

## **Better Training Better Care (BTBC) Pilot Site Evaluation Report**

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**Title:** Enhanced education in handover with supporting e-solution  
*Improving trainee skills and patient safety*

### **Making Every Moment Count**

#### ***“Quality in action: Striving for excellence”***

Providing high quality training in quality improvement in practice and embedding such an approach as a usual way of working for doctors in training, and the multi-disciplinary team with which they work, to enhance the quality of care for patients.

## Introduction

### 1. Background

#### 1.1 Rationale

To date doctors in training involvement in quality improvement (QI) has largely been through clinical audit. Clinical audit is quality improvement but has not necessarily felt like it in practice and a potential opportunity to drive improvement has resulted in de-motivating our doctors in improvement practice. We sought to address the apparent gap between learning opportunities from every day recognised problems (e.g. working at the frontline, from incidents or complaints) and how these translate into effective action and improvement change in everyday practice. This presented an opportunity for focused and planned training.

The trainee brings a unique perspective and has a critical, but to date probably under-recognised, role in this process, and has considerable potential and ability, as part of the multi-disciplinary team (MDT), to effect improvement change. A survey of 1,500 NHS junior doctors found that 91% had ideas for improvement in their workplace, but only 11% had been able to implement these ideas (1). Trainees often understand the inner workings of the systems they work in much better than more senior doctors who may be relatively removed from the details of this, and are heavily exposed to inefficiencies and safety issues. They also bring an enthusiasm and energy that has great value of its own.

The key is allowing trainees to put these ideas into action, and to take control of their own projects, allowing them a different level of responsibility and hence of experiential learning. Providing these opportunities in a supported environment will extend learning, as well as improving care in both the short and long term. It can also expose trainees to many elements of their organisation that they might previously have not been involved with, helping them to understand how the Trust and its management functions. This pushes trainees beyond the relatively narrow focus on their ward, unit, or specialty and encourages trainees to work in a multidisciplinary team in order to achieve quality improvement (QI) outcomes

The emphasis within this pilot was very much on learning, development and embedding new skills in QI methodology to start both trainees, and members of the MDT, on a journey of lifelong learning alongside delivery of continuous service improvement. Moving from the traditional approach to implementing repeated real-time measurable changes using QI methodology such as the Model For Improvement as a robust framework transforms quality improvement into meaningful practice. The pilot presented exciting opportunities for the trainee's own ideas from everyday practice to provide the impetus for a QI project, or through their learning through simulated incidents to target QI projects and ensure this learning effects change. The trainee can get involved not just in 'being trained' but how their training looks and is delivered.

#### References

1. Gilbert A, Hockey P, Vaithianathan R, Curzen N, Lees P. Perceptions of junior doctors in the NHS about their training: results of a regional questionnaire. *BMJ Qual Saf* 2012;21:234–8. References

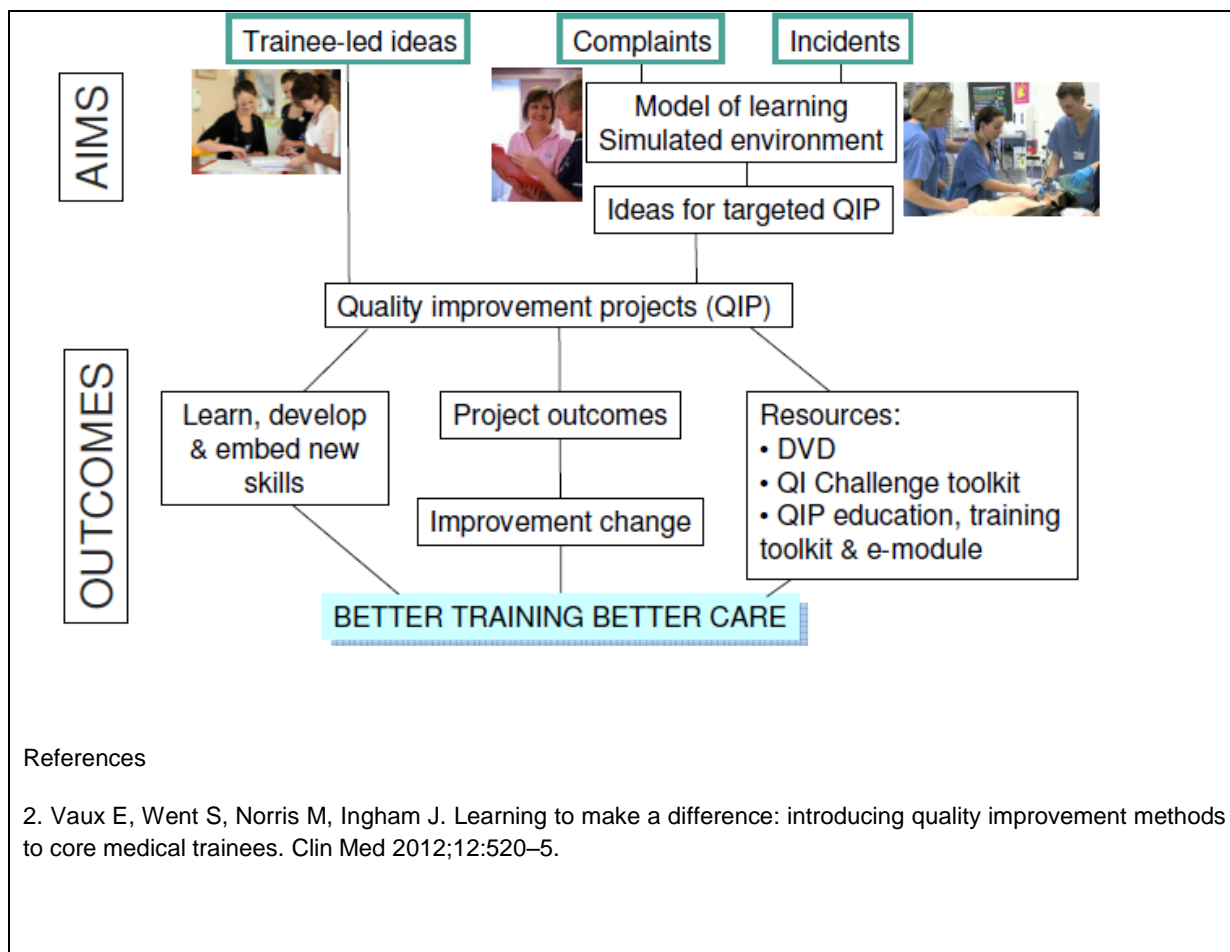
## 1.2 Drivers

In every day clinical practice we often identify a process that could be improved but may feel disempowered to do something about it or have no knowledge of a systematic framework to approach the problem. Intended actions from incidents or complaints, although well intentioned, may not happen or be sustained for similar reasons.

Trainees could choose different ways of implementing the pilot aims. They could work on their own within the pilot but encouragement was given for trainees to work together in a multi-disciplinary team (MDT) setting to identify and deliver QI projects. The ideas for each project were often trainee-led and generated from everyday encounters and interactions at the frontline and any issues they might find bothersome or of concern. An important part of the pilot process was developing processes that enable a trainee (or MDT member) to realise when a problem is recognised there is a systematic approach in place to do something about it. By owning the problem and seeking a solution through QI methodology it will embed a culture of being pro-active rather than reactive.

