Impact Evaluation of the Scottish Patient Safety Fellowship Programme 2008-2013

Dr Patricia O’Connor
Dr Anne Fearfull
University of Dundee
June 2014
Acknowledgements

We would like to thank NHS Education for Scotland and Healthcare Improvement Scotland for funding this study. Particular thanks go to the Senior Leaders of the Scottish Patient Safety Fellowship (SPSF): Dr Anna Gregor, Dr Simon Watson, Dr Lesley Anne Smith, Dr Fiona Gailey and Professor Philip Cachia for their generous time and support for this evaluation.

We are most grateful for the opportunity to undertake the focus group discussion at the National NHS Scotland Chief Executives’ Group and we appreciate the time allocated to us within a busy and demanding agenda.

We appreciate the time and support generously given by the SPSF Programme administrators in the provision of background programme materials and Fellows contact details.

Our research methods generated a considerable amount of data and our sincere thanks go to Ms Karen Campbell for her administrative wizardry in the development of a logical filing system, transcription of interviews and final document type setting.

Final thanks go to all of the Fellows who provided full and frank responses to our qualitative questionnaire. Their participation lies at the heart of the research that led to this evaluation.
# Table of Contents

**Executive Summary**  
1-xxii

## Chapter 1: Improving Healthcare  
1

1.1 Introduction: Improving Healthcare  
1

1.2 Developing Quality Improvement Skills and Expertise  
1

1.3 Applying Improvement Science in Scotland  
4

1.4 Developing the Scottish Patient Safety Fellowship Programme: The Rationale  
5

1.5 The Scottish Patient Safety Fellowship Programme  
6

1.6 Programme Overview  
6

1.6.1 The application and selection process  
7

1.6.2 Programme costs  
9

1.6.3 SPSF programme delivery and Action Learning  
10

1.6.4 Collaborative and group learning  
13

1.6.5 Structured group learning environments for healthcare improvement  
14

1.6.6 SPSF programme changes over 5 cohorts  
18

1.6.7 SPSF programme curriculum  
18

## Chapter 2: Scottish Patient Safety Fellowship Programme Evaluation Methodology and Methods  
21

2.1 Introduction  
21

2.2 Evaluation Overview  
22

2.3 Research Objectives and Questions  
23

2.4 Research Methodology  
24
2.5 Research Methods 27
  2.5.1 Method 1: Structured qualitative survey questionnaire 29
  2.5.1.1 Fellows’ questionnaire engagement 29
  2.5.2 Method 2: Focus groups 30
  2.5.2.1 The CEOs’ focus group engagement 31
  2.5.3 Method 3: Semi-structured interviews 31
  2.5.3.1 Senior Leaders’ interview engagement 32
  2.6 Dealing with the Data 32
  2.6.1 The Fellows 32
  2.6.2 The CEOs 33
  2.6.3 The Senior Leaders 33

Chapter 3: Findings and Discussion: Part 1: The Fellows 34

  3.1 Introduction 34
  3.2 Part One: Results from the SPSF Fellows Questionnaire 35
  3.2.1 Responses 36
  3.2.2 Key Themes Identified 37
  3.2.3 Theme 1: Fellows’ overall experiences 38
  3.2.4 Theme 2: Personal development and impact of the Fellowship Programme 48
  3.2.5 Theme 3: Knowledge and skills development 53
  3.2.6 Theme 4: Theory to practice links 56
  3.2.7 Theme 5: Project implementation and spread 59
  3.2.8 Theme 6: Networking 64
3.2.9 Theme 7: Supporting the future development of safer systems  

3.2.10 Theme 8: Building clinical confidence  

Chapter 3: Findings and Discussion: Part 2: CEOs  

3.3 Part 2: Focus Group with NHSS CEO’s  

Chapter 3: Findings and Discussions: Part 3 Senior Leaders  

3.4 Semi-structured Interviews with SPSF Senior Leaders  

3.4.1 Key Themes Identified  

3.4.2 Theme 1: Inadequate CEO and Executive Sponsor Support for Fellows  

3.4.3 Theme 2: Inadequate use made by Sponsors of Fellows post-Fellowship  

3.4.4 Theme 3: Follow-up on Fellow’s post-Fellowship  

3.4.5 Theme 4: Need for a wider range of representation on the Fellowship  

3.4.6 Theme 5: Fellows are “especially talented / committed”  

Chapter 4: Conclusions, Limitations and Recommendations  

4.1 Introduction  

4.2 Overview of our Examination of the SPSF Programme  

4.3 The Fellows’ Experiences  

4.4 The CEOs  

4.5 SPSF Senior Leaders  

4.6 Suggestions for Dissemination of Findings for this Study  

4.7 Limitations of the Study  

4.8 Practical Application of the Study
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9</td>
<td>Recommendations</td>
<td>96-97</td>
</tr>
<tr>
<td>4.10</td>
<td>Final Words</td>
<td>97</td>
</tr>
</tbody>
</table>
### Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Revans’ Action Learning Model</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Knowledge in to Action Model</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Wordle™ Depicting Fellows' Expressions of their overall experience</td>
<td>38</td>
</tr>
</tbody>
</table>

### Boxes

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scottish Patient Safety Fellowship Programme Curriculum Content</td>
<td>19</td>
</tr>
</tbody>
</table>

### Summary Box

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fellows' Overall Experiences of the Programme</td>
<td>48</td>
</tr>
<tr>
<td>2</td>
<td>Personal Development and Impact on Personal and Professional Lives</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Knowledge and Skills Development</td>
<td>55</td>
</tr>
</tbody>
</table>

### Chapter 3: Part 1: Fellows' Questionnaire Commentary Boxes

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Fellows Overall Experience</td>
<td>40</td>
</tr>
<tr>
<td>1.2</td>
<td>Impact of the SPSF Programme on Personal and Professional Lives</td>
<td>41</td>
</tr>
<tr>
<td>1.3</td>
<td>What Did Fellows Find Most Helpful About the Programme</td>
<td>42</td>
</tr>
<tr>
<td>1.4</td>
<td>What Did Fellows Find Least Helpful About the Programme</td>
<td>43</td>
</tr>
<tr>
<td>1.5</td>
<td>Fellows' Perceptions of Sponsor Support</td>
<td>45</td>
</tr>
<tr>
<td>1.6</td>
<td>The Pros and Cons of Measurement Education</td>
<td>47</td>
</tr>
<tr>
<td>2.1</td>
<td>Personal Development</td>
<td>49-50</td>
</tr>
<tr>
<td>2.2</td>
<td>Personal Impact on Personal and Professional lives</td>
<td>51</td>
</tr>
<tr>
<td>3.1</td>
<td>Knowledge and Skills Development</td>
<td>54</td>
</tr>
<tr>
<td>4.1</td>
<td>Theory to Practice Links</td>
<td>56-57</td>
</tr>
<tr>
<td>5.1</td>
<td>Project Implementation and Spread: Successes</td>
<td>61</td>
</tr>
<tr>
<td>5.2</td>
<td>Project Implementation and Spread: Barriers / Partial Successes</td>
<td>63</td>
</tr>
<tr>
<td>6.1</td>
<td>Networking</td>
<td>64</td>
</tr>
</tbody>
</table>
Box 7.1  Supporting the Future Development of Safer Systems  67
Box 8.1  Building Clinical Confidence  69

Chapter 3: Part 2:  CEOs’ Commentary Boxes

Box 1.1  Positive Perceptions of the SPSF Programme  73
Box 2.1  Gaps in Knowledge and Challenges to CEOs of the SPSF Programme  74

Chapter 3: Part 3  Senior Leaders’ Commentary Boxes

Box 1.1  Follow-up on Fellows post-Fellowship  80-81
Box 2.1  Inadequate CEO and Senior Management Support for Fellows  83
Box 3.1  Inadequate Use Made by Sponsors of Fellows post-Fellowship  85
Box 4.1  Need for a Wider Range of Representation on Fellowship  87-88
Box 5.1  Fellows are “especially talented / committed”  88

Tables

Table 1  Fellows’ Cohorts 1-5 (2008 – 2013)  9
Table 2  Fellows Questionnaire Responses (December 2012 – March 2014)  36
Table 3  The Eight Key Themes Identified From the 2nd Cycle Thematic Coding  37
Table 4  Fellows’ Perception of project achievement  59
Table 5  SPSF Fellows' Project Areas  60
Table 6  The 5 Key Themes Identified from the 1st Cycle  79
### Vinettes

