristics of these organisations?
5. What is the process that is used in organisations that have spread and sustained well?
6. For organisations that struggle, do they share specific factors?
7. Is it possible to identify specific actions that could overcome barriers?

It also explores how learning from NHS staff experience of implementing The Productive Ward can inform the spread and sustainability of other large scale change initiatives and provides insight into a broader challenge; whether it is possible to take the lessons learnt from The Productive Ward implementation and move from a reactive to proactive understanding of the spread of large-scale change initiatives in a healthcare context.

Methodology

The research applied a two phase methodology. Phase one comprised of three elements:

- a focussed review of the theory related to spread of innovations within health care
- application of this theory to our knowledge of The Productive Ward
- identification of beneficial areas for future research to inform phase two of the research.

Phase two comprised of in depth case study interviews with NHS staff implementing The Productive Ward. These focussed on the three areas identified in phase one as being most significant for the future development of the programme:

- *Discontinuation* - People (or organisations) decide to reject an innovation after adopting it, possibly due to shifts in context which make work methods and goals obsolete, or because sustaining one approach may inhibit staff development and the implementation of other new ideas.
- *Islands of improvement* - Pockets of excellence remain isolated and unknown to others; there is a lack of spread or only isolated uptake of innovations.
- *Improvement evaporation* - A situation where change is not sustained. The decay of organisational change may be influenced by a wide range of factors including staff commitment, managerial and leadership approach, as well as organisational, financial, political, cultural, contextual and temporal factors.

In the case study sites, multiple participant accounts were used to establish a near as possible insiders' perspective of context, history, current activity, staff energy, organisational energy, facilitators and barriers, and future plans.

Insights from the literature review of the theory related to spread of innovations within health care

- *The report helpfully defines and clarifies the terms dissemination, diffusion, adoption, spread, assimilation and sustained change.*
- *The case studies in phase two of the research are particularly exciting as they provide evidence on a topic which has not been widely researched previously; non spread.*
- *The report looks at the assumptions and observations about core innovation concepts. It goes onto categorise, giving examples of a wide range of indicators which could be studied to assist spread of an innovation in the context of healthcare organisations, eg, identifying and mapping opportunities and constraints (ideas), reviewing organisations impact (context), assessing the capacity for beneficial change/effectiveness (outcomes).*
- *Specific challenges to spreading improvement programmes in health care are identified and described within the report. Examples range from a lack of receptive organisational context or human receptivity to an absence of communities of practice or an inconsistent organisational /professional group vision.*
- *The research explores these factors in relation to spread of The Productive Ward and helpfully summarises critical success factors required to spread improvement programmes at scale and at pace eg, awareness raising of the potential for change, emotional connection to unleash energies for change, learning about benefits to self, belief that change can succeed, seeking and forming supportive relationships, restructuring the environment to support change.*

What lessons can be learned from the literature review?

- Spread cannot be driven by 'top-down' plans and motivation alone, it needs to also focus on unleashing change from the system itself by moving people to change themselves and each other.
- Spread has to be user-focused, to meet the needs and requirements of different groups of potential adopters.
- The rapid spread of 'good' ideas can be damaging in the longer-term if there is not adequate time for staff to learn new skills or wider impact (for example, on patients) is not considered.

- There are different types of barriers to spread, including lack of receptive context, inconsistent vision, self-sealing groups, sticky knowledge flow, issues of scaling-up, and inward-looking innovation. Positive actions are needed to address specific types of problems.
- Spread can be perceived as 'grounding' innovation within systems – in other words confirming the mutual knowledge, beliefs and assumptions related to the innovation. It includes the formation of groups of people, personal investment and local control as well as technical systems such as plans and measures.
- Spread involves exchange and mutual learning – this means taking on board the human aspects of change and recognising that people influence people eg, local 'change champions', strong leadership support and great project management.

As leaders of improvement is it possible to influence spread and adoption?

The research indicates that leaders of improvement programmes like The Productive Ward can learn from the above lessons and take positive actions to overcome barriers to innovation and spread:

1. *Connecting with wider social and political agendas (including national policy imperatives)*, particularly to secure resources and negotiate incentives.
2. *Understanding the needs and characteristics of potential adopters*, ensure the meaning of the innovation is clear to them and the adoption decision is made as simple as possible.
3. *Engaging potential adopters at all stages*: for example, in development and end-user testing to target the innovation appropriately, enable ease of access to the innovation, provide support for implementation, and promote positive relationships and client-centeredness.
4. *Engaging respected individuals* to champion the initiative, publicise the work of 'leading' organisations, identify change agents and networks to connect and spread clear information and learning about the innovation.
5. *Providing clear information about the benefits of the innovation* in terms of the potential for: advantage, compatibility with organisational goals, straightforward implementation, trial and adaptation to local contexts, and observable improvement.
6. *Providing clear information about the operational attributes of the innovation* in terms of operational goals, usefulness, feasibility and stages of implementation, and what type of knowledge is required.
7. *Supporting adopting organisations to examine their organisational context* to identify facilitating factors such as resourcing, leadership, skills, knowledge-base, transferable know-how, ability to evaluate the innovation and receptivity in terms of vision, values and goals, as well as critical success factors for organisational spread.

Review of the four previous Productive Ward evaluation studies (listed below) also reveals characteristics which may have hindered the spread of the programme.

- The Productive Ward: *Releasing time to care*™ Learning and Impact Review (NNRU 2010)
- NHS London (2009) *Evaluation of Releasing time to care*™
- NHS Scotland (2008) *Releasing time to care*™ Evaluation
- Belfast Health and Social Care Trust Productive Ward - *Releasing time to care*™ Evaluation Report (BHSCP 2009)

For easy access we have compiled lessons from the focused review of the wider literature and insights from case study interviews and in a separate set of 'top tips' for practitioners who are leading Productive Ward implementation (**Top Tips for spreading the Productive Ward within NHS Trusts**, available at www.institute.nhs.uk/productiveward).

Discussion and recommendations for maintaining momentum of The Productive Ward

- The research confirms that there are numerous frameworks and models relating to spread and adoption and indicates that this can be confusing for practitioners. The three-fold model (Determinants, Processes and Measures) developed within the report aims to provide a helpful framework within which to reflect upon and plan locally for spread.
- A deeper awareness of the different determinants of spread (individual, organisational and contextual) could help practitioners to improve readiness for spread by identifying facilitators and challenges for individual staff, different ward-based teams and whole organisations. Key factors include staff receptivity, staff energy, engagement, organisational commitment, collective capability, historical context and the way in which organisations function.
- The study has focused on three selected processes of spread (discontinuation, islands of improvement and improvement evaporation) and it shows that one or more of these processes can be in operation in any one organisation at the same time. A greater awareness of the nature of these processes, and why they may occur within an organisation, could help practitioners to channel resources and energies into areas where it will have the greatest impact. For example, looking to continuity of organisational commitment and collective capability in order to avoid discontinuation, or looking to improve communication and shared learning in the case of islands of improvement. Finally, organisations might look to invest resources in maintaining staff energy and engagement if they wish to avoid improvement evaporation.
- Practitioners are likely to find it useful to know more about how to measure (and explain) the spread of The Productive Ward. Such measures could help to address variation in how spread is judged and assessed, as well as opening up a dialogue between different stakeholders to reach a more useful and objective agreement about what a 'successful' rate of progress is. The findings of this study provide insights into how organisations can spread learning and embed improvement (by for example, helping ward leaders to manage time and resources to release staff, and supporting shared learning through local adaptation and then local standardisation of tools and techniques).

Conclusions for The Productive Ward and Large Scale Change

- The progress of any organisation implementing a programme like The Productive Ward can be judged in different ways. Successful implementation and assimilation means spreading programmes at scale and as quickly as possible. It can also mean making sure the right changes happen, at the right pace, and that these are embedded in organisational working. External observers, executives, managers and frontline staff make different types of judgements about how well the organisation is doing. The three-fold way of explaining spread developed here (Determinants, Processes and Measures) provides a framework within which to reflect upon and plan locally for spread.
- Organisational energy is influenced by levels of visible executive support, resources for programme leadership and facilitation, and building resilience to times of pressure and change. Continuity of organisational energy helps to avoid discontinuation. Sometimes the decision to temporarily halt implementation can be beneficial for ensuring the work is picked up at a defined time in the future, rather than struggling on while organisational energy wanes and contextual issues escalate.
- Staff energy drives programme spread, but staff need to know about the programme, feel they are backed by organisational energy and have time and space to participate in ways that are meaningful and beneficial to them. In implementing organisations there will naturally be islands of improvement because of patterns of staff energy and approaches to implementation. Communication is essential to spread of the programme and the improvements made. It involves promoting the programme through existing structures such as induction programmes, education and training; maintaining interest on wards using informal interactions and reflection time; and linking monitoring and reporting into organisation-wide improvement meetings.

- In a context of shrinking budgets and the challenge of scaling up to whole organisation roll-out, programme leads and facilitators are now focusing more on managing staff expectations about what type of work can be done and delivering support in more efficient ways. Where The Productive Ward has been able to demonstrate cost savings, such evidence can be used to make the case for organisational roll-out even in a challenging financial context. However, assessment of progress and impact is complicated by the fact that there is no agreed end point to implementation or completion of the programme. Nonetheless, it should be noted that aspects of The Productive Ward have been sustained even when wider implementation and spread has seemingly halted; this includes embedding improvements (such as standard procedures and guidelines) into working practices and leaving a lasting structure (theory base and staff knowledge) for future organisational improvement.

Closing comments from the NHS Institute

The NHS Institute continues to work closely with key partners at all levels of the health system to maintain momentum of The Productive Ward programme and support NHS staff going forward with other large scale change programmes. While discussions regarding the mechanisms and arguments for continued commitment and investment are ongoing, the report indicates that continued investment in facilitators will be critical in order to sustain and build on improvements which have already taken place in many organisations. The research also indicates that robust evidence of impact measures would be extremely beneficial to support continued investment. The NHS Institute has recently undertaken Rapid Impact Assessments for The Productive Ward in ten organisations, the results of which will be communicated to the wider NHS shortly. We look forward to continuing our support of NHS organisations on their Productive journey.



1. Introduction

1.1 The Productive Ward: *Releasing time to care*™

The Productive Ward: *Releasing time to care*™ (The Productive Ward) programme by the NHS Institute for Innovation and Improvement (NHS Institute) aims to empower ward teams to identify areas for improvement by giving staff the information, skills and time they need to regain control of their ward and the care they provide.

The Productive Ward and its companion programmes eg, The Productive Mental Health Ward, have diffused rapidly throughout the National Health Service (NHS) in England (Bevan 2009). The NHS Institute has actively worked with over 62% of NHS organisations providing support for local implementation with a further 25% having accessed supporting materials.

In order to achieve the quality and cost challenge facing the NHS, it is critical that improvement programmes that have the potential to have a significant impact, such as The Productive Ward, are implemented on a large-scale and as quickly as possible. To achieve this it is important to understand what is needed to support such 'spread' and what actions should be taken to overcome potential barriers to the widespread adoption, implementation and assimilation of such initiatives into routine practice.

The Productive Ward programme originated in 2005 through partnership working between the NHS Institute, nurse leaders, and industry partners. It was further developed through a design process that included working with four test sites in 2006 and with ten Learning Partners during 2007-8. The programme is described as distinctive because it aims to provide tools specifically developed to engage frontline staff in the initiation and implementation of change at ward level. The modules and toolkit are freely available to NHS organisations via the NHS Institute website. Hospitals also have the option of purchasing 'Standard' or 'Accelerated' packages from the NHS Institute to assist with local implementation.

The Productive Ward programme draws on principles of 'Lean Thinking' to reduce activities that do not add value (Womack and Jones 1996). The programme involves looking at the values which drive health care (Rooney and Rooney 2005) and working to maximise operational processes towards achieving such values (Taylor 2006). This could mean streamlining ward environments to achieve optimal patient outcomes and experiences of care (Crump 2008). The time released by achieving efficiencies in operational routines (Wilson 2009), better organised ward environments (Eason 2008) and better use of patient data (Anthony 2008), can then be used for patient care, leading to an improvement in the safety (Fillingham 2007), quality and reliability of both patient care and the patient experience (Shepherd 2009, Torjessen 2009). **The programme could result in better outcomes and subsequent improvements in patient and staff satisfaction and experience of the NHS, as well as a cultural change for the workforce** (Wilson 2009).

The Productive Ward has the potential to be adopted throughout the NHS at a scale and pace sufficient to achieve significant quality and productivity benefits (DH 2003). Yet, following its widespread roll-out to the NHS in 2008 uptake is not universal. Some organisations have achieved 100% ward implementation whilst others have just a few wards actively implementing the programme. **The average proportion of wards in each organisation that are using The Productive Ward is estimated by the NHS Institute to be 35%.**

Studies of The Productive Ward, including the recent Learning and Impact Review (NNRU 2010), have explored factors associated with adoption, but there remains a need to know more about the experiences and perspectives of organisations and clinicians who have not yet participated. These perspectives, and research on this stage in the implementation of service improvement initiatives, hold the potential to support strategies to deliver the benefits of the programme more widely.

More broadly, studies of Lean initiatives in the United States (Savary and Crawford-Mason 2006), Australia (Bem-Tovim et al. 2007) and the United Kingdom (Jones and Mitchell 2006, Fillingham 2007), illustrate that for any Lean effort to succeed, both a quality system and a quality culture are needed. However, as Joosten et al. (2009) show, research attention has largely been directed towards understanding 'operational' dimensions (productivity) whilst overlooking the 'sociotechnical' (human-systems) dimensions of implementation. **Spread is a very social process as most people depend mainly upon a subjective evaluation of an innovation that is conveyed to them from other individuals like themselves who have already adopted the innovation (Rogers 1962). Hence, it is important to know about the 'human factors' which make some organisations successful and others not in terms of take up or the processes that are used in organisations who have spread and sustained well.**

1.2 Aims of this study

The original questions posed by the NHS Institute, which drove this study were:

1. What makes some organisations successful and others not in terms of take up?
2. Why do some organisations spread quickly and others do not?
3. What are the timescales that organisations take to spread?
4. Are there organisations that spread quickly and sustain well?
5. What are the characteristics of these organisations?
6. What is the process that is used in organisations who have spread and sustained well?
7. For organisations that struggle, do they share specific factors?
8. Is it possible to identify specific actions that could overcome barriers?

The purpose of this study is to inform efforts to maintain momentum of The Productive Ward programme, to support NHS staff going forward, and to discuss mechanisms and arguments for continued commitment and investment. Broader objectives include:

- Generalising the benefits from this learning. Lessons learnt from experience of the spread of The Productive Ward could inform approaches to spreading and sustaining other large-scale change interventions.
- Creating a set of hypotheses about the spread of large-scale change that can be tested in future change interventions. For example, following a hindsight / insight / foresight model, whereby it is possible to move from a reactive to a more proactive understanding of the spread of large-scale change initiatives.
- Theorising about some of the implications for the spread of The Productive Ward and other large-scale change programmes across different sectors of the NHS (eg, mental health, community sectors).

1.3 Methods

The study was undertaken in two main phases, these were as follows.

Phase one

Phase one comprised three steps:

- Focused review of the theory on the spread of innovations in health care.
- Application of this theory to our knowledge of The Productive Ward.
- Identification of beneficial areas for future research to inform phase two activities.

Step one of phase one was to undertake a focused review of the literature on spread and sustainability in service improvement initiatives. The purpose of this review was to identify the following:

- (i) What are the critical success factors for spread?
- (ii) What factors are required to spread improvement programmes at scale and at pace?
- (iii) What are the possible barriers to spreading improvement programmes?
- (iv) What positive actions can be taken to overcome these barriers?

We focused on the issue of 'second wave' uptake, that is, how spread can be supported after the initial adoption of the innovation and to those who haven't already adopted the innovation. We critically examined selected models to ask what it can tell us about this situation and therefore what needs to be discovered in stage two.

We took account of a range of literature including:

- The NHS Modernisation Agency New Improvement Wheel
- Diffusion of Innovations model
- Social Movements model
- NHS Sustainability model and guide
- Institute for Health Improvement's models for spread
- Academy of Large Scale Change model
- Accelerating the Spread of Better Practice.

Specific publications included in the review are summarised in annotated literature tables at the end of this report (Appendix 1).

We undertook further citation searches and reviewed the titles and abstracts of:

- 12 Modernisation Agency Research into Practice team reports which informed the development of The New Improvement Wheel (Appendix 1, Table A1).
- 298 articles citing Berwick's (2003) seminal paper. There were nine papers that were considered relevant to this focused review (Appendix 1, Table A3).

Step two of phase one was to apply the findings from the selected models to four recent studies of The Productive Ward programme, these studies and key findings are summarised later in the report (Section 3).

- The Productive Ward: *Releasing time to care*TM Learning and Impact Review (NNRU 2010)
- NHS London (2009) Evaluation of Releasing Time to Care
- NHS Scotland (2008) Releasing Time to Care Evaluation
- Belfast Health and Social Care Trust Productive Ward – Releasing Time to Care Evaluation Report (BHSCT 2009)

Step three of phase one was to identify areas where further study may add benefit to our understanding of how to facilitate the spread of The Productive Ward and other large-scale change programmes. The findings of phase one revealed a number of unaddressed questions about The Productive Ward programme:

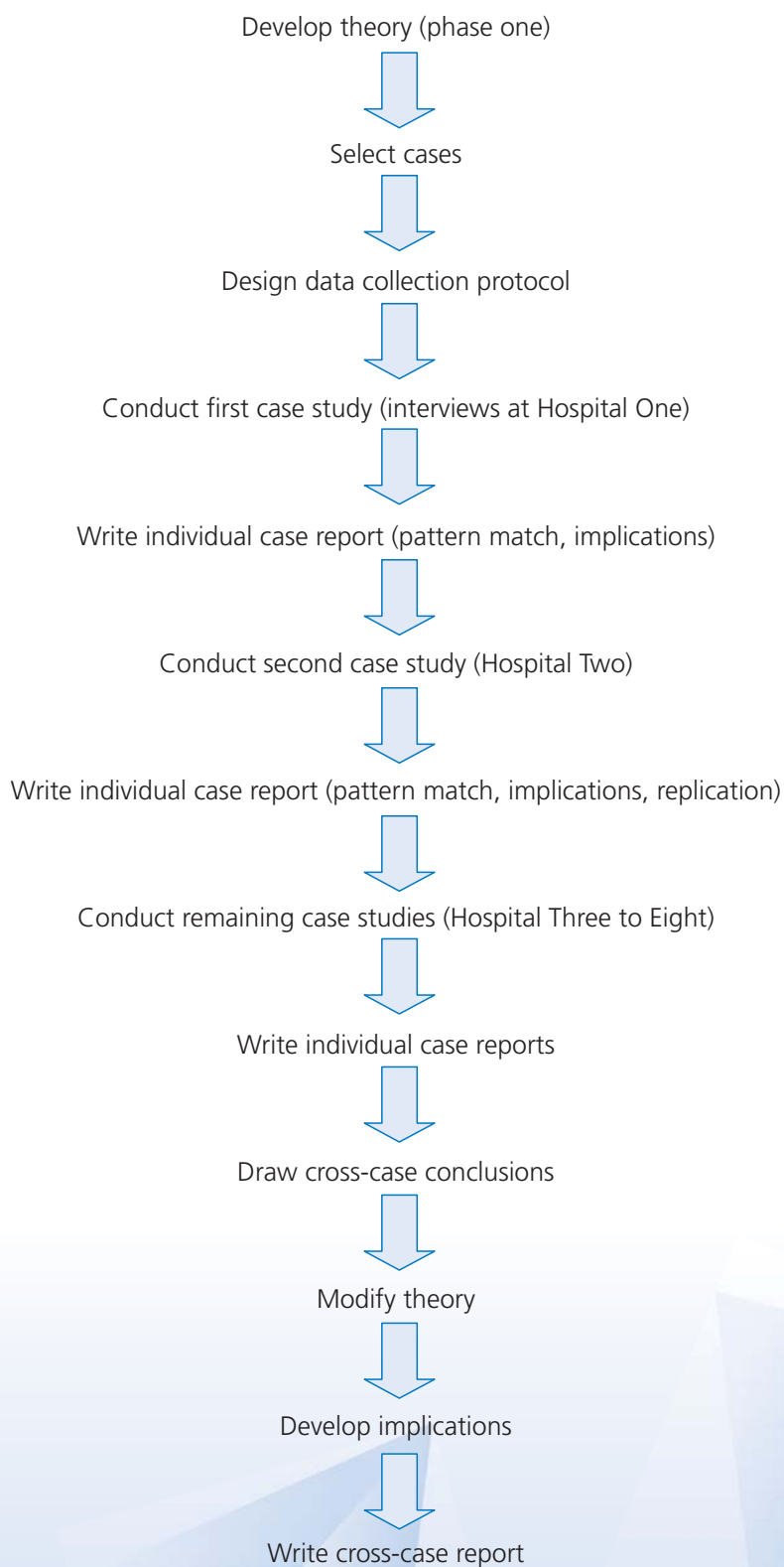
1. What stops organisations from implementing The Productive Ward at all (*non-adoption*)?
2. What leads to organisations rejecting or abandoning The Productive Ward after initial adoption (*discontinuation*)?
3. Why do some improvements remain isolated and unknown to others (*islands of improvement*)?
4. Why has The Productive Ward spread well through some organisations (*mechanisms of spread*)?
5. What factors lead to disintegration of interest or effort (*improvement evaporation*)?
6. What needs to happen for organisations to hold improvement and evolve (*sustained change*)?

Phase two

In phase two of the study we were not primarily seeking to find evidence of spread. Rather, our focus was on examining, in some detail, selected processes of non-spread and associated phenomena that act as barriers to spread. Following discussions with the NHS Institute about the questions we had identified at the end of phase one (see above) it was agreed that *non-adoption* is a discrete area which could best be addressed as a separate study. It was agreed therefore that the present study would not focus on this question. Previous research on The Productive Ward, including the Learning and Impact Review (NNRU 2010) and the NHS London (2009) Productive Ward study, provide some information about *mechanisms of spread* and *sustained change* of the programme in England. This report provides an outline of these areas. It was decided that these areas would not be included in the case study approach. Hence, the focus of phase two was to shed light on unaddressed questions about *discontinuation*, *islands of improvement* and *improvement evaporation*.

Multiple-case replication design

A case study approach was selected as this would enable collection of in-depth information that would help to develop theory and understanding of the phenomena of interest. The research design was a multiple-case replication design (Yin 1984). The logic underlying the use of multiple-case studies is that each case is carefully selected so that it can be used to predict similar results or produce contrary results but for predictable reasons. In the context of this study, replication meant asking the same questions about The Productive Ward implementation and spread in different hospitals. The research design was as follows:



An important step in replication procedures is the development of a strong theoretical framework which states under which conditions a particular phenomena (in this study discontinuation, islands of improvement and improvement evaporation) is to be found, as well as the conditions under which it is not likely to be found. These conditions are explained in the next section.

Case study sample

To study the phenomenon at hand, phase two data collection focused on hospitals that have to some extent adopted The Productive Ward programme and have received Standard or Accelerated support from the NHS Institute. Making use of NHS Institute data supplied by individual hospitals, we drew up a short-list of NHS hospitals (total=40) from which to select sample case studies from. The short-list was created according to the following.

- Hospitals which have purchased Standard or Accelerated NHS Institute support packages were included on the basis that such hospitals have made an explicit decision to adopt The Productive Ward and implementation has begun. Hospitals that had only downloaded modules were excluded as it is uncertain whether these organisations have gone on to adopt the programme.
- Hospitals which are known to have implemented Foundation (Core) modules and Process modules. Hospitals that have only implemented Foundation modules were not included. In the case of West Midlands SHA, North East SHA, and Yorkshire & Humber SHA, this criteria was not applied because data was not available.
- Hospitals known to be test sites, original learning partner sites, and whole hospital sites were not included, as these have distinctly different history of adoption and implementation to other NHS hospitals.
- Hospitals known to the NHS Institute to be making consistently good progress were excluded as the focus was on collating data about processes of non-spread.
- It was not possible to include Mental Health Hospitals, Ambulance Service Trusts, Primary Care Trusts or hospices within the timescale of this review.

From this short list of 40 hospitals we selected 11 'first-target' hospitals according to:

- Geographical locality (SHA regional variation).
- Timing of adoption of the programme (early adopters/midstream rather than late starters).
- Size and type of organisation (Foundation/non-Foundation hospital).

In the first stage of recruitment we took each hospital in turn and contacted senior staff who are normally associated with Productive Ward implementation or service quality improvement. These were, most often, Productive Ward leads, service improvement/quality teams, or directors of nursing. Initial contact was made by email letter directly to key individuals to check:

- Whether The Productive Ward was being implemented within the organisation (from NHS Institute data we knew the hospitals had purchased a support package).
- Whether there were staff within the organisation that were willing to participate in interviews about The Productive Ward programme.

Potential participants were informed that:

- Their participation in the review of The Productive Ward would be anonymous at an individual and organisation level – and that we were only involving hospitals and staff who are willing to share their experiences of the programme.
- All information was being collected in the interests of sharing learning experiences and insights into The Productive Ward and initiatives like it.
- They would be provided with a short summary report of the review as a thank you for their participation.
- They were provided with a list of ten topics that the interview might cover, depending on their experiences of The Productive Ward.

The next stage of the case studies was to follow up positive responses (usually from Productive Ward leads or directors of nursing) with a request to nominate a date and time for an interview. Once verbal contact had been made by telephone, the person was asked to nominate other individuals in the hospital that it would be useful to talk to about Productive Ward implementation. This technique, known as purposive sampling (Miles and Huberman 1994), helps to make use of organisational knowledge to collect the most relevant data from key informants.

A total of 38 individuals were identified and contacted across the eight case study sites. A total of 21 individuals agreed to participate in the interviews (Table 1). Reasons for not wanting to participate included not having enough time and not feeling as though they were the best person to speak to about The Productive Ward. On average interviews lasted 45 minutes, with some participants willing to talk for over an hour about their experiences of Productive Ward implementation.

Table 1: Case study participants

Case study site	Participants	Declined interview	Non response
Hospital One	2 (Service improvement facilitator/Productive Ward lead, service improvement facilitator/Productive Ward facilitator)	2 (Deputy director strategy and improvement, Productive Ward facilitator)	3 (Ward managers)
Hospital Two	2 (Productive Ward coordinator surgery, former Productive Ward facilitator)	1 (Director of nursing)	3 (Ward managers)
Hospital Three	4 (Productive Ward lead, service improvement facilitator, sister surgery, matron surgery)	1 (Director of nursing)	3 (Matron, sister medicine, sister surgery)
Hospital Four	2 (Associate head of nursing/Productive Ward lead, Productive Ward facilitator)	1 (Director of nursing and operations)	-
Hospital Five	4 (Service improvement facilitator/Productive Ward lead, practice development nurse /Productive Ward facilitator, ward manager general medical ward, sister for Productive Ward in trauma)	1 (Deputy chief nurse)	1 (Sister medical ward)
Hospital Six	1 (former Productive Ward lead)	1 (Director of nursing)	-
Hospital Seven	3 (Director of nursing, Productive Ward lead, Productive Ward facilitator)	-	-
Hospital Eight	3 (Productive Ward lead, department manager, clinical nurse manager)	-	-
<i>Total</i>	21	7	10

Data collection protocol

We elected to use telephone interviews rather than face to face methods as this would allow us to reach a large geographical spread of hospitals in a very short project timescale (ten weeks). Telephone interviews also avoid the well-known limitations of postal surveys, such as low response rate and difficulties monitoring who surveys have reached (Smith 2005). All of the interviews were audio recorded and transcribed for analysis.

The topic guide for the interviews was as follows:

- How have you been involved in Productive Ward work to date?
- What Productive Ward work is your hospital/are you doing at the moment?
- Are there plans for future roll-out of The Productive Ward in your hospital?
- Do you think the programme has worked well on all wards, or has it worked better in some places than others?
- Which groups of staff find it most useful? Who is most enthusiastic about it?
- What are the 'energy levels' like behind the work? Is there management support, clear leadership and sufficient resources?
- Is the programme gathering momentum or has energy fallen away? Do you think effort can be sustained?
- Does it fit well with other work going on in the hospital? What links have been made to other initiatives?
- What factors have helped/hindered the work?
- Are improvements being monitored?



2. Findings of focused review

2.1 Defining and researching 'spread'

Health care is rich in evidence-based innovations, yet even when such innovations are implemented successfully in one location, they often disseminate slowly, if at all (Berwick 2003). Encouraging the widespread adoption of beneficial innovations in health service delivery and organisation, and then facilitating their successful local implementation and assimilation into routine practice, are challenges faced by all publicly funded health care systems.

Reviews of empirical studies of sustained organisational change suggest that the evidence base to help guide both national and local strategies is insufficient (Buchanan et al. 2007). Most studies lack rigour (ie, they are typically atheoretical and anecdotal) and are not designed to empirically test hypotheses about the process of achieving sustained change (Greenhalgh et al. 2005a). Further research should focus on the processes by which innovations in health service delivery and organisation are implemented and assimilated into routine practice (or not) in particular contexts and settings, and whether these processes can be enhanced.

Definitions of 'innovation' are themselves contested. Terms used to describe the uptake, spread and sustained use of innovations in health care also tend to be used interchangeably or to mean different things. Some of the more frequently used terms are discussed below and illustrated by the following figure (Figure 1).

Dissemination

"Dissemination is actively spreading a message to defined target groups." (Mowatt et al. 1998)

Often the process of implementation begins with formal dissemination. This means the planned and intentional promotion or information giving about an improvement initiative. **Dissemination activities are intended to increase the rate and level of adoption above that which might have been achieved by diffusion alone – 'make it happen' rather than 'let it happen'** (Greenhalgh et al. 2005b).

Diffusion

In the popular textbook by Everett Rogers diffusion is defined as:

"the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers 1962)

Over many years of study academic researchers have used the term diffusion to indicate that the adoption of innovations in organisations is a complex and often drawn-out process that should not be thought of as a single planned event (Greenhalgh et al. 2005b). **Diffusion refers to the informal processes and networking that can help to spread abstract ideas and concepts, technical information and actual practices within a social system. It suggests transfer of information typically by communication and influence.** In the diffusion of innovations research, diffusion is usually assessed in terms of the speed of diffusion of particular innovation, the scope of its diffusion, or its depth of penetration (Adler and Kwon 2009).

Adoption

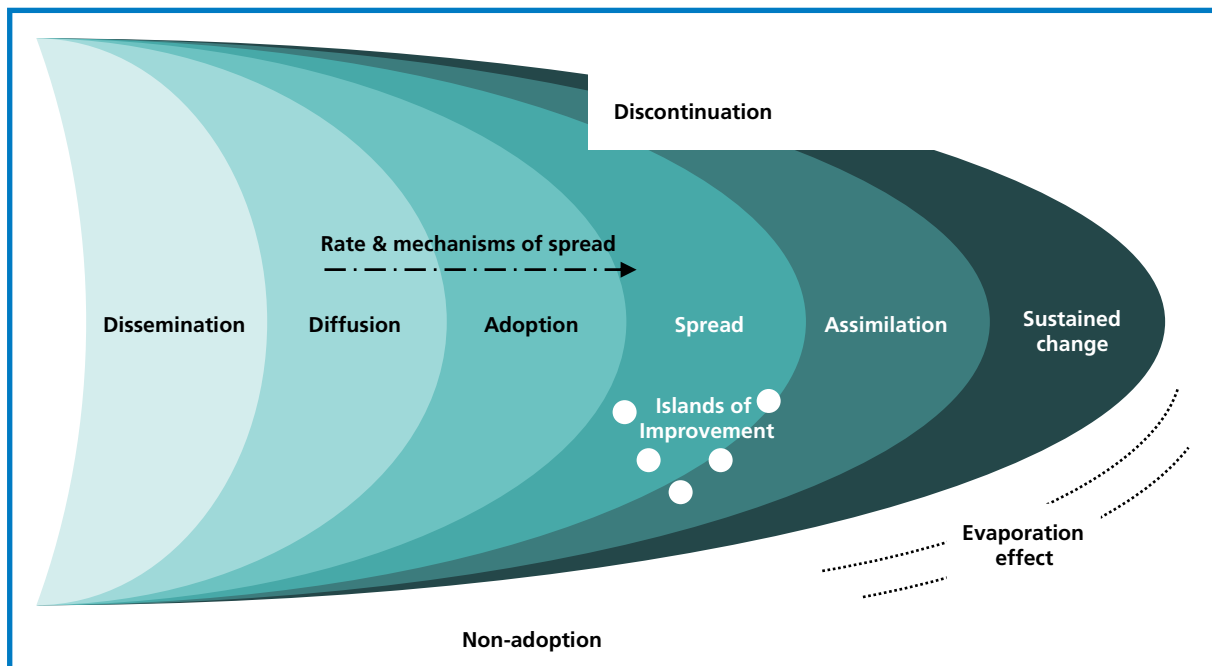
Traditionally adoption has been perceived as a discrete organisational decision to accept or reject an innovation, but this is unhelpful (Greenhalgh et al. 2005). Rather, adoption in organisations is not a one-off, all or nothing event, but a complex and adaptive process (Denis et al. 2002).

Rogers (2003) well known text on the diffusion of innovations describes five stages of the adoption process as: Knowledge, Persuasion, Decision, Implementation, Confirmation. Rogers also suggests there are five categories of adopters: Innovators, Early Adopters, Early Majority, Late Majority, Laggards. Further detail is provided in Appendix 1.

More recently, management research has moved away from a stage-like perspective of adoption processes. Van de Ven et al's (1999) study of the careers of innovations (including some in health care) stressed their messy, dynamic, and fluid quality. There is no one single decision point but numerous decision events performed by many people over time:

"The process does not unfold in a simple linear sequence of stages and sub-stages. Instead, it proliferates into complex bundles of innovation ideas and divergent activities by different organisational units" (Van de Ven et al. 1999).

Figure 1: Processes of spread



Spread

The term spread suggests a process through which new working methods developed in one setting are adopted, with appropriate modifications, in other organisational settings. It generally refers to the transfer of ideas and practices between (inter) organisation or within a single (intra) organisation. Spread is the process by which working practices are transferred into other organisational contexts (including by dissemination or diffusion). However, as Berwick argues, the term can be misleading because nothing spreads in its original form:

"The word 'spread' is a misnomer; a better word is 'reinvention'. The way children learn language is a good analogy. The process of language acquisition is much more than copying; it involves interactions between children's brains and the words they hear. In fact, children who only repeat what they hear are not good learners; they are autistic. Individuals in organisations are learners. They do not merely repeat what they hear; they change it." (Berwick 2003)

Thus, spread can mean both 'to copy' and 'to reinvent' elsewhere.

Part of the challenge is to understand mechanisms of spread, such as ways of spreading the message about The Productive Ward, the role of opinion leaders and 'champions', and plans for how implementation will take place. Spread can occur by:

- Scatter - When an innovation is to be disseminated widely and adopted by a large number of people.
- Switch - A practice from one context is spread to a different context, industry or environment.
- Share - The sharing of practices within the same organisation.
- Stretch - A practice in a pathway of care is spread within an organisation across divisional and organisational boundaries (Fraser 2002a).

Previous research on large-scale spread shows that different models of spread exist and these depend, in most cases, on confidence in the specific innovation being adopted and how it might be shared between different levels of the system or organisation.