This pilot has used the principles and learning from the RCP/JRCPTB/HEE Learning to Make a Difference programme (2) (also led by Dr Emma Vaux) which is targeted at UK core medical trainees. In this pilot, trainees from all specialties and grades were supported in developing and putting their ideas into action and in aligning them to the Trust quality agenda in order to:

- Determine how can we make QI happen in practice in one organization and embed such an approach as usual way of working to enhance the quality of care for patients
- Provide high quality training in QI and identify what infrastructure is needed to support such an initiative
- Develop a model of learning in the simulation environment around the processes, challenges and impact of incidents
- Identify the outcomes from such an approach in terms of enhancing training of junior doctors, as well as benefits to teams they work with, and most importantly patient care
- Develop appropriate resources to facilitate sustainability and easy dissemination and spread of these approaches nationally



## 2. Approach and engagement

### 2.1 Project development

The first step was to use the informed learning from the Royal College of Physicians and Joint Royal College of Physicians Training Board ‘Learning to Make a Difference’ programme to enable implementation of a real-time and dynamic approach to improvement change for all our trainees across all specialties with MDT involvement (2). QI projects may be driven by ‘bothersome’ everyday problems, incidents or complaints. Introducing innovative training for the trainee and MDT within a simulation environment would enable deeper understanding and learning from specific events and initiation of targeted QI projects.

We used the principle that a whole system approach for the development of the right infrastructure and support for the trainee and MDT would embed a culture of high quality training reliably within the trust for the benefit of all, most importantly the patient.

## **Aims and Objectives of the pilot**

1. To “make every moment count” by embedding QI as normal practice and utilising every learning opportunity to enhance the quality of care for patients.
2. To provide high quality training for the trainee, and MDT, to support the learning and development of new and relevant skills in QI methodology and enable delivery of effective QI projects at the frontline.
3. To develop a model of learning in the simulation environment around the processes, challenges and impact of incidents and complaints to inform learning and potential targeted improvement change.
4. To embed consultant-led supervision in these processes as normal practice
5. To develop the appropriate resources to facilitate easy dissemination and spread of these approaches nationally

### **MEMC Pilot objectives**

- **Embed QI as normal practice to enhance the quality of care for patients.**
- **Provide high quality training in quality improvement (QI).**
- **Develop a model of learning in the simulation environment around the processes, challenges and impact of incidents**
- **Develop appropriate resources to facilitate easy dissemination and spread of these approaches nationally**

## Methodology

QI projects in practice:

- Identify a cohort of 30 cross-specialty trainees (from August 2012) .
- Trainees undertake QI training facilitated by consultant QI expert and Trust clinical QI teams and using methodology from 'Learning To Make a Difference'.
- One group of trainees would target QI projects at everyday problems, each supported by a consultant supervisor. Appropriate MDT involvement would be identified.
- One group of trainees would explore specific incidents and complaints in a simulated environment and use the learning to target QI projects, each supported by a consultant supervisor (by September 2012). Appropriate MDT involvement would be identified.
- The Model for Improvement was fundamental to this initiative (3); it was both the framework for the pilot itself and the methodology used by the trainees for their quality improvement projects.

## Model for improvement

The model for improvement using the three core questions and the 'Plan Do Study Act' (PDSA) cycle provided a simple structured framework for the project design, development and delivery.

1. *What are we trying to accomplish?* To start trainees on a pathway for lifelong evaluation and QI of the service that they deliver, by developing and embedding new skills in QI techniques. To identify the framework and infrastructure required for the successful implementation of this strategy.
2. *How will we know that a change is an improvement?* By evaluating the value, acceptability and feasibility of this change to the trainee (through assessment of their learning and development change to their practice, their team work or their patient care), their organisation and, most importantly, to the patient.
3. *What changes can we make that will result in an improvement?* To offer the trainees the opportunity to undertake and complete a QI project in place of an audit in this training year.

## Development of training resources

- One Serious Untoward Incident simulated scenario would be filmed onto DVD appendix H
- Development of a modular Quality Improvement Challenge Toolkit to run a simulated scripted scenario where trainees take on key Trust roles and interact with CQC, local authority, press, Coroner, patients and carers to tackle a patient safety issue. Appendix H
- Development of a debrief programme
- Development of quality improvement education and training Toolkit and E-learning modules. Appendix F
- Development of a modular programme on Management, Leadership and Quality Improvement to form the "RBFT Academy" Appendix I
- Further resources: trainee and Supervisor packs and project template are included in Appendix A
- MEMC App

### **Project evaluation**

Reporting and assessment mechanisms were developed to enable evaluation of the process, outcome and balancing measures, and were augmented by semi-structured interviews and qualitative feedback from all participants. Kirkpatrick's model for full and meaningful evaluation of learning and training was applied retrospectively to provide a framework to report the results (4).

The model has been adapted for evaluation contextualized to healthcare and has been used in a recent systematic review of the impact of workplace-based assessment on doctors' education and performance. (5). Four steps of evaluation of: How well did the learners like the learning process (reaction)? What did they learn (learning)? (the extent to which the trainees and MDT members gained knowledge and skills); What changes in job performance resulted from the learning process (behaviour)? What are the tangible results of the learning process in terms of reduced cost, improved quality, increased production, efficiency (results)?

### **Process measures**

The **DICE score** is a scoring measure that aims to provide an objective view of whether a project is likely to succeed, and is aimed at leaders within the environment of the project. Leaders within the project were asked to score the overall MEMC project against each of the four factors that comprise the DICE framework. Change initiatives are likely to be more successful when four factors are in place: **D**uration of the project (should be relatively short); performance **I**ntegrity of the team (capable project teams help); organisational **C**ommitment to change; recognition of the additional **E**ffort required of staff members. Results place a project within one of three self-explanatory zones: the win zone, the worry zone and the woe zone (6).

MEMC project progression was assessed **using The Collaborative Assessment Scale** was developed at the Institute of Health Improvement and would be used to evaluate pilot progression, on a scale of 1 to 5, in meeting key measures and implementing changes. Assessment would be on a monthly basis, feedback provided on scores and suggestions made on how best to proceed (1: forming a team to 5: achieving outstanding sustainable results) (4).

**Qualitative assessment** by questionnaire and semi-structured interview of pilot participants at the start and end of the pilot would be used to determine any demonstrable improvement in knowledge, skills, experience and attitude in the implementation of QI methodology and service improvement.

**Evaluation of recruitment, retention and completion** by trainees and MDT of QI projects, of simulation scenarios and of each planned training resource. Particular attention would be given to evaluation of active participation and sustainability of consultant supervisors in the process.



**Outcomes measures** to assess the pilot impact on patients and other stakeholders such as the trainees and staff implementing the changes.

- **Individual QI project outcomes** determining impact on patient care and/or outcomes
- **Evaluation of acceptability and feasibility of implementation of pilot methodology amongst all participants by questionnaire**
- **QI Project Assessment Tool.** The QIP Assessment tool (2) is designed to assess a trainee's competence in completing a QI project. The trainee is given immediate feedback to identify strengths and areas for development to support learning and reflection.
- **Qualitative assessment of resource deliverables.** Serious Untoward Incident training DVD, QI challenge toolkit, QI education and training toolkit and E-module.
- **Showcase** of completed quality improvement projects by 30 trainees, and their allied MDT, at a planned seminar to all stakeholders including patients.