<table>
<thead>
<tr>
<th>Vignette</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignette 1</td>
<td>The Case of Cincinnati Children’s Hospital</td>
<td>16</td>
</tr>
<tr>
<td>Vignette 2</td>
<td>Kaiser Permanente</td>
<td>17</td>
</tr>
</tbody>
</table>
## Glossary of Terms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BJM</td>
<td>British Medical Journal</td>
</tr>
<tr>
<td>CCH</td>
<td>Cincinnati Children’s Hospital</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>HIS</td>
<td>Healthcare Improvement Scotland</td>
</tr>
<tr>
<td>IHI</td>
<td>Institute for Healthcare Improvement</td>
</tr>
<tr>
<td>IPE</td>
<td>Inter Professional Education</td>
</tr>
<tr>
<td>MKN</td>
<td>Managed Knowledge Networks</td>
</tr>
<tr>
<td>NES</td>
<td>NHS Education for Scotland</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>QAB</td>
<td>Quality Alliance Board</td>
</tr>
<tr>
<td>QI</td>
<td>Quality Improvement</td>
</tr>
<tr>
<td>SPC</td>
<td>Statistical Process Control</td>
</tr>
<tr>
<td>SPSA</td>
<td>Scottish Patient Safety Alliance</td>
</tr>
<tr>
<td>SPSF</td>
<td>Scottish Patient Safety Fellowship</td>
</tr>
<tr>
<td>SPSP</td>
<td>Scottish Patient Safety Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
Executive Summary

i.i Background

The Scottish Government considers quality improvement (QI) knowledge essential in order to respond effectively and meet the urgent priorities and challenges for transformational change present in today’s healthcare requirements. Drawing on the tenets of Improvement Science, NHSScotland (NHSS) was the first organisation in the world to adopt a ‘whole country’ approach to patient safety, by adopting a systematic, nationwide programme in all services. Since 2008, the Scottish Patient Safety Programme (SPSP) has contributed to a significant reduction in harm and mortality to acute adult inpatients through:

- Introduction and development of quality improvement methodology through testing of focused safety interventions
- Testing and implementation of leadership activities that provide organisational support for safety
- Building of capacity and capability within clinical and non-clinical roles
- Tangible patient impact on patient outcomes through reduction of infection rates such as Ventilator Associated Pneumonia and Central Line Bloodstream Infections
- Widespread implementation of safety briefs, daily goal setting in ICU and surgical brief and pause
- Improvement in the recognition and treatment of Deteriorating Patients and Sepsis, and
- Transition of now well-established interventions from improvement to day to day care through 10 Essentials of Safety

Over the past 6 years a range of improvement initiatives have been implemented as part of the development of NHS Scotland’s Quality Strategy as detailed in the figure below, including the most recent 10 Essentials of Safety¹.

The overall goal of SPSP is to equip all healthcare staff with the improvement capabilities that would enable them to deliver safer systems utilising robust, consistent and evidence-based practices. As part of the SPSP, the traditional what needs to be done has been extended to incorporate an understanding of how it needs to be done. Within this Programme, therefore, teams of healthcare staff come together at national and local learning events to gain expertise in the application of Improvement Science. As a result, and in further support of that improvement goal, in 2008 a dedicated educational programme, designed to develop clinicians’ skills in improvement implementation, was launched: The Scottish Patient Safety Fellowship (SPSF) Programme. This programme is currently recruiting applicants for its 7th cohort. This research was commissioned initially by Healthcare Improvement Scotland in December 2012.

¹ http://www.healthcareimprovementscotland.org/our_work/patient_safety/spsp.aspx
Healthcare Improvement Scotland is committed to involving clinicians in all aspects of its work and has set out a Board commitment to ensure that this happens in the form of its Clinical Engagement Strategy (2011). A key element of this strategy is focused on supporting the development of quality improvement skills in clinicians. The SPSF Programme is core to this clinical engagement approach.

Since its inception, the purpose of the SPSF Programme has been to provide an environment in which Fellows (healthcare practitioners) can develop their knowledge and expertise as a means of improving reliability in the implementation of enhanced practices that improve care provision. NHS Scotland (NHSS) ascribes to the principles of Improvement Science models in order to capacity and capability within the service. In 2008, Carl de Wet conducted an evaluation of the Programme over its first year of delivery by examining the views of Fellows, their Executive Sponsors and National Senior Leaders of the Programme. Since that time, while the intentions of the Programme have essentially remained the same, a number of other elements have undergone a range of changes. These changed elements include: membership of the Fellowship management/senior leadership team, the wider incorporation of non-doctor Fellows, and the extension of Fellowship to wider Europe. What has not changed is the commitment of the Fellowship to quality improvement through collaborative and Action-based learning as a means of achieving a transformative effect. Simply put, the SPSF Programme aims to encourage participants to learn about improvement techniques that encourage continuous learning for further development and application of the newly gained knowledge. Furthermore, there is an expectation that Fellows will take a lead role in disseminating such learning in practice, as individuals and in the development of others.
i.ii Research Objectives

In developing our research plan as a means of evaluating the SPSF Programme we devised a set of four research objectives through which we would seek to examine in detail the views of the participating SPSF Fellows, their Sponsors and the SPSF Programme Senior Leaders.

The purpose of these objectives was to:

- Identify and understand Fellows’ experiences of the personal and skill development elements of the SPSF Programme
- Determine the scope, range and sustainability of projects undertaken as part of the SPSF Programme in Cohorts 1-5
- Capture the views of the Sponsors and Senior Leaders responsible for the continued support of SPSF Fellows in NHSS, including their perceptions of the potential scale-up opportunities of the Fellow’s work
- Identify any publications, presentations and shared learning experiences of Fellows undertaken as a component of the Fellowship within and out with NHSS

The evaluation of the SPSF Programme, detailed in this report, brings up to date the knowledge of the Programme since de Wet’s report over 5 years ago. Thus we have included the views of Fellows from Cohorts 1-5 (2008-2013) (n=65) and have triangulated our findings by including examination of Board CEOs (n=12) and current Senior Leaders of the SPSF Programme (n=9).

i.iii. Methodology and Methods

We approached this evaluation from our methodological position that an interpretive phenomenological research design would be most appropriate as a means of identifying and exploring participants’ perceptions of - and values, beliefs and attitudes towards - the SPSF Programme. Further, we applied elements of Discourse Analysis to better understand these perceptions, values, beliefs and attitudes from as close a position to our participants that was possible for us to do, given neither of us are in their professional situations. In conducting our evaluation we embarked upon a 3-part qualitative study involving the three sets of participants mentioned above. Given the number of Fellows who had participated in the Programme since 2008, it was not possible to adopt our preferred, semi-structured, qualitative interview approach with them. However, since we were committed to gathering as rich a stream of data from them as possible, we adapted the standard questionnaire method. Our adaptation involved an e-questionnaire, each ‘answer box’ area on which was capable
of expanding to accommodate as fulsome answers that Fellows were prepared and able to
give us.

Our 16-question instrument was designed to collect data focused on 2 of our 4 guiding
research questions:

- What are the Fellows’ perceptions and reflections of the Programme and on its
  intent for capacity and capability building in patient safety improvement?
- To what extent is the Fellow supporting wider organisational improvement
  capability and development?

We were astonished by the detail that Fellows provided through this medium, on average,
each of them writing 300-word answers in response to each of our 16 questions; some of
them even attaching technical (e.g. chart) evidence of their Fellowship work.

In order to engage CEOs in the study, we requested the opportunity to hold a focus group
with them as part of the private session of the National NHSS Chief Executives’ Group
monthly meeting. We were offered a 30-minute slot in their agenda, during which we
engaged and discussed, with the 12 CEOs present, the second ‘pair’ of our four guiding
research questions:

- To what extent does the Fellowship support wider organisational improvement
  capability development?
- How do sponsoring organisations support and contribute to the individual
  Fellow’s development in improvement?

Given the bounds of the necessarily limited time allocated to us, the CEOs were open and
generous in their discussion around these questions and they were expansive in their
suggestions for the future of the SPSF Programme. Extensive notes were taken during the
focus group session by both researchers.