Possible models of spread include:

- *Natural diffusion* – Allowing individuals to find out about and adopt the innovation at their own time and pace through the networks that they are part of.
- *Breakthrough Series Collaborative model* - Creating a structure in which interested organisations can easily learn from each other and from recognised experts in topic areas where they want to make improvements. It is a short term (6-18 months) learning system that brings together a large number of teams to seek improvement in a focused topic area. It is a model that has been successfully used by the Institute for Healthcare Improvement in the United States in over 50 collaborative projects.
- *Extension agents* - Providing information sources (people or resources) at the awareness and interest stage of adoption. The term extension was first used to describe adult education programmes in England in the second half of the 19th century; these programmes helped to expand, or extend, the work of universities beyond the campus and into the neighboring community. In the US, an *extension agent* is a university employee who develops and delivers educational programs to assist people in economic and community development, leadership, family issues, agriculture and environment. The transmission model of communication is closely related to the idea that extension agents are the link (ie, message carriers) between senders (eg, NHS Institute) and receivers (eg, service providers). Extension programmes based on this model have been described as 'paternalistic' or 'top-down'.
- *Participatory extension* - In many countries, top-down extension models are gradually being replaced by more participatory approaches, in which the knowledge and opinions of receivers is considered to be just as important as that of senders. Participatory approaches involve information-sharing and joint decision-making. The terms 'interactive' and 'bottom-up' have been used to describe these approaches. The development of participatory extension requires a re-examination of the communication process. Communication in the context of participatory extension cannot usefully be described in a linear manner with distinct groups of senders and receivers. Instead, extension activities take place within a knowledge system consisting of many actors who play different roles at different times. Although some actors in the knowledge system have more authority than others, communication usually involves a negotiation rather than a transmission. What takes place is a dialogue, with actors collaborating in the construction of shared meanings rather than simply exchanging information.
- *Emergency mobilisation* - The act of assembling and putting into readiness available resources to respond to an imminent emergency situation. It is a model that has been applied in a wide range of fields to organise and deploy military, legal, economic and human response systems. In the context of healthcare it is a model most commonly employed in response to medical emergency situations such as the management of outbreak of contagious diseases or biohazards.

Assimilation

Adoption does not always result in widespread usage of an innovation in an organisation; after it is adopted 'it needs to be accepted, adapted, routinised and institutionalised' (Zhu et al. 2006), in other words assimilated into the workings of the organisation. The process of assimilation has been defined as 'an organisational process that is set in motion when individual organisation members first hear of an innovation's development, can lead to the acquisition of the innovation, and sometimes comes to fruition in the innovation's full acceptance, utilisation and institutionalisation' (Meyer et al. 1988).

Sustained change

Related to the notion of assimilation is sustaining change over time. Sustainability has been defined as a process "when new ways of working and improved outcomes become the norm" (MA 2003). In this situation innovation becomes so embedded in day-to-day practice that it seems part of a routine way of working. Sustained change can mean the 'routinisation' of innovation (Greenhalgh et al. 2004). The innovation is no longer perceived as innovative because it is so well adopted by a person, organisation or system. This could lead to a situation where a routinised innovation could become a barrier to future innovation.

A more positive view of sustainability has also been described as "holding the improvements and evolving as required." From this perspective sustained change is a dynamic (developing) rather than static state where organisations are:

- receptive to new ideas
- adapt to a continuously changing environment
- change with time in a manner unique to the context.

From this perspective sustained change is perceived as the ability to adapt to change or evolve alongside other changes, or to "resist erosion", or "build resilience and durability" (Greenhalgh et al. 2005b). The innovation is seen as a catalyst for sense-making capacity or a base for extending the gains made.

"Not only have the process and outcome changed but the thinking and attitudes behind them are fundamentally altered and the systems surrounding them are transformed in support" (MA 2003).

Sustainability is often seen as following spread however, processes of sustainability and spread are interlinked. For example, ideas that do not have widespread support, that are unlikely to be sustained, or that are not sustained by early adopters are unlikely to spread elsewhere (Buchanan et al. 2007). Thus, the rapid spread of good ideas can be damaging if there is not adequate time for staff to learn new skills or impact on patients is not considered.

Keeping things as they are is traditionally seen as an organisational problem to be resolved, not a condition to be achieved. As a result sustainability has received less research attention. Most accounts of change focus on implementation at a single site, do not explore diffusion, and do not consider how and why changes are either maintained or decay. The ability to sustain new working methods and associated performance improvement has not become a strategic imperative for many organisations.

Sustainability may be perceived as a feature of the innovation itself or a function of the receiving system (Greenhalgh et al. 2005b). Although according to a diffusion of innovations model these factors (as well as others described later in section 2.2) contribute to sustainability. As David Buchanan and Louise Fitzgerald show (in Buchanan et al. 2007) sustainability can be defined in different ways in relation to work methods, goals, or continuous improvement, over differing timescales.

2.2 Non-spread

Non-adoption

Relatively little is known about non-adoption or the factors which act as barriers to implementation. However, from what we know about spread and sustainability we can infer that non-adoption occurs because of a number of reasons, potentially including the following effects:

- Dissemination does not reach target groups.
- Diffusion by-passes some organisations.
- Adoption is rejected or fails to be initiated.

Discontinuation

Little is known about why and how people (and organisations) reject an innovation after adopting it. In over 200 empirical studies included in the review by Greenhalgh et al. (2005b) only one explicitly and prospectively studied discontinuance (Riemer-Reiss 1999). In some circumstances, shifts in context can make work methods and goals obsolete, and sustaining one approach may inhibit staff development and the implementation of other new ideas. It can be appropriate to allow or to encourage some change to decay (Buchanan et al. 2007).

Islands of improvement

Pockets of excellence exist in health care systems, but knowledge often remains isolated and unknown to others (IHI 2010). The term Islands of improvement has been used to describe lack of spread within organisations and isolated uptake of innovations across healthcare systems.

Improvement evaporation

The improvement evaporation effect means a situation where change suffers a lack of sustainability. Buchanan et al. (2007) suggest that the sustainability or decay of organisational change is influenced by several factors at different levels of analysis:

Level of analysis	Factors
Substantial	Scale of change, fit with organisation.
Individual	Commitment, competencies, emotions, expectations.
Managerial	Style, approach, preferences, behaviours.
Leadership	Vision, values, purpose, goals, challenges.
Organisational	Policies, mechanisms, procedures, systems, structures.
Financial	Contribution, balance of costs and benefits.
Cultural	Shared beliefs, perceptions, norms, values, priorities.
Political	Stakeholder and coalition power and influence.
Processual	Implementation methods, project management structures.
Contextual	External conditions, stability, threats, wider social norms.
Temporal	Timing, pacing, flow of events.

The influence of these factors and their interactions depend on context. Organisation processes dependent on the continuing presence of such a range of factors are potentially fragile and vulnerable to improvement evaporation.



2.3 How do we know when spread has occurred?

In the United States, over a period of more than 17 years, the Minnesota Innovation Research Program (MIRP) conducted 14 longitudinal studies of innovation processes in diverse settings spanning public and private, large and small, and old and new organisations. By any measure or standard of assessment, the investigations stand as landmarks in the study of complex organisational processes (of any sort) and testimony to the ability of organisational researchers to research some of the most important and difficult-to-observe phenomena in organisations. A resulting book, *The Innovation Journey* (Van de Ven et al. 2006), explains what is known about innovation processes in complex organisations and what important assumptions remain to be answered, as summarised by the following table (Table 2).

Table 2: Assumptions and observations about core innovation concepts

	Literature implicitly assumes	But we see this
Ideas	One invention, operationalised	Reinvention, proliferation, reimplementation, discarding, and termination
People	An entrepreneur with fixed set of full-time people over time	Many entrepreneurs, distracted fluidly engaging and disengaging over time in a variety of roles
Transaction	Fixed network of people/firms working out details of an idea	Expanding, contracting network or partisan stakeholders who converge and diverge on ideas
Context	Environment provides opportunities and constraints on innovation process	Innovation process creates and constrained by multiple enacted environments
Outcomes	Final results orientation; a stable new order comes into being	Final results intermediate; many in-process assessments and spin-offs; integration of new orders with old
Process	Simple, cumulative sequence of stages or phases	From simple to many divergent, parallel and convergent paths; some related, others not

The research undertaken by Van de Ven et al. (2006) has implications for how we know whether spread has occurred. In summary, such factors include:

- Over time the innovation itself may become unrecognisable as it is subject to reinvention and adaptation to local contexts.
- The full history of spread of an innovation is made up of the experiences of different people who have become engaged and disengaged over time.
- The progress of spread is not steady, it is influenced by expanding and contracting networks of stakeholders who converge and diverge on ideas.
- The innovation can create opportunities or constrain people as it crosses multiple enacted environments, it may not be perceived or spoken about in the same terms.
- There are unlikely to be 'final' results – but there may be process assessments, spin-offs, and integration of new ways of working with old.
- Spread can take simple to many divergent, parallel and convergent paths.

Drawing from the previous table (Table 2), it is possible to say that assessing spread of an innovation in the context of health care organisations could involve studying a wide range of indicators, such as:

- **Identifying and mapping opportunities and constraints** (ideas), for example focusing on where the energy or optimism is, or where there has been movement towards goals.
- **Undertaking a survey of staff views** (people), for example, about their involvement or perceptions of success.
- **Assessing influence on staff working** (transaction), for example, evidence of improved leadership, management techniques, teamworking and professional skills development.
- **Reviewing organisational impact** (context), for example, using a context-specific impact audit tool to review areas of change and improvements to working environments.
- **Assessing efficacy/effectiveness** (outcomes), for example, measuring changes in clinical outcomes or patient experience.
- **Documenting processes of spread** (process), for example, recording how the innovation has been taken on, adapted, or moved along different paths at different rates.

2.4 Critical success factors explaining the spread of innovations

Research on the characteristics of successful service innovation indicates some of the reasons why some organisations spread quickly and others do not. Many factors that improve the chances of successful adoption and assimilation of innovations have been discussed in the literature, including:

- the nature of the innovation
- the characteristics of the adopters
- ways of spreading the message about the innovation
- the role of opinion leaders and “champions”
- how adoption will take place
- the type of organisation, and its culture
- the organisation’s readiness to change, and
- the impact of factors outside the organisation.

Diffusion of Innovations is a theory of how, why, and at what rate new ideas and technology spread through cultures. The concept was first studied by the French sociologist Gabriel Tarde (1890). Rogers (2003) has described key elements of diffusion research as:

- **Innovation:** “an idea, practice, or object that is perceived as new by an individual or other unit of adoption.”
- **Communication channels:** A communication channel is “the means by which messages get from one individual to another.”
- **Time:** “the innovation-decision period is the length of time required to pass through the innovation-decision process”, whilst “rate of adoption is the relative speed with which an innovation is adopted by means of a social system.”
- **Social system:** “A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal.”

Donald Berwick (2003) has examined the theory and research on the dissemination of innovations in detail in relation to perceptions of the innovation, characteristics of the individuals who may adopt the change, and contextual and managerial factors within the organisation. He suggests seven practical recommendations specifically for health care executives who want to accelerate the rate of diffusion of innovations within their organisations:

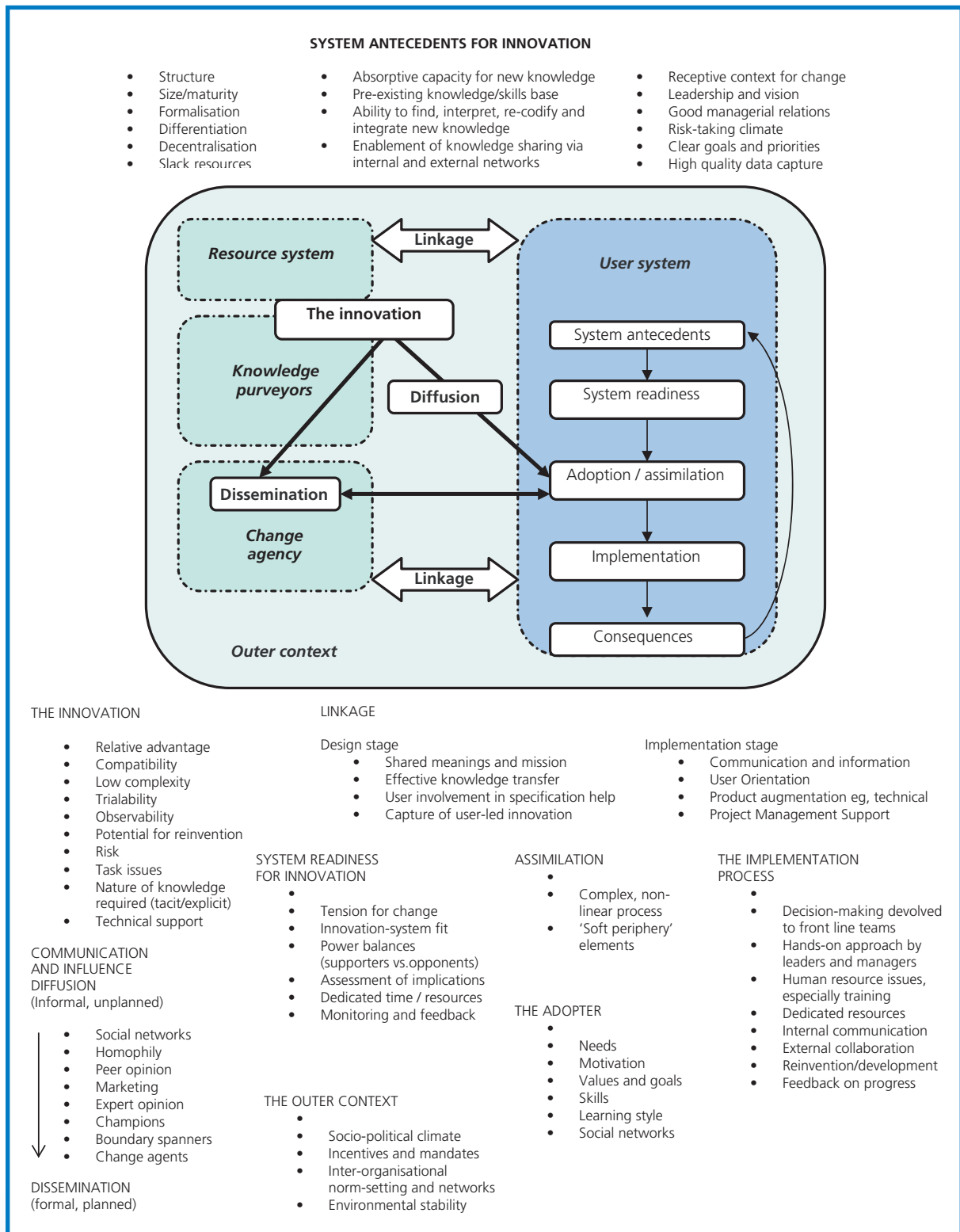
- find sound innovations
- find and support "innovators"
- invest in "early adopters"
- make early adopter activity observable
- trust and enable reinvention
- create slack for change
- lead by example.

A systematic review of the extensive literature on the diffusion of service innovations (Greenhalgh et al. 2005a) produced a model for understanding the complexities of the adoption, implementation and assimilation of innovations into day-to-day healthcare services (Figure 2). Few empirical studies included in the systematic review acknowledged the complexities of spreading and sustaining innovation in service organisations. Most concentrated on specific components of the model, for example, certain features of innovations or specific characteristics of individual adopters, and failed to take account of their interactions and contextual and contingent features.

Key findings from Greenhalgh et al.'s (2005b) review about the effectiveness of diffusion and dissemination are that:

- Most innovations spread primarily via interpersonal influence. The 'channels' through which such influence flows are the social networks that link individual members of a social group.
- Some individuals, termed 'opinion leaders', have more social influence than others, but attempts to understand why have generally met with only modest success. Despite clear conceptual distinctions between them, the terms 'opinion leader', 'change agent', 'champion' and 'boundary spanner' (people with significant ties across organisational and other boundaries) are used inconsistently and sometimes synonymously in the literature, making comparisons difficult.
- When programme champions play an active role in the development, spread and implementation of innovations, these processes are generally more effective.
- When organisational boundary spanners are present and are able to facilitate information flow between organisations, innovations generally diffuse more effectively.
- When the opinion leaders, champions and boundary spanners are homophilous with intended users, for example, when opinion leaders for clinicians arise from amongst the clinicians themselves, diffusion is generally more effective.
- Critical to the success of an external change agent is effective communication, client orientation and empathy.
- Where innovations have been produced by formal developmental research, their spread tends to be via vertical dissemination networks and can to some extent be planned strategically. Where innovations arise spontaneously (often through problem-solving aimed at meeting local needs) spread occurs mainly by informal diffusion within horizontal peer networks. The second type of spread cannot be centrally planned or controlled but central agencies may place a facilitative and enabling role in this process.

Figure 2: Diffusion of innovation model



The following table (Table 3) summarises factors required to spread improvement programmes across health care systems. It draws together findings from Greenhalgh et al.'s systematic review of the literature on diffusion, dissemination and sustainability of innovations in health service delivery and organisation (Greenhalgh et al. 2004, Greenhalgh et al. 2005b) with findings from Rogers (1995), Berwick (2003), Bates and Roberts (2006), and Buchanan et al. (2007) on the diffusion of innovations.

Table 3: Factors required to spread improvement programmes across healthcare systems

Factors for spread at scale and pace	Theory base
1. Socio-political influences	<ul style="list-style-type: none"> • There is a strong and clear social need for change (Berwick 2003) • Mandate or political directives are in place (Greenhalgh et al. 2004) • External funding and resources are made available (Berwick 2003) • Incentives are in place eg, targets/standards (Greenhalgh et al. 2005b)
2. Needs of the adopters	<ul style="list-style-type: none"> • It is clear who potential adopters are in terms of their characteristics and needs (Greenhalgh et al. 2004) • The meaning of the innovation to intended adopters is understood and 'framed' in appealing terms (Bates and Roberts 2006) • The adoption decision is straightforward (Greenhalgh et al. 2004) • Adopters concerns pre-adoption, early user and experienced user stage are understood and met (Greenhalgh et al. 2004)
3. External change agencies	<ul style="list-style-type: none"> • The innovation has involved end-user testing and development (Greenhalgh et al. 2004) • An external change agency is available to provide support for implementation (Greenhalgh et al. 2004) • The external change agency is known for its positive relationships and client-centeredness, good working relationships exist (Greenhalgh et al. 2004) • Dissemination is used to target audiences, assess end-user needs, and pitch the innovation appropriately (Greenhalgh et al. 2004) • Access to the innovation is managed well (Greenhalgh et al. 2004)
4. Mechanisms of spread	<ul style="list-style-type: none"> • Respected individuals champion the initiative (Greenhalgh et al. 2004) • Other 'leading' organisations being seen to take action (Berwick 2003) • Change agents connect and spread learning (Greenhalgh et al. 2004) • There are networks through which information can spread (Greenhalgh et al. 2005b) • Information about the innovation is clear and accessible (Greenhalgh et al. 2005b)
5. Perceived benefits of the innovation	<ul style="list-style-type: none"> • The potential for advantage is easy to see (Rogers 1995) • The innovation seems compatible with organisational goals and priorities (Buchanan et al. 2007) • There is potential for clear and straightforward implementation (Greenhalgh et al. 2005b) • There is potential to trial the initiative (Berwick 2003) • There is potential to observe improvement (Rogers 1995) • There is potential for adaptation to fit local contexts (Rogers 1995)
6. Operational attributes of the innovation	<ul style="list-style-type: none"> • The innovation is relevant to operational goals (Greenhalgh et al. 2004) • The innovation is useful (Greenhalgh et al. 2004) • It is feasible to implement and gain benefits (Greenhalgh et al. 2004) • Implementation can be broken down into tasks or steps (Berwick 2003) • It is easy to see what knowledge is required (Greenhalgh et al. 2004)
7. Organisational context	<ul style="list-style-type: none"> • Structural features of the organisation (size, maturity, complexity, differentiation, decentralisation, resourcing) facilitate implementation (Greenhalgh et al. 2005b) • The organisation has the capacity (skills, knowledge-base, transferable know-how, ability to evaluate) for implementation (Greenhalgh et al. 2005b) • The organisation is receptive in terms of vision, values and goals, risk taking and networking (Greenhalgh et al. 2004) • Critical success factors for organisational spread are in place (Table 4)

The NHS Institute, and its predecessor the NHS Modernisation Agency, has funded and carried out research into the spread of innovations and quality improvement techniques over several years eg, 'The Spread of See and Treat' (MA 2004). In this example, many factors influenced the spread of See and Treat. The initiative was well supported and monitored by external agencies, patients benefited and no staff groups lost out, waiting times were reduced, and Department of Health targets were achieved. However, there were also a range of factors that limited the spread of See and Treat at a local level, including lack of additional resources and suitably experienced staff, impact upon quality of care, and no prior evaluation of its benefits.

From 2001 the NHS Modernisation Agency Research into Practice Team worked with partners within the Modernisation Agency and the broader NHS to capture learning from its initiatives and programmes to generate knowledge about modernising healthcare. The aim of the team was to share findings as widely as possible to help inform NHS staff as they pursue service improvement locally. The Modernisation Agency Research into Practice Team helped to build a body of knowledge that continues to have practical application for staff working directly on improvement activities. Details of specific reports are provided in an appendix to this report (Appendix 1, Table A1). The work of the Research into Practice Team is captured in a book (Buchanan et al. 2007), which provides useful lessons about programme spread.

The following table (Table 4) summarises factors required to spread improvement programmes at an organisational level. It draws together findings from the Modernisation Agency reports with findings from Berwick (2003) and Buchanan et al. (2007) on the diffusion of innovations.

Table 4: Critical success factors for spread within a healthcare organisation

Success factors	Theory base
1. Understand the initiative and the need	<ul style="list-style-type: none"> • Understand the source of the initiative and its rationale (MA 2005) • Find sound innovations (Berwick 2003) - find the 'fit' with organisational needs, priorities and culture (MA 2005) • Identify overlaps and coherence of initiative with other work (MA 2005) • Assess potential benefits - to patients, quality and safety (MA 2005) • Make use of diagnostic tools and techniques (MA 2005) • Make use of performance data to identify need (MA 2005)
2. Engage all staff	<ul style="list-style-type: none"> • Inform and engage all staff as soon as possible and encourage them to recognise the need to improve (MA 2005) • Involve staff at all stages and particularly when moving beyond wave or project phase (MA 2005) • Adapt the innovation to fit specific organisational needs (MA 2005) • Engage 'hearts and minds' (Bates and Roberts 2006) • Explore reasons for scepticism and resistance (MA 2005, Bates and Roberts 2006) • Engage 'influencers' at all levels of the organisation (MA 2003 report 10)
3. Establish an initiative team	<ul style="list-style-type: none"> • Find and support "innovators" (Berwick 2003) • Set up multi-professional/departmental teams to work across organisational boundaries (MA 2005) • Encourage effective teamworking (MA 2005) and make connections (Bates and Roberts 2006) • Be clear about roles and responsibilities (MA 2005) • Appoint a team leader or co-ordinator (MA 2005) • Make use of existing expertise in service improvement (MA 2005)
4. Designate leaders	<ul style="list-style-type: none"> • Secure credible leadership for the initiative (MA 2005) • Enable leaders to provide a steer, focus, and maintain momentum (MA 2005) • Gain endorsement and support from key senior individuals and clinical staff (MA 2005)

Success factors	Theory base
5. Allocate resources	<ul style="list-style-type: none"> Secure appropriate funding (MA 2005) Identify sufficient and appropriate staff to initiate, deliver and support the initiative (MA 2005) Release time for staff involved to meet, plan, develop and undertake work (MA 2005) Promote incentives for staff and take steps to avoid disincentives (MA 2005)
6. Re-enforce the support infrastructure	<ul style="list-style-type: none"> Build-up positive organisational characteristics (participative management style, history of successful change, commitment to find better ways of working and clear corporate vision) (MA 2005) Provide adequate support infrastructure eg, IT systems (MA 2005) Create systems to recognise, reward and include staff in improvement work (MA 2005)
7. Plan for implementation and integration	<ul style="list-style-type: none"> Set a realistic pace for implementation (MA 2005) Consider phased implementation (MA 2005) Invest in "early adopters" (Berwick 2003) Use promotion and marketing to communicate a plan (MA 2005) Trust and enable reinvention (Berwick 2003) Create slack for change (Berwick 2003) Allocate sufficient time and resources for integration with existing practices (MA 2005) Incorporate new practices into organisation's 'core' business and priorities (MA 2005)
8. Monitor improvement	<ul style="list-style-type: none"> Collect and share evidence of benefits (MA 2005) Make early adopter activity observable (Berwick 2003) Provide proof of effectiveness through ongoing monitoring of process and outcomes (MA 2005)

2.5 Factors required to spread improvement programmes at scale and at pace

Appendix 2 presents a summary of the literature on models of spread.

Summarising from this literature, key factors required to spread improvement programmes at scale and at pace include a range of interconnected behavioural processes and activities:

- Awareness raising of the potential for change.
- Emotional connection - to unleash energies for change.
- Learning about benefits to self.
- Belief that change can succeed.
- Making a firm commitment to mobilisation.
- Learning about benefits to the social and work environment.
- Finding tangible rewards for new ways of working.
- Replacing old ways of working.
- Seeking and forming supportive relationships.
- Restructuring the environment to support change.
- Being able to provide more choices and resources.

2.6 Possible barriers to spreading improvement programmes

Previous research has identified challenges to spreading improvement programmes in health care. These are summarised here.

Lack of receptive context

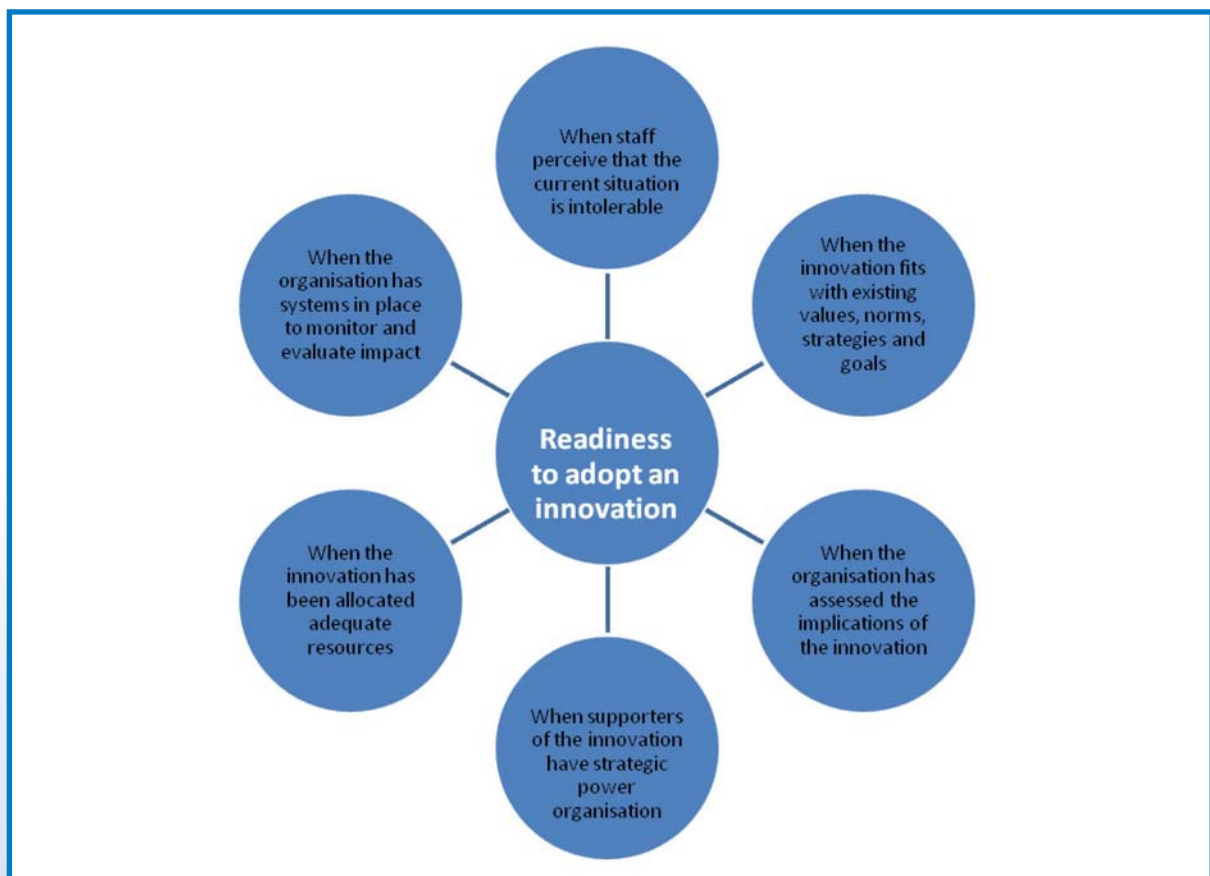
Previous research has looked at receptivity issue or 'readiness' for change. In their review Greenhalgh et al (2004) identify a whole range of factors that influence readiness (Figure 3) as well as those which act as barriers to receptivity, including: lack of resources, existing structures or lack of structure, problems accessing data, lack of alignment to organisational strategy, competing measures or initiatives, leadership, staff skills and enthusiasm, uncertain benefits for staff and patients, historical failures to recognise efforts and successes towards improvement.

Other 'human' aspects of receptivity include:

- Ignorance: not aware somebody already has the knowledge/solution.
- Capacity: lack of money, time or management capacity to make use of it.
- Relationships: people absorb knowledge and practice from those they know and respect, and are 'like them'; issues of missing bonds and trust.
- Motivation: where people see no clear business reason for transferring knowledge and best practice.
- Language: people don't speak the same 'language' or see the world in the same way: professional language barriers.
- Type of knowledge: 'tacit' complex knowledge is more 'sticky' than explicit, codified knowledge, requiring more face to face exchange.

Figure 3: Readiness for change

(Developed from SDO 2004)



Inconsistent vision

Whether an innovation fits with existing values, norms, strategies and goals of an organisation is a key determinant of adoption and spread. However, in healthcare different professional communities (managerial, quality improvement, and clinical staff for example) can at various times work to different value systems, knowledge-bases and priorities, and hence could perceive the aims and impact of an improvement programme like The Productive Ward in different ways (Young and McClean 2009).

Self-sealing groups

Prior research has highlighted several features of professionalism that contribute to assuring the effective diffusion of innovations. At the same time professionals tend to underutilise some innovations and grossly over-utilise others (Adler and Kwon 2009). Professional groups produce strong social and cognitive boundaries. While these boundaries originate from membership in the professions, they are evident in the manner in which communities of practice operate. These are key arenas in which evidence is interpreted and enacted at a local level, and in which implications for organisational change are considered. Such professional communities of practice develop internal learning and change but block externally oriented sources of change and learning: they are self-sealing groupings. They are less fluid and permeable than other communities of practice and do not readily allow for multiple membership or fluid participation (Ferlie et al. 2005).

Sticky knowledge flow

Szulanski (2003) argues that knowledge factors play a greater role in the success or failure of a knowledge transfer than has been previously suspected. Sticky knowledge describes the process by which communication between groups or individuals fails to flow or is not shared.

The factors included in the sticky knowledge model include:

- causal ambiguity
- unproven knowledge
- motivation of source
- credibility of source
- recipient motivation
- recipient absorptive capacity
- recipient retentive capacity
- barren organisational context, and
- arduous relationship between source and recipient.

Communities of practice

Different professional groupings develop distinctive knowledge bases and research cultures. They can at times “talk past each other” (Buchanan et al. 2007). Where communities of practice use different knowledge-bases, these social and cognitive barriers may be present in the case of different segments within the same profession (such as primary care doctors versus acute sector doctors) as well as between professions (such as obstetricians and midwives). Where both social and cognitive boundaries exist between communities of practice, these interact and mutually reinforce each other. Such differences can only be overcome through social interaction, trust, and motivation, and they are rarely surmounted where there is a history of distrust.

Scaling-up issues

Relatively little is known about why some successful pilot and first wave change initiatives do not translate well into large scale programmes of system change.

“Most improvement projects cannot be scaled up in a linear way to go from pilots to transformation of the whole system. Large system change requires connected action at every level of the system; and it is the complexity of the interconnections that defies simple scaling.”
(Bevan and Plsek 2002)

Inward-looking innovation

In a competitive service system it is natural for staff to think about their own work and organisations they are working within. It is less usual for NHS staff to reflect on the broader area networks and clusters of service providers, or indeed the service as a whole. Competition can create inward-looking innovation (Bate and Robert 2006), where organisations are reticent to share their achievements because they wish to maintain a perceived advantage in their performance. A culture of working towards performance across whole regions or systems can be at odds with organisational strategies for improvement.

2.7 Positive actions to overcome barriers

Summarising from the theories presented so far, it is possible to say that:

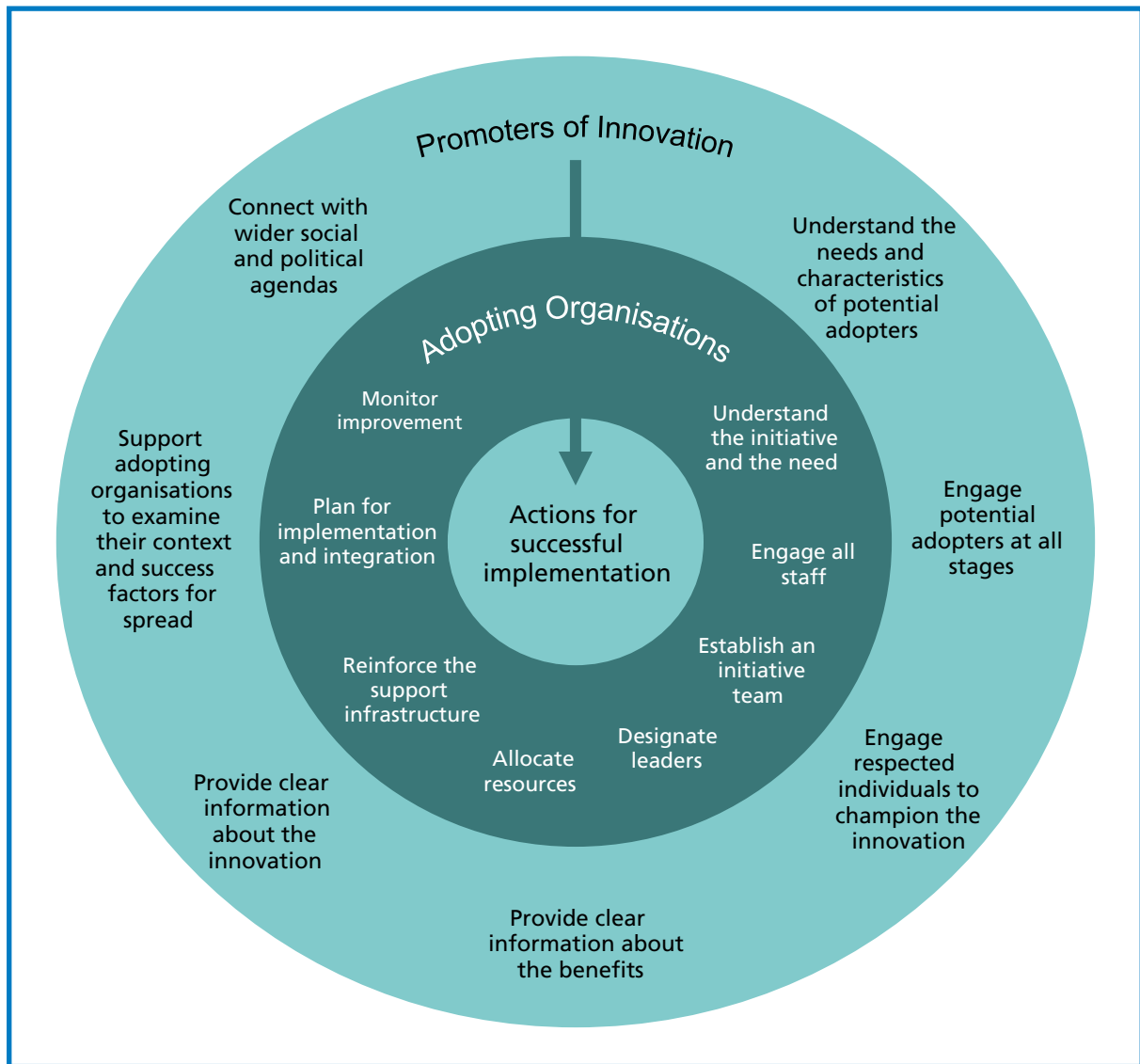
- Spread can not only be driven by 'top-down' plans and motivation alone, it needs to also focus on unleashing change from the system itself by moving people to change themselves and each other.
- Spread has to be user-focused, to meet the needs and requirements of different groups of potential adopters.
- The rapid spread of good ideas can be damaging if there is not adequate time for staff to learn new skills or impact on patients is not considered.
- There are different types of barriers to spread – including lack of receptive context, inconsistent vision, self-sealing groups, sticky knowledge flow, issues of scaling-up, and inward-looking innovation - positive actions need to address specific types of problems.
- Spread can be perceived as 'grounding' innovation within systems. It includes sociological processes of personal investment and local control as well as technical systems such as plans and measures.
- Spread involves exchange and mutual learning – this means taking on board the human aspects of change and recognising that people influence people eg, local 'change champions', strong leadership support and great project management.