**Balancing measures** to assess any unintended consequence of implementing the pilot on other aspects of training.

- Qualitative assessment by questionnaire

### Kirkpatrick's model for evaluation

Kirkpatrick's model for evaluation	Measure	Type of measure	How?
<b>One Participant's reaction</b>	Getting started – recruitment, retention, completion	process	Registered interest Project conversion Project completion
	DICE score	process	Pilot Individual projects
	Project assessment scale	process	Pilot Individual projects
	Feasibility and acceptability scores	outcome	Trainee Supervisor



<b>2. Learning evaluation</b>	Trainee evaluation of new skills	outcome	QIPAT tool (modified version) by supervisor
	Project plan scoring to assess current knowledge and skills	process	Trainee project plan templates
	Success of training approach	process	Semistructured interview :Trainees
	Presentation scoring	process	Trainee presentations by 3 consultant scorers
	Project report scoring	process	Trainee final report template
	Adverse impact on other training activities	Balancing	Semistructured interview :Trainees
<b>3. Behaviour evaluation</b>	Change in behaviours beginning to end pilot	outcome	Semistructured interview: Evaluating new behaviours
	6 month follow up end of pilot	outcome	Follow up questionnaire of QI practice
<b>4 Results evaluation</b>	Achievement of individual QIP Aims	outcome	Scoring system
	Change in organisation practice	outcome	Scoring each QI project on change in organisational practice
	Benefits to patient care	outcome	Scoring each QI project on patient benefit and impact patient care
	Return on investment	outcome	Financial and non-financial benefit for

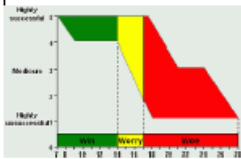
			each QI project
	Resource deliverables	outcome	<ul style="list-style-type: none"> <li>-Simulated inquest DVD and QI challenge toolkit</li> <li>-QI practical toolkit</li> <li>-e-learning modules (getting started, sustainability)</li> <li>-App</li> <li>-RBFT Academy modular programme</li> <li>-Stakeholder engagement pack</li> </ul>
	Showcase event	outcome	<ul style="list-style-type: none"> <li>-Showcase pack and feedback</li> <li>-Stakeholder - soundbites</li> <li>DVD</li> </ul>
	Grand Round Event	outcome	<ul style="list-style-type: none"> <li>GrandRound pack</li> <li>Feedback</li> </ul>
	Number of projects published	process	Submissions to conferences etc
	Lessons learnt	process	Stakeholder feedback
	Adverse impact on other organisational/patient activities	Balancing	<ul style="list-style-type: none"> <li>QIP outcomes</li> <li>Semistructured interviews</li> </ul>

## Evaluation and Measurement



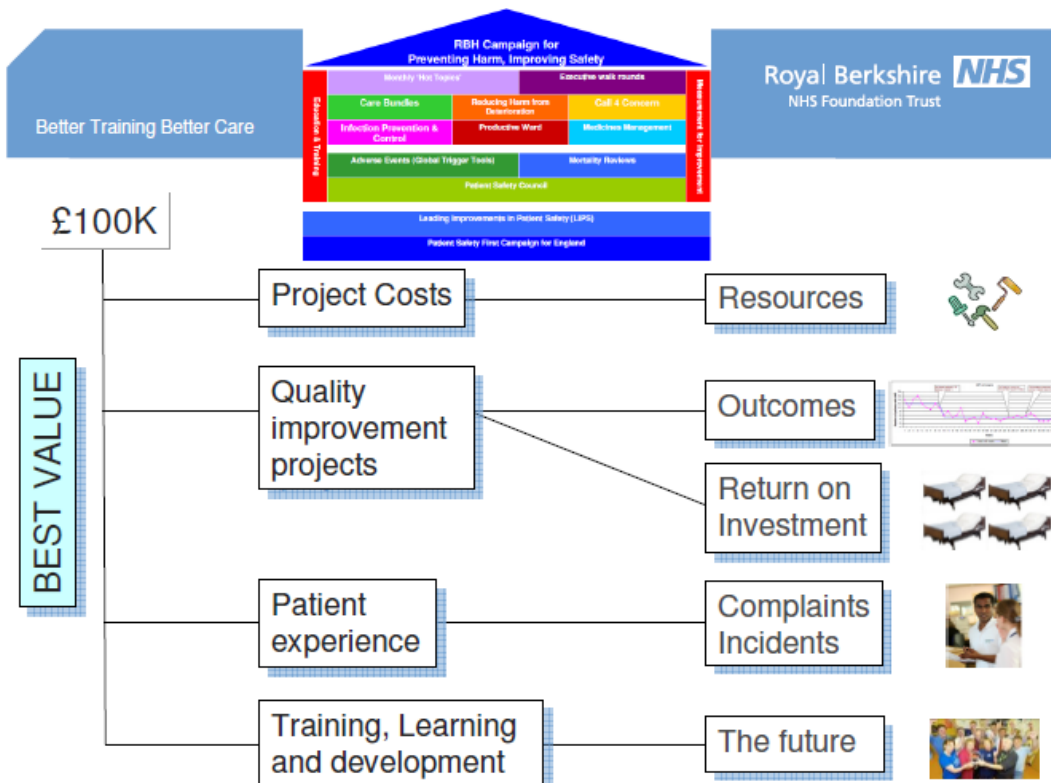
### Process measures

- DICE Score: identify likely success of the pilot
- The Collaborative Assessment Scale: evaluate pilot progression
- Qualitative assessment: knowledge, skills & attitude
- Evaluation of recruitment, retention and completion of QIPs



### Outcome measures

- Individual QI project outcomes
- Trust key performance indicators
- Qualitative assessment: learning from incidents and complaints
- Evaluation of acceptability and feasibility
- QI Project Assessment Tool
- Qualitative assessment: Resource deliverables
- Showcase Seminar



## References

- (3) Langley G, Nolan K, Nolan T, Norman C, Provost L. The improvement guide: a practical approach to enhancing organizational performance. 2nd edn. San Francisco: Jossey-Bass Publishers, 2009
- (4) Kirkpatrick DL. Revisiting great ideas. *Train Dev* 1996;50:54–9.
- (5) Barr H, Freeth D, Hammick M, Koppel I, Reeves S. Evaluations of interprofessional education. A United Kingdom review for health and social care 2000. London: United Kingdom Centre for the Advancement of Interprofessional Education in Primary Health and Community Care; Southwell: British Educational Research Association, 2000.
- (6) Sirkin HL, Keenan P, Jackson A. The hard side of change management. *Harvard Business Rev* 2005:Oct.

## 2.2 Engagement

Trainees, consultants, nurses, allied health professionals, corporate staff, Clinical Tutors, the Executive and Trust Board were all engaged at the beginning and throughout the pilot at key milestones.

There was lay and patient representation on the Project Board from the outset.

We engaged with an academic partner – Director of MSc Business Technology Consulting Programme for Henley Business School, University of Reading.

Our project Board met monthly.

Our project working group (Dr Vaux (lead), Dr Ablett (consultant), Anne McDonald (Head of clinical quality Improvement), Hester Wain (Head of patient safety), Rosin Lennon (Project manager), Jade Carrick (project admin) and Natalie O’Toole (comms) met weekly.

## 2.3 Project management and governance

- A project manager was employed for 15 hours a week for the first 3 months and 7.5 hours a week for the next 9 months. There was also full time administrative support provided.
- Patient Safety Team: Clinical Director for Acute Medicine (lead), Head of Clinical Quality Improvement and Head of Patient Safety coordinated the pilot
- Chief Medical Officer approved the pilot
- Director of Medical Education provided support to the pilot
- Risks from the project fed into the Trust Risk Management Committee and added to the wider Risk Register
- The Project Board reported into the Patient Safety Council and hence into the Trust Clinical Governance Committee

### 3. Resources

#### 3.2 Staffing

<b>Band</b>	<b>WTE</b>	<b>Term</b>
Assistant Band 3	1.00	year
Project Manager Band 7	0.40	0.25
Project Manager Band 7	0.20	0.75
Head of Clinical Quality Improvement Band 8c	0.20	year

#### 3.3 Other key resources

- Did you require any IT equipment or other types of equipment / specialist input?
- Did you require any specialist medical devices or materials?

2 x laptops

We also used the services of Magic Bullet a professional film company to film and produce DVDs for the Simulated Inquest and the RCA Patient Journey scenarios.

#### 4. Achievements and outcomes

##### 4.1 Overall achievements and critical success factors

## **What have been your greatest achievements and why?**

### **Trainee individual success**

- Over 27 projects with 45 trainees
- Filming of a training DVD and patient Information DVD
- Large potential patient benefits
- Large potential impact on organisation
- Patient Involvement in at least 2 projects
- New project regarding serious incident reporting has been well received and will impact on training
- Presentation at national and international conferences.