We again used the second pair of our research questions in our engagement with the
Programme Senior Leaders (n=9) with whom we conducted semi-structured qualitative
interviews. These lasted an average of 1 hour each and, again, our participants’
engagement was fulsome. The interviews were carried out on a face-to-face basis whenever
possible, but we also offered telephone interviews, which some of the Leaders engaged with
in accordance with their other responsibilities and/or commitments at the time. Where
possible, the interviews were audio taped and transcribed; when that was not possible, we took extensive notes.

i.iv Results

The support for the SPSF Programme, as evidenced by the nature and quality of the participation in this study involving all three sets of our participants, was largely positive. Whatever issues any of them might have had with some elements of the Fellowship, and also with each other, it was clear that there is a huge commitment to ensuring its continuation. It was also clear that Fellows had had, in the majority (n=48), some degree of success in implementing and furthering their Project work. Furthermore, as will be seen from our analysis of the qualitative questionnaire data, the Fellowship had proven to be “life changing” for many of the Fellows. We understand from our interviews with the Senior Leaders that funding for at least two more years has recently been secured. It is with that in mind that we offer our recommendations in Chapter 4 of this report. Suffice it to say, for the purposes of this Executive Summary, we would interpret one of the more serious shortcomings of the Programme to be the quality of communication, primarily between the CEOs/Executive Sponsors and the Programme Senior Leaders. It struck us as particularly odd that, while all parties were expansive with us, they did not appear to be the same with each other. As a result, there appeared to be a considerable degree of lack of (or mis-)understanding about the nature and operation of the Programme. The CEOs were remarkably forthcoming in the extent to which they contributed to each of those problems; and they were extremely helpful in offering suggestions as to how they might be surmounted.

i.v Achieving Programme Objectives

Our evidence and subsequent analysis demonstrates that the Programme goes some considerable way to achieving its objectives. It cannot be doubted that the degree of commitment to the Programme, by Fellows and the Senior Leaders in particular, is total. The evidence of Fellows' Projects successes is impressive and they are certainly devoted to fulfilling the goal of patient safety. However, it was equally apparent that there are some problems, particularly in regard to the level of CEO/Executive Sponsors’ (apparent lack of) awareness of the responsibilities and requirements of the Fellowship for Fellows. This perceived shortcoming was strongly reflected in Fellows’ responses to the qualitative questionnaire; and likewise in the interviews that we held with the Senior Leaders. Nevertheless, in our final analysis, we were encouraged by the fact that the CEOs
demonstrated their self-awareness. Without knowing what the other two sets of participants had said, or would say about them, they showed their willingness to attempt to address the problems perceived by the others as stemming from their self-acknowledged lack of awareness of Programme demands on Fellows. We did not doubt that the frustrations expressed by the Senior Leaders stemmed from their own commitment to the success of the Programme. Nevertheless, we were disappointed that they had not shared their concerns with the CEOs directly, and in a timely manner, as a means of ‘nipping the problem in the bud’, so to speak; particularly since de Wet’s 2008 Evaluation had also suggested that CEOs were seen as unsupportive in the context of Fellowship responsibilities for Fellows.

i.vi Benefits of the SPSF Programme

In seeking information about the benefits of the SPSF Programme, we did not ask questions directly about networking and confidence building as consequences of their participation on the Fellowship. Nevertheless both of those factors emerged as significant themes of importance to Fellows regarding their participation. Since, as our analysis will show, collaborative learning and the development of confidence each play a huge role in the extent to which learning ‘sticks in the mind’, and influences the behaviours, leading to enhanced ‘service’ delivery, we consider this to be a significant finding. The ability of Fellows to develop and apply their Project work successfully, taking their colleagues along with them in such success, is also a clear benefit to the delivery of patient safety and the overall success of the Programme. CEOs were particularly insightful regarding how the outcomes of closely built personal networks between Fellows could be formally recorded and used to the benefit of the service. It was their view that such networks could help build a safety and improvement expertise network, which could be tapped into for local, regional and national benefit.

i.vii Challenges of and to the SPSF Programme

As has been suggested above, one of the most prominently expressed observations of a challenge to the Fellowship Programme, made by Senior Leaders and Fellows alike, was the challenges that CEOs and Executive Sponsors face when trying to offer support. The CEOs themselves recognised these challenges that they posed for the Fellows and, by association, potentially for the Programme itself. However, as already indicated, they also had suggestions for overcoming those potential challenges. Another concern, expressed by both Senior Leaders and CEOs, was that the Fellowship could not hope to fulfil the future
objectives of the SPSF Programme and subsequently the level of support required for SPSP if it carried on at its current rate of ‘graduating’ Fellows.

Nevertheless, both of these sets of participants made suggestions for how the Programme might address their concerns. One of these suggestions was that the Programme could adopt a policy of multiple intakes of Fellows over the year, rather than the single annual intake schedule now in operation. Although the Senior Leaders seemed to be supportive of the extension of the Programme, from 2011, to European Fellows, another suggestion made by some of them was a return to a focus on, or a relative increase of, Scottish (based) Fellows.

i.viii Conclusions

According to the Health Foundation (2012), there appears to be a significant gap in the market for training that supports management teams to put quality improvement principles into practice. Based upon our evaluation of the SPSF Programme addressing Cohorts 1-5 (2008-2013), it is our view that the SPSF Programme, enhanced by the recommendations detailed below, could fill that gap. An important decision would have to be made, however, on the extent to which there is a desire or a goal to generate capital from the Programme.

i.ix The Fellows’ Experiences

All of the responding Fellows (n=65) reported a positive experience of their Fellowship programme in the 8 themes presented in the table below:

| 8 Themes Identified from Fellows’ Questionaire Responses |
Overall experience of the SPSF Programme: content, delivery and most and least helpful elements

Personal Development / personal impact

Knowledge/skills developed
- New
- Advanced
- Theoretical
- Statistical
- Leadership
- Coaching
- Quality Improvement Methods

Theory to practice links expressed

Project implementation / outcome / spread - Making clinical change happen locally and in the wider organisation

Networking

Supporting future development of safer healthcare systems

Confidence

In summary our findings regarding the Fellows participation are as follows:

- The SPSF Programme enables Fellows to complete a patient safety improvement project and contribute to the goals of SPSP

- The Programme builds confidence and competence in local clinicians and they believe that this in turn may enhance their ability to teach others how to improve healthcare services

- There is clear evidence of Fellows’ beliefs that their participation has had a transformative and translational effect facilitating incorporation of their new-found knowledge and expertise into practice

- The Fellows expressed clear benefits of their Fellowship participation to their practice back in the workplace, identifying the multi-disciplinary team learning at the residential sessions as key in that regard. In our interpretation of the data we extended that notion to incorporate the collaborative and Action-based Learning opportunities facilitated through the Programme

- Although we did not ask Fellows to consider or comment on the existence of Networking, that came to be a thick seam of high quality data emerging from our research. It was clear that the opportunity to become part of a network, and to engage in extensive networking, had come to play an important role both within the residential sessions and as an ongoing support context

- Of all participants, over 80% of respondents (n=52) claimed enhanced responsibilities as a result of their Fellowship activity, including a change of role (50% or n=26) who reported having a new promotional post

- As a result of the some of the improved outcomes of the Fellows' Projects and innovations in practice, six Fellows have published their work. This includes presentations at National and international conferences; in addition, five Fellows have been recipients of local and national quality awards
Nevertheless, some of the Fellows did express that they felt inadequately supported by their Executive Sponsors in fulfilment of some aspects of the Fellowship. They suggested that they would benefit from being granted protected time for Fellowship associated work.

Many of the Fellows included details of their projects and examples of graphs and measurements including and patient outcomes. We have not included these in the study, as some of the examples would have identified individuals.

i.x The CEOs

The data gathered from our involvement in the National NHSS Chief Executives' Group monthly meeting in November 2012 revealed:

- The CEOs recognised that they had a significant role to play in the sponsorship of the SPSF Programme

- Due to the nature and competing priorities, they accepted that they should/could meet and support Fellows more constructively

- They believed that they could mobilise and deploy Fellows’ expertise in a more constructive and purposeful way for local QI

- Some CEOs expressed their view that the Fellowship does not necessarily address the QI Gaps that they have at Board and service level, and that the Fellowships could be more equitably distributed among the Boards

- They were unanimous in their view that they would like to be involved in, or have a representative on, the future planning of the SPSF Programme

i.xi SPSF Programme Senior Leaders

From the Senior Leaders' interviews our data highlighted:

- The Senior Leaders were proud of the Fellows’ achievements (personal, professional and project-related) as demonstrated in their interactions with them

- They were concerned regarding the financial stability of the programme going forward

- They felt themselves to be emerging from a difficult and unstable period of transition
of the Programme from HIS to NES management, which has affected the administration and delivery of the Programme

- All but one of the nine Senior Leaders suggested that the CEOs/Executive Sponsors provided inadequate support for Fellows, failing for example, to extend protected time to them to attend residentialis, or to fully engage with their Fellowship work. As seen above, Fellows also displayed their concerns in this regard. Furthermore, a degree of acknowledgement for such possible shortcomings emerged from our CEOs’ focus group. This has led us to question why Senior Leaders had not discussed their concern in this regard directly with the CEOs