Bearing these general lessons in mind, promoters of innovations like The Productive Ward can take positive actions to overcome barriers to innovation spread:

1. *Connecting with wider social and political agendas*, particularly to secure resources and negotiate incentives.
2. *Understanding the needs and characteristics of potential adopters*, ensure the meaning of the innovation is clear to them and the adoption decision is made as simple as possible.
3. *Engaging potential adopters at all stages*: for example, in development and end-user testing to target the innovation appropriately, enable ease of access to the innovation, provide support for implementation, and promote positive relationships and client-centeredness.
4. *Engaging respected individuals* to champion the initiative, publicise the work of 'leading' organisations, identify change agents and networks to connect and spread clear information and learning about the innovation.
5. *Providing clear information about the benefits of the innovation* in terms of the potential for: advantage, compatibility with organisational goals, straightforward implementation, trial and adaptation to local contexts, and observable improvement.
6. *Providing clear information about the operational attributes of the innovation* in terms of operational goals, usefulness, feasibility and stages of implementation, and what type of knowledge is required.
7. *Supporting adopting organisations to examine their organisational context* to identify facilitating factors such as resourcing, skills, knowledge-base, transferable know-how, ability to evaluate the innovation and receptivity in terms of vision, values and goals, as well as critical success factors for organisational spread.

Critical success factors for organisational spread of innovations are identified in Table 4. In the following figure (Figure 4), these factors are presented alongside actions from promoters of innovation to illustrate that spread is a multifaceted process that involves both motivating and unleashing change.

Figure 4: Positive actions for promoters of innovation and adopting organisations



In the following section of the report we look more closely at specific issues in relation to the spread of The Productive Ward.

3. Applying this theory to our knowledge of The Productive Ward

3.1 Summary of Productive Ward studies

The second step of phase one was to apply the findings from the selected models to four recent studies of The Productive Ward, these studies and key findings are summarised below.

The Productive Ward: *Releasing time to care*™ Learning and Impact Review (NNRU 2010)

This review was conducted across NHS England. Data collection focused on assessing NHS Institute data, the experiences of key stakeholders in the development of the programme, Strategic Health Authority leads for the programme, and NHS staff with experience of implementing the programme (national web-based survey). Five case studies were undertaken in implementing acute hospitals. The review was funded by the NHS Institute and was undertaken by the National Nursing Research Unit from February-June 2009 and released in 2010.

Key findings were that:

- (i) The programme has been successfully framed and communicated in a way that connects with frontline NHS staffs' need and will for change, and that it thrives where local leadership and ownership are strong. The review forwards 16 key lessons from the programme to date that will assist hospitals in local implementation in the future.
- (ii) The programme has a huge perceived value and local impact including improvements in staff skills (in particular ward-level leadership), more time for better care, improved patient experiences, cost savings, and higher staff satisfaction and retention. The programme itself facilitates dialogue 'ward' to 'board' by giving a shared language and focal point where the interests and values of these different staff groups can converge.
- (iii) There is considerable potential for the ongoing spread and impact of the programme throughout the NHS. Further research and nationally consistent measures are required to monitor service-wide improvements and to examine longer-term effects of programme diffusion. Current practice in using metrics is not sufficient to support this. However, pushing for consistency in selection and use of measures runs the risk of undermining local ownership and failing to capture the full range of outcomes that are observed. At a more general level, The Productive Ward has a range of impacts, which may or may not be derived from local measures.
- (iv) Locally determined and standardised metrics should be recognised as serving useful purposes in their own right. Guidance on deploying routinely collected data (already being collected from all hospital wards, for example, staffing, sickness/absence and emerging national metrics such as pressure sore rates) that does not make an additional burden on wards that are running The Productive Ward can provide a way forward for resolving this dilemma.

NHS London (2009) Evaluation of Releasing Time to Care

This evaluation was conducted across the 43 London acute hospitals who have implemented the programme and have received funding as part of NHS London's investment programme. The evaluation was commissioned by NHS London and conducted by Deloitte between January and March 2009.

Key findings were that:

- (i) The investment by NHS London has been a significant catalyst in stimulating energy and effort required to spread the uptake of the programme across London.
- (ii) This investment has resulted in measurable positive impacts. Specifically, direct care time has increased by 13 percentage points. This released time in turn is reflected in increased patient observations and patient satisfaction scores. Qualitative data indicates other metrics will be impacted but require further research.
- (iii) This evaluation has identified six key factors driving successful spread and the sustainability of the programme (leadership engagement, strategic alignment, governance, measurement, capability and learning, resourcing/people).
- (iv) Benefits will continue to accrue, from the initial investment provided there is continued support and the right interventions to support the six factors from NHS London, the NHS Institute and the NHS in London.

NHS Scotland (2008) Releasing Time to Care Evaluation

This pilot and evaluation of Releasing Time to care in NHS Scotland was a joint initiative between the Chief Nursing Officer Directorate and the Improvement and Support Team. Eight boards across Scotland were chosen to pilot the programme and participate in the evaluation. Each board appointed a named facilitator and a test ward. Each board carried out monthly evaluations for a period of four to six months between July and December.

Key findings were that:

- (i) Releasing time to care™ can effectively support the implementation of the new senior charge nurse role.
- (ii) The programme increases the amount of time available for staff to spend directly caring for patients.
- (iii) The programme gives the team the skills to focus on key ward processes, thereby improving efficiency on the ward.
- (iv) The programme can contribute to improving staff morale and teamwork on a ward.
- (v) The programme can support the implementation of several other national streams of work, including Reducing Healthcare Acquired Infection, the National Patient Safety Programme, the 18 weeks Referral to Treatment Programme and the Strategic Lean Programme.

Belfast Health and Social Care Trust Productive Ward – Releasing Time to Care Evaluation Report (BHSCT 2009)

This project involved piloting of The Productive Ward Foundation modules within two wards at two different hospitals in the Belfast Trust. The evaluation was from November 2008 to March 2009. Additional funding for the pilot sites to purchase resources, replacement costs for backfill for staff undertaking training and work-based activities or for the project lead's time was not available. The study aimed to evaluate the effectiveness and the relevance for the Belfast Trust of The Productive Ward project.

Key findings were that:

- (i) The Productive Ward initiative is a useful diagnostic tool which can be accessed to address practice which would benefit from Lean methodology. The tools within The Productive Ward are a valuable resource which may assist staff to address specific environmental issues or support other organisational priorities when used to address clearly set objectives.
- (ii) There is no evidence to support that The Productive Ward has a direct impact on the experience for patients and their families.
- (iii) The process of being able to articulate their shared vision for the ward was valued by staff and was seen as an important approach for supporting the development of the team and improved team working.
- (iv) Engaging in The Productive Ward initiative improved communication within the team.
- (v) Productive Ward expertise is required to support wards/areas to use the tools. The BMC can provide both the licensing arrangements and local facilitation.
- (vi) Dedicated skilled facilitation is required to provide the support and ensure success of the initiative.

The following table (Table 5) summarises the findings of these studies according to what they reveal about adoption/implementation, spread, and sustainability of The Productive Ward programme. In relation to spread this helps to show that overall - **staff who are engaged in Productive Ward work perceive a potential for spread - but that it is essential that there is:**

- **leadership engagement in planning spread**
- **strategic alignment of Productive Ward work with other initiatives**
- **practical support for governance and licensing arrangements**
- **provision of skilled facilitators at a ward-level**
- **sharing of expertise at a ward-level in how to use Productive Ward tools.**



Table 5: Summary findings of large-scale Productive Ward studies

Study	Adoption/implementation	Spread	Sustainability
Learning and Impact Review (NNRU 2010)	<ul style="list-style-type: none"> • Framing helps to connect with need and will for change • The Productive Ward thrives where local leadership and ownership are strong • The Productive Ward has a huge perceived value by staff who are engaged • Good evidence of local impact (staff skills, released time, patient experiences, cost savings, staff satisfaction and retention) • The Productive Ward facilitates dialogue 'ward' to 'board' through language and focus 	<ul style="list-style-type: none"> • Staff who are engaged perceive a potential for spread 	<ul style="list-style-type: none"> • Need for consistent measures to monitor service-wide improvements and longer-term effects • Need for local ownership of measurement • Potential to use routinely collected data to evidence impact (staffing, pressure sore rates)
NHS London Evaluation (2009)	<ul style="list-style-type: none"> • Measurable positive impacts (direct care time, increased patient observations and patient satisfaction) • Financial investment has been a significant catalyst in stimulating energy and effort 	<ul style="list-style-type: none"> • Key factors for spread include: leadership engagement, strategic alignment, governance, measurement, capability and learning, resourcing/people 	<ul style="list-style-type: none"> • Need for further research on impact metrics • Benefits will accrue if there is continued support from SHA, NHS Institute and the NHS
NHS Scotland Evaluation (2008)	<ul style="list-style-type: none"> • The Productive Ward gives staff skills to focus on key ward processes, thereby improving efficiency on the ward • The Productive Ward can support the implementation of senior nursing roles • The Productive Ward increases availability of time for direct care • The Productive Ward can contribute to improving staff morale and teamwork • The Productive Ward can support the implementation of other national streams of work, healthcare associated infection, patient safety, referral to treatment 		
Belfast Health and Social Care Trust Evaluation (BHSC 2009)	<ul style="list-style-type: none"> • The Productive Ward is a useful diagnostic tool for practice • The Productive Ward tools are a valuable resource • The Productive Ward helps staff to address specific environmental issues and organisational priorities • Staff value being able to articulate their shared vision • The Productive Ward supports team-working and communication 	<ul style="list-style-type: none"> • Need for organisation of licensing arrangements • The Productive Ward expertise is required to support wards/areas to use Productive Ward tools • Need for dedicated skilled facilitation 	<ul style="list-style-type: none"> • Lack of evidence to support that The Productive Ward has a direct impact on the experience for patients and their families

3.2 Characteristics that have enhanced the spread of The Productive Ward

The following analysis of The Productive Ward is developed from the theory of factors which are required to spread improvement programmes at scale and at pace (see section 2.3) together with information from four Productive Ward evaluation studies (NNRU 2010, NHS London 2009, NHS Scotland 2008, BHSC 2009). Information on organisational context factors (shown in row vii) are identified in greater depth in Table 4.

Table 6: Characteristics that have enhanced the spread of The Productive Ward

(i) Social-political influences	<p><i>There is a strong and clear social need for change</i> There are big developments in NHS service delivery towards involving NHS staff more (and more directly) in service innovation and improvement and, doing more than improving performance and reliability, to transform the whole patient experience of care. Political and service drives for improved productivity, quality and efficiency in the NHS lends support to The Productive Ward programme (NNRU 2010).</p>
	<p><i>External funding and resources have been made available</i> In the case of The Productive Ward in England, national resourcing and regional support have undoubtedly boosted the rapid and widespread adoption and implementation of the programme (NNRU 2010, NHS London 2009).</p>
	<p><i>Incentives are in place eg, targets/standards</i> Although The Productive Ward is not a regulatory requirement in the NHS, wider incentives exist in the form of the need to achieve related targets and standards for safety, quality and efficiency savings. Other influences include the need to support patient centred approaches to care and the introduction of new clinical roles (BHSC 2009).</p>
(ii) Needs of the adopters	<p><i>It is clear who potential adopters are in terms of their characteristics and needs</i> The Productive Ward was initially designed with members of NHS hospitals for use in NHS hospitals. Clear understanding was gained of the characteristics and needs of NHS staff implementing the programme (NNRU 2010).</p>
	<p><i>The meaning of the innovation to intended adopters is understood</i> NHS staff express a strong conviction that unlike many other service improvement initiatives The Productive Ward can bring about changes that they have wanted to see happen for a long time (NNRU 2010).</p>
(iii) External change agencies	<p><i>The innovation has involved end-user testing and development</i> In the case of The Productive Ward the developers of the programme were linked with potential users in hospitals at the early development stage and expert opinion leaders - mainly academics and quality improvement experts - conveyed the principles behind the programme to a range of local champions who then worked to reframe these into a set of shared values and language (NNRU 2010).</p>
	<p><i>An external change agency is available to support implementation</i> The NHS Institute - as the external change agency – invested time and resources in developing The Productive Ward and supporting NHS roll-out in England (NNRU 2010).</p>
	<p><i>The external change agency is known for its positive relationships and client-centeredness, good working relationships exist</i> The NHS Institute - as the external change agency – benefited from a national organisational profile and pre-existing links with SHAs and NHS hospitals which had been built up over the previous 10 years (NNRU 2010).</p>
	<p><i>Dissemination is used to target audiences, assess end-user needs, and pitch the innovation appropriately</i> As The Productive Ward has become a centrally financed initiative the main vehicle for dissemination of the approach is now through more formal vertical channels (eg, SHA leadership, hospital executive/board sign-up), although the ongoing promotional activities of the NHS Institute have remained key channels for sharing learning (NNRU 2010).</p>

(iv) Mechanisms of spread	<p>Respected individuals champion the initiative</p> <p>The 'spread' of the programme in England has been encouraged by using professional champions, professional and organisational networks (NHS London 2009, NNRU 2010).</p>
	<p>Other 'leading' organisations are seen to take action</p> <p>Early adopters of the programme (test sites and Learning Partners) were seen as 'leading the way' or as having a commitment to championing quality improvement (NNRU 2010).</p>
	<p>Change agents connect and spread learning</p> <p>The NHS Institute have taken steps to publish learning from the test sites and Learning Partner organisations in a wide range of professional literatures, and to review learning and impact (NNRU 2010).</p>
	<p>There are networks through which information can spread</p> <p>NHS staff have made use of networks supported by SHA regions to learn about The Productive Ward (NHS London 2009). Productive Ward training and conferences have also been useful places to share learning (NNRU 2010)</p>
(v) Perceived attributes of the innovation	<p>The innovation seems compatible with organisational goals and priorities</p> <p>The framing of The Productive Ward message seems to have been hugely successful in appealing to different audiences within the NHS (NNRU 2010). While The 'Productive Ward' title speaks to the values and priorities of senior executives charged with delivering services within budget, the sub-title 'Releasing Time to Care' appeals directly to the values and concerns of professionals (NHS London 2009).</p> <p>Implicit within the phrase 'Releasing time to care™' is the promise to reinvest the time and resources that is currently spent on non-productive activities (NHS Scotland 2008).</p>
(vi) Operational attributes of the innovation	<p>The innovation is relevant to operational goals</p> <p>More than simply appealing to different audiences, the dual title of The Productive Ward: <i>Releasing time to care™</i> and the programme itself appear to act as a bridge between the two communities 'board' and 'ward'; The Productive Ward provides a catalyst for board members and executives to communicate more directly with ward based staff (NNRU 2010).</p>
	<p>The innovation is useful</p> <p>There is a perception amongst NHS staff that the programme can be sustained if there is adequate time for implementation and evidence of the promised greater efficiencies (NNRU 2010).</p>
	<p>It is feasible to implement and gain benefits</p> <p>Extensive development and testing has meant that the programme is feasible to implement and gain benefits within hospitals. This is further supported by training and support packages (NNRU 2010). However, other factors such as organisational context influence implementation.</p>
	<p>Implementation can be broken down into tasks or steps</p> <p>Productive Ward materials and training emphasise options for implementation including staged roll-out, which many hospitals have opted for (NNRU 2010, NHS London 2009).</p>



<p>(vii) Organisational context (see Table 4)</p>	<p><i>Structural features of the organisation (size, maturity, complexity, differentiation, decentralisation, resourcing) facilitate implementation</i></p> <p>A number of features of hospitals, both structural and cultural, have been shown to influence the likelihood that The Productive Ward programme will be adopted, implemented and successfully assimilated into routine practice (NNRU 2010). Implementation is more likely to be successful if a hospital has the capacity to make use of Productive Ward information, undertake networking activities, communicate a clear common vision of quality improvement, and promote the programme as a way of achieving this vision. Senior executive and clinical support are perceived as being essential to successful implementation (NNRU 2010).</p> <p>When the organisation has systems in place to monitor and evaluate impact a number of longer-term cumulative effects of The Productive Ward may be detected (NHS London 2009), which may not be immediately recognised as improved ‘productivity’ (NNRU 2010). For example, outcomes could include generating an ethos of quality improvement and a foundation for constant improvement or improved intra-organisational communication.</p> <p><i>The organisation is receptive in terms of vision, values and goals, risk taking and networking</i></p> <p>For NHS hospitals in England, organisational readinesses for implementation of the programme was heightened by a combination of factors, including strong support from directorate and executive staff, having a dedicated Productive Ward team or lead in place, as well as funding for implementation (NHS London 2009, NNRU 2010).</p> <p>*NHS staff have suggested 16 top-tips for implementation of The Productive Ward (NNRU 2010).</p>
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***NHS staff have suggested top-tips for implementation of The Productive Ward (NNRU 2010) including:**

1. Before launching The Productive Ward - spend a period of time in a hospital where the programme has been implemented to get a good understanding of what is required. Start to create a buzz in your organisation. Get everyone involved and signed up even if their involvement is minimal.
2. When planning to implement The Productive Ward - start with a few wards that want to complete the project then scale-up when appropriate. Invite wards to compete for "showcase" status.
3. You need strong support from your executive team - your organisation needs to make it a high priority in practice, not just in principle. Get your managers behind you. Set up a steering group - you may need board-level interventions to get things done.
4. Secure dedicated resources - negotiate with senior management clear actions for release and cover of staff to do the work. Release backfill money for certain roles. Set up accounting systems for expenditure. Know what resources are required and put them in place long before starting.
5. Have a clear leader who is going to actively take charge and who knows what they are doing so that they can communicate this to other members of the team. Have a dedicated Productive Ward team who will be given time to take this project forward and who are trained on how to develop it.
6. Explain the vision of what you are trying to achieve - be clear with everyone that 'The Productive Ward: *Releasing time to care™*' does not mean that where efficiencies are identified that disinvestment will follow – that it is about releasing time to care for patients, to improve their experience and outcomes and improve patient safety.
7. Make the most of available support - be open and ask for help, don't be afraid to draw support and advice from the NHS Institute, study days, networks and colleagues, and Productive Ward literature.
8. Train key people in the principles of The Productive Ward and techniques in order to get better staff involvement and engagement.
9. Set a realistic time scale - take time and don't rush. Take small steps and complete them before moving on to the next. The project plan should take into consideration school holidays and busy clinical times.
10. Concentrate on delivering the core modules first these will give a foundation for improvement. Ensure you do 'Knowing How We Are Doing' first and get as much baseline data as possible before making any improvement. Take the time to capture evidence and data of where you are now and think about what tools you are going to use to measure improvement and to ensure sustainability.
11. Ward staff involvement and motivation is imperative to the success of the programme. Ensure each module is lead by a different member of staff and include non-qualified staff in leading activities. Involve junior staff from the outset.
12. Allow staff on the ward to make suggestions - they work in the clinical area and can evaluate if changes are effective, don't impose ideas on them. Choose some projects that produce quick wins. Link activities to your everyday work. Be willing to discuss everyone's ideas and work as a team.
13. Communicate widely and regularly – gain ongoing senior management support by starting the Visit Pyramid and set dates for ward visits. Persist with weekly meetings, type up notes and present results.
14. Adjust your expectations to match the situation - don't be frustrated if progress isn't as quick as you would expect. Set clear goals, but don't be afraid to move deadlines as long as there is still a flow of activity and things being achieved.
15. Identify champions of The Productive Ward area - ask individuals who are able to motivate others and are willing to explain each stage and key information in simple terms.
16. Acknowledge ownership and celebrate successes - share learning across wards and departments, track improvements in patient experience, use staff and patient stories as powerful tools, make use of multi-disciplinary teams and other existing staff groups to spread the learning.

3.3 Characteristics that have hindered the spread of The Productive Ward

The following analysis of The Productive Ward, presented in Table 7, is developed from the theory of factors which are required to spread improvement programmes at scale and at pace (Appendix 2) together with information from four Productive Ward evaluation studies (NNRU 2010, NHS London 2009, NHS Scotland 2008, BHSC 2009). Information on organisational context factors (shown in row vii) is identified in greater depth in Table 4.

This analysis reveals several specific unaddressed questions about mechanisms of spread and perceived attributes of the innovation, which warrant further research (discussed in section 3.5).

Table 7: Characteristics that have hindered the spread of The Productive Ward

(i) Social-political influences	<p><i>Mandate or political directives are not in place</i> The Productive Ward has been supported by central resourcing rather than mandate or directives to NHS providers. These influences could lead to faster spread and wider uptake of the programme. However, rapid spread can be damaging if staff are not provided time for skills development or the impact on patients is not considered.</p>
(ii) Needs of the adopters	<p><i>It is not clear who 'unexpected' potential adopters are in terms of their characteristics and needs</i> A wider range of organisations have made use of the programme than NHS hospitals (particularly primary care and mental health trusts). This has led to the development of The Productive Mental Health Ward and The Productive Community Services programmes. There are important emergent questions about the potential to encourage spread of learning from The Productive Ward into wider areas of professional working, such as nurse education, hospital design, recruitment and leadership training.</p>
	<p><i>The adoption decision is not always straightforward</i> Adoption of The Productive Ward is influenced by a range of factors, including the availability of resources and support, the views of many stakeholders, and organisational context. The decision can be further complicated by the different support packages on offer (download only, standard or accelerated support) and their practical and financial implications.</p>
	<p><i>Adopters concerns pre-adoption, early user and experienced user stage are not always understood and met</i> All four Productive Ward evaluation studies have focused on adoption in NHS organisations, hence relatively little is known about circumstances of non-adoption or barriers to spread and sustainability.</p>
(iii) External change agencies	<p><i>Access to the innovation is not always managed well</i> Although Productive Ward modules are freely available to NHS organisations for download from the NHS Institute website, there is a lack of external resourcing or the need to bid for resources in some areas as part of pilot studies (NNRU 2010, BHSC 2009).</p>
(iv) Mechanisms of spread	<p><i>Information about the innovation is clear and accessible</i> No available evidence</p>
(v) Perceived attributes of the innovation	<p><i>The potential for advantage is easy to see</i> No available evidence</p>
	<p><i>There is potential for clear and straightforward implementation</i> No available evidence</p>
	<p><i>There is potential to trial the initiative</i> No available evidence</p>
	<p><i>There is potential to observe improvement</i> No available evidence</p>
	<p><i>There is potential for adaptation to fit local contexts</i> No available evidence</p>
(vi) Operational attributes of the innovation	<p><i>It is easy to see what knowledge is required</i> No available evidence</p>

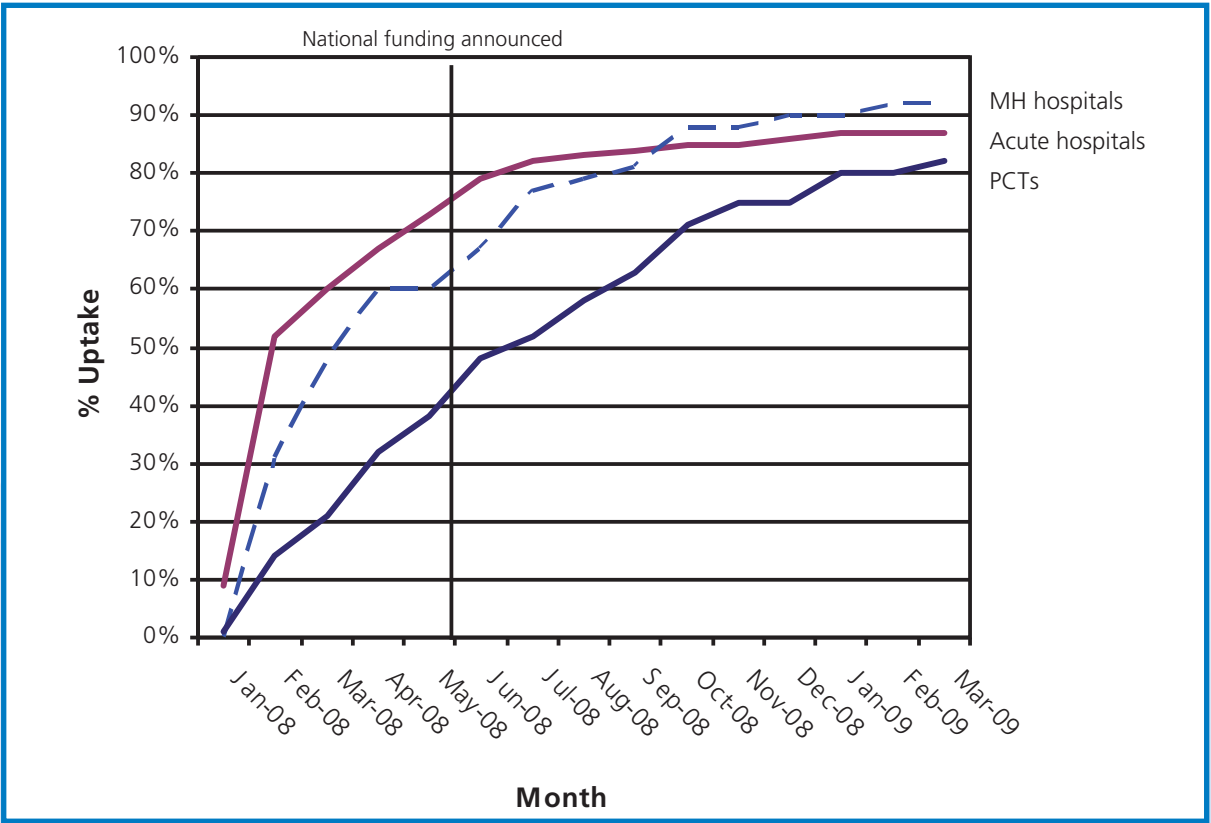
(vii) Organisational context (see Table 4)	<p>Organisations do not always have the capacity (skills, knowledge-base, transferable know-how, ability to evaluate) for implementation</p> <p>Leadership and management style issues in relation to Productive Ward implementation are particular issues that need further exploration (NNRU 2010).</p>
	<p>Critical success factors for organisational spread are not always in place (Table 4)</p> <p>For some hospitals, there are stumbling blocks to local implementation. Although SHA advocacy and funding for Productive Ward activities were important drivers for adoption they may not necessarily lead to successful implementation in pressurised hospitals facing staffing pressures, multiple organisational targets, rising patient expectations and quality standards. Some hospitals are better at actively seeking support networks than others, and have existing informal support networks through which to share their experiences of what works and what does not (NNRU 2010).</p> <p>Common barriers to Productive Ward implementation include insufficient resourcing within organisations and existing work pressures (NNRU 2010). Even when organisations provided resources for 'back-fill' teams found their progress on the programme had slowed at particular times, for example when winter pressures were felt.</p> <p>A particular issue is whether hospitals which sign-up for whole-organisation implementation of The Productive Ward are better able to assimilate and sustain staff commitment to the programme (NNRU 2010).</p>

3.4 Spread of The Productive Ward

In the Learning and Impact Review (NNRU 2010) we analysed data that had been collected by the NHS Institute relating to the 'adoption' of The Productive Ward in two ways. Firstly, by when a package was first downloaded from the NHS Institute website by a member of staff from a NHS organisation and secondly, by the date when an NHS Institute support package was formally purchased by an organisation.

Figure 5 illustrates the rate of adoption of The Productive Ward nationally (by acute, mental health and primary care trust) using both the measures outlined above, whichever date was earliest. The figure therefore includes hospitals that 'adopted' The Productive Ward programme (by download from NHS Institute website) but did not elect to purchase either of the support packages offered by the NHS Institute.

Figure 5: Diffusion curve by organisation type (acute, mental health and primary care)



This broadest measure of 'adoption' suggests that uptake of The Productive Ward (to March 2009) by NHS hospitals has been high (87% of acute hospitals, 92% of mental health hospitals, and 82% of primary care trusts). As Figure 5 illustrates, by the time central funding was announced in May 2008 momentum had already grown and The Productive Ward had been taken up across the NHS at a rapid rate.

Taking a decision to purchase a support package as a more formal measure of 'adoption', the percentage of NHS hospitals that have adopted The Productive Ward programme is 40% (n=140). Few hospitals (8%) have purchased the Standard package when compared to the Accelerated package. The Learning and Impact Review also found significant variations between SHAs in terms of the purchase of support packages by hospitals (Table 8). Different SHAs have clearly used different approaches to support local implementation of The Productive Ward programme; in three of the SHAs over 20 Hospitals had purchased one of the packages (in some cases directly supported by their SHA), whereas in three other SHAs less than five hospitals had done so (and in one of these SHAs none at all).

Table 8: NHS acute hospitals in England downloading Productive Ward materials or purchasing support packages

SHA	Accelerated (no. and % of all adopters in SHA)	Standard (no. and % of all adopters in SHA)	Download (no. and % of all adopters in SHA)	Total hospitals in SHA (100%)
East Midlands	2 (9%)	0 (0%)	21 (91%)	23
South Central	19 (83%)	2 (9%)	2 (9%)	23
South West	13 (33%)	13 (33%)	10 (26%)	39
West Midlands	2 (5%)	3 (8%)	30 (75%)	38
South East Coast	19 (68%)	0 (0%)	6 (21%)	28
East Of England	27 (68%)	0 (0%)	7 (17.5%)	40
Yorkshire and the Humber	2 (5%)	10 (27%)	19 (51%)	37
North West	8 (13%)	3 (5%)	41 (65%)	63
London	17 (23%)	0 (0%)	44 (59%)	75
North East	0 (0%)	0 (0%)	17 (74%)	23
Total	109	31	197	389

NHS Institute purchasing and download data indicates that some organisations and clinicians have not yet engaged with The Productive Ward programme. However, the true nature of this spread is not clear.

Corresponding with theory (summarised in the section 'How do we know whether spread has occurred?') assessing spread of The Productive Ward is complicated by the following issues:

- Over time and in some settings The Productive Ward can become unrecognisable as it is subject to reinvention and adaptation to local contexts. Furthermore, some organisations have sought to develop their own 'Lean inspired' initiatives from the outset.
- The full history of spread of The Productive Ward is made up of the experiences of different people who have become engaged and disengaged over time. Understanding spread means trying to piece together information from different sources and time periods.
- Spread has not been a steady state, it has been influenced by different groups of stakeholders who have converged and then perhaps diverged on ideas. The Productive Ward has gathered pace at different rates in different regions nationally and in different organisational and clinical settings.
- The Productive Ward can create opportunities or can constrain people as it crosses multiple types of political, service, management and clinical environments; nor has it been perceived or spoken about in the same terms.
- There are no 'final' definitive results as such - although lots of data has been collected at a local level about developments, implementation processes, spin-offs, outcomes and integration of new ways of working with old.

3.5 Beneficial areas for future research

The findings of phase one revealed a number of unaddressed questions about The Productive Ward programme. These are as follows:

1. What stops organisations from implementing The Productive Ward at all (*non-adoption*)?
2. What leads to organisations rejecting or abandoning The Productive Ward after initial adoption (*discontinuation*)?
3. Why do some improvements remain isolated and unknown to others (*islands of improvement*)?
4. Why has The Productive Ward spread well through some organisations (*mechanisms of spread*)?
5. What factors lead to disintegration of interest or effort (*improvement evaporation*)?
6. What needs to happen for organisations to hold improvement and evolve (*sustained change*)?

Table 7 presents further detail of the phenomena of interest within each of these processes of spread/non-spread. It incorporates unaddressed questions from the literature reviewed in phase one about mechanisms of spread and perceived attributes of the innovation.



Table 9: Areas for further research on processes of spread

Process	Phenomena of interest
1. Non-adoption	<ul style="list-style-type: none"> - Dissemination does not reach target groups - Diffusion by-passes some organisations - Adoption is rejected or fails to be initiated - Potential adopters do not see potential for advantage - Lack of perceived clarity and ease of implementation - Lack of understanding of knowledge required
2. Discontinuation	<ul style="list-style-type: none"> - Explicit and planned 'top down' rejection of the innovation following initial adoption - Abandonment of planned course of action - Lack of perceived potential to observe improvement
3. Islands of improvement	<ul style="list-style-type: none"> - Improvement remains isolated and unknown to others - Lack of spread within organisations (and isolated uptake of innovations across healthcare systems) - Lack of perceived potential to adaptation to fit local contexts
4. Mechanisms of spread	<ul style="list-style-type: none"> - Dissemination routes and channels - The role of opinion leaders and 'champions' - Availability of information about the innovation - Plans for how implementation will take place
5. Improvement evaporation	<ul style="list-style-type: none"> - Implicit 'bottom-up' disintegration of effort or interest - Lack of sustainability - Reversion to old ways of working
6. Sustained change	<ul style="list-style-type: none"> - Routinisation of innovation - Holding improvements and evolving

The processes listed above are relatively unstudied when compared to previous research on processes of dissemination and adoption of innovations in health care. Furthermore the scale and relative significance of these processes is unknown, specifically in relation to the spread of The Productive Ward, and more generally in relation to what is relatively 'normal' for large-scale change programmes.

The next section of the report uses a case study approach to examine three of these processes in detail (discontinuation, islands of improvement and improvement evaporation). The rationale for focusing the in-depth work on these processes was provided in Methods, Section 1.3.



4. Case studies

4.1 Case reports

In order to draw new insights from the data we began by constructing a straightforward 'case report' for each site. These are informed by interviewee's recollections, experiences and knowledge of Productive Ward implementation in their organisation. In all but one case study site, multiple accounts were used to establish as near as possible 'insider's' perspective of context, history, current activity, staff energy, organisational energy, facilitators and barriers, and future plans.

Full in-depth case reports for each site are presented as an appendix to the report (Appendix 3). The following boxes are summaries of each case report.

Hospital One

Context: Hospital One is an NHS foundation hospital situated in the Midlands. The hospital is spread over two sites and has 28 wards. The hospital purchased a Standard Productive Ward package in October 2008. It received SHA money for implementation of the programme. This was used to employ two Productive Ward facilitators and to allocate a budget for Productive Ward work.

History of implementation: The Productive Ward Foundation modules were originally implemented on six wards but work lapsed and it was approximately 12 months before the hospital started again.