### **Mock Inquest Simulation**

- Over 22 trainees attended the mock inquest simulation in November 2012.
- The Berkshire Coroner presided over the simulation with staff playing the parts of doctors, and also the family of a patient who died in the care of a fictitious hospital.
- Attendees were impressed with how realistic the inquest was and found it to be an excellent learning experience.
- The simulation was filmed and is now available and being used as a training tool resource.

### **Filming of Root Cause Analysis Training DVD**

- As part of the leadership challenge, a root cause analysis training DVD was filmed in December 2012 regarding the fictitious patient from the mock inquest simulation. Two pathways considered the patient's journey after presenting with sepsis; the first ending with the patient's death after sustaining a head injury from a fall, and the second looking at what the patient's journey should have been like.
- This is now available and being used as a learning tool resource.

### **Grand Round and IHI Open School launch**

- Largest attendance of the Doctor's grand round recorded.
- Advertisement and Consultant support enabled trainee attendance.
- Patient story was a great incentive.
- Scope for similar Grand Rounds in future
- Large number of trainees signed up to the IHI open school resource.

### **Showcase Event June 2013**

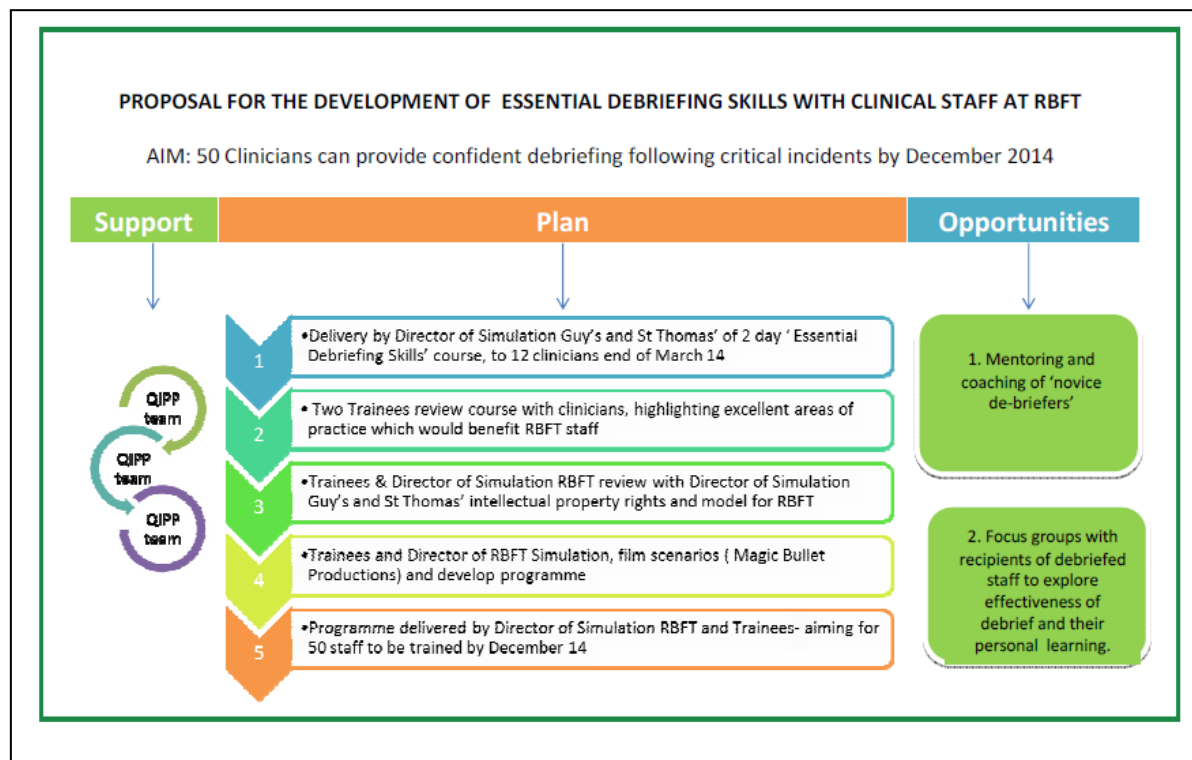
- To celebrate Trainee involvement and success a Showcase Event gave trainees the opportunity to present their projects and learn about other QIPs.
- Audience made up of CEO, Governors, consultants, Postgraduate Dean, LETB representatives, Thames Valley Leadership Academy, HEE representatives, nursing staff, trainees and patients
- A week of preceding presentation heats identified 8 Trainee QIPs to present at the main event.
- An overall winner was chosen with two runners up.



- Attendees gave excellent feedback about the event, and were impressed with the high standard of QI knowledge, ability to put this systematic approach into practice whilst realising the benefits to patients.

### Development of a bespoke Trust debriefing package

- Development of bespoke programme to teach essential debriefing skills (following an incident) to consultants, nurses, allied health professional and doctors in training
- Very influential and will greatly impact on clinical teams, not just doctors in training
- Will be a driver for sustainability.



### Development of e-learning packages

- How to get started with a quality improvement project
  - Sustainability of my quality improvement project
- (see Appendix F)

### Development of MEMC App <http://royalberkshirehospital.myapp.name>.

- Developed by doctor in training
- All the resources of MEMC are made easily available
- In use for next intake of doctors in training

### Establishment of RBFT Academy (management, leadership and quality improvement)

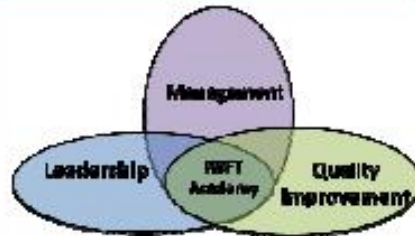
- 20 trainees participating 2013/14
- See Appendix I

Royal Berkshire NHS Foundation Trust

## The RBFT Academy

### What Is It?

- 5 day modular programme delivered over 9 months
- To develop new knowledge and skills in management, leadership and quality improvement and put these into practice
- The programme delivers curriculum common competencies



### Why?

- Explore and understand how the NHS works locally and nationally
- Develop insight into the inner workings of finance and budgets
- Understand how you can get involved in healthcare management
- Learn what sort of leader you are, could be and the impact this has on teamwork and patient care
- Understand what quality means in the NHS
- Deliver a quality improvement project and make a difference

### When?

- Runs on 5 Saturdays from November 2013 to July 2014
- Programme is delivered by local and national experts in the relevant areas

### Who is it for?

All doctors in training can apply to participate  
Don't leave learning about these areas until just before your consultant interview!



**Register your interest now!**  
[MEMC@royalberkshire.nhs.uk](mailto:MEMC@royalberkshire.nhs.uk)

## **What have been the critical success factors for enabling these achievements?**

### **Cohesive team**

- Correct steering group membership for the project board.
- Regular meetings of the board (monthly and bi-monthly).
- Beneficial as part of stakeholder engagement planning.
- Multi-disciplinary team, lay and patient representation on board.

### **Good communication**

- Monthly (then bi-monthly) project board meetings to share ideas and keep members up to date on progress.
- Weekly core team meetings helped to track progress and set actions and keep up momentum.
- Different means of contact for trainees included face-to-face meetings, emails, text messaging and offering drop-in sessions.
- Regular feedback opportunities for all stakeholders.

### **Strong organisation skills**

- Effective use of deadlines for planning the Showcase Event.
- Regularity of core team meetings enabled follow up of actions.
- The core team efficiently kept in contact with trainees and tracked QIP progress.

### **Early and timely Stakeholder Engagement**

- Many Trainees had the opportunity to present at Clinical Governance Meetings, specialty meetings and at trust meetings.
- Consultant support is a key factor for sustainability
- QIPs often had the support and backing of several members of the multi-disciplinary team.
- Involvement and Interest from the Executive and Governors from the onset of the pilot project.
- Other Stakeholder engagement included involving other organisations within the Thames Valley including Oxford Deanery, LETB, Thames Valley and Wessex Leadership Academy and the General Medical Council.