- The Senior Leaders had already begun to explore ‘scale up’ of the Fellowship to meet demand and the changing nature of health and social care in Scotland

In a general sense, it is our view that our study contributes to the aims of the SPSP through the ability of the SPSF Programme to enhance Fellows’ expertise to achieve the programme goals. Furthermore, that it links to findings presented in recent studies including Skilled for Improvement (Gabbay et al., 2014) in so far as the Fellows expressed in detail many of the skills necessary for leading improvement. In addition, our findings concur with some of the views presented in recent evaluation of NHSS Delivering the Future programme (Upton et al., 2013) of the leadership skills developed that led to role expansion and enhancement.

i.xii Recommendations

Our recommendations for the SPSF Programme are as follows; that:

- The recruitment process be reviewed to consider the inclusion of CEOs and/or Medical/Nurse Director representation
- A system of continued follow-up support for Fellows is created and maintained
- Greater focus be placed on measurement for improvement and links between the theoretical and practical learning to context specific examples within NHS Boards in accordance with their strategic priorities. Specific links to the performance and management systems within NHS Boards could be made.
- A communications plan is developed and maintained to increase the visibility of the SPSF Programme, locally (within individual Boards), nationally and internationally
- Macro-, meso- and micro-level managers within the sponsoring NHS Boards could be involved in the wider context of the SPSF Programme in order to ensure that continuing projects spread and improvement support is embedded within organisations
The financial structure of the SPSF Programme is reviewed to ensure its sustainability. Inherent to that review we suggest that the fee structure, through which Boards pay for 'their' Fellows, could be considered

The SPSF Fellowship could have evaluation embedded and measured within the design of the Programme at the outset, and include the views and opinions of the CEOs/Executive ‘Sponsors’ intended impact of Fellows’ Project work. A ‘view’ measure from the service managers’ patients and families, as to the effectiveness of the Project intervention, would also enhance understanding of the impact of the Projects undertaken

Impact evaluators should work alongside the Fellows and Sponsors throughout the Fellowship experience including consideration of the use of a return on investment model

Future training events within the Fellowship apply some focus on how to publish improvement work. This addition would allow Fellows to share their learning more widely while also providing them with external and peer-reviewed validation of their successes

The Fellows should be required to submit to their Executive Sponsor a report on the outcomes of their fellowship including details of the projects which should include how the organisation benefits from this QI work

Recommendations for Quality Improvement education in general

The creation of a national map of QI capability and expertise, alongside the pace of change required to achieve the quality ambition of the NHSS, and how the current SPSF Programme contributes to that, is developed and maintained

Further research is conducted, with CEOs/Board Medical and Nurse directors as participants, to explore their QI needs and their understanding of the requirements in each NHS Board

i.xiii The structure of the report
We draw on, and review, appropriate the literature throughout the report, beginning Chapter 1 by introducing the philosophy and aims of the quality improvement movement by reviewing the pertinent literature in that specific area. The Chapter continues as follows: we trace the emergence of the SPSP and its goal of capacity and capability building. We then examine the application of Improvement Science in Scotland, before considering the rationale for, and the development of, the SPSF Programme, going on from there to providing: an overview of the Programme; an outline of the application and selection process, and detail on Programme costs. Following that, we examine the delivery mechanisms for the Programme, noting the multi-disciplinary approach taken and with specific focus on Action and Collaborative Learning and the associated learning environments for healthcare improvement. From the literature we found two comparable evaluations of in-depth analysis
of this type and in this examination, we provide these as vignettes as successful examples of building capability (from Cincinnati Children’s Hospital), and the development of a value framework (from Kaiser Permanente). We then outline the changes that have taken place over the five Cohorts 2008-2012 before detailing the current Programme curriculum.

In Chapter 2 we ‘set up’ our evaluation of the SPSF Programme by outlining the methodology and methods that we drew on for or study. In introducing Chapter 2, we outline the findings of de Wet’s (2009) evaluation, before going on to provide an overview of our own evaluation, as presented in this report. We note the purpose of our evaluation, which is to build on and extend from that of de Wet, by:

- Undertaking an impact assessment from the perspectives of the participating Fellows and the organisational sponsors’ views
- Informing the planning and delivery of future SPSF Programmes
- Informing sustainability plans of the SPSP Fellowships

We present the objectives and research questions guiding our evaluation, before proceeding to detail our qualitative research methodology, in which we identify ourselves as phenomenologist’s and interpretivists. We then outline a further ‘tool’ of our methodological approach, Discourse Analysis, which enables enhanced engagement with participants’ ‘voices’ emerging through qualitative research such as ours. Moving on, we examine our research methods, which were three-fold, as follows:

- **Method 1:** A qualitative structured questionnaire was distributed by email attachment to all SPSF Fellows cohorts 1-5 (from 2008-2013).
- **Method 2:** A focus group with the Chief Executive Officers of NHSS Health Boards
- **Method 3:** Semi-structured reflective interviews with Senior Leaders accountable for the SPSF Programme quality and safety improvement agenda at NHSS level.

We then explain briefly how each of our participant sets engaged with these methods. Finally we outline how we dealt with our data once collected.

In Chapter 3 we present our findings and analysis, doing this by drawing on our methodological framework of interpretivist phenomenology supplemented by the use of Discourse Analysis. Our analysis is divided into three parts as follows:
• **Part 1** presents the themes and concepts derived from participant responses to the SPSF Programme questionnaire

• **Part 2** presents the key points and feedback regarding the SPSF Programme from the focus group discussions with attendees at the NHSS CEOs’ forum

• **Part 3** presents key themes and responses from the interviews held with the senior leaders of the SPSF Programme.

We then explain our technique for identifying the themes emerging from our data in relation to each of our 3 participant groups. Moving on to the presentation and analysis of our data, and drawing on our methodological framework as outlined above, we make extensive use of our participants’ narratives, in each of the three parts. In this way we facilitate readers’ ‘hearing’, as clearly as possible, the ways in which our participants (the Fellows, the CEOs and the Senior Leaders) wrote or spoke about their experiences of the SPSF Programme.

In Chapter 4, we complete our evaluation report with our conclusions and a series of recommendations based upon our analysis of our data and our knowledge and understanding of the objectives of the SPSF Programme as it moves forward in its attempt to meet the objectives set out for achievement.
Chapter 1: Improving Healthcare

1.1 Introduction: Improving Healthcare

“Meeting the challenge of improving the quality and safety of healthcare requires the active participation of the workforce that is skilled in using methods of improvement and is accustomed to multidisciplinary collaboration”.

(Frankel et al., 2003)

Frankel’s comment above highlights the essence of building skills and expertise in frontline healthcare staff to enable them to work together to change and improve services. Continuous improvement in healthcare is about working together to enhance the experience and outcomes of the patients and families who use the services. Often healthcare clinicians and leaders are ill prepared to deal with the paradox of quality and cost and the subsequent improvement challenges within the current healthcare systems. There is a growing body of literature now highlighting the resultant gaps between the improvement science knowledge and expertise of clinical leaders (Alexander and Herald, 2010; Health Foundation, 2011; Hillman and Roueche, 2011; Watts et al 2014). The following synopsis of the literature will explore current thinking of the use of quality improvement (QI) in healthcare and why NHS Scotland (NHSS) are building capability in QI tools.

1.2 Developing Quality Improvement Skills and Expertise

While we will refer to literature, as appropriate, throughout this report, in this section our purpose is to highlight the literature-based guiding forces for improvement within health services, both in general terms and regarding NHSS in particular. Once that has been done, we will move on to address the application of improvement techniques within Scotland noting the policy leadership of the Scottish Government and a discussing the development and implementation of the Scottish Patient Safety Fellowship (SPSF) Programme.

As might be expected, most healthcare education focuses on the attainment of clinical experiential skills and knowing which evidence to use in practice (Bethune et al 2013). However, leading quality improvement requires not only clinical knowledge of effective interventions but also a clearly defined set of organisational skills and an understanding of organisational behaviours (Lemer and Moss 2013, Watts et al., 2014). The regulatory bodies in regard to Doctors, Nurses, Pharmacists and the Allied Health Professionals recognise the necessity of continuous quality improvement by setting out explicitly each individual’s responsibility to fulfil both their direct clinical care requirements and to contribute
to improving the quality of care provided (General Medical Council, 2012, Nursing and Midwifery Council, Health and Care Professions Council, 2012).