Current activity: Two full-time Productive Ward facilitators are now working with two original wards to re-energise them. A further four new wards have come on board and are being given briefing sessions. Communication about The Productive Ward across the organisation is a key issue. A big challenge is how to sustain The Productive Ward moving forward once facilitator support has been withdrawn.

Staff energy: The response from different wards across the two sites has been markedly different - some are very onboard, others are resistant.

Organisational energy: Heads of nursing are aware that the work is going on and have given their agreement to it, but in these early stages they are as yet not actively championing the work. Work on The Productive Ward fits well with other work on The Productive Operating Theatre which has now started in the hospital.

Facilitators and barriers: Able to release staff to attend briefings and training but there has been some resistance from ward staff, as well as practical factors such as limited finances.

Future plans: Plans for roll-out across the hospital are scheduled to be complete by March 2011- but this requires the facilitators being on the ward at least three days a week to train staff. Each ward area is keeping track of their progress and monitoring outcomes.



Hospital Two

Context: Hospital Two is an NHS hospital located in the east of England. The hospital is spread over four sites and has 22 wards. The hospital purchased an Accelerated Productive Ward package in January 2009. Productive Ward Foundation modules have been implemented on seven wards. Productive Ward Process modules have been implemented on four wards.

History of implementation: The hospital introduced Lean work two years before The Productive Ward but staff prefer the flexibility of The Productive Ward. The Productive Ward lead post is being advertised but there have been delays in recruitment. The support nurse has taken on a more active support role to keep Productive Ward work going. Implementation has slowed but Productive Ward work is being maintained.

Current activity: Seven wards have completed the Foundation modules and are moving on to the Process modules.

Staff energy: Different professional groups have engaged with different parts of the programme. All groups say they have benefited from being able to see the Patient Status at a Glance board as they come on to the ward. On the whole it is the nursing staff, occupational therapists and physiotherapists who are most enthusiastic about The Productive Ward. Some consultants are enthusiastic but there is an issue with keeping medical professionals informed about the programme.

Organisational energy: Organisational energy was good to start with but is slow now, due to the lack of a Productive Ward lead. Energy on the first wave wards has lulled in the absence of encouragement from The Productive Ward lead to keep the work going and a lack of external support for weekly reporting. Staff were initially enthusiastic but this has waned and there is a general sense that they have 'done' Productive Ward and it is now time to move on.

Facilitators and barriers: Major barriers are low staffing levels on some wards and not having a Productive Ward lead in post for 12 months.

Future plans: There are plans for roll-out of elements of The Productive Ward to the whole hospital. The whole hospital is going to be undertaking observational work, which will be audited in July 2010.

Hospital Three

Context: Hospital Three is an NHS foundation hospital in the north of England. The hospital is spread over two main sites and has 36 wards. The hospital purchased an Accelerated Productive Ward package in June 2008. The Productive Ward Foundation modules have been implemented on 19 wards. Six wards have started on the Process modules.

History of implementation: Work on The Productive Ward started on two surgical wards in July 2008. A Productive Ward lead was identified from an existing Organisation and Development team. Training for the Foundation modules was provided on wards by six members of a Productive Ward implementation team. The programme was officially launched on both hospital sites in April 2009.

Current activity: A Productive Ward steering group meets once a month to discuss roll-out and includes the director of nursing and The Productive Ward lead, and all of the senior clinical nurse matrons. The Productive Ward lead and facilitator deliver staff training for the Foundation modules. Staff are supported to measure direct care time and to put standard measures into place.

Staff energy: Staff have been very positive when they have been informed about The Productive Ward. Healthcare assistants have been really enthusiastic and they have championed the programme. There was some resistance to the introduction of particular changes, including scheduling of observations and medicines rounds. The clinical educator provides every new member of staff with information about The Productive Ward in their induction packs.

Organisational energy: There is good senior management support, steering group meetings and there have been walkabouts from the chairman and the chief executive. Generally the energy is present in the organisation but improvement has taken longer on some wards than others because of communication issues. Productive Ward work fits well with other work going on in Productive Theatre, Rapid Improvement Workshops, service line management, and work on patient experiences.

Facilitators and barriers: Getting everybody involved, good communication, and making sure everybody knows what Productive Ward is has been helpful. Some problems have been experienced with communication on wards but this is not just in relation to The Productive Ward. Some wards seem to be moving on quicker and catching up because of ward manager support. A hindering factor has been that there has not been anyone from estates on The Productive Ward steering group.

Future plans: There are plans for roll-out to a further 17 wards. Regular monitoring of each ward goes on through The Productive Ward steering group. As a result of The Productive Ward effective and simple solutions have been put in place to organise the routine work done on the ward.

Hospital Four

Context: Hospital Four is an NHS foundation hospital in the south coast of England. The hospital is based on one site and there are 30 wards. The hospital purchased an Accelerated Productive Ward package in May 2008. The Productive Ward Foundation modules are being implemented on 20 wards.

History of implementation: Work on the programme commenced in September 2008. Monies from the SHA were used to appoint a Productive Ward facilitator. The head of nursing went on maternity leave in January 2009 and two senior nurses were seconded to cover the post during this time. From March 2009 there was no funding left for The Productive Ward facilitator and she returned to her previous post. The momentum of the project slowed down, and the wards weren't supported to complete the work. The team produced papers based on findings from The Productive Ward showcase wards and talked to members of the executive team about reinvesting in a Productive Ward facilitator. The post has been filled and a year's continuation funding has been set aside provided that the post is shown to be worthwhile.

Current activity: Six wards have completed the three Productive Ward Foundation modules. A further two had done half of the Foundation module training when the facilitation stopped. A re-launch day was planned for July 2010 and there was an open invitation across the hospital to come and find out what The Productive Ward is. The programme will no longer be called Productive Ward in the hospital it will be called Time to Care.

Staff energy: Energy and the motivation in the first instance was tremendously high, particularly on the showcase wards. Staff motivation has disappeared because of the lack of facilitator support. The Productive Ward worked well on the showcase wards because these wards were provided with budgets. In general, nursing staff in partnership with the stores team, are getting the most benefit from the programme. At ward level, energy levels are now low amongst staff and the momentum of their projects has dwindled.

Organisational energy: At board level there is a clear message that the hospital has bought into The Productive Ward. The board are financially supporting it and it is very much supported by the chief executive.

Facilitators and barriers: NHS Institute support, training and visits were very helpful in the early stages of implementation. SHA learning events were useful for sharing experiences and discussing challenges. Executive visits have given a very positive message to staff working on The Productive Ward. Not having resources for a The Productive Ward Facilitator has meant that Productive Ward implementation came to a halt. Some wards maintained the improvements made to ward spaces but none progressed on to new modules. Releasing staff to work on the elements of The Productive Ward is problematic.

Future plans: With the programme facilitator in post the target is to pick up the wards that have done the Foundation modules, to set the scene to going forward, and to redeliver the remaining training for the two wards that had started the training. Wards that had started the programme have continued with the work unsupported. These wards remain better organised and clutter free when compared to wards that have not yet participated.

Hospital Five

Context: Hospital Five is located on the south coast of England. It is spread over two main sites and has 48 wards. The hospital purchased an Accelerated Productive Ward package in February 2008. Productive Ward Foundation modules have been implemented on 23 wards and 16 wards have started implementing the Process modules.

History of implementation: Three pilot wards started the programme in April 2008. The hospital received monies from the SHA in October 2008. Since January 2009 this has paid the salary of a full-time practice development nurse for 18 months and administrative support. At the beginning of 2009 three pilot wards had completed the Foundation module training and had started working on the programme. Roll-out was progressed in groups of three wards at a time until The Productive Ward facilitators decided to take on bigger numbers to get all 24 wards through the training before the cut-off point of July 2010.

Current activity: All 24 wards will receive facilitation and backfill for bank staff and structural or equipment changes. Wards are expected to do the Foundation modules within six months. After that they are encouraged to start at least two Process modules, spending six weeks on each.

Staff energy: Some wards have progressed significantly faster than others. Much of the difference is to do with who is leading the project on the ward, whether they are keen on the programme themselves, motivate others, and allow staff to do the work.

Organisational energy: Organisational energy levels behind the work have dropped away because of crisis management and target attainment. When the programme started it was viewed as being worthwhile but there have been problems with communication across the whole hospital. Interest in The Productive Ward steering group has fallen away.

Facilitators and barriers: The biggest challenge is whether wards have sufficient staff to start the programme. Rate of progress is largely down to how keen the ward leader is and how much they delegate down to their staff. On wards with joint staffing it is problematic to work in a coherent way because staff were split across the wards. Having two Productive Ward facilitators has helped with managing travelling between the hospital sites. There have been issues keeping track of monies as these have been passed between budgets and forwarded from one year to another.

Future plans: Progress is being monitored by The Productive Ward facilitator. Staff are growing more interested in learning about what others have done.



Hospital Six

Context: Hospital Six is located in the north of England. It is spread over two main sites. The hospital purchased an Accelerated Productive Ward package in June 2008. The Productive Ward Foundation modules have been implemented on 11 wards and the Process modules have been implemented to some extent on a small number of wards.

History of implementation: Senior staff in the hospital were encouraged and supported by the SHA to take up The Productive Ward. The job of implementing the programme across the hospital was given to two matrons alongside their existing duties. The matrons recruited showcase wards and attended training provided by the NHS Institute. The hospital board decided to appoint a full-time lead to implement the programme over a two year period. A ward sister was appointed but after six months the post was stopped because of lack of funding. Thirteen wards were working on two Foundation modules but one of them has now closed and two others have merged.

Current activity: At the present time implementation has come to a complete standstill on wards that started the Foundation modules. Three wards are continuing to use safety crosses from the Knowing How We Are Doing module. Monitoring of progress or outcomes is not being undertaken. The hospital has recently appointed new matrons and one has agreed to take on The Productive Ward lead role but knows very little about the programme.

Staff energy: The Productive Ward has worked better in some places than others. Some wards require a lot more support and encouragement than others before they perceive benefits and become committed to the programme.

Organisational energy: A few individual executives were very engaged initially and participated in executive walk rounds. The programme was given a lot of attention for about three months and then executive engagement dwindled. Attendance at The Productive Ward steering group declined until eventually the group was disbanded. The Productive Ward fits well with other work going on in the organisation and improvement schemes but there is a danger of duplication with patient safety work.

Facilitators and barriers: Wards that have received a lot of training seemed to take the programme on quicker. A facilitator has been visiting each ward every week to monitor progress - this helps staff to see their progress and to encourage them to work at a steady pace.

Future plans: The newly appointed matron taking a lead for The Productive Ward intends to go back to the board to ensure their commitment to implementation. The onus is currently on wards and ward managers to continue with implementation at their own pace.

Hospital Seven

Context: Hospital Seven is located in the south of England. It is spread over two main sites and has 440 beds. The hospital purchased an Accelerated Productive Ward package in October 2008. The hospital has a two-year timeframe for roll-out across the whole hospital and this has now started. Two showcase wards who have implemented the Foundation modules are being left to develop their own way of working. Two other wards who have started to implement the Foundation modules and are collecting baseline data.

History of implementation: Using SHA monies the hospital employed a Productive Ward facilitator and a Productive Ward lead in 2009 to roll-out the programme across the hospital. A steering group was set up. Two showcase wards were selected. Another ward, which had management and performance issues, was identified as a potential showcase but couldn't be included because of winter pressures.

Current activity: The hospital has a two-year timeframe for roll-out across the whole hospital. Two showcase wards have implemented the Foundation modules and are being left to develop their own way of working. Two other wards have started to implement the Foundation modules and are collecting baseline data.

Staff energy: The programme has worked well where there is good established and stable ward level leadership. On the whole nursing teams are the group that find the programme most useful and are most enthusiastic about it. In some cases the programme is a framework that is supporting interdisciplinary working as teams are more organised and structured in the way they do things and that improves communication.

Organisational energy: It is early days but the programme is gathering momentum in the hospital. Early outputs and outcomes have been achieved. The programme has clear leadership and sufficient resources. Efficiency savings are being made across the whole organisation. The Productive Ward is part of the nursing and midwifery strategy and fits with service improvement plans and pathways. The programme will help with planning organisational change and managing resources.

Facilitators and barriers: There is a need to show the programme has achieved cost savings and to identify the positive resource implications. More support from the NHS Institute would be helpful on how to do that and demonstrating what that means.

Future plans: The showcase wards are expected to help spread and promote the programme to other wards.

Hospital Eight

Context: Hospital Eight is located in the Midlands. It is spread over two main sites and has 37 wards. The hospital purchased an Accelerated Productive Ward package in 2008. The Productive Ward Foundation modules have been implemented on all wards and the Process modules are being implemented on six wards.

History of implementation: The hospital was awarded SHA funding for a team of five nurses to support implementation from January 2009 for a year. When the funding ended in December 2009 four seconded members of the team went back to their original jobs. The chief nurse asked the senior nurse to continue to do some work to support implementation of the Process modules alongside her normal quality improvement role.

Current activity: Two Foundation modules (Knowing How We Are Doing and Well Organised Ward) have been implemented across all of the wards. Six wards have started the Process module Shift Handovers. The intention is to replicate the findings on other wards in the hospital.

Staff energy: The Foundation modules have worked well in areas where all of the staff were engaged in making change to their wards. Staff on a few wards were reluctant to engage and it was important for ward managers to show that they were keen and supportive of the programme. To begin with staff working in stores and supplies were reluctant to get involved but as time went on strong links have been built and a separate project called the Productive Store has been set up to improve ordering and supplying goods to wards.

Organisational energy: There is good management support from the chief nurse, the hospital board and executives. Funding from the SHA was essential and the hospital has also paid towards improvements. Four years ago the hospital moved into a new Private Finance Initiative (PFI) funded building. The Productive Ward came along at an opportune time for the organisation, because it got people talking to each other and to set up their areas in an organised way.

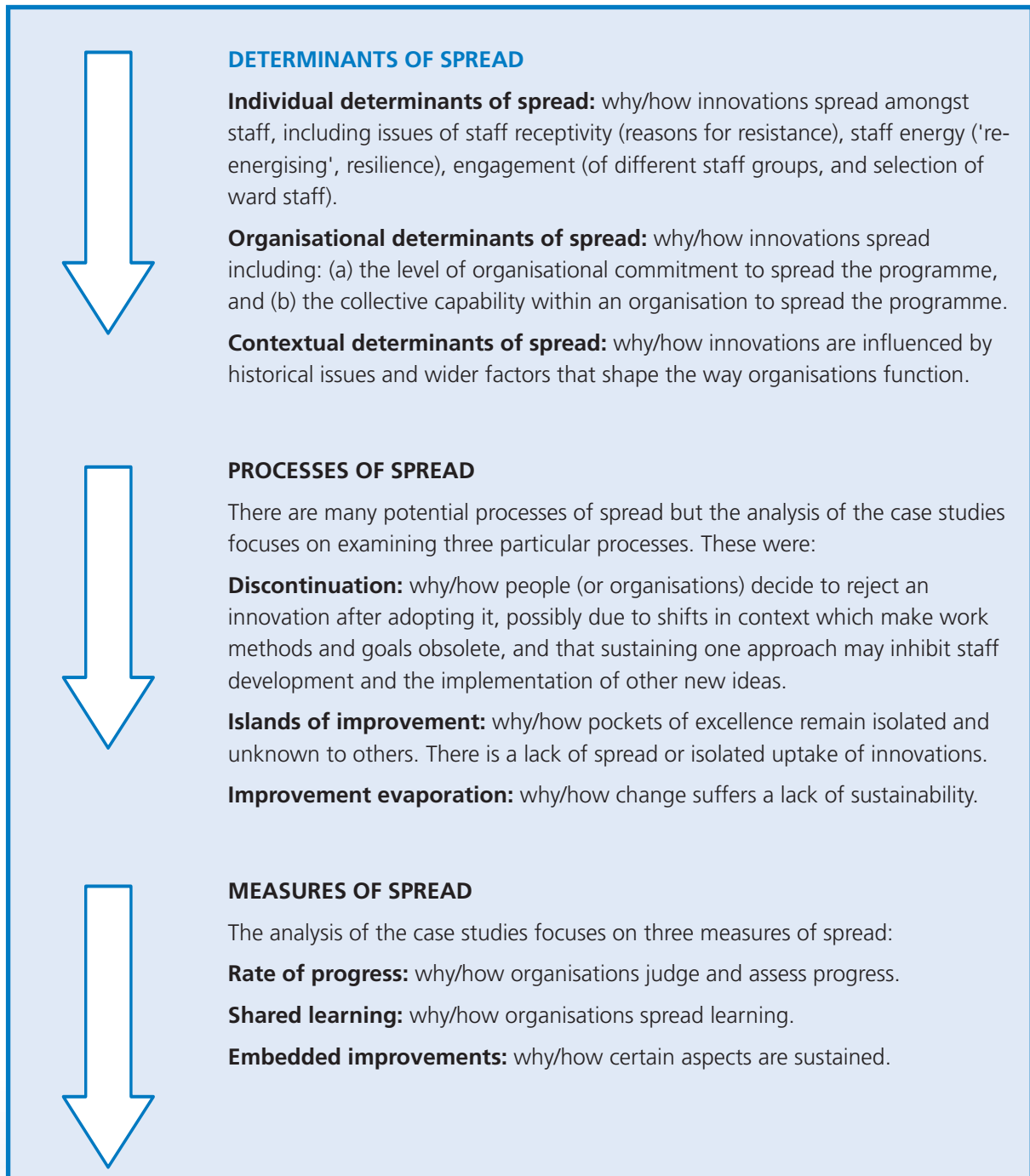
Facilitators and barriers: Because the programme has engaged staff, they are more open to standardising processes and can see the benefits of it. Ward staff were encouraged to visit other wards and talk to staff about improvements that have been made. This was very motivational.

Future plans: For the next 12 months the focus will be on improving safety - six wards have nominated themselves to work on Process modules. The findings of this work will be discussed with ward managers and replicated across the whole hospital to create standard systems and procedures.

4.2 Determinants, processes and measures of spread

Moving to a cross-case analysis of interview data from across the eight case study sites allowed us to identify commonly occurring themes about spread. This three-fold way of explaining spread (Figure 6) is intended to offer a helpful synthesis for practitioners struggling to make sense of the various frameworks and models presently available.

Figure 6: Three-fold explanation of spread



DETERMINANTS OF SPREAD

4.3 Individual determinants of spread

Staff receptivity

The most significant ‘human’ challenge to spreading The Productive Ward was lack of awareness amongst staff. Concise and tailored information about purpose, goals and organisational plans for The Productive Ward emerged as an essential step towards addressing misperceptions and improving receptivity.

“I would say not everybody is enthusiastic, because I think it’s quite a difficult concept, Productive Ward, to initially get your head round, to be honest.” **Hospital Three – Matron surgery**

For staff that were knowledgeable of The Productive Ward they were able to judge whether it fits with their existing values, norms, strategies and goals for ways of working. Less knowledgeable staff, at all levels of the organisation, did not generally actively seek to understand the programme themselves without the encouragement of executive sponsors or The Productive Ward facilitator. A fundamental issue was providing information to alleviate fears about job cuts:

“I think they all thought the word ‘Lean’ was like cut and slash, everyone was getting rid of the jobs, and now I think they know that it’s cutting out waste throughout the processes that they’re working with (...) I think the more people that are doing the training, when you go on the wards, the more they identify with it and know what it’s all about (...) Our chief exec has said there will be no redundancies with Lean, so you’ve got that backup from him.”

Hospital Three - Service improvement facilitator

On some wards Productive Ward leads had found a general ‘can do attitude.’ On other wards staff tended to be more sceptical at first and questioned why they were being asked to change the way they work:

“Some are very onboard ‘yes I want to do it’, you’re always going to get the resistant staff anyway we know that, and it’s working with them. If they don’t want to change, we’re not there, we can’t make somebody change their ways.” **Hospital One – Service improvement facilitator/Productive Ward facilitator**

One strategy was to purposely involve individuals who are known to be resistant to change:

“Within my team I can recognise those people who don’t like change - I actually picked the one that absolutely hates change, and moans the loudest. I think because other people saw her doing it, and actually surprisingly just giving her a little bit of responsibility, worked wonders.”

Hospital Eight – Clinical nurse manager

Lack of money and time were often given as reasons for poor staff receptivity, but in one case study site staff had been so motivated they had undertaken Productive Ward work in their own time. In this case staff perceived the long term benefits to themselves and their work environment.

“I think the energy and the motivation in the first instance was tremendously high. Particularly on the showcase wards, actually they loved it, they were bought into it, they wanted to do it, and they welcomed it. They were coming in on their days off to do the work. They came and did the activity follow in their own time. They were so motivated. And then obviously with the lack of facilitation, that has practically gone to zero.” **Hospital Four – Associate head of nursing/Productive Ward lead**

A further influencing factor in staff receptivity and overall momentum of the programme at ward level was staffing pressures and having time to work on The Productive Ward:

"Although there was a system where they were actually given overtime to do Productive Ward, some of the wards were that short staffed they were doing overtime as it was." **Hospital Three – Service improvement facilitator**

Winter pressures had been felt across all of the case study sites, but some hospitals were particularly hit because of the lack of availability of bank staff. Staff transience was also an issue for keeping the momentum going even when staff were enthusiastic:

"I've got one ward where they're quite enthusiastic but the staff work three long days, they do their 37.5 hours in three days, and then what happens is they go off for four days, and it doesn't get communicated. So that's again about communication and continuity. I've found it works best where you've got some staff that work the more traditional shifts." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

Productive Ward facilitators talked about the tension they felt between implementing the programme and resisting doing the work for pressurised staff. Trying to maintain staff enthusiasm was personally demanding on some Productive Ward facilitators:

"I would say that the energy's fallen away really, to be frank. Whilst we've got 24 wards on the programme, which has required a lot of energy to do that, a lot of goading and pleading, encouragement and all that kind of thing. It's been really hard. I feel like I'm dragging them behind me basically....saying to them.... 'You can do it! You are doing it!'" **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

In one case study site, this tension to implement changes quickly and efficiently across the organisation was also felt by a department manager:

"The Productive Ward team came down, about five of them on one day, they said, 'Make sure that you've got some staff on the ward that can help you, that are supernumerary.' We actually went in on our days off. And they took everything apart, and they reorganised it how they wanted to have it reorganised, and I was horrified. And they started to reorganise it according to their thoughts. Now, part of that was they wanted to ensure there was some continuity wherever you went in the hospital. They said that was a safer process, I quite got that. (...) On the day, I can remember somebody said to me, 'You look like you've been hit in the face.' I was saying, 'Well, I don't want that there,' and they were going, 'Oh, no, I've just sorted all that out,' and they said, 'no, it's got to go like this.' And I did not like that at all, it was very confrontational (...) I talked to one of The Productive Ward members, and we said, 'This is a bit much.' And they said, 'No, look, just go with it,' and they reassured us that we'd go with it. (...) I could see in hindsight, I could understand that you need to do that to have such an impact on one day. (...) but I think possibly I just hadn't appreciated that it was all happening straight away and right now." **Hospital Eight – Department manager**

Having resources in place was a strong motivational force for staff working to implement the programme. As was the visibility of organisational commitment through providing facilitation and support:

"Without somebody in there supporting them, they would think... 'Oh, well, I'm not coming in on my day off to do this, the hospital are not supporting this anymore.'..... So it's that negative message by us not continuing facilitation and training." **Hospital Four – Associate head of nursing/Productive Ward lead**

There was evidence of poor communication about the programme by ward managers on some wards. In these isolated cases, staff were not informed or positively encouraged to adopt The Productive Ward. Some ward managers feared loss of control and failed to accept suggestions for change from ward staff. This resulted in a lack of opportunity to share knowledge in face to face exchange.

"I asked one band six, 'Have you heard about this?' And it was as though it was a new concept that I was talking about. It's very, very evident, and it's no fault of anyone maybe ... it's ward leads project and that was it, and that's what another areas said 'well it was the ward leaders project wasn't it'?" **Hospital One – Service improvement facilitator/Productive Ward facilitator**

At all case study sites different professional communities (managerial, quality improvement, and clinical staff for example) perceived the programme in different ways. Generally, clinical staff perceived it to be an initiative that is aimed at ward managers or nursing staff. It could be that this perception gives them reason not to engage with the programme.

Staff energy

The interviews specifically asked about staff energy. Participants attributed times and places of low staff energy to a number of factors, including stagnation of ways of working:

"We know that people aren't inefficient or ineffective by choice; they want to be seen to be quality people. But sometimes to overcome practice that's been around for a long time, it's difficult. Well, ironically, the health service is full of that." **Hospital Eight – Department Manager**

And, change fatigue:

"It's something that we do in the NHS so often, and you can almost sort of see them breathing, I think....'Oh, God here we go again another flavour of the month thing and in a year's time they won't be worried'..... because I'm afraid we've done it to them." **Hospital Seven – Productive Ward lead**

There was some indication that broader historical failure to recognise staff efforts and successes towards service improvement, contributed to some staff scepticism about taking on The Productive Ward.

"I think sometimes they've been in a culture where they haven't been allowed to just get on with things, where now it's 'This is your idea. Your ideas count.' It's nobody from top-down telling you, 'It's you who have these ideas and have things how you want them.' And I think maybe some of them are a bit frightened to do that, and it's giving them the encouragement and the power to be able to do it themselves." **Hospital Three – Service improvement facilitator**

In several case study sites organisational energy levels had fallen away but Productive Ward leads and facilitators were optimistic that the work could be picked up again because of residual staff interest and energy.

"In this hospital the energy has fallen away, very much so, but it might be that it can be reignited." **Hospital Six - Former Productive Ward lead**

There were examples of resilience to loss of organisational energy because of staff ownership over changes that had been made. After a period of loss of organisational energy, three hospitals had re-launched the programme and were making use of what they had learnt about previous implementation.

Re-launching involved re-energising staff who felt disheartened by the loss of organisational support.

"The ones that have gone through some training or have done something, their energy levels are low, because they feel, having been supported for a very long time and the momentum of their projects where they were highly motivated in the first instance, that has dwindled. And they all think, 'Oh, we're not going to have the time to do it.' But we've rebadged this and we're going to be giving them time, so hopefully we will see a rise in their energy levels and motivation to complete it." **Hospital Four – Associate head of nursing/Productive Ward lead**

Having access to benchmark data has been useful for re-energising staff who have already been involved. It helps to show them their personal investments in the programme have not been wasted and that progress has been achieved.

"We've also got some benchmarks haven't we, because we've took a film, we've took pictures, and what we can do is revisit that and go, 'Well, this is what it's like today, and look, you have sustained it." **Hospital Four – Associate head of nursing/Productive Ward lead**

Engagement

At all of the case study sites a key factor in spread was ward managers ability to engage other people in the work.

"It is largely down to how keen the leader is and how much they delegate down to their staff. The areas that don't delegate down and kind of hold it to themselves because they're in charge of that, they want to be involved, don't necessarily get what they want done." **Hospital Five – Service improvement facilitator/Productive Ward lead**

In two case study sites Productive Ward leads felt that support workers, healthcare assistants and ward clerks found the programme most useful. Although most interviewees felt there were clear benefits for nursing, Productive Ward facilitators felt that qualified nurses did not always value the programme because they perceived it to be a low priority in relation to clinical improvement work, rather than a way of achieving such improvements.

"One ward clerk has really supported the implementation on her ward because they helped to develop a new workstation and that actually benefited her, and I think oddly, higher up, it's not being really fully embraced by ward managers and matrons. I think it's to do with they're drowning in work really, everything comes under their remit." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

The lack of involvement of matrons in implementation was an issue for Productive Ward leads in three case study sites:

"Some of the matrons, I've just tried to engage them, but it depends on the matron really. And there's one matron in particular, I'm thinking of, who seems to want them to do it so she can beat them over the head with it. (...) Some are really engaged on the ward but a lot of the staff say they feel they're quite remote really." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

Where different professional groups were engaged in the programme the benefits for interdisciplinary working were evident.

"What The Productive Ward will do for us is it'll get ward staff quite competent and knowledgeable in how to make change, so that they can work together with other members of the multi-disciplinary team, or Social Services, or pharmacy staff, so they can improve the way in which they look at an issue, and how they troubleshoot it and, ultimately, if they can make improvements into patient journeys." **Hospital One – Service improvement Manager/Productive Ward lead**

Appeal of the programme to different professional groupings was more successful where it keyed into their knowledge bases (communities of practice). For example physiotherapists and occupational therapists were more engaged in elements of the programme that related to patient status, while store managers were engaged in aspects of the programme that related to stock management. Although these findings are not to be unexpected, they do reinforce the need to look for opportunities for programmes to engage different professional groups.

"It did come to light about two weeks ago that when the patient status boards were first introduced, back in the autumn of last year, they were put into the hospital, the allied professionals were, I don't think, actively excluded, but they don't actually have a place on the board. And it was only recently I had discussions with them about using the board that they started to have an interest, and we're building an education programme with them to show them how they can work with the ward teams in being more productive in what they do."

Hospital One – Service improvement manager/Productive Ward lead

Doctors were perceived as a harder group to involve directly in the work, but the benefits of informing them about The Productive Ward programme were also acknowledged.

"Doctors are doctors! Some will, some won't. I know our Productive Theatre team are having a bit of a battle with some orthopaedic surgeons at the moment, but we're hoping within our organisation that the whole collective work that we're doing, from the chief exec, chief nurse down, and the change of mindset and culture will help that."

Hospital One – Service improvement manager/Productive Ward lead



4.4 Organisational determinants of spread

Organisational commitment to spread the programme

The case studies indicate that a range of factors influence organisational readiness to implement The Productive Ward even when a formal decision has been made to adopt the programme. Interviewees explained the importance of securing resources for Productive Ward facilitator posts and backfill for staff time.

"I produced papers, tried to talk the executive team into reinvesting in a Productive Ward facilitator. I wore them down, and I was given a pot of money from July of this year. We have recruited, and we have been given the money July-March to prove ourselves, and then they will fund the following year if we've been successful." **Hospital Four – Associate head of nursing/Productive Ward lead**

Leadership, existing staff skills and knowledge were all important aspects of commitment to adopt and spread the programme.

"Having an organisation that wants to do this, rather than feels they have to do this, helps. I was always very pleased that the Department of Health didn't make it mandatory, that you had to do this. Because we've chosen to do this that's quite a good selling point, in that the organisation has chosen to do this." **Hospital One – Service improvement manager/Productive Ward lead**

In some case study sites Productive Ward leads had been the people to drive adoption decisions. They had spent considerable amounts of time seeking approval from senior staff and communicating the aims of the programme.

"[The Productive Ward lead] had only been in post a couple of months, she had to make the contacts to the ward leads, the heads of nursing, to say 'this is what we'll be doing, and this is the role out programme, and what time we'll be doing it'. So we then had to wait to get feedback from the ward leads and the heads of nursing to say 'Yes, we will do it, we're quite happy to do it.'" **Hospital One – Service improvement facilitator/Productive Ward facilitator**

Although there was often uncertainty about the potential benefits for staff and patients in any particular ward or case study site, receptivity was noticeably better where Productive Ward facilitators worked with staff to explain the types of benefits that other organisations had achieved.

Existing organisational structures have a bearing on organisational receptivity to Productive Ward implementation. For example, Productive Ward facilitators reported that good structures were in place for communicating to staff working across the organisation – such as education and induction programmes - these had been helpful for explaining the purpose of the programme and engaging staff.

In these case study sites there were not significant issues about competing measures or initiatives. Indeed, being able to link the work with Lean, Sigma Six and locally developed change projects was seen as a benefit and strength of the programme. Interviewees did not report any problems accessing data or information about The Productive Ward programme or organisational change more generally. Neither did they suggest there was a lack of alignment to organisational strategy; in fact, The Productive Ward was perceived as a useful initiative to tackle the productivity and quality challenges which faced the NHS.

The case study sites had taken similar approaches to implementation - beginning with a small number of wards and planning to roll-out across the organisation. There were challenges of scaling up to the whole organisation including having sufficient resources and facilitator time for training and support.

"The pilot wards that we had here had considerably more money and more facilitators who went in and did more. So they did the tidying, they did the clearing, they helped to do stuff. We haven't done that, but we've also been working against, last year, a huge increase in admissions." **Hospital Five – Service improvement facilitator/Productive Ward lead**

In the context of shrinking budgets Productive Ward leads and facilitators were having to focus more on managing staff expectations about what type of work can be done under The Productive Ward.

"The pot of money is never that big as (...) we've made it clear from the start that we can't come in and knock down walls and redesign areas, and that we've to really work with what we've got (...) What we're working on really is very, very limited budget for changes, but all the things that we've been talking about with them, they don't need massive pots of money, they are very practical things that we can implement." **Hospital One – Service improvement facilitator/Productive Ward facilitator**

Spreading The Productive Ward through the whole organisation required Productive Ward leads to stimulate connected action with different staff groups and networks. For example, through joint steering groups for improvement projects, staff training and development and embedding the programme in organisation-wide change programmes.

At all case study sites the chosen approach to selection of wards had a significant effect on uptake and rate of spread of the programme. For example, in one site the hospital board took an active decision to invest additional resources in areas that need support. The approach was not to introduce The Productive Ward onto wards that we already doing well – as in most showcase models. This focused resourcing actually helped to raise the base level of quality across the hospital. If the investment had been directed towards better performing wards it is likely to have widened the quality divide across the hospital.

"The first area we did, because I think that was a learning curve for me and a learning curve for the staff. They needed an awful lot of support, that particular ward, because it wasn't a showcase ward. If they had chosen a showcase ward, it would have definitely been quicker..... It took a good year, but we are there now." **Hospital Three – Productive Ward lead**

Some Productive Ward leads saw the solution to the issue as working to selecting the right wards to participate at the right time, rather than adapting the programme to fit different types of ward or modifying the pace of implementation.

"There were definitely wards within the hospital that we would have refused to start Productive Ward on because there simply wasn't enough staff. And initially when we took over, we didn't have anything to do with selection and that made it quite difficult for us because they actually put it in, they started it in areas that were leaderless, rudderless, no staff... really you can't do it in areas like that (...) the ward manager or whoever is in charge needed really to have had their feet under the table for about a year, so that they actually had the respect of their staff and had a clear knowledge of what they were doing, so we did exclude people who hadn't been doing it for very long." **Hospital Five – Service improvement facilitator/Productive Ward lead**



A few Productive Ward leads talked about linkages with other Productive programmes being implemented in the hospital.

"There's the 'Productive Theatres' which has started now within the hospital and we work the same as a facilitator for Productive Theatres. So we've been talking around there and what they're doing, what they're doing differently to what we're doing, so that's been really good. Some of the wards that we're actually working on, orthopaedic wards are obviously involved in theatre, so that's sort of involved them as well. (...) I'm not sure about direct links at the moment, there may be in time, but at the moment we haven't made any direct links. Ideas, how they communicate, that's sort of coming on board and other things, there's also work done in outpatients as well, it's not like 'Productive Outpatients', but it's the same concept, the same processes." **Hospital One – Service improvement manager/Productive Ward lead**

Productive Ward leads said that it was important to avoid duplication by keying Productive Ward work in with other work:

"I think if you're not careful, and you don't keep an eye and abreast of what's going on, you will overlap and duplicate (...) High Impact Interventions, Essence of Care, all those things will interface with The Productive Ward and you just need to be aware of what they've done and how you can help them deliver what they need to deliver through our programme." **Hospital One – Service improvement manager/Productive Ward lead**

Collective capability within an organisation to spread the programme

Productive Ward leads discussed the overall sense of organisational energy behind the work and the momentum of implementation. It was felt to be important to keep momentum going on wards implementing the programme, while working to bringing other wards to the same level.