### **Using existing resources such as using on-site venues**

- Existing on-site venue use enabled the project to hold the Showcase Event on a modest budget.
- Usage of departments such as catering, medical photography and Trust Education Centre internally was both cost effective and time-saving.

## Supportive Staff Availability

- Trainees were contacting frequently to ensure they were on track and to ask if they needed any support.
- Drop-in sessions at the start of the project were set up to provide advice to trainees.
- Trainees, supervisors and stakeholders could contact the project team at any time for support.

## Planning for the future and sustainability of MEMC programme

- From August 2013, MEMC has become part of the Trust wide QIPP programme led and supported by the Programme Director for Quality Improvement and the QI Team.
- Participation of doctors in training in QI projects is expected practice by the organisation; the trainees are supported in their training to do so and deliver improvement change.
- This approach is being used for all members of the organisation and working together with the MDT is seen as a critical factor to continued success.

## 4.2 Delivered outcomes

### For trainees

**Summary of all results is found as appendix K**

#### **Level 1: participants' reactions**

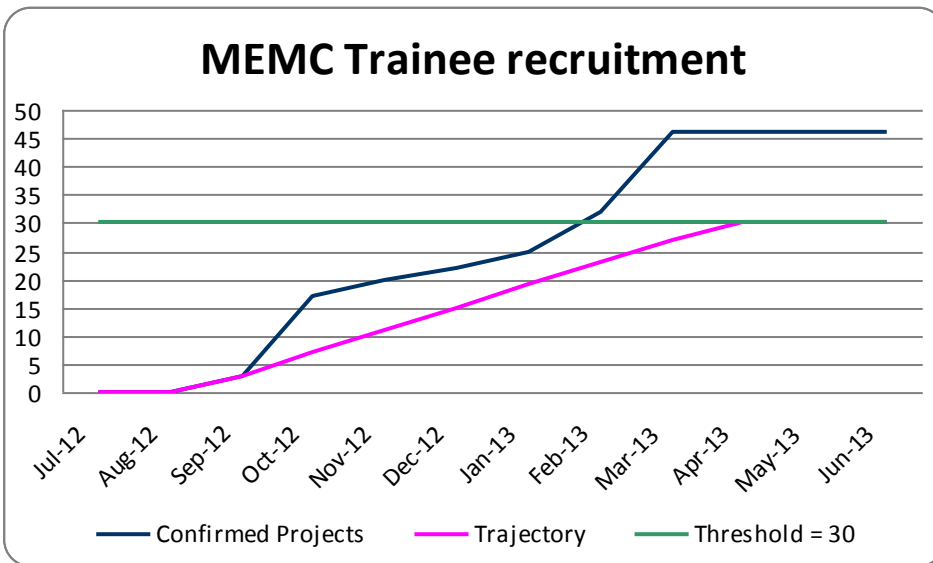
These outcomes relate to participants' views of their learning experience and satisfaction with implementing this approach.

**DICE Score** (process measure): Pre-project: 100% of respondents placed the project in the win zone (n=25 supervisors; 8 project Board members). Post-project: 100% of respondents placed the project within the win zone (n=19 supervisors; 8 Board members).

**'Getting Started' evaluation of recruitment of trainees** to MEMC project (process measure):

- 122 trainees registered an interest in participating in a project at the time of their August induction.
- 56 trainees subsequently registered to do a QIP.
- 45 trainees completed a total of 27 projects.
- 11 did not complete their projects; 8 left to go to another trust (5/8 handed their project onto another trainee); 3 abandoned their project as there were a similar projects already in place.

The 45 trainees were made up of: 11 FY1; 12 CT ; 3 GPVTS ; 20 ST3+ in specialties of paediatrics, anaesthetics, surgery, medicine, emergency department, ICU and obstetrics and gynaecology.

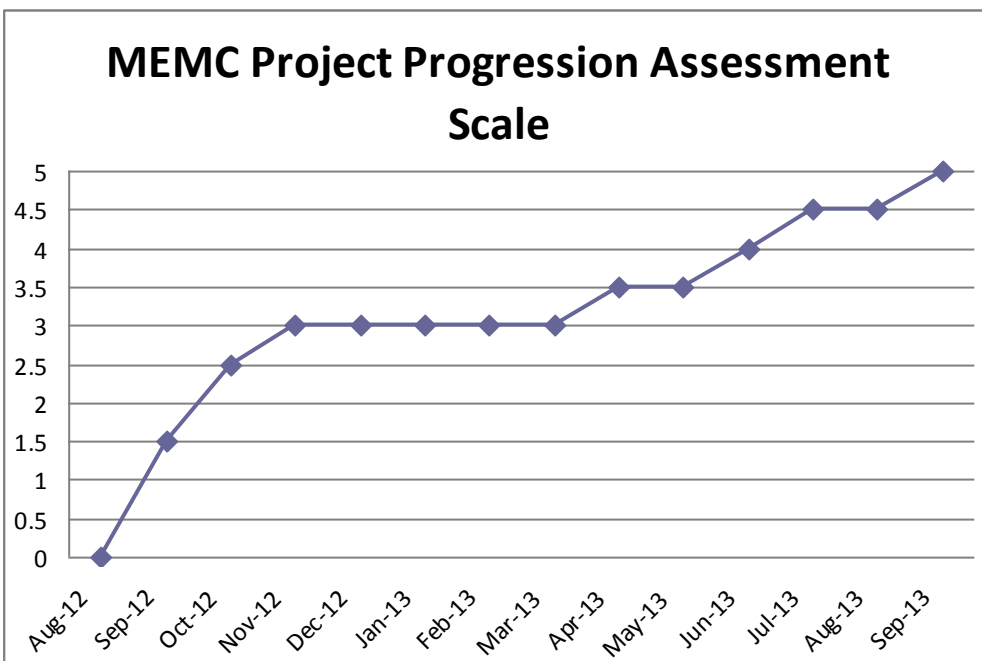


**Estimated time needed each week to do their QIP**

Initial planning 6-8 hours; median 6 hours; mean 8 hours

Per week 30-60 minutes; median 45 minutes; mean 55 minutes

**MEMC project progression assessment scale** (process measure): on project conclusion, self-assessment by the central MEMC team positively evaluated the progress made by the pilot in achieving the intended improvement change for the aim, outcome and process measures.



**Evaluation of MEMC local and central support (process measure):** qualitative assessment through questionnaire (16 trainees and 14 supervisors responded ) and semi structured interview highlighted areas that were crucial to success. Enthusiasm, commitment and engagement with this approach were not enough to achieve success unless supported by knowledge and understanding of QI methodology. A face-to-face, personalised approach at trust level to engage and support the trainees from start to completion was effective, as was providing examples of QI projects to make sense of the process. Trainee-led ideas as the stimulus for QI projects, with multidisciplinary involvement, were the most successful. Alignment with a trust QI agenda further enhanced the value to all the participants. Getting the right local supporting infrastructure for the trainees and supervisors was identified as being crucial in enabling the delivery of effective projects. Professional leadership and central support was crucial in supporting the pilot and ensuring sustainability of this approach.

## **Level 2. Learning evaluation**

### **Evaluation of trainee project planning and reporting**

The projects were scored by 3 independent assessors on their original project planning, and then at the time of reporting on: How “SMART” was the trainee(s) objective? The trainee(s) coherently explained why they wanted to look at this particular project, and which is aligned to the Trust objectives; The trainee(s) demonstrated a clear understanding of QI methodology; The trainee(s) identified how they would establish a baseline before starting to make change; The trainee(s) planned appropriate frequency between measurements (i.e. little and often); The trainee(s) had identified appropriate balancing measures; The trainee(s) had identified realistic timeframes (e.g. 4 – 6 months?)