The emergence of the Scottish Patient Safety Programme (SPSP\textsuperscript{2} – see Appendix 1 – SPSP Overview) and associated quality improvement programmes had, and continues to have, a range of motives. The intention of those programmes has been to develop the knowledge and expertise of practitioners in furtherance of the reliable implementation of interventions that improve care provision. Capacity and capability building in Improvement Science models applied within NHSS ascribes to the commitment towards collaborative learning, as purposely designed in the SPSF Programme and will have a transformative effect. Simply put, the SPSF Programme aims to encourage participants to learn about improvement techniques that encourage continuous learning for further development and application of the newly gained knowledge. Furthermore, there is an expectation that Fellows will take a lead role in disseminating such learning in practice, as individuals and in the development of others. To ensure that such an aim is effective, it is necessary to have a deep understanding of how learning actually develops and becomes embedded within the learner. Theories used to study learning are different from those that study development. Conventional methods focus on individuals whereas authentic learning develops in social contexts (Smith and Pourchot, 2013). Grannott, (2002) calls this phenomenon “micro development”, and suggests that the rapid growth of knowledge during the learning period enhances internalisation such that it can actively trigger further knowledge development. In summary, such an approach results in the development within participants of both a thirst for knowledge and a determination to impart that knowledge for the development of others. It is our view that the development of such knowledge is vital to the success of quality improvement and the application of Improvement Science.

Healthcare systems across the globe are exploring the use of Improvement Science as a method of implementing reliable care processes. For almost a century, quality experts within industry have developed principles and techniques for quality improvement based on the rigorous analysis of variation in outcomes and processes (Shewart 1925, Juran 1979; Deming 1986). At the core of successful industrial quality control are highly trained individuals with the ability to recognise, analyse and eliminate variation to ensure reliability of a quality product or service. This deep understanding of controlling variation and maintaining reliability is necessary for any Health Service to deliver standardised practices to “every patient, every time” (National Health Service [NHS] Confederation, 2004; Healthcare

\textsuperscript{2} SPSP was established in 2008 to introduce oversee improvement in safety in Acute Adult Care in hospitals throughout Scotland. Since 2008, the safety programme has been extended to encompass enhanced safety measures in maternity; children; mental health; and primary care situations.
Improvement Scotland [HIS]\(^3\), 2008). In the United States and the United Kingdom healthcare organisations, considered as high performers, have invested systematically in building Improvement Science capability (Langley 2004, Batalden et al., 2011), based on industrial process improvement techniques, including the understanding of variation in practice (Bevan, 2010). Almost a decade ago, (McGlynn, 2004) and colleagues suggested US adults received less than 55% of the evidence-based care they require. There is little data to indicate that the NHS in the UK is any different. The development of workforce understanding, the application of reliable design and the implementation of improvement techniques in practice may hold the key. However, mainstream professional healthcare education does not yet include the attainment of knowledge and expertise in how to improve the system.

In 2003, Bate and colleagues noted that less than 10-15% of the NHS staff in England were actively involved in formal improvement activities at any one time. Bate et al., (2003) estimated that, in order to transform healthcare, a minimum of 80% of NHS staff needed to be involved in active improvement efforts. More recently, results from a study by the NHS Institute for Improvement (2012), involving 1,135 healthcare students. 88% of them (n=999) indicated that Improvement Science was important for their professional development and 94% (n=1067) thought understanding Improvement Science was essential as a means of improving patient safety and patient care. In addition to leadership development, institutional capacity and capability building are widely acknowledged in the literature as being fundamental to effective and sustainable scale-up of clinical interventions (ExpandNet, 2009). Essential to our evaluation, it is recognised that more research is needed to better understand whether improvement capability exists but is underutilised (Bibby et al., 2007; Butterworth et al, 2011), or if it simply does not exist in most healthcare organisations (Kaplan et al., 2012), because the supporting infrastructure is absent. Thus, being able to understand the context within which improvement capability will flourish is critical (Gabbay et al., 2014).

Matrix (2003) identified the key factors required to support the development of capability for improvement including: creating and embedding specific roles and remits for service improvement; providing access to appropriate skills training; recognising the role of middle managers in executing the vision, and ensuring that frontline views are heard. In 2010, Bevan highlighted seven skills that are required to enable the workforce to improve healthcare quality and productivity at scale: process and systems thinking; personal and organisational development; involving patients, staff, and the public; initiating, sustaining, and spreading change; delivering on cost and quality; problem-solving/internal consultancy

---

\(^3\) HIS is a National Health body within NHSS that directly promotes patient safety
skills, and innovation for improvement. However, Bevan did not suggest which skills are specifically required at differing levels of the organisation. If the understanding of Improvement Science is an essential, fundamental, but perhaps differential notion, skill changes in the training of healthcare staff at all levels will be necessary in both the formal and academic education programmes and courses currently available. Some evidence indicates that a positive shift is emerging from undergraduate medical education degrees in order to incorporate quality improvement training as a means of equipping the next generation for large-scale improvement (Gould et al., 2002; Tsai et al., 2010; Watts et al., 2014). However, doctors do not undertake their work in isolation and multidisciplinary education is essential to support multidisciplinary communications and team development in the workplace (Merien et al., 2010; McCulloch et al., 2011; Seigel et al., 2014). We move on now to consider the background to, and nature of, the application of Improvement Science specifically with the context of Scotland, noting the role of the Scottish Government in this regard.

1.3 Applying Improvement Science in Scotland

The study and application of Improvement Science in healthcare is not new. One of the first pioneers was Codman in 1915; he first systematically audited medical records at the Massachusetts General Hospital in Boston (Sharpe and Fadden, 1998). Codman discovered that, even in standardised procedures, individual practitioners applied a variety of practices and this variation often resulted in poorer outcomes patients. The notion of reducing variation and achieving consistently reliable and effective care is at the heart of NHSS’s healthcare improvement drive. Over the past two decades, following these principles, many healthcare care systems have adapted and applied the systematic processes of Improvement Science, along with high reliability techniques, in the quest for improved services (Institute for Healthcare Improvement [IHI], 2003; Batalden, 2007; Lynn, et al., 2007; Scottish Government, 2010; HIS, 2013). Knowledge of Improvement Science is fundamental to enabling healthcare staff to test and implement the best methods in practice to ensure the delivery of safe reliable care and it is in this regard that the Scottish Government targeted resources as a means of examining the most appropriate way(s) of introducing best practice within NHSS.

In engaging with effective techniques, strategies and theories, Improvement Science methodology applies research methods to pin-point transferrable improvement techniques, which can then be used widely by a range of teams in different settings to undertake quality improvement effectively (The Health Foundation, 2013). However, general healthcare education for all disciplines has focused traditionally on the diagnosis of disease and the
application of evidence-based treatments. In essence the focus within that educational context has been on, ‘What needs to be done’ and rarely teaches, ‘How it needs to be done’. In an attempt to ameliorate that situation, since January 2008, all acute hospitals in Scotland (n=37), have taken part in the SPSP. It is thereby acknowledged that frontline NHSS staff require the skills and expertise to implement safe, reliable care in order to ensure that every person receives the correct treatment, every time they encounter healthcare services.

The Scottish Government mobilised their safety efforts by establishing the Scottish Patient Safety Alliance (SPSA) in 2008. From that, the SPSP, co-ordinated by HIS, was the first major work stream, bringing together NHSS healthcare organisations, professional bodies and patient representatives. The SPSP, using evidence-based clinical practice, is designed to support local clinicians in their development of improvement skills as a means of ensuring that reliable evidence-based practice is in place in services, resulting in such services being safe and effective. However, following the Scottish Government’s review of healthcare provision in Scotland, and the publication of the NHSS Healthcare Quality Strategy (in May 2010), the SPSA was disbanded and a new Quality Alliance Board (QAB) was convened.

Reporting to government, three individual groups were developed for delivery through the QAB, these being encompassed to generate: safe, effective and person centred care. These groups are charged with ensuring coherence and alignment of activity to accelerate change and improvement in delivery of safer healthcare. It was from that review and subsequent decisions taken that the SPSF Programme emerged, and it is to a focused discussion of the rationale for that emergence that we now turn.

1.4 Developing the Scottish Patient Safety Fellowship Programme: The Rationale

As suggested above, NHSS, supported by the Scottish Government, considers quality improvement (QI) knowledge essential in order to respond effectively and meet the urgent priorities and challenges for transformational change present in today’s healthcare requirements. Drawing on the tenets of Improvement Science, NHSS was the first organisation in the world to adopt a ‘whole country’ approach to patient safety, by adopting a systematic, nationwide programme in all services.