"We thought, 'If we keep their momentum up, but then bring our other surgical areas up to the same level,' because obviously we desperately wanted our areas to work at the same pace, so that they'd be a lot easier to move on." **Hospital Three – Sister surgery**

In some hospitals, energy levels had lulled on some wards that had started the programme but enthusiasm was growing on others that were just starting.

"Good to start with but slow now, because of not having the lead. It's just maintaining it at the moment really. The new wards that are coming on to it do the training, they are all enthusiastic about it then. I would say that on the first wards it's lulled a bit now." **Hospital Two – Productive Ward facilitator**

Factors effecting organisational energy levels behind the work included changes in executive/senior management support, leadership, and the availability of resources. These factors were often interlinked. A clear example was having executive support to ensure resources are available to release staff to participate. In all of the case study sites having continuous and visible commitment from senior management was a key factor in peaks and troughs of organisational energy. In four sites there was a sense that senior management support had declined.

"I think there has been a drop-away [in senior management support]. Lip service is paid to it."

Hospital Five – Service improvement facilitator/Productive Ward lead

"There are individuals within the hospital who were very engaged, up to executive level, but it was only a few individuals. And I think that The Productive Ward was given a lot of attention for about three months and then it just dwindled". (...) the executives weren't going round the wards going, 'What have you done with Productive Ward?' I tried to get them to do the proper executive walk rounds and that didn't happen. (...) I think they weren't used to it. I think they just didn't do that, it was out of their comfort zone." **Hospital Six - Former Productive Ward lead**

For some Productive Ward leads they felt that the reason for loss of support was because responsibility had been deferred to them and progress was being made.

"So as long as you're working okay they're not going to then come and say to you, 'What's going on?' Anytime now I'm expecting to be asked to report on how we've got on, but if you go to the steering groups, you see the interest has fallen away in a big way." **Hospital Five – Service improvement facilitator/Productive Ward lead**

For Productive Ward leads it was important to have clarity about commitment from the organisation to the programme and funding of posts, and an understanding of what the intentions and future plans are. Not having sufficient resources to maintain facilitation was the main reason why the programme had come to a halt in one case study site and had significantly slowed in another:

"Basically the whole thing is on hold until we have the facilitator in post. Then I think we'll go back to the beginning and we'll do the activity follow, even on the showcase ward it's worth revisiting that." **Hospital Four – Associate head of nursing/Productive Ward lead**

This deficit in facilitation was important because collective organisational capacity (eg, knowledge and skills in change management) are important factors in providing successful implementation. Productive Ward facilitators talked about the need for skills in adaption and use of Productive Ward tools to different settings. As well as learning skills of 'thinking outside of the box':

"I think that to facilitate it effectively, you need to have built some experience within you to be able to think outside the box and a bit more laterally about the approach that you're going to use, which is why I'm training facilitators at the moment to deliver the programme. And seven weeks down the line, they now feel more confident in giving examples from practice more. And we sit and have a weekly meeting and they'll bring me their issues and I'll think laterally, and I'll think outside the box and they look at it and they're going, 'Oh yes, oh yes!' And you can see that getting their experience and confidence up is allowing them to be more adaptable and flexible." **Hospital One – Service improvement manager/Productive Ward lead**

Productive Ward facilitators said they encourage feedback and work in between training sessions. However, most have moderated their expectations about what can be achieved outside of training days:

"We've been doing the Process modules this week and for three hours we've been doing the process mapping. We've had a good day, got lots of information out but when we send them away, we send them away with just probably one piece of little homework, nothing massive, it's achievable." **Hospital One – Service improvement facilitator/Productive Ward facilitator**

Teams of Productive Ward facilitators and leads working together are able to offer each other peer supervision and decide standard approaches to training and implementation.

"They're using the modules as the modules have been designed, take them off the shelf and use them as guidance, but also going to other resources to add to that material. Things like process mapping, we've done several sessions together as a team to work out how we are going to process map. We've all got different experiences but this is how we're going to do it here, so that we're doing it the same way". **Hospital One – Service improvement manager/Productive Ward lead**

Facilitators with clinical backgrounds used their shared identity (homophily) and roll modelling to convey to staff the benefits of the programme to ward staff.

"I go in and I haven't been clinical for a year, but they know who I was and they know that I am a clinical nurse. I could be back clinical next month. I'm only on a secondment post, so I'm not going to make things more difficult for myself when I could be back working in the area, so I always put that across to them as well." **Hospital Three – Sister surgery**

In the absence of executive visits, Productive Ward leads were keeping a presence on the wards and asking about progress. Facilitators also played a part in helping teams to perceive and assess what work has been done:

"I prefer an informal approach. I tend to visit my wards at regular periods so that I say, 'Hi, how are you doing? Had you thought of this?' And often they say, 'Oh I'm really glad you came, because we felt we weren't doing anything.' And then they discover they are actually doing stuff." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

In one case study site a Productive Ward facilitator said that a shortage of box sets meant that ward staff were not able to learn more about the modules even if they wanted to. In another site, ward staff had the box-set but not the time to read the module books. Some Productive Ward leads were critical of the amount and repetitive nature of the module handbooks. One Productive Ward facilitator had re-written the module books to make clearer more practical instructions for ward staff.

*"The books are fine when you know about The Productive Ward and you know what you're talking about, but if you have a limited understanding and haven't worked with it before, they don't give you, other than the toolkit, practical guidance, 'This is what you need to do. You need to do this next.'" **Hospital Six – Former Productive Ward lead***

One Productive Ward lead felt that the potential to address problems with documentation had been overlooked:

"If you want the ward to be running efficiently, and you're looking at time management, the biggest eater of time is actually inefficient documentation, and yet it is not addressed in any of the modules, and there's not one single thing that the nurses do that eats their time more than that." **Hospital Five – Ward manager general medicine**

Some modules were less favoured (Ward Round, Admissions and Discharge) because they were perceived as being difficult to put in place on some wards, or it was difficult to see the impact of the module on the ward.

Communication issues were important for spreading information about The Productive Ward at all organisational levels. The case studies show that knowledge factors play a role in the success or failure of transfer of information about the programme. As previously mentioned ward managers occupy a key position in chains of communication.

"At first, I wasn't involved at all, even though I was a ward sister. I didn't even know what Productive Ward was, and it wasn't until about August time when our senior clinical nurse matron and The Productive Ward lead came up onto the ward one day and they said, 'Do you know what Productive Ward is?' and I said, 'No, I'm sorry I don't.' My ward manager hadn't told me anything about it, even though they were the ones that had been on the away days." **Hospital Three – Sister surgery**

Other challenges reported by Productive Ward facilitators were dealing with unproven claims about the potential to increase direct care time, the motives behind monitoring ward processes, staff lack of autonomy to seek information about The Productive Ward, and staff capacity to learn about the programme. Having the capacity to generate evidence about The Productive Ward implementation was essential to convincing staff at all levels of the organisation about impact.

"I think the other thing from a momentum perspective is without having finances to support data collection, data input, we could not prove tangible evidence beyond the showcase ward of what was the effects on the other four wards." **Hospital Four – Associate head of nursing/Productive Ward lead**

The wider state of organisational knowledge about improvement programmes and organisational change also had a bearing on knowledge about The Productive Ward spread through the organisation. In one case study site it had been possible to link into induction programmes to spread information.

"I wrote a little induction so that each area has an induction pack for new staff in the area. We had a clinical educator who put that together. Obviously at senior clinical nurse meetings we discussed all these things and I asked if we could put a paragraph in about Productive Ward to show people who were new to our areas, because obviously I couldn't keep going back to them. So there was a process in place. Any new member of staff who came to the area knows, 'Well, this is how we do business now.'" **Hospital Three – Sister surgery**


The Productive Ward encourages staff to think about their own work and organisations they are working within. Ward teams can become inward-looking if they are not encouraged to communicate the implications of changes beyond the ward. In all case study sites Productive Ward leads and facilitators were working to spread learning to different departments and to the organisation as a whole. There was some degree of competition between wards to show progress but at a ward level there was no evidence of reticence to share learning with others.

Methods of communicating information about Productive Ward progress on the ward need to be informal and accessible to staff – such as the use of 'reflection time.' Newsletters were felt to be useful but staff do not have time to produce them without support from Productive Ward facilitators. In areas where progress has been slow this is generally because of communication issues at ward level.

"People say they will communicate, but we are bad as nurses at communicating, aren't we? You'll go on a ward sometimes and I'll say, 'Right, what can you tell me about Productive Ward?' 'I don't know, I wasn't on the training day.' And you'll say, 'But you've been on this ward for so many years.' 'Well, I don't know, I wasn't there.'" **Hospital Three - Service improvement facilitator**

Productive Ward facilitators discussed how problems of communication also stopped the spread of good ideas across the hospital:

"I showed them a picture the other day, and I said, 'That's the ward next to you.' A photo of the ward! And some of that actually, to be fair to the staff, is about they can't get off the ward. They take a short break in the office with a cup of tea and then they run back." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**



4.5 Contextual determinants of spread

Changes in organisational conditions were also important factors for the pace and spread of implementation. Productive Ward leads and facilitators reported difficulties trying to implement the programme across split hospital sites because of the practicalities of travelling between sites and keeping track of progress.

"We've got two sites, so there's like 15 miles between hospitals and it's trying to keep a handle on all the wards and where they're up to, and that's really difficult." **Hospital Three - Service improvement facilitator**

It was generally felt that implementation on large wards requires more facilitator support than on smaller wards:

"We've got a 44 bedded ward, a 42 bedded, and a three bayed area, so they're big wards. And we were struggling a bit to get on with things. So what I did was I actually pulled one of my senior nurses out, she was a band six who worked two days a week. So I gave her a secondment about a year ago to sort of push us along within surgery, and that worked really well. That's been a winner for us really." **Hospital Three – Matron surgery**

Too much organisational stability can be a barrier if staff have become unreceptive to new ideas and change.

"It's a small, not a cottage hospital. It's got three wards that's all, staff have been there for a long time. There hasn't been much turnover of staff, maybe not many changes." **Hospital One – Service improvement facilitator/Productive Ward facilitator**

Relocation and refurbishment of wards could also be problematic for maintaining pace of implementation.

"With the refurbishment now I can see it slipping right off the agenda. (...) Half of us are staying here and half of us are going to another ward, which is in a totally different building. It's quite a sprawling hospital so, geographically, we're going to be far apart. So there is a bit of me that is wondering whether to be realistic and put the whole thing on hold, and then revisit when we come back together (...) it, probably, will not be a bad thing to revisit and just check that everything still works as it did before." **Hospital Five – Ward manager general medicine**

In one site a hospital merger meant that staff were unreceptive to ideas that appeared to be coming from the partner site. Elsewhere, there were challenges of implementation of some aspects of the programme because of being housed in a PFI building:

"Because we work in a PFI, we weren't allowed to put the big notice boards on the wall, so what we did was, and we actually still do it now, we created a Key Performance Indicator for every single ward and department. What we didn't do was create these great big boards with stars and things on, because we just simply couldn't do that in the environment that we work in." **Hospital Eight – Practice facilitator/Productive Ward lead**



PROCESSES OF SPREAD

There are many potential processes of spread but the analysis of the case studies focuses on examining three particular processes, as summarised by the following table (Table 9).

Table 10: Processes of spread at case study sites

Case study site	Discontinuation	Islands of improvement	Improvement evaporation
Hospital One	- Scepticism due to lack of information about the programme	- Insufficient time and resources to involve more wards and staff - Problems with spreading practical ideas across whole organisation - Issues changing mindset and culture of whole organisation	- Problems with showing impact
Hospital Two	- No Productive Ward facilitator in post for 12 months	- Low staffing levels on some wards means they are excluded from roll-out plans	- Decline in executive support and loss of staff morale
Hospital Three	- Concerns about job cuts and redundancies as a result of increased staff efficiency - Lack of ward manager support on some wards	- Ward-based Productive Ward training does not support spread of learning between wards	- Communication problems about The Productive Ward has hindered progress on some wards - Lack of engagement of estates department
Hospital Four	- No Productive Ward facilitator in post has meant that implementation came to a halt	- Problems with releasing staff in some areas to work on Productive Ward	- Ward staff resistant to continue implementation without facilitator support
Hospital Five	- Potential for sabotage from resistant ward staff - Poor ward-level leadership on some wards and inability to delegate or lack of willingness to try ideas - Unrealistic expectations from executive about completion of roll-out compared to embedding change	- Insufficient staff on some wards to start the programme - Problems on wards with joint-staffing - Problems of delivering facilitation between multiple hospital sites	- Variation in ward-level staff energy and engagement - Problems keeping track of finances
Hospital Six	- Lack of funding for Productive Ward facilitator post - Little executive buy-in for first three months only - Productive Ward steering group disbanded		
Hospital Seven		- Lack of staff confidence to promote achievements internally and externally	- There is a need to show the programme has achieved cost savings and to identify the positive resource implications
Hospital Eight	- Staff resistance to change and stagnation of existing practice - Move to a PFI funded building		

4.6 Discontinuation

This section looks at why/how people (or organisations) decide to reject an innovation after adopting it, possibly due to shifts in context which make work methods and goals obsolete, sustaining one approach may inhibit staff development and the implementation of other new ideas.

Little is known about why and how people and organisations reject an innovation after adopting it and these findings go some way to explaining how discontinuation is theorised and can be understood. Existing theory suggests that discontinuation is the process where people or organisations explicitly decide to reject an innovation after adopting it. The findings from the case studies suggest that, as with adoption, discontinuation is a process made up by multiple decisions and events rather than a one-off decision.

Planned rejection

From these case studies there was no evidence of explicit and planned 'top down' rejection of the whole Productive Ward programme following initial adoption. However, this does not exclude the possibility that organisations elsewhere have rejected the innovation. It could simply be the case that the sample did not hit-upon any hospitals that have explicitly rejected the innovation following adoption.

In theory decisions to discontinue are taken because sustaining one approach may inhibit staff development and the implementation of other new ideas. The findings presented here show the situation to be more complex because elements of The Productive Ward have been integrated with other initiatives and embedded in organisational working (discussed later in Section 4.11) even though work on the programme itself may have halted.

Planned delays

The case studies did not reveal any theorised shifts in context which make work methods and goals obsolete. However, they did reveal times when top-down decisions were made to delay implementation. These included periods of winter pressures, staff sickness and moves to new hospital sites.

Adjusted timescales

There was little evidence of organisations explicitly abandoning planned courses of action. However, there was evidence that Productive Ward work did not always go to plan and that planned timescales had been abandoned.

"We're relatively early in the programme, we're only at our wave one stage, so we've rolled out onto the showcase wards, but we originally had a programme, I think, over four to five months to do that, and it's taken double that. A lot of it came down to learning how to prepare people adequately for roll-out and having to go back over some of that work themselves. And partly that was my learning as well, a huge amount of my own learning to then do it in the right way for wave one." **Hospital Seven – Productive Ward facilitator**

Selective continuation

It has been theorised that in some circumstances it may be appropriate to allow or to encourage some change to decay. The findings from the case studies support the notion of selective continuation of successful Productive Ward work. This contrasts with the notion of sustaining the programme as it is set out in The Productive Ward module books. It also contrasts with the notion of progression towards completion of the programme.

"I don't think I've ever worked with a ward that's actually completed the whole thing yet. (...)things change, you go back and review processes again because something new has happened, or changing guidelines, or there's a different initiative, or they bring in the same sex accommodation - all those sorts of things. I don't think I've actually met a ward that's completed it. So although we say 12 months to do all the Process modules, I think it would just be 12 months to work your way through and get as far as you can do." **Hospital One – Service improvement manager/Productive Ward lead**

The case studies illustrate the different opinions about the meaning of completion. While some ward staff perceived it to be a time limited project to be completed as quickly as possible, Productive Ward leads and facilitators saw it as an ongoing way of working:

"You're continuously improving what you've already done in going back. Even though I said, 'Right, you've done these Foundation modules it doesn't mean to say they're done and dusted. You've done them to standards now, but obviously in a couple of months you could have better ideas and we'll have to go back to them and do them again.' So it's keeping up this continuous improvement really." **Hospital Three - Service improvement facilitator**

Scepticism about impact

There was some degree of scepticism amongst Productive Ward leads about the perceived potential to observe improvement and whether this would lead to executive-level decisions to discontinue the programme in the future.

"I think ward teams are still very sceptical. They don't know enough about it, there isn't enough publicised about it. It's still... I think it's, even three years down the line, it's still in its infancy, and you can't show that it's actually made a difference (...) And I think nurses are getting a bit, 'Well, we want some evidence to say that it actually works.' You're asking to give you the time and to do it – for what? (...) once they've seen those benefits, they stop asking the questions about what it's doing." **Hospital One – Service improvement manager/Productive Ward lead**

4.7 Islands of improvement

In theory islands of improvement occur because of a lack of spread within organisations and isolated uptake of innovations across healthcare systems. Findings from this review help to explain why this happens.

Over reliance on hierarchical communication

There was strong evidence from the case study sites that improvements often remain isolated and unknown to others. In some case study sites even senior staff working on wards where Productive Ward was being implemented were unaware that the work had been going on for some months.

"It seems to me that they don't actually discuss stuff. They don't get ward meetings the way they should. And time out, headroom – I think we all need a bit of headroom. (...) You can do a briefing which takes five to ten minutes at a handover, and I've been trying to get people into the habit of doing that." **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

Ward managers play an important role in encouraging members of the ward team to engage in horizontal transmission of information and learning among peers. These findings suggest a lack of structure and culture of information spread amongst colleagues working at the same level, creating an over reliance on hierarchical communication.

Directed spread

In these case study sites there is little 'natural' spread of programme uptake. In fact, wards are more likely to be selected or elected rather than self-nominated for implementation. Structured plans for roll-out and managed control over resourcing and facilitation may slow spread to wards that are interested and keen to start implementation.

"Going on to the next group of wards, sign up is probably more of an issue because it's the case now they've been selected rather than the other way round from asking them to do it, and it's countering another set of challenges altogether." **Hospital Seven – Productive Ward facilitator**

Inter-organisational learning

Participants discussed the benefits of learning about The Productive Ward in the early stages, but there was a decline in networking and shared learning over time as programme leads and facilitators gained experience and became the experts within their own organisation. Due to the focus of data collection these particular findings tell us more about organisational processes than they do about how innovation spreads across healthcare systems. However, staff in two case study sites did talk about the benefits of sharing learning and spreading Productive work into community settings and prisons.

4.8 Improvement evaporation

In theory improvement evaporation occurs where change suffers a lack of sustainability. The findings of the case studies support the view that the decay of organisational change is influenced by a wide range of interconnected factors, as discussed below.

'Bottom-up' disintegration of effort or interest

Loss of staff commitment was evident at some case study sites as individual staff members gradually withdrew their commitment to implementing The Productive Ward. In one case study site lack of facilitator support had led to dissatisfaction and a sense that the programme had failed, even though improvements were actually being maintained by ward staff a year later. Staff emotions and expectations played a part in loss of interest. Where staff felt the organisation no longer valued and supported The Productive Ward they saw little reason to move forward with implementation. Loss of interest was linked to problems with the timing, pacing and flow of available support.

"Some wards I go to and I think, 'Oh I'm flogging a dead horse really.' And other wards I go to and I'm actually pleasantly surprised (...) some have got engaged and others... the best I could expect from some was just to remain neutral and not sabotage it." **Hospital Five – Ward manager general medicine**

Lack of sustainability

Over time most organisations had experienced sustained changes and a greater degree of integration and adaption of the programme with other initiatives.

"The one thing that has been striking about it is that all the changes we've made, they've either remained, or we've now started to look and see, 'Can we do this better?' So we didn't just make the changes and let it go back the way it's always been. And it's moving on, and we're doing some work at the moment when we're looking at the handovers and things like that, taking it that step further, and tying it in with the Patient Status at a Glance module."

Hospital Eight – Clinical nurse manager

Financial challenges influenced sustainability of the programme at all of the case study sites. All organisations were struggling to meet the costs of implementing the programme and to show the economic benefits of sustaining the work. Substantial challenges included the ambition and scale of change and the reality of delivering training and support to ward staff.

"You keep all those balls in the air and when someone shouts you do that bit. It's not the best way of doing it ... I recruited someone that I knew could get on with it. That was the only way I could cope with taking that on as well." **Hospital Seven – Productive Ward Lead**

Processual challenges to sustainability included issues with implementation methods as staff became dependent on facilitators to provide support to move through the modules. Ward level leadership was essential for sustaining the vision and setting goals. In circumstances where elements of The Productive Ward have been embedded in organisational policies, standard operating procedures and monitoring systems, they have been sustained. Contextual issues are also important in sustaining the programme. External economic pressures and threats to staffing budgets are part of the wider challenges facing NHS organisations, but they also influence whether staff are provided time to implement the programme.

Reversion to old ways of working

The case studies did not reveal evidence of reversion to old ways of working, rather a loss of staff taking ownership of change. It could be that ward cultures mean that staff hold shared beliefs and perceptions about what is a normal and acceptable degree of change for them. The Productive Ward may challenge and exceed these expectations. For political reasons it may be difficult for staff to challenge reversion to former practices eg, if senior colleagues do not follow newly established ways of working.

MEASURES OF SPREAD

4.9 Rate of progress

The case studies revealed different views about what is a successful rate of progress. In particular senior management expectations differed from Productive Ward lead and facilitator's views about the rigour of processes of change.

"When we first started one ward took nearly two years to get on board. So they are taking quite a long time to get into place [the Foundation modules], but I think to do it properly you need to take time, it's no good thinking, 'Oh, well we've done that and let's go onto the Meals modules.' I think it's silly to cut corners." **Hospital Three - Service improvement facilitator**

"I think management think we should have moved them on more, but it just wouldn't have been physically possible. I think they thought we would whizz through a module in a week, that kind of thing. I presented it like a thermometer chart of module progress and what percentage of the programme the wards had completed and I was pretty pleased with it, I thought, 'Oh that's quite good.' We've got several that are more than 60% completed and I thought that was pretty good, considering. And I was told, 'Oh no, what about this ward, what about that ward? This doesn't look very good!' And I was like, 'Oh, I've sweated blood for these!'"

Hospital Five – Service improvement facilitator/Productive Ward facilitator

The main benefits of taking time to plan and implement modules were the potential to work to realistic timescales towards sustained change.

"Anything that we have done has been sustainable, but that is one of the reasons that we have taken it slowly, and we have gone round and revisited, and revisited, so if it hasn't felt quite right we've gone back to it. We've not rushed or been rushing on to the next thing (...) I think having an unrealistic expectation about how quickly this is going to happen, actually, can halt the project, or actually make it so that it's meaningless, if you're just ticking boxes and not actually embedding any change." **Hospital Five – Ward manager general medicine**

One Productive Ward lead talked about the tension between Productive Ward implementation being a tick-box exercise versus leaving a lasting cultural change:

"We have got targets, we've got to finish delivering Productive Ward by summer next year – which we'll do. And then they can tick the box and say, 'That's done.' Hopefully, we've left behind enough staff who are skilled and knowledgeable in how to make improvements in a ward environment that they can just continue that work." **Hospital One – Service improvement manager/Productive Ward lead**

Rate of progress appears to be linked to variation in the extent to which ward staff take ownership of the programme.

*"You find sometimes you'll go and say, 'How is this going?' 'Oh, well, we waited until you came.' And I'll say, 'Well, no, you shouldn't wait until I'm here, you know what you should do, therefore, do it.' And sometimes when I walk on the ward they'll say, 'Oh, you're here. Oh, I'm sorry that's not up-to-date. We haven't done the measure to so and so,' and I think, 'It's as though if I wasn't there would they do it?' And I say, 'No, you have to take ownership. It's your ward. It's you who has to take ownership.'" **Hospital Three - Service improvement facilitator***

In half of the case study sites progress monitoring systems have been put in place. Measures of outcomes are being recorded but staff were quite sceptical about whether they are relevant or useful.

"It's difficult to say whether or not we are going to be able to monitor and measure other than the softer measures such as culture and environment and staff morale. Our sickness level in the organisation is quite high. If that drops is it a result of this or not? It's hard to tell, we don't know. A lot of work was done previously with the Well Organised Ward and cutting down stores and excess in store rooms, and obviously they've all just moved into brand new wards, so we don't actually have a very big issue and we're not going to be able to have a lot of financial gain from that point of view (...) We can only use baseline measurements that we've got to hand. Some of our wards are starting off with direct care time around 55% anyway, and you think, 'Well how much more can I actually improve on that?'" **Hospital One – Service improvement manager/Productive Ward lead**

Part of the problem of outcome measurement is whether improvements can be attributed to The Productive Ward. As well as problems with the concept and measurement of direct care time:

"One thing that worries me is we've done all this, most definitely our ward is a much calmer atmosphere, so it's much more pleasant to work in and, therefore, much more pleasant to be a patient in, but is the time actually being regenerated so that the nurses spend more time with the patients is something that I put a question mark over. Or is it that everybody has just worked at a slightly slower speed which has meant that, as I say, it's less frantic or frenetic?" **Hospital Five – Ward manager general medicine**

And, capturing patient experiences of The Productive Ward:

"Unless they [patients] are regular attendees, I don't think any of them would really notice. That's a hard one because, unless you're there for a long period of time and you see the changes over that time, or you're a regular attendee, you keep coming back and see a difference. But they would be hard to track down and find out which patients they were." **Hospital One – Service improvement manager/Productive Ward lead**

Productive Ward leads and facilitators were concerned about securing funding for the future, which for them meant that it was important to begin to show financial impact.

"With such a focus on finance these days, I think you need evidence of success. We know from a quality point of view it's important, but how can you measure that?" **Hospital Five – Service improvement facilitator/Productive Ward facilitator**

4.10 Shared learning

The case studies show that some ward teams learn about, implement and see the benefits of the programme, while other teams working alongside them are unaware of the nature of the work going on. These findings support the view that staff groups produce strong social and cognitive boundaries (self-sealing groups) where knowledge is interpreted and enacted at a local level.

"We do some things really well, and we're not very good at sharing it, again another NHS thing I think (...) I think nursing in general tends to be a bit self effacing, so you know, 'Don't make a fuss of me it's terribly embarrassing!' (...) I think there is that slightly, 'Well, we're only a little hospital mentality, we can't write papers, and we can't go to national conferences.' And, in fact, what we're doing is a lot of fantastic stuff." **Hospital Seven – Productive Ward lead**

Productive Ward facilitators did encourage staff to go and visit other wards but this tended to be staff that were already working on the programme. In some cases study sites, momentum was building because of a snowball effect of staff interest across the hospital:

"As more wards go on it, more of them become interested to know, 'What we can do? How can we do it?'" **Hospital Three - Service improvement facilitator**

"On a really positive side, they're starting to see some good changes now coming out, which really help them with the sharing of learning with the other wards, so they can start to see that and that's helping to engage more staff, and it does have a knock-on effect. So it is definitely picking up momentum as it goes on." **Hospital Seven – Productive Ward facilitator**

Sometimes a competitive interest - being seen to be making progress – helped to keep wards motivated and involved.

"We do have monthly Productive Ward meetings and we don't name and shame, but if somebody has just come onboard in a few weeks and they've done activity follows and they're well on their way with 'Knowing How You're Doing,' I think the ones that have been onboard for a lot longer are a bit shown up and think, 'Oh, they've done a lot more than us, we better get our act together a little bit more and do a bit'." Hospital Three - Service improvement facilitator

4.11 Embedded improvements

The main aspect of Productive Ward work that was being sustained was physical changes to ward environments, such as organisation of stores and defined areas for equipment. Staff were also maintaining techniques, for example, the use of safety crosses, patient status boards and job lists.

"We put on a list all the jobs that should be done within a day, within a week or whatever, and the staff all added to it and then we divided the work up to how often it should be done."

Hospital Three – Sister surgery

Maintaining reporting schedules helped staff to perceive progress and improvements:

"I think it will keep going because the wards are reporting on what they are doing and that will keep going. That helps them to see where they are making improvements and it's helpful for them to know that." **Hospital Two – Productive Ward facilitator**

Another way of embedding improvement and addressing staff scepticism about sustainability was to add The Productive Ward as a standing item on meeting agendas.

"Yes, definitely [it can be sustained]. I think the role that I do obviously has helped to bed it into our surgical directorate, because unless you go on about it all the time and keep talking about it, things can get swept under the carpet and people struggle on all the time. So yes, just keep going on about it." **Hospital Three – Sister surgery**

For several Productive Ward leads their view of sustainability was to use the programme to leave a lasting structure for organisational improvement. This corresponds with the view of sustainability as a process of 'holding the improvements and evolving as required,' rather than maintaining a new improved way of working.

"The primary thing that I think I want to keep going with the nursing staff is the feeling that they actually have a voice and they're empowered to make change as they see it. (...) We're doing a lot of work in changing the whole culture of the organisation, and I think part of that is the crux to how to make any change sustainable moving forward, it's altering the culture and the mindset of everybody. The Productive Ward is just one bit of work we're doing, but unless the mindset from the board to senior managers down to the ward is changed, then they will just see it as, 'Well, you've got a start point, you've got an end point and that's it, we've done Productive Ward,' whereas Productive Ward is something we just want our nurses to think, 'This is how we do things here.' This is a part of everyday business, and if we've got an issue or problem, this is how we look at it." **Hospital One – Service improvement manager/Productive Ward lead**

The essential point of difference is seeing the programme as a system of continuous improvement and embedding opportunities for change into organisational working.

"Most nursing staff working in any organisation are so used to change, coming and going, and implementing something new, and then six months later something else comes along and they have to implement that. (...) it's building something in so that they actually take stock of where they are, what's happened, and why is this change not working anymore, and what can we do about it to make sure it does work?" **Hospital One – Service improvement manager/Productive Ward lead**

5. Discussion and recommendations

5.1 Maintaining momentum of The Productive Ward

This study set out to inform efforts to maintain momentum of The Productive Ward programme, to support NHS staff going forward, and to discuss mechanisms and arguments for continued commitment and investment.

Previous research has identified challenges to spreading improvement programmes in health care including: *lack of receptive context, human receptivity, inconsistent vision, self-sealing groups, sticky knowledge flow, communities of practice, scaling-up issues, inward-looking innovation* (discussed in section 2.6). The findings from the case studies provide further evidence about the specific challenges for implementation, assimilation and sustainability of The Productive Ward programme within NHS hospitals.

There are four main implications of this research for maintaining the momentum of the programme. These are:

- (i) The three-fold way of explaining spread (determinants, processes and measures) we have developed here is intended to offer a helpful synthesis for practitioners of the confusing plethora of various frameworks and models presently available. This classification provides a framework within which to reflect upon and plan locally for spread.
- (ii) A deeper awareness of the different determinants of spread (individual, organisational and contextual) could help practitioners to improve readiness for spread by identifying facilitators and challenges for individual staff, different ward-based teams and whole organisations. Key factors include: staff receptivity, staff energy, engagement, organisational commitment, collective capability, historical context and the way in which organisations function.
- (iii) The study has focused on three selected processes of spread (discontinuation, islands of improvement and improvement evaporation) and it shows that one or more of these processes can be in operation in any one organisation at the same time. A greater awareness of the nature of these processes, and why may they occur within an organisation, could help practitioners to channel resources and energies into areas where it will have greatest impact. For example, looking to continuity of organisational commitment and collective capability in order to avoid discontinuation, or looking to improve communication and shared learning in the case of islands of improvement. Finally, organisations might look to invest resources in maintaining staff energy and engagement if they wish to avoid improvement evaporation.
- (iv) Practitioners are likely to find it useful to know more about how to measure (and explain) the spread of The Productive Ward. Such measures could help to address variation in how spread is judged and assessed, as well as opening up a dialogue between different stakeholders to reach a more useful and objective agreement about what a 'successful' rate of progress is. The findings of this study provide insights into how organisations can spread learning and embed improvement (by, for example, helping ward leaders to manage time and resources to release staff, and supporting shared learning through local adaptation and then local standardisation of tools and techniques).

5.2 General benefits from this learning

There is the potential to generalise from this learning with the aim of identifying key factors to support the spread and sustainability of future programmes. That is to say, lessons learnt from The Productive Ward experience can inform approaches to spreading and sustaining large-scale change interventions in the healthcare context. The interviews provide insights into how elements of The Productive Ward programme have been appropriated by local organisations and then embedded into their structures and systems. We summarise these insights below in terms of individual and organisational determinants, and the influence of the wider context, as well as the impact (measured in three ways) that these determinants have on three particular processes of spread.

Individual determinants of spread:

- Staff receptivity to change varies across organisations. The chosen approach to information giving about The Productive Ward and the initial selection of wards to participate has a significant effect on the mobilisation of staff energy. Some organisations opt to start implementation on better performing 'showcase' wards, others chose to invest in wards that need support. The justification for both approaches is to raise the overall level of quality across the organisation but the impact of each may be different.
- Staff energy levels may deteriorate during implementation because of staffing pressures and withdrawal of facilitator support – not necessarily because of loss of staff enthusiasm in the programme. During pressurised times clinical staff will always prioritise patient needs and work is likely to slow, even if a programme can potentially support staff through such times.
- Programmes can be successfully re-energised. This involves investing in programme leads and facilitators, possibly re-naming the work, re-launching the programme, reassessing plans for roll-out, and working with staff that had started the programme to reassure them their work has not been wasted.
- Spread to different professional groups can be supported by drawing links to their specific areas of personal expertise and work. Inter-professional working can help staff to perceive the impact of their decisions on other departments and professional groups.
- When it comes to deciding whether work on The Productive Ward will go ahead, ward managers occupy powerful decision-making positions. Ward level leadership works best where managers do not try to do all the work themselves, but focus on time management to enable ward staff to be included and to participate.

Organisational determinants of spread:

- A range of factors influence readiness to implement and spread a programme even when a formal decision has been made to adopt it, for example securing resources for key posts and backfill for staff time. Where good existing organisational structures are in place for communicating to staff across the organisation - such as ongoing developmental and induction programmes - these are helpful for explaining the purpose of the programme and engaging staff. Leadership, existing staff skills and knowledge are all important aspects of receptivity.
- Historically ward staff have not been encouraged to take the initiative and make changes to their own work or environments. Building confidence and autonomy requires organisational commitment to long-term cultural change.
- Even though organisations may be very receptive to the programme, momentum of implementation declines when funding dries up or support declines. 'Late starters' can be disappointed that they will not receive the same level of support and resourcing as early implementers.
- Integration with other initiatives may be planned or arise opportunistically. Any improvement programme is likely to benefit from making explicit connections with processes of institutional reporting, management structures, audit processes, education and induction programmes, patient safety and patient experience work.
- Identified programme leads play a vital role as boundary spanners within NHS organisations. Their dedicated commitment to a programme means they are key players in encouraging staff at different levels and generating energy behind the programme across the organisation.
- For a programme to be spread and sustained leads need skills not only in communicating vision and goals, they also need skills to encourage staff themselves to take on leadership and management of the work.
- Programme leads often struggle to keep communication channels open with senior managers about progress, and to encourage wards to monitor and report on their progress.
- The nature of facilitator posts means they are often seconded for relatively short time periods. Facilitators tend to prioritise delivering information or training to staff in the time they have. It is more challenging to encourage ward staff to learn to work autonomously and to take ownership of implementation.

- There can be limited opportunities and time for personal development and support for new facilitators. Programme leads tend to provide team members with peer support and share learning about what works in terms of recruitment and training.
- Bringing a mixture of professional groups into facilitation teams could offer role models, leadership and support to spread programmes to a wider range of staff groups. Staff tend to engage more when training is peer to peer (homophily) or from respected colleagues who they know (relational trust).
- Programme leads and facilitators may fear that they will not be able to show the effectiveness of what they have achieved in measurable terms. To avoid formal discontinuation of resourcing and support they are under pressure to show the added benefits to the organisation but often lack the means to do so.