Out of max score 35:

- Initial project planning evaluation
- Median score 25; mean 26
- Max score 35; minimum score 13

End of project reporting

- Median score 31; mean 26
- Max score 35; min score 17

This suggests that there has been an acquisition of knowledge in delivering and completing a QIP.

### **Evaluation of trainee projects at presentation**

The presentations were scored by 2 independent assessors. 16 projects were presented.

QIP Topic	Quality Improvement Measures Identified	Change Implementation	Evaluation of Change	Future Application of QI considered	Demonstration of Learning	Time Keeping	Effectively answered Questions	Total (out of 120)
15	14	13	14	13	15	15	15	114
15	14	11	14	12	15	15	15	111
15	13	13	13	14	14	15	13	110
15	12	13	11	12	13	14	14	104
13	13	13	12	12	13	14	14	104
15	15	13	12	12	11	10	15	103
12	9	9	9	15	15	15	15	99
10	12	11	12	13	14	14	13	99
13	12	12	10	13	12	11	14	97
12	10	10	9	12	14	14	15	96
11	11	9	9	12	12	15	14	93
9	11	12	11	11	14	9	13	90
11	10	11	11	12	10	6	14	85
6	6	12	9	9	13	15	12	82
12	10.5	6	9	9	9	12	13.5	81
12	7	7	6	8	11	12	13	76

The top 8 were selected to present at the showcase event

### Evaluation of new skills: QIPAT tool

QIP Topic	Quality indicator measures	QIP Methodology	Change Implementation	Evaluation of change	Future application of QIP
<p>1=Well above expectation for stage of training, 2=above expectation for stage of training, 3=Meets expectation for stage of training,                      4=Borderline for stage of training, 5=below expectation for stage of training, 6= Well below expectation for stage of training, 7= Unable to comment.</p>					
1 = 5/14 (36%) 2= 8/14 (57%) 3= 1/14 (7%)	1 = 1/14 (7%) 2= 11/14 (79%) 3= 2/14 (14%)	1 = 3/14 (21%) 2= 8/14 (57%) 3= 3/14 (21%)	1 = 5/14 (36%) 2= 8/14 (57%) 3= 1/14 (7%)	1 = 2/14 (14%) 2= 8/14 (57%) 3= 1/14 (7%)	1 = 6/14 (43%) 2= 8/14 (57%)

This demonstrated that all trainees were assessed to have met the standard expected for their stage of training; but the majority exceeded expectations at the time of their QIP completion

### For trainers

#### Level 1: participants' reactions

#### Feasibility and acceptability assessment

- 18/27 supervisors responded. Of those, all agreed the objectives of the QIP were met (50% (7/14) strongly agreed).
- All agreed there had been a significant impact on improving clinical practice (29% (4/14) strongly agreed).
- All agreed this was a valuable practical learning exercise for the trainees (57% (8/14) strongly agreed).
- All agreed they would supervise another QIP (87% (12/14) strongly agreed).







- got distracted by exams

### Patient Involvement

1. Has been at Project Board level
2. Has been at the successful launch of the IHI Open School at a Grand Round; with patient involvement and a patient telling their story. Appendix M
3. Has been at individual QI Project level

### Across the wider MDT

The MEMC approach is now being used for training of all members of the organisation. Working together with the MDT is seen as a critical factor to continued success and sustainability of not only individual QI projects but trust wide QI initiatives too. The MEMC pilot provided a means for the wider organisation to see successful QI in practice and what a real difference a simple, systematic approach can make to patient care and a sense of effective team work.

Specific examples of feedback on projects enhanced by MDT involvement include:

*“The project has taken time to get started as a new preoperative care pathway needed to be developed and is currently being printed. However the project has expanded as other ideas for improvement have been added, including a DVD developed by the midwives involved and this now making it really work.”*

*“This project has taken longer to get started as a new directive had to be written and passed by various committees to enable nurses to prescribe medication.*

*“We hope now that this is complete, to begin implementing the new guideline and making the QI changes to care. Getting the nurses involved really means this will embed the improvement change.”*

### That provide value for money

The potential for Return on Investment was both financial and non-financial.

The Quality impact assessment tool was completed by 2 independent assessors

### Quality Impact assessment of individual QIPs

Measure	How	
Was the Aim achieved ?	Yes/No	Yes: 20/27 (74%)
Impact on patient care	Scale 1 to 5	Realised in QIP Range 0-5

		<p>Median 4</p> <p>Mean 2</p> <p>Potential beyond</p> <p>Range 0-5</p> <p>Median 5</p> <p>Mean 4</p>
Impact on organisational practice	Scale 1 to 5	<p>Realised in QIP</p> <p>Range 0-5</p> <p>Median 4</p> <p>Mean 3</p> <p>Potential beyond</p> <p>Range 3-5</p> <p>Median 5</p> <p>Mean 5</p>
Return on investment	<p>Financial</p> <p>4 /27</p> <p>Identified as too soon to realise financial benefits over time frame and/or planning stage on financial ROI should have been better defined at the start</p> <p>Non-financial</p> <p>16/27</p> <p>(human cost, quality, safety etc)</p>	

There was therefore an important, but for some, a limited impact realised within the individual quality improvement projects on both patient care and the organisation, but of significance, a significant potential impact beyond the life of the QIP. This highlights both the relevance to patient care and to the organisation of the projects chosen to be done by the trainees, but also the importance of ensuring sustainability of the project beyond the time the trainee spends within the organisation.

## 5. Experienced challenges

Trying to contact trainees and chasing deadlines often proved difficult and labour intensive due to other work priorities.

**Steps to Overcome this:**

*Taking this on board we developed a timeline for new Junior Doctors to help set out at the beginning of project key dates coming up over the year.*

Low overall trainee attendance at the Showcase Event as it was difficult for many of them to get time off the ward.

**Steps to Overcome this:**

*Consider a later time of day to run any future events.*

Not all trainees were willing or available to present in the heats for the Showcase Event

**Steps to Overcome this:**

*Those trainees that could not attend or present in person were offered the opportunity to display a poster at the event so that their work could still be represented.*

Trainees often have information overload and many competing priorities in their day to day work so QI project work may get forgotten.

**Steps to Overcome this:**

*Timing of information sharing and giving is crucial to engage with trainees at the right point in their rotation. The benefits of doing a QI project need to be highlighted at all times.*

Many of the projects did not have a SMART aim.

**Steps to Overcome this:**

*This required lots of one to one feedback and advice to help the trainees to “SMART” en up their project aims (a crucial part of quality improvement).*

It was recognised that not all projects were using run charts to record their data.

**Steps to Overcome this:**

*A “How To Guide” was developed and sent to all trainees and their supervisors to help explain how to use one and why. This guide is Appendix C.*

Working out how best to communicate with trainees

**Steps to Overcome this:**

*We employed a variety of different methods to contact trainees using face to face meetings, email, text messaging, phone calls, a LinkedIn site and regular newsletters. A couple of examples of the newsletter are included in Appendix D.*

## 6. Lessons learnt and recommendations

### 6.1 Lessons learnt

Appendix E outlines the full lessons learnt log.

### 6.2 Recommendations – project enablers

Needs to be seen as core trust business – a win-win – the doctors in training develop new skills in QI; the organisation benefits from QI in practice and improved patient care

To be owned by a core group and invest resource in administration/project management to ensure oversight and continued momentum. Appendix Q

Clinician lead who can influence, guide, support and enable both trainee and consultant engagement and participation

To hold regular core project team meetings to keep up to date with progress and new projects coming on board.

Having the right membership on the steering group coming together regularly at the monthly project board.

A good Communications strategy: early stakeholder engagement and regular appropriate communications along the way.