Thus, the overall goal of the SPSP was to equip all healthcare staff with the improvement capabilities that would enable them to deliver safer systems utilising robust, consistent and evidence-based practices. As part of the SPSP, the traditional what needs to be done has

---

4 [http://www.scottishpatientsafetyProgramme.scot.nhs.uk/Programme](http://www.scottishpatientsafetyProgramme.scot.nhs.uk/Programme)

5 The QAB is accountable for the implementation of the Healthcare Quality Strategy and must provide regular updates to the Scottish Government Health Management Board (SGHMB) and to Scottish Government Ministers on progress.
been extended to incorporate an understanding of *how* it needs to be done. Within this Programme, therefore, teams of healthcare staff come together at national and local learning events to gain expertise in the application of Improvement Science. As a result, and in further support of that improvement goal, in 2008 a dedicated educational programme, designed to develop clinicians’ skills in improvement implementation, was launched: The Scottish Patient Safety Fellowship (SPSF) Programme. This programme is currently recruiting applicants for its 7th cohort.

### 1.5 The Scottish Patient Safety Fellowship Programme

The SPSF Programme started as a partnership between HIS, the NHSS Boards, NHS Education for Scotland (NES)\(^6\) and the Health Foundation\(^7\). The Health Foundation provides a vast range of expertise and financial support to put new ideas into practice in healthcare through a range of improvement and research programmes; an example of which is the SPSF. The Health Foundation’s support for the SPSF Programme is demonstrative of the ways in which they develop leaders and share evidence to drive wider change in healthcare\(^8\).

At its initiation in 2008, the overall aim of the SPSF Programme was to develop clinical leaders - specifically doctors - capable of delivering improved health and healthcare outcomes for the people of Scotland. As suggested above, improvement skills and techniques have not traditionally been part of curricula for healthcare professionals in training (Kerfoot, *et al.*, 2007; Patey, 2007; Ogrinc *et al.*, 2011). The SPSF Programme content is designed to redress that by enhancing clinicians’ knowledge of Improvement Science and providing them with skills to implement methods to support the development of local safety interventions. As will be seen from the discussion below, a supporting element of this aim was to be developed through project work conducted by Fellows and the implementation of such projects within the Fellows’ organisations, and eventually further afield, enabling wider dissemination amongst all staff.

### 1.6 Programme Overview

The SPSF Programme was designed to promote active collaboration with other healthcare organisations or agencies sharing similar aims within Scotland and the wider UK. The Fellowship uses the principles of adult and action learning (Revans, 2011; Jarvis, 2012) incorporating the ‘all teach, all learn’ philosophy (Nembhard, 2012). As will be discussed as

---

\(^6\) NES is a special Health Board, within NHSS, responsible for the education, training and workforce development of staff.

\(^7\) The Health Foundation is an independent charity working to improve the quality of healthcare in the UK.

\(^8\) [http://www.health.org.uk/](http://www.health.org.uk/)
part of our review below, the SPSF Programme has undergone successive changes since its inception in 2008, including its development to recruit Fellows from out with the medical profession as well as from overseas. However, in this section we will refer to the conduct of the programme in regard to NHSS, as it operates in general terms. We will begin by discussing its objectives, which have always been to bring together a specifically selected group of health professionals over a period of ten or twelve months to enhance their performance and leadership qualities by using a combination of self-directed distance learning, supported by web based communication. Fellows attend three formal face-to-face residential education sessions, ostensibly during funded released time from clinical care. These sessions include interactive lectures and formal coaching provided by national and international Improvement Science experts from the Scottish Government, NES, HIS and the Institute for Healthcare Improvement (IHI) (located in Boston, Massachusetts9).

In outline, and in regard to NHSS, the SPSF Programme is designed to:

- Develop and strengthen clinical leadership capability to support the SPSP
- Contribute to the development of a long term quality improvement and patient safety culture
- Strengthen existing collaborations
- Establish a learning support network for transformational leadership within the SPSP, with the potential to spread beyond into other areas of healthcare improvement, and
- Complement wider healthcare improvement capability to support workforce development plans

1.6.1 The application and selection process

Recruitment to the SPSF Programme is a competitive process. Around June or July each year, a call for applicants is posted via the SPSF Programme web pages within the Scottish Government, HIS and NES web sites. Participants must be clinicians actively undertaking clinical practice (at least part-time). As part of the application, the applicant’s employer, or sponsoring organisation10, must demonstrate an ongoing commitment to support the Fellow’s future development and the wider benefit to NHSS.

The selection process has three components: a personal application form, a sponsorship statement from the applicant’s chief executive, and a structured interview. Applicants must

9 IHI are considered global experts in the teaching coaching and implementation of healthcare improvement programmes and have delivered many similar programmes to SPSF in the United States of America (USA), Europe, Australasia, and several Middle/Far Eastern countries. http://www.ihi.org/Pages/default.aspx.
10 We will refer to Fellows’ employers as their Sponsors henceforth
be able to demonstrate an interest in service improvement, and should already be actively involved with the SPSP in their workplace, although this is not a requirement at the application stage.

Thus, each applicant must demonstrate that they have:

- The full support of their employer and explicit sponsorship from the Chief Executive and the Medical or Nurse Director
- A demonstrable interest in service improvement and should already be actively involved with the SPSP in their workplace
- A commitment to continue to use the acquired skills and training for the benefit of NHSS

At its launch in 2008, to Scottish applicants only, the SPSF Programme attracted 9 applications, 6 Fellows being selected for the first cohort. The success of the Programme, including its broadening geographical scope, is indicated in the extent to which applications and Fellowship awards have increased every year (with the exception of 2012/13 - see Table 1 below\(^1\)). It could be argued that the increase in applications is related to the growing interest in quality improvement as a discipline in healthcare (The Health Foundation, 2013) and Scotland’s increasing focus on Patient Safety and QI methods (Scottish Government, 2013).

\(^1\) The SPSF Programme was designed originally to build capability in improvement skills in NHSS’s clinical workforce, and the majority of Fellows continue to be selected from NHSS. However, from 2010/11 (Cohort 3) the SPSF Programme was opened up to the rest of the UK; and from Cohort 4, 2011/12, to international participants.
Table 1

Fellows’ Country of Origin Cohorts 1-5
(2008-2013)

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Year</th>
<th>Applicants</th>
<th>Scottish Fellows</th>
<th>International Fellows</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2008/9</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>Scotland</td>
</tr>
<tr>
<td>2</td>
<td>2009/10</td>
<td>20</td>
<td>11</td>
<td>2</td>
<td>Scotland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>3</td>
<td>2010/11</td>
<td>31</td>
<td>11</td>
<td>3</td>
<td>Scotland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>4</td>
<td>2011/12</td>
<td>57</td>
<td>15</td>
<td>2</td>
<td>Scotland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>5</td>
<td>2012/13</td>
<td>50</td>
<td>17</td>
<td>2</td>
<td>Scotland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ireland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Northern Ireland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Norway</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>188</td>
<td>60</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

1.6.2 Programme costs

In regard to supporting the programme financially, employing organisations are obliged to cover any costs associated with Fellows’ clinical release time. The per capita cost of the Fellowship Programme is approximately £13,000, which covers the following:

- Three x 2.5-day residential courses
- International faculty and mentoring programme
- Attendance at an international quality improvement forum
- Summer school (In Cohort 1 only replaced by action learning visits)
- Books and stationary
The SPSF funding, initially, was made up from contributions from the Scottish Government, HIS, NES, supplemented, for the first two years, with an additional £250,000 from the Health Foundation. The SPSF Programme currently has operating budget of approximately £250,000. The activities key to the Fellowship have sought to incorporate a range of techniques as means, ultimately, of improving the quality of care provision throughout the country. Thus, the activities are operationalised as follows: the Fellows are exposed to a programme in which blended learning styles are espoused. This approach combines self directed distance learning, which is supported by teleconferencing, web based communications, access to the NHSS’s e-library, and the electronic Shared Spaces such as NES Managed Knowledge Networks (MKN) as key resources. Fellows are further supported by formal mentors/coaches. These individuals are selected QI experts within NHSS; they are identified by the SPSF Programme organising leaders and are patient safety experts involved in the SPSP as national faculty. Formal education is delivered through focused residential seminars (3 x 2.5 days) conducted over 10 months. Furthermore, Fellows are invited to attend all SPSP learning sessions and have networking sessions with SPSP Faculty as part of the Programme. Coaching and regular feedback on progress is offered as a component of the residential sessions.

As indicated in the detail above, showing how the programme costs are incurred, and in addition to the Fellows’-specific educational gatherings, Fellows have two key and high level external educational and networking opportunities. The first is through their participation in the Annual International Forum on Quality and Safety in Healthcare hosted by British Medical Journal (BMJ) / IHI. The second is an Action Learning¹² visit to a national or international organisation. Organisations, as potential hosts for a site visit, are identified and proposed by each prospective Fellow during the application process. Each organisation proposed must have widely recognised quality improvement results and or expertise related to the improvement project the Fellow wishes to undertake. After their successful application, funding to support travel and accommodation for the Action Learning site visit is also included in the programme allocation of the Fellowship.