Contextual determinants of spread

- Planned programme roll-out is often delayed by episodes of clinical pressures (winter pressures), staffing pressures, staff sickness, inability to recruit to vacant posts, and organisational site moves, mergers and refurbishment.
- Continuous executive buy-in through pressurised periods and visible support are needed to show staff that a programme is still a priority and that the organisation is still backing them.
- Whilst progress with implementation can sometimes come to a halt, improvements which have been embedded in ward processes, such as reporting systems, guidelines, equipment, procedures, are likely to be sustained.

Processes of spread

- Spreading a programme from isolated improvements to whole organisations can be effective if there are resources and time to enable ward staff to undertake shared learning, inter-ward visits, and ward-to-ward communication.
- Standardisation of reporting across an organisation helps staff to compare, helps perceptions of the programme as being important and encourages learning through comparison.
- Displaying monitoring and progress information helps to make a programme more visible within an organisation and for ward teams to take ownership of the work and communicate what they are doing with colleagues and patients.

Measures of spread

- What 'progress' and 'completion' of the programme means can be very variable. Organisations define parameters that provide understandable and tangible end points for them.
- Shared learning can be spread through different channels - supporting face-to-face communication directly between those involved at a ward level is most effective. Where this is not possible, Productive Ward leads and facilitators can convey stories and translate learning from one ward to another.
- Local adaptation and standardisation of materials (guidelines, notice boards, documents etc) and procedures (where things can be found, how things are to be done, what things are called) helps to embed improvements.

5.3 Hypotheses about spread of large-scale change

It is possible to create a set of hypotheses about the spread of large-scale change that can be tested in future change interventions. This could help to move from a reactive to a more proactive understanding of spread of large-scale change.

1. *Successful implementing organisations invest energy in programmes by providing visible executive support, allocating resources for programme leadership and facilitation, and building resilience to times of pressure and change – continuity of these factors is essential.*
2. *Staff energy drives programme spread, but staff need to feel they are backed by organisational energy and have time and space to participate in ways that are meaningful and beneficial to them.*
3. *Programme leads play a vital role as boundary spanners. They need skills not only in communicating vision and goals, but also the ability to encourage staff to take on leadership and management of the work.*

4. *Spreading programmes at ward-level involves helping ward leaders to manage time and resources to release staff, supporting shared learning through local standardisation of materials (guidelines, notice boards, documents etc) and procedures (where things can be found, how things are to be done, what things are called), inter-ward visits, and ward-to-ward communication.*

5.4 Limitations

The focus of this work was on examining theorised processes of discontinuation, islands of improvement and improvement evaporation. It would be useful to invest further time undertaking primary research about what stops organisations from implementing The Productive Ward at all (*non-adoption*)? Further detailed secondary analysis from this and other previous studies could help to explain why the Productive Ward spread well through some organisations (*mechanisms of spread*) and what needs to happen for organisations to hold improvement and evolve (*sustained change*).

The case studies provide a specific perspective of Productive Ward implementation – that of implementing organisations, rather than organisations that have rejected the programme. There is also a bias in the participant sample – towards staff with a specific remit or interest in implementing The Productive Ward.

It was not possible to include Mental Health hospitals, Ambulance Service Trusts, Primary Care Trusts or hospices within the timescale of this review. However, it should be noted that The Productive Ward programme and other Productive programmes are being implemented by such organisations to drive up quality and efficiency in these sectors.

5.5 Potential implications for large-scale change within healthcare systems

In this final section of the discussion we make use of the findings to theorise about some of the implications for spread of The Productive Ward and other large-scale change programmes across different sectors of the NHS.

This research indicates that successful implementing organisations invest energy in programmes by providing visible executive support, allocating resources, and providing programme leadership and facilitation. The picture of spread of any large-scale change initiative in community settings is likely to be different to the acute sector. It is likely to be harder to generate a clear message of executive support across multi-site organisations than it is in a single site organisation, though this will depend on the nature of existing managerial structures and communication networks.

In terms of resources, community hospitals generally received less central funding for the implementation of The Productive Ward than the acute sector due to allocation on the basis of bed numbers. Those with Minor Injuries Units and day case units, or a small number of wards received less funding. Funding for The Productive Ward was allocated through the SHA on the basis of bidding processes – there are implications for the way organisations are identified, assessed and awarded funding to support future quality improvement work, but there is also a more fundamental issue about the authority and capacity of other types of organisations to bid for funds.

Existing skills and knowledge of staff working within implementing organisations are also important factors in receptivity to a programme such as The Productive Ward. In community settings there is often no pool of skilled service improvement staff or the capability to develop service improvement projects. In the acute context programme leads and facilitators play a vital role as boundary spanners within organisations. Leads and facilitators had skills not only in communicating vision and goals, but also the ability to encourage staff to take on leadership and management of the work. Primary Care Trusts and community hospitals do not always have service improvement teams or leads. They may have named project managers who complete Productive Ward work alongside their day job or on short fixed-term secondments.

Leads and facilitators that were working across split sites reported practical issues of travel and communication, as well as difficulties managing cultural differences between sites. Community settings have larger geographical areas for spread in terms of multiple sites, which is likely to impact on spread

because of the practical aspects of organising opportunities for shared learning. There was some evidence of boundary spanners working across sectors – to take learning into the community and prison service - but this was novel. There are clearly implications to consider in terms of the remit of the organisational leader's role and responsibilities beyond their own employing organisation.

Building resilience to times of pressure and change is an issue which faces all NHS providers. The acute sector tends to be hit hard by the impact of winter pressures, infection outbreak and staff sickness. Other types of pressures may be felt in other types of settings. Organisations that plan ahead and avoid crisis management are better able to maintain the continuity of improvement work.

Staff energy drives programme spread. Larger healthcare organisations have established training and education systems as well as induction programmes which provide structures for communicating the aims of the programme.

This research indicates that spreading programmes through organisations involves supporting shared learning through standardisation of materials (guidelines, notice boards, documents etc.) and procedures (where things can be found, how things are to be done, what things are called), inter-unit visits, and unit-to-unit communication. It could be harder, though not impossible, to reach agreement on standardisation where teams are working in different types of community settings to deliver different types of care to diverse client groups.



6. Conclusions

Successful implementation and assimilation can mean spreading programmes at scale and as quickly as possible. It can also mean making sure the right changes happen, at the right pace, and that these are embedded in organisational working. The progress of any organisation implementing a programme can be judged in different ways. External observers, executives, managers and frontline staff make different types of judgements about how well the organisation is doing. The three-fold way of explaining spread developed here (determinants, processes and measures) provides a framework within which to reflect upon and plan locally for spread.

Organisational energy is determined by levels of visible executive support, resources for programme leadership and facilitation, and building resilience to times of pressure and change. Continuity of organisational energy helps to avoid discontinuation. Sometimes the decision to temporarily halt implementation can be beneficial for ensuring the work is picked up at a defined time in the future, rather than struggling on while organisational energy wanes and contextual issues escalate.

Staff energy drives programme spread, but staff need to know about the programme, feel they are backed by organisational energy and have time and space to participate in ways that are meaningful and beneficial to them. In implementing organisations there will naturally be islands of improvement because of patterns of staff energy and approaches to implementation. Communication is essential to spread of the programme and the improvements made. It involves promoting the programme through existing structures such as induction programmes, education and training; maintaining interest on wards using informal interactions and reflection time; and linking monitoring and reporting into organisation-wide improvement meetings.

In a context of shrinking budgets and the challenge of scaling up to whole organisation roll-out, programme leads and facilitators are now focusing more on managing staff expectations about what type of work can be done and delivering support in more efficient ways. Assessment of progress is complicated by the fact that there is no agreed end point to implementation or completion of the programme. It should be noted that aspects of The Productive Ward have been sustained even when wider implementation and spread has seemingly halted; this includes embedding improvements (such as standard procedures and guidelines) into working practices and leaving a lasting structure (theory base and staff knowledge) for future organisational improvement.



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Appendix 1: Literature tables

Table A1: NHS Modernisation Agency publications

As well as the reports summarised below, much of the work of the NHS Modernisation Agency Research into Practice team is captured in a book: Buchanan D, Fitzgerald L, Ketley D (2007) The sustainability and spread of organisational change, London, Routledge.

Publication	Summary and key features
From scepticism to support (2002) NHS Modernisation Agency Research into Practice report one (also see Buchanan et al. 2007)	<p>Changes introduced as part of the process of modernisation were met with both scepticism and resistance from some healthcare staff. The history and culture of the NHS, characterised by the dominance of powerful staff groups, have contributed to scepticism and resistance towards change. NHS Modernisation Agency research has demonstrated that these reactions slow the spread of service improvement and jeopardise its sustainability. The roots of scepticism and resistance lie in a complex mixture of factors that include elements of the change itself, individual reactions, and issues of timing and context. Sceptics can become supporters, and even public champions, of change but newly won support is sometimes fragile and may require nurturing to be sustained. People choose to become involved in change for many reasons, most notably because they begin to understand the benefits that will result. Skilled and experienced change facilitators can influence the process of engagement with change through the use of a range of tailored techniques designed to match individuals' concerns. A number of conceptual models exist that help to explain the process by which individuals become engaged with change. Although scepticism and resistance are often described in negative terms, some organisational change theorists argue that these responses contribute positively to the debate and creativity surrounding change.</p>
Sustainability and spread in the National Booking Programme (2002) NHS Modernisation Agency Research into Practice report two (also see Buchanan et al. 2007)	<p>The Research into Practice Team studied the spread and sustainability of improvements in the National Booking Programme. This report details the findings from this work. The National Booking Programme, from 1998 to 2003, was the first, the largest, and one of the longest-running modernisation programmes linked to the NHS Plan change agenda. It was implemented through four overlapping waves with a cost of £115 million. Giving patients the opportunity to choose appointment and admission dates increases certainty and patient satisfaction, reduces anxiety and the time between referral and treatment, and can reduce the number of patient-initiated cancellations. For booking to work well, waiting times in a clinical service first have to be cut to six months or less, which was another benefit from this initiative. Whilst the aims of this programme seemed straightforward, defining 'a booked appointment' for the purposes of measuring performance was one of the most problematic and controversial aspects of this initiative. Despite the apparently straightforward goal of making the booking of a hospital appointment as simple as booking an airline ticket, significant process redesign was required if targets were to be met. This involved new roles and administrative procedures, changes in clinical practice, new computing and management information systems, new forms of collaboration between primary and secondary care, and new physical facilities. The spread of booking practice was to be informed and encouraged by the implementation structure of the programme, with subsequent waves learning from previous experience. Spread was inhibited however, by:</p> <ul style="list-style-type: none"> - medical scepticism, - confusion concerning definitions and goals, - changing reporting requirements, - the complexity and cost of the process changes required, and - frequent shifts in national priorities which caused attention and resources to be diverted to other issues.

<p>Spreading and sustaining new practices: sharing the learning from the Cancer Services Collaborative (CSC) (2002) NHS Modernisation Agency Research into Practice report three</p> <p>(also see Buchanan et al. 2007)</p>	<p>The context in which improvements in cancer care are sustained and spread is organisationally complex. Inter-organisational processes and relationships involve individuals, teams, hospital, and cancer networks. The collaborative approach involves the simultaneous promotion of numerous improvement and improvement methodologies. Findings in this case indicate that a comprehensive understanding of methodologies is at least as, if not more, important as the adoption of new practices for continuous improvement to be sustained. Continuity of strategic direction and good manager-clinician relationships supported sustainability and spread. There was little evidence of hospital consultants sharing new working practices and associated information with each other. Managers play a role in transferring knowledge across professional and speciality boundaries, but their role is often covert. Effective teamworking influences sustainability and spread, particularly clarity of team leadership, widespread involvement of team members, and shared decision making. Hospital and network staff identified the collection of performance data as time consuming and difficult. However, local service-specific data was instrumental in this case in sustaining the focus on continuous improvement.</p> <p>Key research findings common to both spread and sustainability were:</p> <ul style="list-style-type: none"> - Spread and sustainability are separate but closely related issues. - The terms 'spread' and 'sustainability' are interpreted and used in different ways by CSC personnel, which may have implications for modes of spread and sustainability. - Engaging and involving the whole team in planning and implementing new practices facilitates both spread of new initiatives and sustainability. Engaging clinicians is particularly important for spread. - Dedicated time for people to meet, reflect and discuss is required both to facilitate spread and in order to sustain ongoing service improvement. - The challenge of meeting multiple agendas in health care inhibits both spread and sustainability. In addition, differing priorities between CSC personnel and hospital managers are evident. Influencing clinicians and managers to work co-operatively and linking new ways of working into the wider agenda can have a positive influence. - The degree of engagement and commitment of senior and middle managers is influential. A high degree of commitment enhances spread and sustainability; a low degree inhibits both. However, to date, middle managers have not been fully engaged in CSC initiatives and only a few organisations have widely adopted improvement methodology. - Effective data collection is highly valued and seen as important for both spread and sustainability. However, poor trust IT systems hamper this process. - Adequate resources, including staff, are required. If a need for investment is clearly identified but resources are not available, this can limit both spread and sustainability. In addition, difficulties in recruiting and retaining appropriately skilled staff may have a negative influence on spread and sustainability.
<p>Spread and sustainability of service improvement: factors identified by staff leading modernisation programmes (2003) NHS Modernisation Agency Research into Practice report four</p>	<p>In 2003 the Research into Practice Team synthesised the findings of the first year of their work. The main factors identified by the participants as contributing to the successful spread and/or sustainability of service improvement were:</p> <p>Positive organisational characteristics</p> <ul style="list-style-type: none"> • Informal atmosphere, non-hierarchical structure, participative rather than dictatorial management and lack of entrenched working practices • Mature organisation with a history of successful change • Adequate infrastructure and resources to support changes (eg, IT systems) • Readiness for change <p>Human dimensions</p> <ul style="list-style-type: none"> • Clear and credible leadership, providing support and ensuring continuing priority of service improvement • Support and involvement of consultants • Multi-disciplinary teams working co-operatively (rather than competitively) with common goals and priorities • The existence of influencers who will encourage spread, sustainability or both • Specific roles and relationships can be key to successful service improvement (varying between organisations and programmes) • Effective 'modernisation' / 'transformation' teams who drive changes, help to integrate initiatives and provide guidance and support

	<p>Nature of the service improvement programme</p> <ul style="list-style-type: none"> • Staff interest and involvement is influenced by how the programme has been launched and marketed (as perceptions and understanding are affected) • Demonstrating the benefits and advantages arising from the programme encourages both spread and sustainability (benefits to staff and their working practice as well as to patients) • National programmes can bring incentives such as additional resources and support (facilitating spread) <p>Process of change</p> <ul style="list-style-type: none"> • Coherence of national programmes with organisational needs and priorities • Early engagement of all staff, especially clinicians • Overcoming scepticism and resistance among key individuals, whether clinical, managerial or administrative • Dedicated time for those involved to meet, plan, develop and undertake improvement activities • Fast pace of implementation may increase spread but can prevent sustainability • Phased implementation can aid spread (especially through 'quick wins'), but 'wave' / 'phase' structure and funding can hamper sustainability <p>Embedding new practice</p> <ul style="list-style-type: none"> • Sufficient time for new practice to become fully integrated as the 'norm' • Incorporating new practice into an organisation's 'core' business and priorities, through business plans, objectives, job descriptions, policies and procedures helps sustain improvements • Integration and coherence with other modernisation programmes and projects • Sense of 'ownership' (important for sustainability) facilitated by staff involvement at all levels, all disciplines and in all stages of the change • Programme regarded as priority for all involved and does not conflict with other priorities or interests <p>Reinforcing the improvements: maintaining momentum</p> <ul style="list-style-type: none"> • Recognition of effort and achievements as well as encouragement and support contribute to sustaining improvements • Evidence of effectiveness and benefits of programme sought and fed back to participants • Continuing high priority of programme to senior management • Barriers to sustainability identified and prevented (ie, changes to organisation, external pressures, competing demands, short term contracts or funding) <p>The findings were summarised using the image of the wheel. This was chosen to illustrate:</p> <ul style="list-style-type: none"> • that spread and sustainability are inextricably linked • that it is not possible to place any of the factors in rank order • that the relative importance of each factor varies from one initiative to another. <p>Its purpose was to provide a simple visual overview of what was, in fact, a complex relationship of factors. The wheel represents and describes the main factors found to contribute to the successful spread and sustainability of service improvement. It was revised and updated in 2005 'The New Improvement Wheel' (report 14).</p>
<p>Teamworking for improvement: Planning for spread and sustainability (2003) NHS Modernisation Agency Research into Practice report five</p>	<p>This report reviews aspects of team-working in healthcare improvement. It draws on research findings from the NHS Modernisation Agency's Research into Practice Team as well as some of the broader published literature. Its purpose is twofold - to inform healthcare staff about research findings and to stimulate debate and reflection on the roles and responsibilities within improvement teams.</p> <p>Key points of the report are that:</p> <ul style="list-style-type: none"> • Multiprofessional teams focus on different activities during their working day, for example, on individual clinical care and service improvement initiatives. • These different tasks change the dynamics of the team and require members to use varying skills in order to be effective.

	<ul style="list-style-type: none"> • Individual team members may assume different roles according to the task the team is focusing on at any given time. Clarity about individual roles and responsibilities, especially those of team leader and co-ordinator, is essential for effective teamworking for service improvement. • Clear leadership within teams is more likely to lead to sustained changes in service improvement. • Team members identify the values of trust, respect, support and inclusion as helping their teams to work effectively.
A 'Deep Think' day on sustainability. Meeting summary – (2003) NHS Modernisation Agency Research into Practice report six	<p>A small group of 24 international experts involved in researching and exploring this issue were invited to a 'deep think' sustainability day at Burrough Court on 17 July 2003. The rationale for this event was to share knowledge and experiences, exchange ideas and identify what can be done to help sustain healthcare improvements. One of the main conclusions drawn from the day was that, there is no one approach to studying sustainability or single model that can be applied across all healthcare settings. The different perspectives and different models that are subsequently developed are underpinned by the same objective; to be useful to all staff involved in healthcare improvement. All have different roles to play, each being more appropriate to some situations than they are to others.</p> <p>Some of the tensions organisations face include:</p> <ul style="list-style-type: none"> - The issue of "how to take forward the best of what you already do, if you completely dismantle the old ways?" - The relationship between sustainability and continuity. The large scale, complex changes currently being implemented in the NHS take time and thus there is the need for some continuity. - How to show whether new ways of working or organisation changes represent an improvement? What if the new systems or procedures fail to work, and you have already dismantled the old systems?
No going back. A review of the literature on sustaining organisational change. Literature Summary – (2003) NHS Modernisation Agency Research into Practice report seven	<p>This report summarises the findings of a review of the literature on sustainability. It draws mainly on commercial settings to identify the main issues influencing sustainability, presenting a model for future testing and development in healthcare.</p> <p>Key findings are that:</p> <ul style="list-style-type: none"> - Sustainability is contextual: sustainability can be defined in different ways in relation to work methods, goals, or continuous improvement. The definition that matters is the one that applies to the organisational setting at a given point in time. - Sustainability is a process: changes unfold with time in a manner unique to the context of the organisation. Sustainability is not a static condition. It is necessary to understand and to manage the process of - sustainability in context. - Decay is an option: sustainability is vital in some settings. But an ongoing change programme can cause initiative fatigue, and shifts in context make work methods and goals obsolete. It can sometimes be appropriate to allow change to decay.
Evaluation of 4th Wave 'Moving to Mainstream' (2004) NHS Modernisation Agency Research into Practice report eight	<p>This report presents a summary of the key findings to emerge from the 4th Wave Moving to Mainstream of the National Booking Programme.</p> <p>Key findings of the evaluation include:</p> <ul style="list-style-type: none"> - Booking brings numerous and wide ranging benefits to patients, staff and organisations - Although 4th Wave brought no different benefits, 77% of respondents agreed that they were more apparent than during previous Waves - Challenges remain, and are similar to those experienced in earlier Waves, especially those that relate to supporting infrastructure and staff support and commitment towards the programme - Administrative and secretarial staff play a key role and can exert considerable influence, both positive and negative, on adoption, spread and sustainability of booking - Respondents feel better prepared for and more effective at meeting challenges than in earlier Waves - Changes and developments within the programme during 4th Wave have had a mixed impact on its implementation and the extent to which existing projects are sustained and continue to spread

	<ul style="list-style-type: none"> - 86% of respondents believe that projects are now more likely to be sustained, but that sustainability remains a key challenge - The experience, stability and continuity of project teams is one of the most significant factors contributing to 4th Wave success - Uncertainty over the future funding of staff posts is thought to pose a potential threat to the long term sustainability of booking and its spread to new areas - Training provided by the National Booking Team and the Modernisation Agency has been very favourably received, and is being applied not only to booking but to other areas of service improvement too.
Spreading Sustainable Improvement. Case Study Research: National Booking Programme – Summary (2004) NHS Modernisation Agency Research into Practice report nine	<ul style="list-style-type: none"> - This report describes how the National Booking Programme is working in one three star acute hospital. The extent to which booking is successfully adopted, spread and sustained is likely to vary according to local situations. <p>In this hospital:</p> <ul style="list-style-type: none"> - A positive attitude towards change is evident, although developing this culture throughout the hospital has taken several years. - Improvements associated with booking have been implemented and sustained in many specialties and continue to spread to new areas. - Establishing and maintaining effective communication systems is essential for sharing information, experience and knowledge. - The roles people play exert a strong influence on the likelihood of improvements being spread and sustained. - The way in which a change is planned and introduced appears to contribute to its successful adoption, spread and sustainability. - The hospital's modernisation team is seen as an important resource for implementing and sustaining new initiatives. Their skills, experience and knowledge of the organisation and its staff are regarded very highly. - Understanding that people respond differently towards planned change is important for teams that are working together towards common goals. - Most staff weigh up costs versus benefits when considering a new practice. Having seen the benefits that booking brings to patients and staff, more staff have been encouraged to become involved. - Support and commitment has been increased through providing opportunities for staff to observe booking in other areas before becoming involved, and through piloting small projects to demonstrate the benefits. - There are many examples of positive attitudes to booking, but some staff remain unsure. Scepticism is attributed to loss of control over work, concerns about additional workload and the need for new skills, fear of change, and a belief that booking is part of a political agenda. - Service improvement initiatives can become part of everyday practice by making changes to policies, procedures and job descriptions. This can also help to provide a sense of security and continuity for staff. - Continued evaluation is important for identifying achievements and potential challenges, and developing widespread responsibility for booking.
Engaging individual staff in service improvement: How does it happen? Who should be engaged? (2004) NHS Modernisation Agency Research into Practice discussion paper (also see Buchanan et al. 2007)	<p>The purpose of this discussion paper is to promote debate on the topic of individual engagement with service improvement. In particular it discusses the process that many individuals move through as they consider becoming engaged and argues that the focus of engagement should be broadened. To support this, it offers insights from recent studies undertaken by the Research into Practice Team, relates these to the broader literature, and sets them in the context of the continuing development of healthcare modernisation.</p> <p>Key points of the paper are that:</p> <ul style="list-style-type: none"> - Individual engagement lies at the heart of the spread and sustainability of service improvement. - The process of engagement in this context describes people's thinking and behaviour as they consider becoming and remaining involved with service improvement. - Individual engagement occurs at different levels, reflecting various degrees of intellectual, emotional and behavioural support. - Recent debate has focused on the importance of clinical engagement, especially that of doctors. - Research indicates that the engagement of other staff, both clinical and non-clinical, is also key.

	<ul style="list-style-type: none"> - Broadening the focus to include all staff groups will increase the speed and impact of improvement as modernisation of the NHS moves into its next phase. <p>Processes and activities for influencing behaviour change:</p> <ul style="list-style-type: none"> - Consciousness raising - Becoming more aware of a problem and potential solutions. - Dramatic relief - Emotional arousal, such as fear of failure to change, and inspiration for successful change. - Self re-evaluation - Appreciation that the change is important to one's identity, happiness, and success. - Self liberation - Believing that a change can succeed, and making a firm commitment to it. - Environmental re-evaluation - Appreciating that the change will have a positive impact on the social and work environment. - Reinforcement management - Finding intrinsic and extrinsic rewards for new ways of working. - Counter-conditioning - Substituting new behaviours and cognitions for the old ways of working. - Helping relationships - Seeking and using social support to facilitate change. - Stimulus control - Restructuring the environment to elicit new behaviours and inhibit old habits. - Social liberation - Empowering individuals by providing more choices and resources.
<p>Layers of Leadership: Hidden influencers of healthcare improvement. Research and evaluation studies with the National Booking Programme (2004) NHS Modernisation Agency Research into Practice report ten</p> <p>(also see Buchanan et al. 2007)</p>	<p>This report reviews learning about leadership from the National Booking Programme. Key findings are that:</p> <ul style="list-style-type: none"> - Sustainable change requires leadership at all levels in the organisation. Effective leadership and support from senior management, clinicians, and project managers is also necessary. - Key individuals, not typically recognised as change leaders, can be the driving influence behind smaller-scale, cumulative, and sustainable change. Examples of such behaviours were found among administrative, secretarial, clerical and nursing staff. - Staff in non-traditional leadership roles can have several advantages when influencing others to engage with service improvements, based on their length of service, depth of organisational knowledge, well-established relationships with powerful colleagues, personal credibility and political sensitivity. - The more change agents and influencers there are dispersed across the organisation, in positions not normally considered as leadership roles, the more likely changes are influenced by them to be sustained. - Small-scale, incremental changes should not be discounted. Apparently minor step changes can be important in their own right, and can accumulate to generate more significant forms of service improvement. - More encouragement, support, and skills development are required to develop leadership capabilities throughout the health service.
<p>The spread of 'See and Treat' (2004) NHS Modernisation Agency Research into Practice report 11</p>	<p>Many factors influenced the spread of See and Treat. The initiative was well supported and monitored by external agencies, patients benefited and no staff groups lost out, waiting times were reduced, and Department of Health targets were achieved. However, there were also a range of factors that limited the spread of See and Treat at a local level, including lack of additional resources and suitably experienced staff, impact upon quality of care, and no prior evaluation of its benefits. An interesting additional factor that may be both facilitating and limiting is the complexity of the A&E culture, in particular staff perspectives about working with minor injuries.</p> <p>See and Treat was promoted as a solution to waiting times problems in A&E, without evidence from any national evaluation. However, many staff members referred to its usefulness as a tool to reduce waiting times and enhance the patient journey, although resource, quality, and staffing issues may mean such an initiative may be difficult to sustain in its present form.</p>

**Staff at the sharp end:
The views of
administrative and
clerical staff about
booking systems in the
NHS (2004) NHS
Modernisation Agency,
Research into Practice
report 12**

A survey of administrative and clerical staff's experience of booking patients generated 455 responses. Respondents were predominantly from primary and secondary care with a minority from mental health and social care. The responses of the different groups were similar.

- The majority indicated that booking has had a positive effect on 'did not attend' (DNA) rates, patients' experience and patient cancellations. Almost two thirds agreed that booking has increased job satisfaction.
- Perceived additional benefits included: more choice and certainty for patients, more efficient systems, improvement in capacity planning and more patient involvement. Overall, booking was regarded as an improvement on the old systems and staff's experience has been positive.
- Perceived disadvantages to booking included: hospital cancellations due to lack of beds, emergency pressures and lack of notice of consultant leave; demands on workload; lack of patient understanding, particularly amongst the elderly and mental health patients; difficulties of offering choice if clinic sessions are limited.
- Respondents were relatively satisfied with the current level of information they receive about booking. However, many staff suggested that more information and more effective communication mechanisms would improve their jobs in the future.
- Administrative and clerical staff would like more involvement in implementing booking and more training and career opportunities. They would like to be recognised and rewarded for their work, suggesting higher salaries and consistent salary and grading structures across all hospitals.
- Difficulties with current IT systems were regarded as a current disadvantage of booking and many identified the need for new IT equipment and systems.
- Allocation of more staff, time and funding was mentioned as a positive action that would improve jobs in the future.
- Only the minority felt they had been fully informed about Electronic Booking Services, Booking Management Services and Choice. However, if there are any developments to booking, respondents were confident that they would be adequately informed, involved, trained and supported by their managers.
- Engaging all stakeholder groups, especially consultants and GPs, was perceived as problematic and respondents would like actions to increase involvement in booking.
- Generally, administrative and clerical staff were confident about the future. Although concern about the impact of changes on their jobs was an issue, only the minority expressed concerns about job security.
- Despite some of the disadvantages highlighted in this report, 76% of the respondents were confident about the future.

**Complexity of
sustaining healthcare
improvements: what
have we learned so far
(2004) NHS
Modernisation Agency,
Research into Practice
report 13**

This report discusses the complex concept of sustainability informed by the findings from the Modernisation Agency Research into Practice Team. Within the report:

- A series of questions are raised for organisations to consider, to clarify their thinking, before turning towards the specific factors that have been shown to influence sustainability.
- It aims to be of practical value to project teams considering sustainability, to stimulate debate and clarify thinking to ensure that everyone involved is working towards the same sustainability goal.
- Whilst evidence shows that sustainability should be considered and built in to all healthcare improvement programmes before implementing changes, in practice, it is an issue that organisations frequently fail to address. Many improvement programmes have encountered difficulties in sustaining their initial achievements.
- The Research into Practice Team has identified factors that influence sustainability. They have also identified some of the complexities of sustainability, suggesting that the definitions of sustainability and how organisations choose to address it are dependent on the context within which the changes take place.
- Staff think about what they want to sustain in a number of different ways, including new ways of working, goals or targets, the improvement methodology, whole systems change or continuous improvement.
- Sustainability can also be considered on a number of different levels, from individuals to the entire organisation.
- Different staff groups involved in the same improvement initiative may be motivated to sustain it in different ways.
- Quantitative methods will demonstrate that targets or new ways of working have been sustained, but complex changes, including culture changes, will require more complex qualitative measures.

	<ul style="list-style-type: none"> - The timescale for assessing sustainability requires careful consideration. It is relatively easy to assess when targets have been sustained, but continuous improvement may take longer to realise results. - Sustainability is potentially fragile and continued support and monitoring may be needed. - Whilst sustainability is desirable in most situations, there may be situations when it is not appropriate. Decay is sometimes a preferable option. Sustainability can stifle creativity and innovation. Organisations need to consider how existing successes can be taken forward with new change initiatives.
<p>The New Improvement Wheel (2005) NHS Modernisation Agency Research into Practice report 14</p>	<p>This final publication from the Modernisation Agency Research into Practice Team summarises the main findings from their work. The updated wheel represents and describes the main factors that have been found to contribute to the successful spread and sustainability of service improvement. The updated wheel can be used as a tool for those involved in planning and implementing service improvement, to help explore and consider the main influences on spread and sustainability, including:</p> <p>Ownership of initiative</p> <ul style="list-style-type: none"> • Clear sense of ownership facilitated by widespread staff involvement at all stages (particularly when moving beyond wave or project phase) • Initiatives created locally or adapted to fit specific organisational needs <p>Effective relationships</p> <ul style="list-style-type: none"> • Multi-professional teams that develop relationships to work across conventional boundaries and towards common goals • Effective team working based on values of trust, respect, support and inclusion • Clarity of roles and responsibilities, especially team leader or co-ordinator <p>People who influence</p> <ul style="list-style-type: none"> • Existence of influencers at all levels and in all staff groups (Modernisation Agency Research into Practice report ten) • Effective use of combined resources / expertise (eg, modernisation teams) <p>Leadership</p> <ul style="list-style-type: none"> • Credible leadership (at an appropriate level for initiative) to provide a steer, focus and maintain momentum <p>Dedicated resources</p> <ul style="list-style-type: none"> • Sufficient and appropriate staff to initiate, deliver and support new initiative • Availability of ongoing appropriate levels of funding • Dedicated time for all staff involved to meet, plan, develop and undertake improvement activities • Adequate infrastructure (eg, IT systems) to support new processes <p>Process of implementation</p> <ul style="list-style-type: none"> • Pace of implementation (fast pace of implementation may increase spread but limit sustainability) • Phased implementation of large scale change (phased implementation of large scale change can aid spread; time-limited implementation of initiatives can hamper sustainability) • Effective promotion and marketing <p>Incentives</p> <ul style="list-style-type: none"> • Staff incentives eg, personal gains; additional resources; benefits to patients; quality and safety issues • Awareness and avoidance of disincentives <p>Integration into practice</p> <ul style="list-style-type: none"> • Sufficient time and resources for integration with existing practices • Fit and coherence of initiative with other modernisation programmes • Incorporation of new practices into organisation's 'core' business and priorities <p>Evidence of improvements</p> <ul style="list-style-type: none"> • Collection and sharing of evidence of benefits /effectiveness of initiative • Proof of effectiveness through ongoing monitoring of process and outcomes

	<p>Readiness for improvement</p> <ul style="list-style-type: none">• Staff recognition of need to improve• Awareness and use of diagnostic tools and techniques• Use of current performance data to identify need <p>Nature of initiative</p> <ul style="list-style-type: none">• Compatibility with organisational needs, priorities and culture• Awareness that the source of initiative (ie, top down, target driven or locally created) is influential• Less complex change (Modernisation Agency Research into Practice report 11) <p>Local context</p> <ul style="list-style-type: none">• Positive organisational characteristics (participative management style, history of successful change, commitment to find better ways of working and clear corporate vision)• Recognition, reward and inclusion of all staff <p>Support at senior level</p> <ul style="list-style-type: none">• Endorsement and support from key senior individuals• Support and involvement of consultant medical staff <p>Staff engagement</p> <ul style="list-style-type: none">• Early engagement of all staff affected by the change• Positive management of scepticism and resistance
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Table A2: NHS Institutes

The NHS Institute for Health Improvement and the NHS Institute for Innovation and Improvement have both developed work on spread and sustainability.

Publication	Summary and key features
<p>NHS Sustainability Model and Guide</p> <p>(Maher, Gustafson, Evans 2003)</p>	<p>The Sustainability model is a diagnostic tool that is used to predict the likelihood of sustainability for improvement projects. The new tool is a continuation of an old paper based system. The Sustainability Guide provides practical advice on how service providers might increase the likelihood of sustainability for an improvement initiative. It aims to help NHS improvement teams:</p> <ul style="list-style-type: none"> • Self-assess against a number of key criterion for sustaining change • Recognise and understand key barriers for sustainability, relating to their specific local context • Identify strengths in sustaining improvement • Plan for sustainability of improvement efforts • Monitor progress over time. <p>The development of the model is based on the premise that the changes individuals and teams wish to make fulfil the fundamental principle of improving the patient experience of health services. Another important impact that can be gained by using the model is the effective achievement of change which creates a platform for continual improvement. By holding the gains, resources - including financial and most importantly human resources - are effectively employed rather than being wasted because processes that were improved have reverted to the old way or old level of performance.</p> <p>The NHS Sustainability Model was developed through extensive involvement of practitioners and theoretical experts in change to:</p> <ul style="list-style-type: none"> • identify factors - literature search, panels of experts, improvement leaders in front line positions • rate factor importance - over 250 improvement leaders working in front line positions • test the model for theoretical robustness • test the model practically • recommend intervention strategies • formally evaluate 'usefulness' of model and intervention strategies. <p>The model consists of ten factors relating to process, staff and organisational issues that play a very important role in sustaining change in healthcare.</p> <p>Process</p> <ul style="list-style-type: none"> • Benefits – helping patients and making job easier • Credibility of benefits – obvious, evidence based, believed • Adaptability – continuous improvement • Monitoring progress – effectiveness of monitoring systems and communication of results <p>Staff</p> <ul style="list-style-type: none"> • Training and involvement to sustain process • Attitudes – involvement and empowerment • Senior leaders – responsibility and advice • Clinical leaders – responsibility and advice <p>Organisation</p> <ul style="list-style-type: none"> • Fit with goals and culture – history of improvement, consistency of improvement goals with strategic aims • Infrastructure – staff, facilities and equipment <p>Designed for use:</p> <ul style="list-style-type: none"> - At the level of a 'local' project. Not for use at the level of an organisation to assess multiple projects. - At the beginning and then periods throughout the project. Diagnostic score used for improvement rather than judgement. - By all members of the core team. Increases understanding and promotes conversation.