Trainees need time to settle in before coming up with ideas for quality improvement projects. Following up from Junior Doctors induction with resources approx. six weeks after they start seems to work and then gentle nudging over the following months offering support and encouragement.

To have a pool of ideas or enthusiastic Consultant Supervisors that the team can put a trainee in touch with who is enthusiastic for QI work but lacks an idea for a project.

To encourage MDT involvement in all projects where possible. It became apparent that (in terms of sustainability in particular) that the strongest projects were those that had MDT involvement.

Consider prize incentives such as presenting at an international conference or a chance to publish their project to help encourage people to present or display their work at a Showcase Event.

Providing templates e.g. presentation slide templates at the beginning helps provide a good framework for the trainees to work to.

Use the developed resources to support the trainees and consultants

## 7. Sustainability and Adoptability

The lead for this pilot and SRO, Dr Emma Vaux has been appointed as Programme Director of Quality Improvement within the Trust and is responsible for the newly formed Quality, Innovation, Productivity and Prevention (QIPP) team who are managing this project moving forward. MEMC is now an integral part of the trust QIPP programme. Handover discussions and meetings took place in August 2013 with members of the new team engaged and brought up to speed.

These face-to-face meetings continued regularly until the end of the pilot (end of August) when all relevant documentation, resources and project database were handed over from the Project Manager to the QIPP team. Measures are in place for continued administrative support from the under spend on the budget which has been agreed with HEE.

Seen as critical to sustainability has been to integrate MEMC as part of the Trust QIPP programme, and agreement by Oxford Deanery and Thames Valley LETB for this to be established and accepted practice as part of junior doctor training (and is part of the August intake of new trainees). Implementation of the RBFT academy modular programme on Leadership, management and quality improvement also enables sustainability of this approach and was launched from November 2013.

The funding for the pilot was directly targeted at the development of the right processes and right resources to enable successful implementation of high quality QI training. At the same time the trainee, and the MDT, are started on a journey of lifelong learning and embedding new skills to enable service improvement. The pilot methodology has been designed and the required resources developed so as to be readily cascable and straightforward to adopt outside of our own organisation. Implementation should be possible within different organisations and environments with minimal additional financial or personnel burden. We plan to work with HEE to enable dissemination of this work.

We have a proven track record in dissemination of good practice identified through our work. Dr Emma Vaux is a key speaker at the International Forum on Quality and Safety in Healthcare April 2014 presenting this work. We are also presenting the work at the National Association of Clinical Tutors 12th National Multi-Specialty Conference, January 2014.



Appendix L.

The practical implementation of the learning from the 'Learning to make a Difference' programme is currently ongoing for all core medical trainees across the UK with development of the right infrastructure in parallel. This spread is delivered by key individuals such as training programme directors and college tutors, 6 Clinical Leaders in QI (HEE funded), supported by a small central support team, development of resources including a practical toolkit and further resources on the LTMD website and development of the role of a trust QI champion in every UK trust. Successful (ongoing) rollout in this one specialty suggests using the learning from the approaches employed here would facilitate and enable successful implementation across other specialties and training grades.

The MEMC programme was relaunched successfully for the new intake of trainees in August 2013. There are currently 52 trainees undertaking QI projects in the organisation. Appendix N.

**8. Feedback and Testimonials**

- Please use this section to capture the feedback and testimonials you have received throughout the pilot project. This will be used for the final case study to support the engagement with and adoption by other Trusts. You may include this as an appendix, weave the comments throughout the report and insert in this section. Please state the title of the person concerned.
- Please aim to include a good selection of quotes from trainers, trainees, other members of the MDT, the Medical or Education Director and CEO if possible.

## Feedback from participants in the MEMC Pilot

See also appendix G – DVD on trainee experiences

**“Seeing the impact on patients...how just one small change made such a difference to them...”**

**“I would definitely, definitely definitely do a QIP again!”**

Royal Berkshire NHS Foundation Trust

**“Having all the team come together and share ideas...”**

**“My whole outlook changing...I now look for situations to improve...”**

**“Watching everything fall into place and thinking “I did that!”**

**“Seeing the results...improvement had almost doubled after just 2 weeks!”**

**“Getting over the hurdles and really implementing changes...”**

**What has been your proudest moment during MEMC?**

## The Making Every Moment Count Experience

Royal Berkshire NHS Foundation Trust

"It was very useful, and its good to know that you can really make a difference - I am now more aware of what we can do, and how to take action." Faraz Siddiqui FY1

"My supervisor was very supportive and motivating throughout...I would definitely do a QIP again." Ram Jeeneea CT1

"For the patient a QIP means an improvement in the quality of service they receive from the simplest of things to more complex issues all with the intention of improving patient experience and quality of life." Anna Brown, CMT1

"I am definitely empowered, and now have the understanding that I can make changes." Kunal Kulkarni FY1

"You hear about projects and they sound really huge, but this has opened my eyes to how you can do little things and make small changes that make a big difference." Anna Roche FY2

"I was very passionate about the experience, it was so good to do such a project and be able to keep monitoring it." Helen Nye ST6

"This has been a very valuable learning experience into clinical quality improvement as well as being brilliant for my CV. The MEMC team have been supportive and encouraging throughout and there has always been someone available to talk to if I have ever needed any help." Anna Weil, FY2

"The DVD produced as part of "Making Every Moment Count" will make an enormous difference to patients on the run up to their surgery, it will ease fears before surgery and calm nerves on the day of surgery". Olivia Johnson, a patient involved in MEMC

"Overall it is very satisfying to engage with trainees and to supervise a QIP as they have an enthusiasm and motivation which is a real joy to work with. I very much enjoyed supervising a QIP project this year". Maeve McKeogh, Consultant Supervisor

**FY1 trainee:**

*"I started doing my QIP through MEMC at the start of my FY2 year. I had never completed an audit loop before and did not really understand what a QIP was. The reading material given out prior to the initial meeting was useful and I was able to settle upon a vague idea of what I wanted to achieve. The MEMC initial meeting was a fantastic opportunity to develop a realistic target timeline and to get help focussing and designing the project (using the Plan Do Study Act proforma).*

*"With a clear objective and plan I found it very easy to get started and within 3 weeks I had obtained enough preliminary data to base my intervention on. The intervention of adapting the stool chart on the elderly care ward was very simple and was piloted after only 2 weeks of preparation. Prior to this I had put posters up and led a short session for nursing staff explaining the project. I only needed to carry out 4 cycles post-intervention as results showed that documentation was consistently improving and had more than doubled after the change in practice.*

*"As a junior doctor, who will be leaving the Trust at the end of July, being able to complete a QIP has been a very satisfying experience; having closed an audit loop and implemented a change in clinical practice within the space of a few months. This has been a very valuable learning experience into clinical quality improvement as well as being brilliant for my CV. The MEMC team have been supportive and encouraging throughout and there has always been someone available to talk to if I have ever needed any help."*

**CMT1 trainee:**

*“Undertaking a quality improvement project as part of the 'Making Every Moment Count' initiative has brought numerous positive outcomes for both patients and junior doctors. Prior to QIPs, junior doctors could only really institute change via clinical audit targeting large issues with changes/recommendations generally implemented annually. The introduction of QIPs meant that junior doctors could implement changes in issues seen throughout daily medical life. This is via the institution of, often simple, changes which can be reviewed and adjusted on a regular basis to make a real difference to patients on a day-to-day basis.*

*“For the patient a QIP means an improvement in the quality of service they receive from the simplest of things to more complex issues all with the intention of improving patient experience and quality of life.*

*“For the trainee a QIP project can develop a number of transferable skills whilst improving motivation amongst teams and promoting patient centred care. Transferable skills include document writing, delegation skills, discussion/debating/presentation skills, the ability to respond and adjust practice from constructive criticism and the ability to traverse clinical governance systems.*