1.6.3 SPSF Programme delivery and Action Learning

As suggested above, the SPSF Programme was designed and is delivered using the principles of Action Learning (Revans, 2011 - see Figure 1 below; Jarvis, 2012).

¹² Action Learning is a process which involves working on real challenges, using the knowledge and skills of a small group of people combined with skilled questioning, to re-interpret old and familiar concepts and produce fresh ideas (http://www.actionlearningassociates.co.uk/actionlearning.php) Action Learning emerged from the work of Revans whose associated work on hospital internal communications policies (1964-5), led him to conclude that the conventional instructional methods were largely ineffective (Albert E. Barker: Remembering Revans: Action Learning’s Principal Pioneer)
Figure 1 shows Revans’ schematic of Action Learning, demonstrating the interconnectivity between knowledge acquisition, experiential learning, co-learning in groups and complex problem solving. In explaining his schematic, Revans devised a learning formula, shown in Figure 1 as $L = P + Q$. In that formula, Learning ($L$) occurs through ($=$) Programmed Knowledge ($P$) + Insightful Questioning ($Q$). The Action Learning model epitomises the approach of the SPSF Programme as outlined above. The iterative nature of the Action Learning process, demonstrated by the model, ably demonstrates the usefulness of changes to the SPSF programme over time since its inception in 2008 to cohort 5 (2013) within the scope of our study.

**Figure 1: Revans’ Model**

![Revans' Model Diagram]

However, it is useful to consider another model in the development and delivery of the SPSF Programme, given the aim of the programme to enable the transference by Fellows of their
new knowledge into action in practice (Strauss, 2009; Graham et al., 2006 - see Figure 2 below). Thus, Figure 2 depicts Graham et al.’s Knowledge into Action model.

**Figure 2: Knowledge into Action Model**

![Knowledge into Action Model](source)


The Knowledge into Action Model above can be described as follows:

“...the diagram contains two parts: the Knowledge creation cycle illustrating the process of knowledge creation, and the Action cycle illustrating the process of knowledge application. The Knowledge creation cycle is positioned within the Action cycle. An inverted cone shape surrounded by a circle of arrows represents the Knowledge creation cycle. The inverted cone shape contains three steps in knowledge creation, starting from top (the base of the cone) to bottom (the tip of the cone) as follows: Knowledge inquiry, Knowledge synthesis, and Knowledge tools/products. The inverted cone shape symbolizes the condensation/distillation of knowledge as it moves through the three steps in the order specified. The tailoring of knowledge-to-knowledge users is a required element through all three steps. The circle of arrows represents an ongoing process of knowledge creation through the three steps. The

---

Action cycle contains 7 steps, and form an outer circle encompassing the knowledge creation cycle. Each Action cycle step is listed in a box connected by an arrow in clockwise direction to the next step. The steps are in the following order: Identify problem and identify, review, and select the knowledge to solve the problem; Adapt knowledge to local context; Assess barriers to knowledge use; Select, tailor, implement intervention; Monitor and knowledge use; Evaluate outcomes; and Sustain knowledge use—which is connected back to the first step of Identify problem and identify, review, and select the knowledge to solve the problem to form a complete circle."\[14]

Thus, it is apparent that the combination of Revans’ Action Learning Model and the Graham et al. Knowledge into Action Model provides an extremely useful framework for our evaluation of the SPSF Programme.

1.6.4 Collaborative and group learning

Drawing on Vygotsky’s thesis (cited by Lee and Smagorinsky, 2000) that learning is inherently a social activity involving collaboration; group, or collaborative learning, is an important component of Action Learning and Action into Knowledge approaches. Such learning is located in environments in which learners can engage in a common task or tasks. The methodology of collaborative/group approaches encompasses a situation or situations in which the individual learners depend on, and are accountable to, each other. Face-to-face conversations (Chiu, 2008) and computer discussions, including online forums, chat rooms, etc. (Chen & Chiu, 2008), form parts of that methodology; as do collaborative writing, group projects, joint problem solving, debates, study teams, and other activities. In establishing collaborative / group learning, there are a number of aims: to enable students, working together, to develop their understanding, or to search for meaning, and / or solutions to a problem or problems; or to create a ‘product’, tangible or intangible. However, since collaborative learning essentially redefines the traditional student-teacher relationship both in and out with the classroom, there has been an element of controversy over whether this paradigm is more beneficial than harmful to the learning experience (Chiu, 2004). Unpublished evidence, in particular that of the 2nd named author of this report, verified by both internal and external validation over 2 academic years of learning and teaching processes (2012/13 and 2013/14), suggests a high degree of success for those involved.

The SPSF Programme (since Cohort 3) now affords opportunities across the collaborative/group and Action spectrum of approaches to participating Fellows, one

intention being that such good practice is further dissemination within Fellows’ own organisations. Conversation analysis and statistical discourse analysis are standard methods for examining the effectiveness of collaborative/group learning processes. As will be seen in Chapter 2, Methodology, we have adapted and enhanced a coding approach, introduced by Saldaña (2013) to enable interrogation and analysis of our data in producing our evaluation of the SPSF Programme.

1.6.5 Structured group learning environments for healthcare improvement

As indicated in the previous section, the SPSF Programme, through collaborative/group and Action learning, brings together a cadre of healthcare professionals to develop skills in the implementation and spread of reliable care. The intent is to shorten the timeline to full-scale improved performance; but we have noted that assessment of such approaches is not unproblematic. However, the SPSF Programme extends beyond such learning aspirations to include structured learning networks/communities (Goodyear, De Laat and Lally, 2006). As with Action and collaborative learning, discussed above, networking and collaboration form a key and structured delivery method of the SPSF Programme. The intention in this regard is to benefit from the development of a ‘learning community’.

The term ‘learning community’ is used to describe a group of people who are seen or known to share common predispositions towards values, beliefs, attitudes and, often, emotions; a combination known as ‘homophily’. Such predispositions are actively engaged as a means of ‘community’ members learning, both together and from each other. The concept of learning communities has become a popular methodology for interdisciplinary and cohort-based, learning and teaching, as a means of enhancing delivery of knowledge from Action and collaborative learning into practice. Nevertheless, this approach is not without challenge. For example, while supportive of networks / learning communities, McCannon and Perla (2009), have noted that, the inherent complexity of measurement and evaluation of the impact and outcomes of learning communities, renders it difficult to assess their specific contribution to achieving large-scale improvement. Their support of the methodology, however, is consolidated by later research, which suggests that structured learning environments such as virtual or face-to-face training sessions are advocated on the premise that intrinsic motivation and positive social relationships bolster energy for ongoing improvement (Volet and Vauries, 2013).
Volet and Vaures explain that, on a national or local scale, such environments can deliver benefits including the development of a cadre of professionals and citizens whose amplified cooperation is capable of leading to skilled in implementation and spread, and a shorter time to full-scale implementation, of the innovation. Furthermore, a recent literature review on large-scale improvement initiatives (Perla et al., 2013) refers to the importance of group learning for capacity and capability building in healthcare improvement. That literature supports the value of continuous learning networks (O'Connor et al., 1996; Matrix, 2003) in an effort to maximise workforce improvement capability (Dobbins et al., 2002, Green and Plsek, 2002; Bate et al., 2003, 2004; Nolan et al., 2005; Ganz, 2008; Della Penna et al., 2009; WHO, 2009; Greenhalgh et al., 2004; McCannon et al., 2008; Pastor and Ortiz, 2009; Bevan, 2010; Rooney and Leitch, 2010).

The use of social networks as a means of generating motivation and increasing participant energy for improvement has been advocated (Greenhalgh et al., 2004; McCannon and Perla, 2009). Robust social networks develop knowledge exchange, create shared learning, and develop a sense of community among participants (Green and Plsek, 2002), and, we would argue, beyond. It must be recognised that not all social networks experience the same degree of success (Wallace 2013); but we do know that networks seem to work best in collaborative situations, where participants feel comfortable sharing successes as well as challenges (Della Penna et al., 2009). Thus, the success of the network depends on a number of factors, including the homophily of the members; effectiveness of opinion leaders and champions in modelling adoption; recognition of achievements; working across organisational boundaries; and the presence of dissemination programs (Greenhalgh et al., 2004).