<p>A Framework for Spread, from local improvements to system-wide spread NHS Institute for Health Improvement Innovation Series Massoud et al. (2006)</p>	<p>This white paper provides a snapshot of IHI's work on spread. It is divided into two parts. The first part describes the major spread projects that IHI has supported, these are:</p> <ul style="list-style-type: none"> - IHI's 100,000 Lives Campaign - Bureau of Primary Health Care - IHI's IMPACT Network - US Department of Health and Human Services, Division of Transplantation - Tula and Tver Oblasts (administrative districts) within the Russian Federation - Tuberculosis Treatment in Peru and HIV/AIDS Treatment in South Africa - California Improvement Network - End Stage Renal Disease Networks - Kaiser Permanente <p>The paper explains what has been learnt about the most effective ways to:</p> <ul style="list-style-type: none"> • prepare for spread; • establish an aim for spread; and • develop, execute, and refine a spread plan. <p>The second part of the paper is a reprint of an article published in the June 2005 issue of the Joint Commission Journal on Quality and Patient Safety, describing how the Veterans Health Administration (VHA) used the Framework for Spread to spread improvements in access to care to more than 1,800 outpatient clinics.</p> <p>IHI has observed that organisations often benefit from specific guidance in applying the components of the Framework for Spread and they encourage organisations to consider the following issues when developing and carrying out their initial plans for spread:</p> <ol style="list-style-type: none"> 1. Can the organisation or community structure be used to facilitate spread? 2. How are decisions about the adoption of improvements made? 3. What infrastructure enhancements will assist in achieving the spread aim? 4. What transition issues need to be addressed? 5. How will the spread efforts be transitioned to operational responsibilities?
<p>NHS Institute for Innovation and Improvement Academy of Large Scale Change model</p>	<p>The National Institute for Innovation and Improvement Academy for Large Scale Change was set up to support NHS leaders at regional and national level to create the conditions needed to deliver large scale change in the health service in England.</p> <p>The Academy for Large Scale Change had its final event in Bristol in November 2009. The first day of the event was devoted to participants telling their stories of how they are bringing about large scale change in their area and the specialist skills they have developed during the programme to achieve this. The principles of the Academy will be spread and adopted across NHS England. Participants considered how the theory of large scale change can be applied to improving the health and well being of the population and simulated how they can apply it to the cost and quality agenda.</p> <p>The coaching that has been a valuable part of participant development will continue until the end of the year and members will stay in contact via WebEx, and local networking events hosted by Academy teams. Social networking and forums will continue to be used to keep those links active.</p> <p>Evaluation of the programme has been excellent, with 90% agreeing that they now had the confidence to tackle large scale change in their area and that they had built up a network of support of other Academy participants which will help them achieve their goals. 100% agreed that the programme had been very relevant to their role and felt personally re-energised and re-focused on the challenges that lie ahead. A full learning review will be published in December '09.</p>

The Power of One, the Power of Many. Bringing social movement theory to health and healthcare improvement

Bibby et al. (2009)

The Power of One, the Power of Many makes a powerful case for the way in which social movement thinking can be incorporated into existing health and healthcare improvement practice to create more effective, compelling, faster change for patients and the public. The essence of the report is how social movement approaches – based on connecting with peoples’ core values and motivations to affect change – can deliver improvement at previously unseen depths. The authors explore how a social movement approach differs from a traditional programmatic approach; how a movement view of change different from our current view, and what the difference is between organisational logic and ‘movement consciousness’. The report analyses the dynamics of the energy focus of social movement.

Five key principles are identified:

1. change as a personal mission
2. frame to connect with hearts and minds
3. energise and mobilise
4. organise for impact
5. keep forward momentum.



Table A3: Academic research

A number of academic researchers are known for their work on the spread and sustainability of innovation and change in healthcare. Key publications are listed below.

Publication	Summary and key features
Bate et al. (2004) Social Movements Model	Evidence from the social sciences suggests that social movement perspectives may help to recast large scale organisational change efforts in a new light and offer a different, though complementary, approach to improvement thinking and practice. Particularly prominent is the recognition that such large scale change in organisations relies not only on the “external drivers” but on the ability to connect with and mobilise people’s own “internal” energies and drivers for change, thus creating a “bottom up” locally led “grass roots” movement for improvement and change.
Berwick (2003) Disseminating Interventions in Health Care	<p>This article examines the theory and research on the dissemination of innovations and suggests applications of that theory to health care. It explores in detail three clusters of influence on the rate of diffusion of innovations within an organisation:</p> <ul style="list-style-type: none"> • the perceptions of the innovation • the characteristics of the individuals who may adopt the change • contextual and managerial factors within the organisation. <p>This theory makes plausible at least seven recommendations for health care executives who want to accelerate the rate of diffusion of innovations within their organisations:</p> <ul style="list-style-type: none"> • find sound innovations • find and support “innovators” • invest in “early adopters” • make early adopter activity observable • trust and enable reinvention • create slack for change • lead by example.
Deming (1994) System of Management	<p>System of management</p> <ul style="list-style-type: none"> • Knowledge of systems • Theory of knowledge • Knowledge about variation • Knowledge of psychology
Fraser (2002b) Accelerating the Spread of Better Practice	This book provides helpful advice for change agents, healthcare commissioners, policy leads, project managers, clinical leads and managers at all levels in healthcare. The book covers the spread process, describing good practice, impediments to adoption, working out your role, identifying the type of spread, describing better ideas, targeting potential adopters, reinventing new ways, monitoring progress and other issues.
Green et al. (2009) Diffusion theory and knowledge dissemination, utilisation and integration in public health	Legislators and their scientific beneficiaries express growing concerns that the fruits of their investment in health research are not reaching the public, policy makers, and practitioners with evidence-based practices. Practitioners and the public lament the lack of relevance and fit of evidence that reaches them and barriers to their implementation of it. Much has been written about this gap in medicine, much less in public health. This paper summarises what is known about the diffusion, dissemination, and implementation of evidence-based recommendations. It reviews the concepts that have guided or misguided public health in their attempts to bridge science and practice through dissemination and implementation. Beginning with diffusion theory, which inspired much of public health’s work on dissemination, the authors compare diffusion, dissemination, and implementation with related notions that have served other fields in bridging science and practice. They suggest ways to blend diffusion with other theory and evidence in guiding a more decentralised approach to dissemination and implementation in public health, including changes in the ways we produce the science itself.

<p>Greenhalgh et al. (2004)</p> <p>How to Spread Good Ideas</p>	<p>'How to Spread Good Ideas' is a detailed literature review of spread and sustainability. Key influencing factors for successful implementation are identified as being:</p> <ul style="list-style-type: none"> • the nature of the innovation • the characteristics of the adopters • ways of spreading the message about the innovation • the role of opinion leaders and "champions" • how adoption will take place • the type of organisation, and its culture • the organisation's readiness to change • the impact of factors outside the organisation.
<p>Penny (2003)</p> <p>Discipline of improvement in health and social care</p>	<p>The discipline of improvement:</p> <p>People</p> <ul style="list-style-type: none"> • Involving users, carers, staff and the public • Personal and organisational development <p>Process</p> <ul style="list-style-type: none"> • Process and systems thinking • Making it a habit: initiating, sustaining and spreading improvement in daily work
<p>Rogers (1962)</p> <p>Diffusion of Innovations</p>	<p>Diffusion of Innovations is a theory of how, why, and at what rate new ideas and technology spread through cultures. The concept was first studied by the French sociologist Gabriel Tarde (1890). A broader interest in innovations which was popularised by the textbook by Everett Rogers (1962). He defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system."</p> <p>The key elements in diffusion research are:</p> <p>Innovation: Rogers defines an innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption".</p> <p>Communication channels: A communication channel is "the means by which messages get from one individual to another."</p> <p>Time: "The innovation-decision period is the length of time required to pass through the innovation-decision process", whilst "rate of adoption is the relative speed with which an innovation is adopted by means of a social system."</p> <p>Social system: "A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal."</p> <p>Five stages of the adoption process are:</p> <ul style="list-style-type: none"> • Knowledge: In this stage the individual is first exposed to an innovation but lacks information about the innovation. During this stage of the process the individual has not been inspired to find more information about the innovation. • Persuasion: The individual is interested in the innovation and actively seeks information or detail about the innovation. • Decision: The individual takes the concepts of the innovation and weighs the advantages and disadvantages of using the innovation and decides whether to adopt or reject it. Due to the individualistic nature of this stage Rogers notes that it is the most difficult stage to acquire empirical evidence. • Implementation: In this stage the individual employs the innovation to a varying degree depending on the situation. During this stage the individual determines the usefulness of the innovation and may search for further information about it. • Confirmation: Although the name of this stage may be misleading, in this stage the individual finalises their decision to continue using the innovation and may use it to its fullest potential. <p>Rogers defines an adopter category as a classification of individuals within a social system on the basis of innovativeness. Rogers suggests a total of five categories of adopters in order to standardise the usage of adopter categories in diffusion research. It should be noted that the adoption of an innovation follows an 'S' curve when plotted over a length of time. The categories of adopters are:</p> <p>Innovators: This group are the first individuals to adopt an innovation. In general terms, innovators are willing to take risks, youngest in age, have the highest social class, have great financial lucidity, very social and have closest contact to scientific sources and interaction with other innovators.</p>

	<p>Early Adopters: Individuals in this category have the highest degree of opinion leadership among the other adopter categories. Early adopters are typically younger in age, have a higher social status, have more financial lucidity, advanced education, and are more socially forward than late adopters.</p> <p>Early Majority: Individuals in this category adopt an innovation after a varying degree of time. This time of adoption is significantly longer than the innovators and early adopters. Early Majority tend to be slower in the adoption process, have above average social status, contact with early adopters, and show some opinion leadership.</p> <p>Late Majority: Individuals in this category will adopt an innovation after the average member of the society. These individuals approach an innovation with a high degree of scepticism and after the majority of society has adopted the innovation. Late Majority are typically sceptical about an innovation, have below average social status, very little financial lucidity, in contact with others in late majority and early majority, very little opinion leadership.</p> <p>Laggards: Individuals in this category are the last to adopt an innovation. Unlike some of the previous categories, individuals in this category show little to no opinion leadership. These individuals typically have an aversion to change-agents and tend to be advanced in age. Laggards typically tend to be focused on "traditions", have lowest social status, lowest financial fluidity, oldest of all other adopters, in contact with only family and close friends, very little to no opinion leadership.</p>
<p>Szulanski (2003)</p> <p>Sticky knowledge barriers to knowing in the firm</p>	<p>Knowledge has become a business resource, and knowledge management theorists and practitioners have examined how knowledge moves in organisations, how it is shared, and how the return on knowledge capital can be maximised to create competitive advantage. Szulanski has devised a conceptual model called sticky knowledge, based on an integration of communication theory and knowledge transfer milestones. Szulanski argues that knowledge factors play a greater role in the success or failure of a knowledge transfer than has been suspected.</p> <p>The factors included in the sticky knowledge model include:</p> <ul style="list-style-type: none"> - causal ambiguity - unproven knowledge - motivation of source - credibility of source - recipient motivation - recipient absorptive capacity - recipient retentive capacity - barren organisational context - arduous relationship between source and recipient.
<p>Van de Ven et al. (1999)</p> <p>The innovation journey</p>	<p>The Innovation Journey explains what is known about innovation processes in complex organisations and what important assumptions remain to be answered. The book draws on research, over a period of more than 17 years, the Minnesota Innovation Research Program (MIRP) conducted 14 longitudinal studies of innovation processes in diverse settings spanning public and private, large and small, and old and new organisations.</p>



Appendix 2: Factors required to spread improvement programmes at scale and at pace

Traditionally programmatic approaches to improvement have focused on motivating change within health services, as illustrated by the following figure (Figure A1). The trend was to plan, motivate, drive, overcome resistance, leaders and followers, and use existing structures to do this.

One straightforward technique that has been used with consistent success in relation to the implementation and assessment of innovation is the PDSA model (Langley et al. 1996). The model has two components. The first is to establish a starting point by setting precise aims, defining measures that show whether or not those aims are being met and identifying change concepts.

The second component involves the following.

Plan	Plan the change to be tested or implemented
Do	Carry out the test or change
Study	Study data before and after the change and reflect on what was learned
Act	Plan the next change cycle or plan implementation

However, it is now widely recognised that spread not only involves *motivating* change it involves *unleashing* change by changing complex, living systems where there is limited predictability and control. Kelman (2005) explains the differences between these perspectives (Figure A2).

Researchers have become more interested in the social dimensions of change. For example, institutional and neo-institutional theory (Greenwood et al. 1996, Powell et al. 1991) considers ways in which organisational structures, (and the rules, norms and routines within organisations) become established as the accepted and authoritative guidelines for the way things should be done. Such institutional perspectives generally emphasise the role of social factors rather than economic or efficiency factors in driving organisational action, including external conformity pressures from regulatory bodies or parent organisations, social pressures from other similar organisations, as well as collective, social construction processes (Westphal et al. 1997).



Figure A1: Perspectives of change

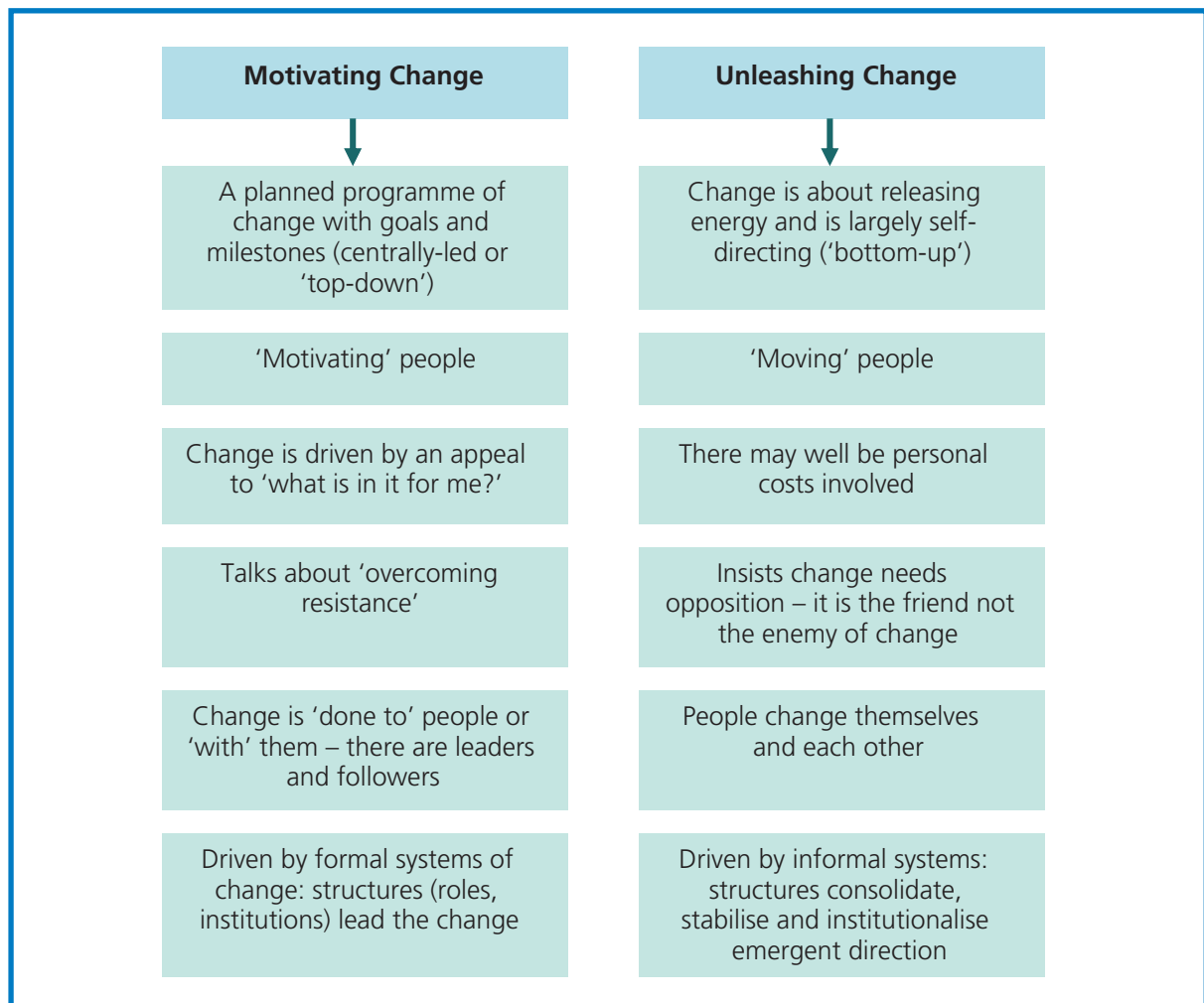
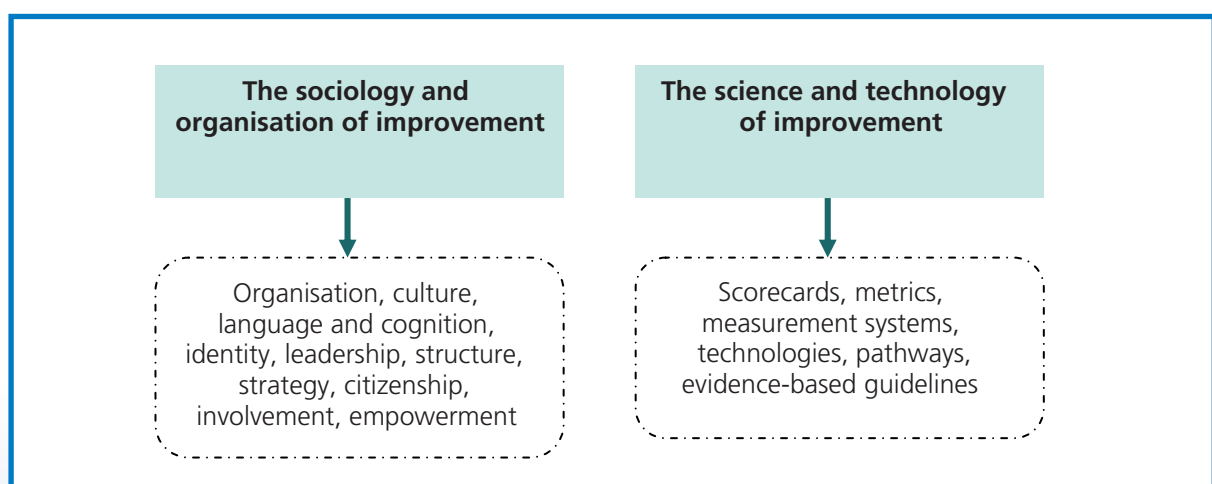


Figure A2: The sociology and science of improvement



Models of behavioural change emphasize a range of processes and activities for bringing about change. These are summarised by Buchanan et al. (2007) as:

Consciousness raising	Becoming more aware of a problem and potential solutions
Dramatic relief	Emotional arousal, such as fear of failure to change, and inspiration for successful change
Self re-evaluation	Appreciation that the change is important to one's identity, happiness, and success
Self liberation	Believing that a change can succeed, and making a firm commitment to it
Environmental re-evaluation	Appreciating that the change will have a positive impact on the social and work environment
Reinforcement management	Finding intrinsic and extrinsic rewards for new ways of working
Counter-conditioning	Substituting new behaviours and cognitions for the old ways of working
Helping relationships	Seeking and using social support to facilitate change
Stimulus control	Restructuring the environment to elicit new behaviours and inhibit old habits
Social liberation	Empowering individuals by providing more choices and resources

In social movement theory, change is recognised as being about understanding the energy that exists within the system – and finding ways of unleashing people's 'interior passions' and energies. According to a social movement approach, to create a movement first you need to 'move' people to personally invest in change. Resistance is perceived as a positive force for change that can be contested and negotiated - rather than a barrier that must be quashed. In a 'bottom-up' approach to change it is driven by informal systems from which structures consolidate and stabilise over time as an emergent, and collaborative direction of change is found.

'At present, prevailing strategies rely largely on outmoded theories of control and standardisation of work. More modern, and much more effective, theories of production seek to harness the imagination and participation of the workforce in reinventing the system' (Don Berwick, Quality & Safety in Health Care, December 2003).

A key idea in social movement theory is that initiating change requires tapping in to 'sentiment pools' rather than providing the science or technology for change, as depicted by the following figure (Figure A3). From this perspective change is about mobilisation and self-organisation – that is, providing people with space, resources, and a degree of organisation to catalyse people to change themselves and each other. The sociological aspects of change, such as feelings, emotions, sentiments and values, become as important as the science and technologies of change. Thus drawing from a social movement perspective, other work by the NHS Institute suggests that generative change involves:

- moving from managing change to unleashing change
- tapping in to existing energies
- from commitment to engagement to mobilisation
- more of a campaign approach
- learning-based interventions
- creating movement-like dynamics in improvement efforts.

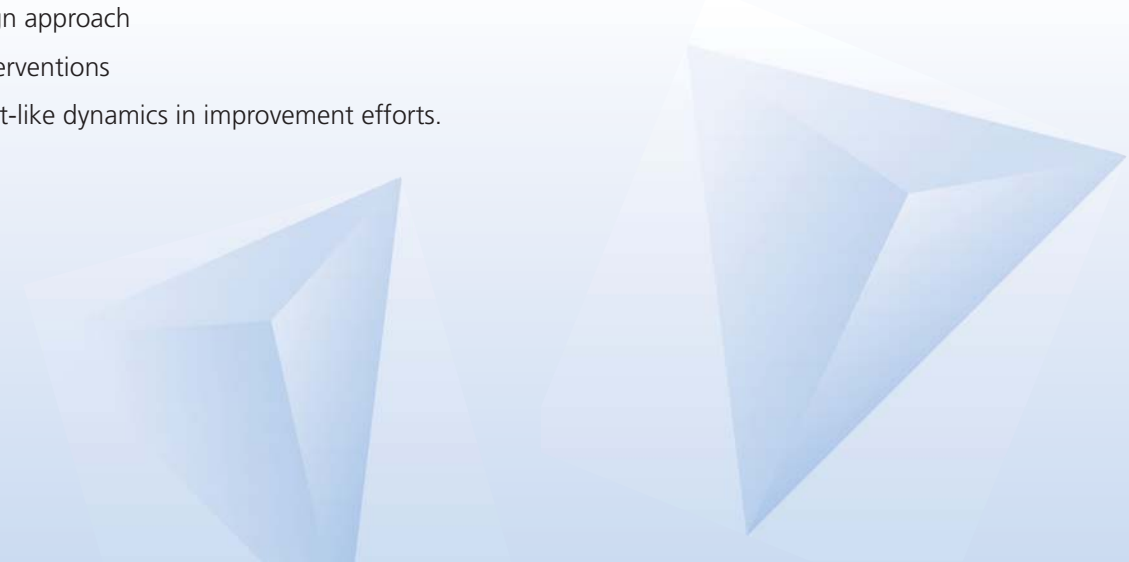
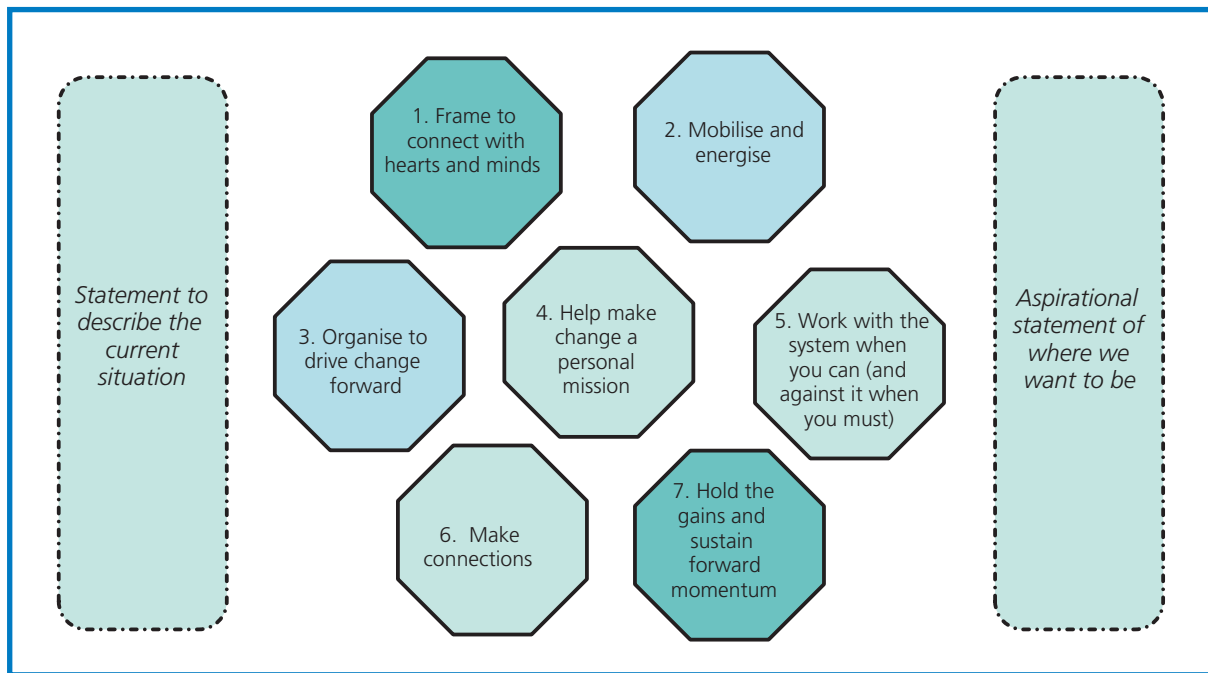


Figure A3: Seven design principles for radical change



According to this work seven design principles can be employed to move from the current situation towards an aspiration of where 'we want to be'. They describe these principles as follows:

1. To be successful you need to frame issues in ways that resonate with the ideals, values, needs and aspirations of your potential supporters to draw them to the cause - the notion of 'framing to fit'. The more evidence you can provide on the benefits, risks and chances of success the better it will work.
2. Having got people to support the 'cause' find ways to move them to action. Do this by connecting with their passion/personal commitment (so that they are exercising 'choice') as opposed to creating a 'requirement'.
3. Social movements do not 'just happen' they are characterised by meticulous planning for maximum effect. Create a clear strategy for building and galvanising support, coordinating effort and resources.
4. Movements have an impact because every single member believes that their contribution - no matter how large or small - will make a difference. Adopt a mindset whereby every follower is also a leader of sorts, with the courage, confidence and skills to be active in the change process.
5. Recognise that there are times when it is necessary to 'rock the boat' and make a personal stand. The challenge is to make the right judgements to deliver the desired goal.
6. Get as many people as possible to support your cause, particularly people who are able to influence areas that you cannot, for example, working through existing formal and informal networks.
7. Ensure sustainability by making it impossible for people to go back to old ways of thinking. Social movements work on ensuring a transformation of consciousness, once changed people can't go back. Plan for spread from the start and sustain momentum by continually raising goals and expectations.

Appendix 3: Case studies - Telephone interview request

Dear [Participant's name],

We would like to invite you to participate in a short telephone interview about your experiences of leading or helping to implement The Productive Ward: *Releasing time to care*™ programme in your hospital.

In May 2010 the National Nursing Research Unit at King's College London is undertaking interviews on behalf of the NHS Institute for Innovation and Improvement who developed the programme. We are hoping to talk to a range of staff working in hospitals across England. Your hospital has been selected because The Productive Ward is being implemented there.

We want to find out how best to help support people going forward and to understand what the opportunities and challenges for staff are.

Topics that your interview may cover

- How have you been involved in Productive Ward work to date?
- What Productive Ward work is your hospital/are you doing at the moment?
- Are there plans for future roll-out of The Productive Ward in your hospital?
- Do you think the programme has worked well on all wards, or has it worked better in some places than others?
- Which groups of staff find it most useful? Who is most enthusiastic about it?
- What are the 'energy levels' like behind the work? Is there management support, clear leadership and sufficient resources?
- Is the programme gathering momentum or has energy fallen away? Do you think effort can be sustained?
- Does it fit well with other work going on in the hospital? What links have been made to other initiatives?
- What factors have helped/hindered the work?
- Are improvements being monitored?

About the interview:

- Your participation is voluntary and completely anonymous at an individual and organisation level. All information will be collected in the interests of sharing learning experiences and insights into The Productive Ward and initiatives like it.
- Telephone interviews will be held with up to six key informants in your hospital. We are interested in hearing from people from 'ward' to 'board' and so we would welcome your suggestions as to who else to speak to.
- The interviewer will telephone you at a convenient time and will ask you about your experiences of the programme. The interview will take about 15-20 minutes, depending on the time you have available.
- We would like to audio record the interview with your permission.
- All participants will receive a summary report of the key findings nationally.

Appendix 4: Case studies - case reports

The following case reports are informed by the accounts of staff presently working at case study sites. These reports synthesise interviewee's recollections, experiences and knowledge of Productive Ward implementation in their organisation. In all but one case study site, multiple accounts were used to establish as near as possible 'insider's' perspective of context, history, current activity, staff energy, organisational energy, facilitators and barriers, and future plans.

Hospital One

Context: Hospital One is an NHS foundation hospital situated in the Midlands. The hospital is spread over two sites and has 28 wards. The hospital purchased a Standard Productive Ward package in October 2008. It received SHA money for implementation of the programme. This was used to employ two Productive Ward facilitators and to allocate a budget for Productive Ward work.

History of implementation: The Productive Ward Foundation modules were originally implemented on six wards but work lapsed and it was approximately 12 months before the hospital started again. Productive Ward implementation stopped because the hospital moved all their wards into a new building. At this time a seconded Productive Ward lead nurse returned to her normal post. In December 2009 a service improvement facilitator was identified to lead the work, and together with the executive sponsor they appointed two full-time facilitators for 18 months. Roll-out was initiated for the second time in April 2010.

Current activity: Two full-time Productive Ward facilitators are now working with two original wards to re-energise them. A further four new wards have come on board. Each ward will be supported over a 12 to 14 week period. The aim is to implement the Foundation modules with enough knowledge and understanding that staff can keep going as part of everyday business, and work autonomously through the Process modules. The organisation aim is that each ward, once support has finished, has 12 months to complete going through all the modules.

The facilitators have provided briefing sessions and identified which wards and staff to work with. Re-energising was slow to begin with because of getting staff on board and the facilitators were both new in post. Two months were spent making contacts to the ward leaders and heads of nursing to explain plans for roll-out of the programme and timelines. There was some delay in getting feedback from the ward leaders and the heads of nursing to agree these plans. Once these were agreed the facilitators began running briefing sessions with staff on the wards, prior to the official start of implementation. Senior staff (band six) knew very little about the programme and it became apparent that the whole programme had actually been led by the ward leaders rather than as a team. These staff had never been involved so the facilitators spoke to as many staff, of any grade, that they could prior to implementation. The ward managers are on board again and now recognise that they cannot do all the work themselves. Two ways of working are emerging – on some wards a core team of six staff regularly attend whole-day training, however information is not necessarily spread to other team members. Other wards have decided to send different staff members in turn to training about different modules.

At this stage communication is the main concern for the facilitators, to promote The Productive Ward and examples of good work. The facilitators have found that communication to ward staff by email is not always useful, and some areas are better than others are at checking for messages. Ward meetings have proved to be unsuitable for communicating about Productive Ward because they are held on a monthly basis which is not frequent enough. Newsletters have been useful but there is a concern that these require support from facilitators. Communication that is simple, informal and flexible is working well, as well as encouraging staff who are attending study days to feedback to colleagues with the

support of ward leaders. Because training sessions are now run for the whole day staff are able to do a lot of work and seem to be engaged in the whole day rather than having a few hours and then returning to work for the rest of the day. Following each session the facilitators send a report to the ward lead to keep as a record of what has been covered, including discussions about what staff want to see changed and the types of measures that are being used. This shared decision making seems to be instilling a lot more ownership in the programme.

A big challenge is how to sustain The Productive Ward moving forward once facilitator support has been withdrawn. Each ward team will be left with an action planner for a year, which can be revisited. The facilitators are currently implementing an audit tool to audit sustainability periodically moving forward. Part of the sustainability challenge is that most nursing staff are so used to change and time-limited initiatives that there is no expectation that The Productive Ward will continue or move forward. The action planner will build in time for ward staff to reflect on their progress. The intention is for nurses to continue to feel they have a voice and to feel empowered to make change as they see it. This involves changing the whole culture of the organisation and the mindset from the board to senior managers to ward staff, towards seeing The Productive Ward as an established way of working for continuous improvement and that Productive Ward tools and techniques are available for tackling new problems as they emerge.

Staff energy: The response from different wards has been markedly different - some are very onboard, others are resistant – but overall, the response has been good. There have been some problems with staff not having sufficient time to do the work but facilitators provide wards with lots of support in the early stages to help set processes up. Staff are given small pieces of ‘homework’ to do at the end of each training session.

The response from staff across the two hospital sites has also differed. Generally staff at one site are more enthusiastic than the another and there is a view that The Productive Ward is not new and it is not going to work. The reason behind this may be that the site that has shown more resistance is a small hospital with very few wards. Over the years staff turnover has been very low and historically not many changes have been made to the ward structures or environments. The other site is a teaching hospital with new staff regularly coming in. Nursing practices at the smaller site are excellent but there is a resistance to take on ideas from elsewhere.

On wards that are being re-energised staff are looking at The Productive Ward in a different way. Previous work, such as Knowing How We Are Doing progress boards, has been revisited with the same individuals who originally created them with a view to improving what has already been done. It has been helpful to acknowledge their previous work on the programme and to show that this effort has not been wasted. The break in work (for approximately nine months) has not necessarily been a bad thing and work did not come to a complete halt. Audits and general housekeeping work were done but no progress was made on the Process modules. In the absence of facilitator support, the momentum for taking on new modules was lost because The Productive Ward was seen as a ward leader's project rather than an initiative that was owned by ward teams.

The facilitators are now targeting all student nurses who will be starting on the wards in a few months time to inform them about the programme. The idea is that this will help them to understand how The Productive Ward works and to get them involved in improvement work on the wards when they start practice as qualified nurses. Information given has so far been targeted at nursing students but there is a recognised need to involve other members of the multidisciplinary team; physiotherapists and occupational therapists are unaware at the moment. Medical staff is another group that are currently lacking good introductory information about The Productive Ward.

Organisational energy: At the present time it is not clear what the organisational energy levels behind the work are because implementation is still in its early stages. A clearer judgement may be made when the facilitators revisit wards to see what progress has been made and audit results are available. Heads of nursing are aware that the work is going on and have given their agreement to it, but in these early stages they are as yet not actively championing the work. Work on The Productive Ward fits well with other work on The Productive Operating Theatre which has now started in the

hospital. The facilitators also provide support for The Productive Operating Theatre and staff working on orthopaedic wards and outpatients are involved in both initiatives. As yet no direct links have been made but ideas have been raised and there have been discussions about communication between different work units.