*“QIPs provide a nationally endorsed framework that allows junior doctors to institute change in areas they have identified as lacking. In doing so patient experience is directly improved whilst improving the skill-set of the doctors involved.”*

**Consultant in Palliative Care and Consultant Supervisor:**

*“Consultant supervisor of 2 doctors in training putting quality improvement in practice identified ideas, momentum and support as the key ingredients to successful supervision.*

*‘We need to consider how the issues that frustrate us and things we want to improve in our clinical practice can be feasibly turned into QIP projects acknowledging tight timescales and resources.*

*“It is the role of the supervisor to ensure momentum is maintained and ensuring the project continues to move forward within the timeframe. Trainees are at a very busy stage in their lives - they are sitting exams and applying for other jobs, attending interviews etc. They have a lot on their plates and the supervisor has a role in supporting them.*

*Overall, it is very satisfying to engage with trainees and to supervise a QIP as they have an enthusiasm and motivation which is a real joy to work with’. ‘I identified it in my own appraisal as the best thing I have done all year.”*

**Patient:**

*“I was diagnosed in December 2012 with breast cancer. A plan was put before me that meant spending a lot of time in hospital. The care and process was always there from day one, but my Anaesthetist recognised she could make the moments she was with me count and it made all the difference. I was asked to be part of making a DVD to help reassure patients about their anaesthetic as she could see from first-hand experience that I was a bit of a nervous wreck. I was more than happy to be part of the DVD, with one condition; I didn't have to watch it – ever! I did watch it though and I wish I had experienced what the Anaesthetist, Sara, was talking the viewer through before my operation.*

*“The DVD produced as part of “Making Every Moment Count” will make an enormous difference to patients on the run up to their surgery, it will ease fears before surgery and calm nerves on the day of surgery. Being part of the DVD was such a rewarding experience, so thank you very much and I am glad to say that I don’t mind hospitals that much now!”*

**Quote from Board:**

*“The magic is in seeing a trainee identify a problem they encounter and feel empowered to make a change”.*



## Five minutes with...

Ed Donald, Chief Executive,

Royal Berkshire NHS

Foundation Trust

*This month we have caught up with Edward Donald to get his thoughts on the 'Making Every Moment Count' pilot at Royal Berkshire NHS Foundation Trust. The pilot aims to help address the apparent gap between learning opportunities from everyday recognised problems and how these translate into effective action and improvement change. Trainees are tasked to identify issues or problems and oversee quality improvement projects to address them, each supported by a consultant supervisor. Edward explains why he wanted his Trust to be involved and how the pilot has affected the ways of working at the Trust.*



**Why did this strike you as a project that you were keen to see implemented in your Trust?**

The idea of supporting the next generation of consultants to learn about quality improvement and to lead and deliver a change project on a MDT basis was too good to miss. Knowing that Dr Emma Vaux would lead the programme gave confidence that it was highly likely to be successful.

**What do you feel is the most beneficial outcome from this project?**

Impact on morale, learning and development of junior doctors and whole team they led - learning great ways of working and quality improvement habits for life.

**Do you feel that staff have embraced the project? Are they keen to see it adopted further?**

Staff are so keen to establish this way of working, a leadership academy for junior doctors has recently been established.

**Through the BTBC programme, we have seen how structuring education and training has a positive impact on both the trainee and trainer, and most importantly patient care. What is Royal Berkshire doing to ensure that education and training is high on their priority list? (i.e. is it on the agenda at trust board level? Is training and education recognised as a priority for the Trust etc).**

Education and learning is critical to being a good place to work train and learn. This is a key agenda item across the Royal Berkshire.

**This project has put Royal Berkshire in the spotlight, where do you see this project going in the future?**

Going from strength to strength and becoming our in-house consultancy for quality improvement that really makes a difference for everyone involved.

**Feedback on simulated Inquest and RCA training****Trainees:**

- “I believe the Mock Inquest simulation was a realistic portrayal of individual and systematic failures and how these adversely affect patient outcomes.”
- “It dispelled the notion that the Coroner's court was solely to criticise and rebuke doctors for individual errors and mismanagement. Instead, I left with the impression that it forced a whole organisation, from medical directors to front line staff, to review our actions and identify areas of improvement. This bestows a personal sense of responsibility and accountability in decision making as we might one day have to justify our actions. This attitude can only be beneficial for all trainees and our patients.”
- “Formal expert guidance on writing statements - focus on facts, do not become opinionated or subjective.”
- “Having the real coroner present lent a sense of importance and I believe the mood and gravity of the situation was retained throughout proceedings.”
- “Insight into clinical governance including root cause analysis and risk assessments reinforced the 'Swiss cheese model' of system failure.”
- “Highlighted need for improvement in quality of handover, role of care bundles in healthcare, staffing levels and escalation protocols in times of increased demand for beds.”

**Consultant:**

- “...incredibly realistic and it was obvious that the actors felt under huge stress when they were giving their evidence!”

**CEO:**

- *“Very impressive training opportunity. I think the whole Board need to see the video and come along to next mock inquest.”*

**From subsequent use in a training day 23.10.13:**

- “The feedback was universally positive, with one trainee saying to me today that it was definitely the best study day ever!”
- “16/19 trainees mentioned that RCA training was one of the most important things they had learned on a study day!”

**The top three learning points were:**

- How to do an RCA
- How to deal with flat hierarchy
- Communication and leadership in Emergencies

**The top three ‘take home’ themes to develop into practice were:**

- Volunteer to be involved in an RCA
- To include human factors and simulation teaching into their own teaching
- Increased awareness of evolving situations and the need for reassessment







*“Brilliant overview of the current state of the NHS. Good overview of NHS structure and organisation. Video offered good overview of NHS structure. Good coverage of difficult concept- comprehensive and concise keen to get involvement of team/ audience. Willing to take questions. Useful insight into CCG and organisation. Very useful overview of the NHS interested to hear about his career and experiences in clinical leadership. Too complex and rather confusing. Assumed too much baseline knowledge without explaining. Excellent, very inspiring and extremely useful explanation of NHS structure. Very good, answered my questions well. Clear introduction, maybe needed more structure.”*

*“Re-enforced value that underpin Quality and Patient Safety. Very motivational - with more of a focus on leadership. Honest approach, a clinician's view. Interesting. Cleared up my doubts about QI. Good examples regarding patient safety issues. Interesting and animated speaker- good recap of safety. Reinforces with examples why behaviour should change (also more effective than emails!) Dynamic and engaging speaker with good illustrations to determine concepts. Energetic and enthusiastic teacher with really good overview of quality and safety. Easy to understand, very logical. Very good presentation of safety and quality. Great style and enthusiasm.”*

*“Long but very useful. Inspiring. Good insight into roles and responsibilities of Medical Director. Interesting hearing about career journey. Fascinating insight into a clinician working in a senior role and the little changes that can change a hospital, motivational! Very motivational speaker. As a senior trainee I have never had ...this is how I ended up in medical management. Very inspiring speaker. Was fascinated to hear about the day to day aspects of his job and interface between politics and healthcare delivery. Excellent and engaging speaker. Very motivational. He put things into perspective, highlighting importance of leadership. Made me want to be a better leader, made me feel better about not wanting to be conventional! Very good and inspirational.”*

*“Good overview of the structure, clear enthusiastic speaker. Think this would have been good as first lecture of the day. Snapshot of importance of NHS England and how it makes reference to the rest of the NHS. Very helpful "real world" interpretation of previously introduced concepts. Thank you. Pitched at a level which was easily understood and felt safe to ask questions. Interesting to hear how re-structuring has affected commissioning of services etc. Comprehensive overview. Very difficult and complex topic to present. Brilliant at changing emphasis of presentation to meet needs/ questions of the audience. Extremely knowledgeable.”*

## Appendices

If you have developed any toolkits, 'how to' guides or other resources that you would like to share, please include as an appendix to the report.