Facilitators and barriers: One of the main facilitating factors for this hospital has been the ability to release staff to attend briefings and training. There have been a few occasions of absence at training events due to staff sickness on the ward. However, in general, ward leads have looked ahead to identify people who will be present on the day and will attend. Facilitators have encouraged the ward leads to try and give the staff the time to do their work, especially the Well Organised Ward work. Hindering factors have been individual personality factors and resistance, as well as practical factors such as limited finances. To moderate expectations the facilitators have made it clear from the start that there are not sufficient resources to undertake major structural work or to redesign areas.

Future plans: Plans for roll-out across the hospital are set for July. Briefing sessions are due to take place in June. Ward leads and the heads of nursing for the next cohort have been contacted and invited to attend an initial day to provide an outline of work for the next 12 weeks. Following this briefing, individuals from each ward will be invited to attend briefing sessions. The next cohort will officially start The Productive Ward in early July. Although there is a plan for roll-out, this will be reviewed to determine the best way to get everybody involved. Roll-out is scheduled to be complete by March 2011- but this demands the facilitators being on the ward at least three days a week to train staff. This leaves the facilitators with little time for report writing and supporting ongoing work.

Each ward area is keeping track of their progress and monitoring outcomes. Phase two will provide more indication of when is the best time to revisit areas to review progress. There is some evidence that some wards have sustained work on the Well Organised Ward module. With other modules it is too early to say whether the work will be sustained.

Hospital Two

Context: Hospital Two is an NHS hospital located in the east of England. The hospital is spread over four sites and has 22 wards. The hospital purchased an Accelerated Productive Ward package in January 2009. Productive Ward Foundation modules have been implemented on seven wards. Productive Ward Process modules have been implemented on four wards.

History of implementation: The hospital introduced Lean work two years before Productive Ward implementation in 2009. Lean was quite rigid in what staff were being asked to do and it did not last as well as The Productive Ward. The Productive Ward has been introduced to staff as a programme that is like Lean but 'it is not telling you what to do, you have to choose for yourselves, and do it yourselves.' Staff can see the difference with the flexibility of The Productive Ward. The Lean work that the hospital was doing has fallen away and been replaced by The Productive Ward. A Productive Ward lead and Productive Ward support officer were appointed and implementation got off to good start. A support nurse was appointed to provide backfill for nurses to do Productive Ward training. The Productive Ward lead and Productive Ward support officer have now left. The Productive Ward lead post is being advertised but there have been delays in recruiting a replacement. The support nurse has taken on a more active support role to keep Productive Ward work going. Implementation has slowed but Productive Ward work is being maintained.

Current activity: At present seven wards have done the Foundation modules and are beginning to move on to the Process modules; one ward is interested in doing the Process module for Meals. The support nurse visits wards on a weekly basis to remind staff to complete charts and reporting; this helps to monitor improvements and help staff to see how they are doing. The support nurse receives updates from the wards on a weekly basis, which are entered onto a central spreadsheet and also encourages ward staff to spend five minutes looking at the board every week, to see what has improved and what could be improved with some work. Staff are encouraged to involve the healthcare assistants in the feedback sessions as well so it is not just the same few people attending each week; this promotes a culture of team-working.

Staff energy: Different professional groups have engaged with different parts of the programme. Nurses are getting a lot out of The Productive Ward because they are on the wards and working with the tools every day. The occupational therapists and physiotherapists like the Patient Status at a Glance board, because they like to see how the patient is doing; other groups have also commented that they have benefited from the board when they come on to the ward. On the whole it is the nursing staff, occupational therapists and physiotherapists who are most enthusiastic about the programme; some of the doctors have also said they do like it. A number of consultants are enthusiastic but there is an issue with keeping medical professionals informed about The Productive Ward and what the programme is there for, once they are informed they do see the benefits. Patients have taken an interest in the Knowing How We Are Doing boards and ask staff about them.

Organisational energy: The Foundation modules have worked well on all implementing wards and all staff have benefitted from being involved once the programme has got underway. There have been notable improvements from the Well Organised Ward module as the way things are organised on the ward has made a big difference. Some wards have done better than others while some have got behind in the programme. Organisational energy was good at the start but has slowed down now, because there is no Productive Ward lead. The work is being maintained however, energy on the first wave wards has lulled in the absence of encouragement from the Productive Ward lead to keep the work going and support weekly reporting. Where staff enthusiasm was initially high it has waned and there is a general sense that they have done the programme and can move on. However, all of the ward managers remain committed to Productive Ward work and have maintained their weekly returns.

Facilitators and barriers: For this hospital, the main barriers to spreading The Productive Ward have been low staffing levels on some wards and not having a Productive Ward lead in post for 12 months. The work has slowed because there has not been a programme lead to drive the work. Staffing pressures are a big issue. Staff generally feel so pushed they are reluctant to take on more. At the start staff tended to see The Productive Ward as something that was going to make their lives harder but once they got involved they saw the benefits of it. Some staff feel overwhelmed when they are introduced to the programme because they have so much work to do, they are worried about how they will find time to do Productive Ward work.

Future plans: There are plans for roll-out of elements of The Productive Ward to the whole hospital, where it will be doing observation work, which will be audited in July 2010. Resources are in place for a Productive Ward lead and the post has been advertised. However, it could be another couple of months or so before someone is appointed. There is some indication that The Productive Ward work will be sustained because the wards are reporting on what they are doing and it helps them to see where they are making improvements. Where there are visible and tangible outputs this has helped to keep the work going. In the longer term, trying to get the programme to fit with other work that is going on will help to sustain it. For example, the wards need to monitor their infection rates and they can record other things that are important to that particular ward.

Hospital Three

Context: Hospital Three is an NHS foundation hospital in the north of England. The hospital is spread over two main sites and has 36 wards. The hospital purchased an Accelerated Productive Ward package in June 2008. The Productive Ward Foundation modules have been implemented on 19 wards. Six wards have started on the Process modules.

History of implementation: Work on The Productive Ward started in July 2008. A Productive Ward lead was identified from an existing Organisation and Development team and is also an improvement and development facilitator within the hospital, which involves Lean work, competencies and role development. At the outset The Productive Ward lead and eight matrons attended NHS Institute implementation training. When they returned they identified the areas they wanted to start working towards first. The training was then taken onto the wards to support them to go through the Foundation modules.

The first ward began in July 2008, the pilot ward chosen for the hospital was a men's health unit. The ward established an implementation team of six members, led by the ward manager. Members would meet with the Productive Ward lead but other staff on the ward were not involved initially.

Work to roll-out The Productive Ward to a female surgical ward started in December 2008 but was slow to progress initially. The position of Productive Ward coordinator for surgery was established to help support roll-out. A sister from the men's health unit was seconded on a part-time basis in April 2009; this was originally a six month secondment but has continued for a year as little progress had been made on the female surgical ward. The Productive Ward was re-launched in April 2009. The Productive Ward Coordinator had learnt from the men's health unit that communication was essential. She worked to get the whole team involved by informing every individual staff member about the purpose of The Productive Ward, what it entails, and what the benefits are to them and patients. Staff were informed about the Foundation modules and why timings of nurse activity were being undertaken. The programme was officially launched on both hospital sites in April 2009. An elective surgical ward was selected as the next ward for roll-out. A full launch day was arranged by the Organisation and Development team. These wards were chosen because they are areas where the matrons were able to release staff to participate. Progress was quite slow initially as staff wanted to see what the programme entailed before signing up. The training was adapted to the organisation so that staff could attend a one-day session to learn about The Productive Ward and Lean techniques.

Current activity: A Productive Ward steering group meets once a month to discuss roll-out and includes the director of nursing and the Productive Ward lead, and all of the senior clinical nurse matrons. The role of the Productive Ward coordinator involves communicating plans to all of the ward areas involved, they also attend other organisational meetings, such as the monthly senior clinical nurse meeting, to communicate what's happening with the programme.

The Productive Ward lead and facilitator deliver staff training. At the end of the training day staff go back to the ward with an action plan for the Foundation modules. Staff are supported to measure direct care time and to put standard measures into place. Each of the three wards are working through all the Foundation modules. The Productive Ward coordinator meets every two weeks with the implementation team on each ward. All staff on the wards are expected to meet weekly to discuss the communication board, which includes Productive Ward work. The idea is that all members of the team, not just the implementation team, can find out what's happening with The Productive Ward. Each of the three areas have now moved on to the observation module. The Productive Ward coordinator has worked to keep momentum going with the men's health unit because they started some time ago in July 2008. The view is that if it is possible to keep their momentum up the men's health ward will help to bring other surgical areas up to the same level. This will help to develop work together across the wards and trial things at the same time.

Action plans for all of the Foundation modules, developed by the NHS Institute, are displayed on each ward. The men's health unit have had successes. They have achieved a 11% increase in direct care time (33-44%) for a band five nurse. They have implemented a twin bin system in their stores. On the women's health ward, the band five direct care time was 54% and this increased to 61% following implementation of the foundation modules. The rate was already fairly high because of a Surgical Observation Unit and the ratio of nurses to patients is higher. The healthcare assistants were initially 44% and after implementing the Foundation modules this went up to 63%. To help reduce motion, the nurses trolleys were placed in patient bays. Staff were asked what equipment should be available on the trolleys and this has now been written as a standard procedure to guide top-ups.

Staff energy: Staff have been very positive when they have been informed about The Productive Ward. They have not said that they are too busy or have not got the time to get involved. The response has been that it is common sense and good time management. On the whole staff have been really keen to get involved and start Productive Ward work, as they can see the benefits for them and their patients. As a group healthcare assistants have been really enthusiastic and have championed the programme in certain areas, particularly management of stores. In some areas staff nurses have now taken over the measures for recording. There was some resistance to the introduction of particular changes for example, there were issues with the scheduling of observations and medicines

rounds, which have tended to overlap. With the help of Productive Ward discussions these have been altered so that the qualified nurses can work with the healthcare assistants more as a team. Working in pairs has also helped to deal with interruptions and to respond to clinical demands.

With the help of the clinical educator, every new member of staff is now given information about The Productive Ward in their induction packs. This explains what The Productive Ward is and provides contact names of the implementation team. The induction pack is given to staff who are joining the hospital for more than four weeks, which does not usually include bank staff. Induction is monitored by the clinical educator within the hospital.

Organisational energy: There is good senior management support, including the senior clinical nurse matron and the Organisation and Development team. The deputy director of nursing attends steering group meetings and there have been walkabouts from the chairman and the chief executive. This support helps the areas that are being visited to show that The Productive Ward is important and that the work they are doing is being recognised. Generally the energy is present in the organisation but improvement has taken longer on some wards than others because of communication issues.

The Productive Ward work fits well with other work being undertaken in The Productive Operating Theatre, Rapid Improvement Workshops and service line management. Work on patient experience – patient interviews, focus groups and questionnaires – is particularly useful for informing Productive Ward work. Patients have been asked what their ideal patient experience would be and then to compare with their actual experience.

Facilitators and barriers: Facilitating factors include getting everybody involved, good communication, and making sure everybody knows what The Productive Ward is about. Some problems have been experienced with communication on wards but this is not just in relation to Productive Ward. The Productive Ward lead and Productive Ward coordinator have learnt from these experiences and went back to the beginning to tell everyone on the ward what The Productive Ward is about. This was easier on the elective surgery ward which only has 20 staff members. On women's health and men's health wards communication has been harder because there are 60 members of staff. The wards have 'reflection time' at the end of an early shift, at about 2pm each day. Most communication about the aims of The Productive Ward to ward staff takes place within this time.

Some wards seem to be moving on quicker and catching up because the ward manager supports the implementation team. In other areas ward managers and sisters have not been involved and the pace has been slower. Implementation teams that have leadership and involvement from keen people and different staff groups, such as ward clerks and healthcare assistants, have done better.

A hindering factor has been that there has not been anyone from estates on The Productive Ward steering group. This has led to issues over the removal of unnecessary fixtures and fittings on wards and in corridors. Problems with ward environments have been encountered when positioning equipment because of the location of electric sockets and some wards have small patient bays. Machines have not always been kept in the identified places, and it has been difficult to get agreement across the whole hospital about creating permanent marked areas to keep equipment. Often very effective ideas piloted on Productive Ward wards have taken a long time to be taken up for example, the use of the twin-bin system for stock management has been held up because of hospital-wide purchasing agreement and tendering processes.

Future plans: There are plans for roll-out to a total of 36 wards. Of the 19 areas that are rolling out not all have yet reached their first Foundation modules. There are 17 remaining wards and areas to roll the programme out to. The men's health unit have chosen to begin the Process module on Meals and it is hoped that they will progress with this themselves. This is the remit of the Productive Ward lead and the Organisation and Development team. Other clinical areas are looking at establishing a similar role to the Productive Ward coordinator to support Productive Ward roll-out.

Regular monitoring of each ward takes place through The Productive Ward steering group. This helps to share ideas and spread learning. It has been agreed that standardised display boards will be used across the hospital and measures will be displayed. Work will be undertaken with patients to find out whether the information is accessible to them.

There is good reason to believe that the work will be sustained. As a result of The Productive Ward effective and simple solutions have been put in place to organise the routine work done on wards. For example, job sheets have been developed by staff which list tasks to be done. Each team has a job sheet to help sustain the work that's been put in, such as topping-up trolleys according to the standard operating procedures. Staff are committed to using the job sheets because they were involved in developing them and they understand the rationale behind them.

Hospital Four

Context: Hospital Four is an NHS foundation hospital in the south coast of England. The hospital is based on one site and there are 30 wards. The hospital purchased an Accelerated Productive Ward package in May 2008. The Productive Ward Foundation modules are being implemented on 20 wards.

History of implementation: Work on the programme commenced in September 2008. The hospital received monies from the SHA. The head of nursing went on maternity leave in January 2009 and two senior nurses were seconded to cover the post at this time. Part of the remit was to work with The Productive Ward facilitator in delivering the programme. The facilitator was employed for three days a week. Funding from the SHA ran out in March 2009. From January to March 2009 one of the seconded senior nurses and the facilitator met on a weekly basis. The programme facilitator attended networking sessions provided by the SHA to share learning with other local healthcare providers. Monthly steering group meetings were held, which involved a ward sister, finance manager, stores management, and other staff involved in the implementation process.

From March 2009 there was no funding left for The Productive Ward facilitator and she returned to her previous post. The momentum of the project slowed down, and the wards weren't supported to complete the work. From March onwards the seconded senior nurse canvassed for money to continue the facilitation. Neither the hospital or the SHA could support the initiative at that time.

In August 2009 the head of nursing returned to work from maternity leave. The seconded senior nurse's role changed and in January 2010 she was appointed associate head of nursing. The post is linked in to a hospital-wide project called The Patients First. The Patients First project is about using Lean processes, change management, and improving the experience of the patient.

As part of The Patient's First project, the team produced papers based on findings from The Productive Ward showcase wards and talked to members of the executive team about reinvesting in a Productive Ward facilitator. The showcase wards provided evidence that staff experience improved in job satisfaction and morale because of working on The Productive Ward. Staff also valued being involved in change processes.

The director of human resources agreed to visit some of the showcase wards and was informed about what the programme can do, how it can be done, what can be delivered in a year timeframe and some of the benefits other organisations have achieved. This was coordinated with a visit from a clinical facilitator from the NHS Institute, who supported the argument. Funding was agreed to start in July 2010-March 2011. The post has been filled and a year's continuation funding has been set aside provided that the post is shown to be worthwhile. Financing was identified from the education budget. The programme is being delivered as educating Lean techniques to nursing, and techniques such as 5S to empower nurses to change how their wards are functioning.

Current activity: Six wards have completed the three Productive Ward Foundation modules. A further two had done half of the Foundation module training when the facilitation stopped. While the hospital has not been officially implementing the programme, other projects under The Patient's First Project have dipped into the box-set. For example, the Emergency Medical Patient Journey project has used a ward board which is very similar to the Patient Status at a Glance board.

The Productive Ward facilitator is due to start in July at a band seven working three days a week. A re-launch day was planned for July 2010 and was to involve everyone from board members to band one staff. There will be an open invitation across the hospital to come and find out what The Productive Ward is. The day will be interactive. The programme will no longer be called The Productive Ward in the hospital it will be called Time to Care, to link in to the Time to Lead initiative.

Staff energy: The energy and the motivation in the first instance was tremendously high, particularly on the showcase wards. Staff were very keen and welcomed the initiative. Some staff came in to the ward on their days off to do the activity follow in their own time. Staff motivation has disappeared because of the lack of facilitator support. The Productive Ward worked well on the showcase wards because these wards were provided with budgets to spend money on converting disused bathrooms into storerooms to create a better storage facility. In general, nursing staff in partnership with the stores team, are getting the most benefit from the programme. These staff groups have been involved in site visits to other hospitals and have been very enthusiastic about The Productive Ward and can perceive the benefits. Staff physically felt as if they spent more time with patients and satisfied with the care they are giving. These outcomes have been more powerful than seeing the figures for direct care time.

At ward level, energy levels are now low amongst staff that have gone through The Productive Ward training or started Productive Ward work. These staff feel that they haven't been supported for a very long time. Where they were highly motivated in the first instance, the momentum of their projects has dwindled. The programme has been rebadged as Time to Care, and staff will be given time to reflect on what they have achieved so far and to pick up the work. Using videos and photographs that were taken as benchmarks, staff will be reminded of how far they have come and the improvements that have been sustained. This may help to raise their energy levels and motivation to complete it. Wards that have not previously been involved in the programme appear easier to engage.

Unfortunately, the SHA money did not allow for the hospital to be able to invest in the other areas in a similar way. Some staff not on showcase wards were quite disappointed in the fact that they weren't given the same opportunity. There are no further resources for the planned re-launch and so the programme will have to be implemented through efficiencies rather than spending. This will be made clear to staff at the re-launch day in July because some perceive The Productive Ward as a budget to change ward spaces rather than an initiative to change ways of working.

Organisational energy: At board level there is a clear message that the hospital has bought into The Productive Ward. The board are financially supporting it and it is very much supported by the chief executive, who goes round the hospital once a month. There is a core group of matrons that are completely bought in, they are supporting the re-launch and are involved in the planning.

Patient First Steering Group meetings are held every month, and the chief executive and at least one or two other executives attend. Every project under The Patient's First project, which The Productive Ward sits under, is reported on in turn and discussed.

The Productive Ward fits well with a concurrent project to provide ward sisters on three wards with backfill for 50% of their time to spend on managing the wards rather than clinical work. The project will be called Time to Lead. As a result of a successful pilot, the hospital have agreed that every ward manager and matron will have this funding in their budget from July 2010. This will give senior nurses the leadership time to be involved in re-launching the programme across the hospital.

Facilitators and barriers: NHS Institute support, training and visits were very helpful in the early stages of implementation. SHA learning events were useful for sharing experiences and discussing challenges. Executive visits have given a very positive message to staff working on The Productive Ward.

Not having resources for a programme facilitator has meant that Productive Ward implementation came to a halt. Some wards maintained the improvements made to ward spaces but none progressed on to new modules. One of the biggest challenges for this hospital is releasing staff to work on the elements of The Productive Ward. Without having finances to support data collection and data input, the hospital could not prove tangible evidence beyond the showcase wards of the effects on the other four wards.

Future plans: Once The Productive Ward facilitator is in post in July 2010, the target for the forthcoming months is to pick up the wards that have done the Foundation modules, to set the scene to going forward, and to redeliver the remaining training for the two wards that had started the training. The Productive Ward facilitator will then pick up the roll-out that was planned originally for

the rest of the hospital. Originally training did not include staff in maternity, paediatrics, emergency departments or assessment units, but these will now be added on to the end of the schedule if success can be shown in the core areas. Each box-set will be tweaked to fit the speciality and to complement other projects, such as Sigma Six that have been implemented while The Productive Ward halted.

It is likely that improvements will be sustained as wards that had started the programme have continued with the work unsupported. These wards remain better organised and clutter free when compared to wards that have not yet participated. Some wards have continued with their safety cross work, which has now been picked up under the Patient Safety project to monitor falls and pressure ulcers across the hospital.

Hospital Five

Context: Hospital Five is located on the south coast of England. It is spread over two main sites and has 48 wards. The hospital purchased an Accelerated Productive Ward package in February 2008. Productive Ward foundation modules have been implemented on 23 wards and 16 wards have started implementing the Process modules.

History of implementation: Three pilot wards started the programme in April 2008. The hospital received monies from the SHA in October 2008. Since January 2009 this has paid the salary of a full-time practice development nurse for 18 months, and administrative support from within the Service Improvement department. Another member of staff from the Service Improvement department has been working as a Productive Ward facilitator almost full-time to get as many wards on to the programme as quickly as possible across the two hospital sites. At the beginning of 2009 three pilot wards had completed the Foundation module training and had started working on the programme. Roll-out was progressed in groups of three wards at a time until The Productive Ward facilitators decided to take on bigger numbers to get all 24 wards through the training before the cut-off point of July 2010.

Hospital executives felt that The Productive Ward should be implemented in ward areas that were struggling. However, some clinical areas have very high rates of vacant posts and these wards cannot be involved because there is not enough staff to release them to participate in training or implementation. The Productive Ward facilitators stipulated that the ward manager or whoever is in charge to have been in post for at least a year, so that they had the respect of their staff and had a clear knowledge of what they were doing. The Productive Ward facilitators encouraged the matrons not to push wards to participate if it wasn't appropriate.

Current activity: The priority is for all of the 24 wards to receive some form of support because it was uncertain whether the facilitator posts will continue after this date. These will be given backfill for bank staff for about £3,000 each and then some money towards any structural or equipment changes that they might want again for about £3,000 each. One of the Accident & Emergency departments is a 60-bedded ward so this is been counted as two wards for the purposes of budgeting and implementation. Wards are expected to do the Foundation modules within six months. After that they are encouraged to start at least two Process modules, spending six weeks on each. Putting a timescale on the work helps to keep momentum going.

Staff energy: Some wards have progressed significantly faster than others. Some seem to go nowhere despite having training and input from The Productive Ward facilitators. The pilot wards have considerably more money and more hands-on facilitator support. Much of the difference is to do with who is leading the project on the ward, whether they are keen on the programme themselves, motivate others, and allow staff to do the work.

There are small amounts of interest from staff on wards that have not yet participated. The Productive Ward facilitator has gone in and done some information sessions and talked about ideas for starting the work. There is a keenness to get on which has meant that in some areas the approach has been to tell people what they should do instead of allowing them to make the decisions for themselves. Occupational therapists and physiotherapists have been involved on one or two wards across the hospital. Generally nursing staff are more enthusiastic and show a genuine interest in the programme

during training sessions. However, it is unclear whether staff take their enthusiasm back to the ward and discuss the work with colleagues. As it is the first time staff have been offered assistance in terms of bank, there is a tendency to think that they can only participate if they have bank cover. The Productive Ward facilitators focus on giving examples of what can be achieved with minimal work. Some areas are not staffed well enough to begin the programme and yet those are the areas that possibly would have benefited most.

Organisational energy: Organisational energy levels behind the work have dropped away. Although The Productive Ward is a organisational objective, crisis management and target attainment tend to detract attention from the programme. The hospital has been working against a huge increase in admissions. Staff have remained on red-alert with extra bed capacity brought online, and without any extra staffing. Despite the fact that money has been available for staff backfill to do the work, in reality it has not been possible to get enough bank staff even to meet the extra capacity to do the ordinary work. Wards are also engaged in other initiatives, for example, protected meal times have been in place for a while, so there are several areas of overlap with The Productive Ward. Staff are encouraged to look at their audits to identify areas to pick up on and a lot of the issues are already being addressed by other organisational work.

When the programme started it was viewed as being worthwhile but there have been problems with communication across the whole hospital and few staff, at all levels of the organisation, actually know about the programme. The Productive Ward facilitators were not given the responsibility of being project leaders and this has meant that it has been difficult to link with hospital board members or to arrange sign-off for bank staff. Interest in The Productive Ward steering group has fallen away. These issues have made it too difficult for the programme to be implemented effectively.

Facilitators and barriers: The biggest challenge is whether wards have sufficient staff to start the programme. Rate of progress is largely down to how keen the ward leader is and how much they delegate down to their staff. Areas that don't delegate down don't necessarily get what they want done. Differences in management style are quite subtle and differences don't show until about six months. On wards with joint staffing it was problematic to work in a coherent way because staff were split across the wards. A certain degree of stability is required to make the programme work.

Having two Productive Ward facilitators has helped with managing travelling between the hospital sites. There have been issues keeping track of monies as these have been passed between budgets and forwarded from one year to another. Some of the structural work hasn't been done even when it has been paid for. There has been a lot of difficulty getting through finance procedures to get work done because of stringent checks on spending and the need to justify requests. The fact that Productive Ward money came from the SHA and is ring-fenced seems to make no difference.

Originally it was decided that any structural work would be contracted in bundles to gain the maximum amount for the least money. However, the projects have come in dribs and drabs and it hasn't been possible to request several jobs at one time, which has caused delays. In fact most wards have not opted for structural change. They have chosen to buy equipment, such as trolleys which can be positioned and moved near to the patient. Some ward staff expect immediate changes and have become very disillusioned by the length of time purchasing and commissioning takes. Although some wards haven't managed to get structural changes done they have usually managed to develop new patient status boards which has improved communication and reduced interruptions.

Future plans: The Productive Ward facilitators keep a spreadsheet of how wards are doing and make use of the health checks on the back of the module books to see how people are getting on. Staff are growing more interested in what other people have done now, and they see that they might be able to do the same themselves.

Hospital Six

Context: Hospital Six is located in the north of England. It is spread over two main sites. The hospital purchased an Accelerated Productive Ward package in June 2008. The Productive Ward Foundation modules have been implemented on 11 wards and the Process modules have been implemented to some extent on a small number of wards.

History of implementation: Senior staff in the hospital were encouraged and supported by the SHA to take up The Productive Ward. The job of implementing the programme across the hospital was given to two matrons on top of their existing duties. The matrons recruited showcase wards and attended training at the NHS Institute. One matron wanted to follow the process exactly, and the other preferred to dip in and out of some of the Process modules. The matron leading the programme left to take up a post elsewhere. The hospital board decided to appoint a full-time lead to implement the programme over a two year period. A ward sister was appointed but after six months the post was stopped because of lack of funding. Thirteen wards were working on the Foundation modules but one of them has now closed and two others have merged. Some wards had just started to look at the Knowing How We Are Doing module, while some had moved on to doing the Well Organised Ward module. The hospital decided not to do Patient Status at a Glance until a similar initiative that was being implemented was in place.

Current activity: At the present time implementation has come to a complete standstill on wards that started the Foundation modules. Three wards are continuing to use safety crosses from the Knowing How We Are Doing module. Monitoring of progress or outcomes is not being undertaken. The hospital has recently appointed new matrons and one has agreed to take on The Productive Ward lead role but knows very little about the programme.

Staff energy: The Productive Ward has worked better in some places than others. Wards with staff that express a 'can do attitude' take on the programme with interest. Wards where the general attitude is less positive are harder to motivate. Some wards require a lot more support and encouragement than others before they perceive benefits and become committed to the programme.

Organisational energy: A few individual executives were very engaged initially and participated in executive walk rounds, others were out of their comfort zone. The programme was given a lot of attention for about three months and then executive engagement dwindled. Attendance at The Productive Ward steering group declined until eventually the group was disbanded in favour of communication through sisters' meetings. In this hospital the energy has fallen away, but it might be that it can be reignited. The hospital has a number of other clinical problems and pressures which have taken precedence. The Productive Ward fits well with other work going on in the organisation and improvement schemes but there is a danger of duplication with patient safety work.

Facilitators and barriers: Wards that have had a lot of in-house training seemed to take the programme on quicker. Hour-long training sessions were delivered to small groups on the ward and focused on information giving. Each ward was given a box set when they started the programme and the facilitator put together information packs to direct staff through each module. A facilitating factor has been maintaining a log book and visiting each ward every week to monitor progress on a regular basis – some weeks wards had done nothing and other weeks they had achieved a lot. This helped staff to see their progress and to encourage them to do more at a steady pace. The Productive Ward facilitator was working on her own but benefited from two visits from a SHA lead and network meetings.

Future plans: The newly appointed matron taking a lead for The Productive Ward intends to go back to the board to ensure their commitment to implementation. The onus is currently on wards and ward managers to continue with implementation at their own pace.

Hospital Seven

Context: Hospital Seven is located in the south of England. It is spread over two main sites and has 440 beds. The hospital purchased an Accelerated Productive Ward package in October 2008. The hospital has a two-year timeframe for roll-out across the whole hospital and this has now started. Two showcase wards have implemented the Foundation modules are being left to develop their own way of working. Two other wards have started to implement the Foundation modules and are collecting baseline data.

History of implementation: In 2008 a facilitator from the NHS Institute was invited to attend a sister's meeting to provide information about The Productive Ward programme. The immediate feedback was very positive, which led to a bid in to the SHA for funding. This was successful and the hospital employed a Productive Ward facilitator and a Productive Ward lead in 2009 to roll-out the programme across the hospital. A steering group was set up. It took time to appoint the right person to the Productive Ward facilitator's role because of wanting to appoint someone from outside of the organisation who had the right knowledge and skill set. Two showcase wards were selected. Another ward, which had management and performance issues, was identified as a potential showcase but couldn't be included because of winter pressures.

Current activity: Safety crosses are being used on all wards. Outcomes that are being monitored have been selected according to the views of ward staff and to align with corporate objectives. Wards are keen to show the improvements they're making. Now other areas are seeing that and want to do it quicker. The work is monitored and quarterly reports are provided to the programme board and the steering group by The Productive Ward facilitator. More informal ways of monitoring and disseminating the work are a newsletter and external communication through SHA network days.

Staff energy: The programme has worked well where there is good established and stable ward level leadership. On the whole nursing teams are the group that find the programme most useful and are most enthusiastic about it. Some of the sisters on the teams are very keen. Doctors and other professional groups have been included but it is uncertain how useful they find the programme. In some cases the programme is a framework that is supporting interdisciplinary working as teams are more organised and structured in the way they do things and that improves communication.

Organisational energy: It is early days but the programme is gathering momentum in the hospital. Early outputs and outcomes have been achieved. The teams that are involved are held to account to maintain ways of working. The programme has clear leadership and sufficient resources from the SHA. It would not have been as easy to identify resources internally. Commitment for The Productive Ward is there and is valued because it supports ward teams to focus on patients. Ward teams know who all of their patients are, what is happening with them, and this helps to improve discharge processes. The hospital faces financial pressures in the year ahead. Efficiency savings are being made across the whole organisation. One of the problems has been that because the hospital has been implementing the programme for over a couple of years, wards have identified what they thought they would want, and it has taken time to finalise what their plans have been. It can be difficult to budget this into the capital planning cycle and the budget has reduced this year. The Productive Ward is part of the nursing and midwifery strategy and fits with service improvement plans and pathways. The programme will help with planning organisational change and managing resources.

Facilitators and barriers: There is a need to show the programme has achieved cost savings and to identify the positive resource implications. More support from the NHS Institute on how we can actually start doing that, and demonstrating what that means would help.

Future plans: The showcase wards are expected to help spread and promote the programme to other wards.

Hospital Eight

Context: Hospital Eight is located in the Midlands. It is spread over two main sites and has 37 wards. The hospital purchased an Accelerated Productive Ward package in 2008. The Productive Ward Foundation modules have been implemented on all wards and the Process modules are being implemented on six wards.

History of implementation: A senior nurse in the hospital saw an article in the Health Service Journal about the work the NHS Institute had done on The Productive Ward. The chief nurse asked the senior nurse and a matron to attend one of the initial presentations about the programme. The senior nurse started to work on some of the wards with The Productive Ward. Shortly afterwards the SHA got really engaged and encouraged the hospital to apply for funding to help set up teams to implement the programme. The hospital were awarded funding for a team of nurses to support implementation. From January 2009 five members of the team worked full-time on the programme for 12 months. When the funding ended in December 2009 four seconded members of the team went back to their original jobs. The chief nurse asked the senior nurse to continue to do some work to support implementation of the Process modules alongside her normal quality improvement role.

Current activity: Two Foundation modules (Knowing How We Are Doing and Well Organised Ward) have been implemented across all of the wards. The Productive Ward team in the hospital decided not to do the third Foundation module (Patient Status at a Glance) as an electronic discharge system was being introduced across the hospital. Six wards have started a Process module on nursing handover. The intention is to replicate the findings on other wards in the hospital.

During the 12 months of intense work, the energy levels behind it were high and the programme gathered momentum. Now it is a case of trying to sustain those changes through use of audits, tools, and keeping it on the agenda of meetings. The energy levels are now not as high but staff know about The Productive Ward and they are keen to make sure that the work they did is sustained.

Staff energy: When the hospital rolled-out the two Foundation modules it worked better in some areas than others. In areas where it worked well all of the staff were engaged in making change to their wards. The Well Organised Ward module has been particularly well received by staff because it allows them to look at their own working environment and to organise it in a more logical way. Ward managers identify when the ward starts to get untidy and staff keep on top of keeping things tidy. This has helped everyone on the ward and staff coming onto the ward. Staff on a few wards were reluctant to engage and it was important for ward managers to show that they were keen and supportive of the programme. On wards where the programme really took off the ward managers made it known that they thought it was good, they attended meetings, supported staff, and tried changes that staff suggested even if they didn't initially think it was a good idea. With the Well Organised Ward module, small groups of staff on each of the wards were set-up. Staff who were very keen and enthusiastic were involved and ward managers were also asked to pick out people who don't normally engage in initiatives. By the end of the module all of the staff were proud of what they had achieved.

In general, support workers and staff nurses are really enthusiastic and interested and have enjoyed working together to bring about improvements. To begin with staff working in stores and supplies were reluctant to get involved but as time went on strong links have been built and a separate project called the Productive Store, has been set up to improve ordering and supplying goods to wards.

Organisational energy: There is good management support from the chief nurse, the hospital board and executives. Funding from the SHA was essential and the hospital has also paid towards improvements. Four years ago the hospital moved into a new PFI funded building. Because of the move two older hospitals were closed and the services were redesigned. A lot of wards were closed and new ones were opened. Ward teams that had worked together for many years were split up and moved around. The move was a difficult time for staff. The Productive Ward came along at an opportune time for the organisation, because it got people talking to each other on the wards and dealing with the move to the PFI building. A lot of wards did not have the opportunity to set up their areas in an organised way and The Productive Ward gave them the chance to make changes.

The Productive Ward team did not follow every single activity as it is laid out in the module handbooks, especially with the Knowing How We Are Doing module. Because of the PFI building it was not possible to put up notice boards on the wall. Instead, the team created a Key Performance Indicator graph for every single ward and department. These are displayed in public areas so that the public and staff can see them. The programme fits well with initiatives for improved infection control and hospital cleanliness.


Facilitators and barriers: A factor which sets The Productive Ward aside from other projects is its practical focus and hands-on approach eg, staff using videoing and photographs. Because the programme has engaged staff, they are more open to standardising processes and can see the benefits of it. Ward staff were encouraged to visit other wards and talk to staff about improvements that have been made. This was very motivational.

Future plans: Changes to organisation of the ward are being sustained. The majority of wards have maintained everything that they have done so far. Because the hospital is based in a PFI building problems with ward layout are harder to alter. On the basis of Well Organised Ward data the company that built the hospital has agreed to do some rebuilding to storerooms and the Division will pay for these changes.

For the next 12 months the focus will be on improving safety - using the Shift Handovers, Medicines and Patient Observations modules. Six wards have nominated themselves to work on these Process modules. The findings of this work will be discussed with ward managers and replicated across the whole hospital to create standard systems and procedures. The aim is to identify specific solutions that will work across the whole hospital and to standardise as much as possible.

Productive Ward information is being held on the wards and a separate report with the same information goes to the hospital board. This means progress can be tracked across the whole hospital and wards that slow down can be identified easily.





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