There is a growing body of literature suggesting that improvement expertise in how to create and maintain safer healthcare systems is essential for healthcare practitioners (Adler et al., 2013). On a practical note, the Health Foundation recently (2014) offered a framework with three areas essential to the development of clinicians’ quality improvement skills. These are as follows: ‘technical’ skills (e.g. clinical, subject matter expertise); ‘soft’/people factor skills (e.g. ‘bedside manner’), and ‘learning’ skills (e.g. how to continually improve). NHSS national improvement programmes, including SPSP, are designed to support the development of these skills. Our evaluation will reflect upon the identification of these skills as experienced by the Fellows and their Sponsors.

While searching for comparable studies, we found two vignettes depicting exemplar cases of capability building, in which building improvement capability in healthcare has used Action and collaborative learning. These vignette examples highlight how networking within
a structured group-learning environment can successfully deliver Knowledge into Action education, as a development intervention.

Vignette 1

Building Improvement Capability
The Case of Cincinnati Children’s Hospital

In 2006, the USA’s Cincinnati Children’s Hospital (CCH) developed, The Intermediate Improvement Science Series, a healthcare course introduced for clinical leaders to increase improvement capability. CCH has some 14,000 employees, and over 279 leaders attended the series. Approximately 85% (n=237) of the projects considered demonstrated measurable improvement (Kamiski et al., 2013). At follow-up (between 6-12 months after graduation), 72% (n=201) of improvement projects were completed and incorporated as everyday operations in the participant’s unit or became the focus of continuing improvement work. Many changes were spread to other units or Programmes; related to on-time antibiotics, timely patient discharge and tracking inventory. Around 88% responding graduates, (n=246) continued to participate in formal quality improvement efforts and many led other improvement projects. Nearly half of the respondents presented their results at one or more professional conferences, thereby extending the potential for further and more widespread dissemination of improvement techniques.

**Vignette 2**

**Developing A Value Framework**

**Kaiser Permanente**

**BACKGROUND:**

In 2007, Kaiser Permanente developed a whole systems approach to improvement by introducing A Performance Improvement System (PI): The PI system addresses the six capabilities: leadership priority setting, a systems approach to improvement, measurement capability, a learning organisation, improvement capacity, and a culture of improvement. PI "deep experts" (mentors in quality improvement) consult with national, regional, and local leaders, and more than 500 improvement advisors are trained to manage portfolios of 90-120 day improvement initiatives at medical centres.

**FINDINGS:**

The 22 medical centres that were evaluated achieved a 61% improvement in selected capabilities, and improvement advisors (IAs) successfully completed 84% of initial PI projects. For each dollar invested, estimates suggested an average return on investment of $2.36.

**LESSONS LEARNED:**

Critical factors include adequate dedicated time for PI activities by staff with necessary expertise, expert support to operations, alignment of projects with regional and national strategic priorities, and close working relationships between PI staff and operational management. Involving finance leaders in improvement planning, prioritisation, and oversight is important. These elements can be adapted to smaller systems and single hospitals.

**CONCLUSIONS:**

The initial evaluation of the Kaiser Permanente PI system indicated that: (1) IAs successfully led projects in conjunction with frontline teams; (2) organizational capabilities increased, and (3) the investment in PI infrastructure and staff was sound. Expansion throughout the entire Kaiser Permanente has continued.


These Vignettes demonstrate the impact that, though QI training and education, improvement projects can have a significant impact on individual services and on the organisation as a whole. Of particular note is the focus on measured improvement in outcomes for patients as a result in addition to a return on investment value of two and a half times the initial costs of the educational programme. We will return to these issues with respect to our own research. Moving on to the details of the SPSF Programme, a few elements have changed since its inception in 2008 and below we have outlined, briefly, the nature of those changes.
1.6.6 SPSF programme changes over 5 cohorts

The SPSF programme has undergone an ‘internal’ review following each cohort. Several changes have related to programme funding and the application process has taken place as a result:

- Start up funding from the Health Foundation was provided for the first two years to the end of Cohort 2
- Funding has continued from a collaboration between HIS and NES
- The concept of team applications and the emphasis on participation in national learning sets was introduced in Cohort 3
- The inclusion of mentors from SPSP faculty introduced in Cohort 3
- A focus of actively undertaking clinical practice at least part time was introduced to the criteria in the Cohort 5 applications

In recognition of the QI investment in individual Fellows, an additional contribution to the national QI efforts to build capability was requested from each the sponsoring organisation for Cohort 5. Thus, Sponsors are asked to commit ‘their’ Fellow to 5 working days per year on the NHS Scotland QI agenda with the intent of consolidating the learning experience of Fellows.

Having examined the theory behind Action and collaborative/group learning processes as a means of better enabling our engagement with the programme for our evaluation, we now turn to an itemization of the programme curriculum.

1.6.7 SPSF Programme curriculum

The SPSF Programme curriculum provides content focused on Improvement Science theory, methods, tools and the application of Improvement Science in practice. The residential learning-sets are designed to combine theory and practice including: the use of the Model for Improvement (Langley et al., 2009), the building of project aims, selection of appropriate improvement measures and the small changes that can be made in practice. The curriculum contains a wide range of Improvement Science topics presented below in Box 1 below
Box 1

SPSF Curriculum Content

**SPSF Curriculum Content**

**Improvement theory, methods and tools:**
- Theory of "knowledge for improvement": from Deming (1986) to current thinking and experience the practical application in healthcare. Knowledge of subject matter supplemented by knowledge of methods for improvement, knowledge of learning, human and organisational psychology, systems and data including normal variation.
- Model for improvement: Building, aims, selecting appropriate measures and changes for testing.
- Planned experimentation: Hypothesis setting. Test, design and execute change, observe and analyse your results; feedback for next experimental cycle. Running small cycle change programmes in frontline clinical environment.

**Leading clinicians through change:**
- Learning about ourselves: styles, preferences, personality traits. Coaching for success.
- Principles and differences of adaptive and technical change.
- Different methods of influencing and generating emotional engagement: including dealing with loss.
- Building a compelling case for change: using pull and push mechanisms, building urgency, use hearts and minds, working within the zone of productive distress. The "burning platform" metaphor and its development.
- Developing a shared vision for safety: Recognising and responding to priorities of stakeholders and different aspirations. "W IFM" in practice. Influencing with integrity. Moving from projects to integrated Programmes using collaboration and alignment.
- Sponsorship: champions, alignment and feedback mechanisms for teams and organisations. Role identification and responsibilities.
- Definition and usefulness of compacts and simple rules for teams and organisations: The process for their development and review.
- Facilitating organisational movement: from a stable delivery model to an organisation capable of adaptability and growth.

**Measurement for improvement:**
- Introduction and principles and use of statistical process control (SPC) charts: Data, variation and reporting.
- Measures for improvement: research and judgment.
- Learning the strength and weaknesses of project design: analysis and reporting.
- Building a measurement plan: using available data sources.
- Moving from data information to building knowledge: Role, development and usefulness of dashboards and other methods for data synthesis and presentation. Understand the role and influence of patient stories.

**Communication, presentations and marketing skills:**
- Building and presenting a compelling case for safety in your organisation.
- Using reliability theory, systems. Design Systems for safety: Getting to 80% reliability in practice. Moving from vigilance to reliable design. Demonstrate reliable design within the improvement project.
- Leading a specific improvement project within the SPSP: demonstrating and sharing their progress during the Fellowship and beyond.
As is suggested in Box 1 above, on completion of their Fellowship, but as part of the curriculum, each Fellow is required to submit a quality improvement project report of a standard suitable for professional publication in a journal or conference of their choice. Fellows are also encouraged and supported to submit a written paper abstract or a poster for presentation at a national or international conference. The main outlet for this component of the curriculum is the Annual International Forum on Quality and Safety in Healthcare, hosted by British Medical Journal (BMJ) / IHI, which, as mentioned above, is included within the costs of their Fellowship. Within Scotland, at national and local level, Fellows have the opportunity, and are strongly encouraged, to share their achievements and present their projects at SPSP events. Fellows are supported in these activities by the SPSP national faculty team and their local health board SPSP Programme managers.
Chapter 2: The Scottish Patient Safety Fellowship Programme: Evaluation, Methodology and Methods

2.1 Introduction

More than 5,000 articles have been published on training health professionals and students in quality improvement approaches over the past 30 years (Health Foundation 2012). The Health Foundation’s recent review of training on improvement (2013) suggests that few data exist to identify which sort of programme is most effective and indeed, at whom any such programme should be aimed. As the national lead organisations for quality and safety and education in healthcare, HIS and NES are committed to regular programme evaluation as an essential component of organisational improvement and governance within healthcare. Thus, the first SPSF Programme evaluation was commissioned by HIS in 2008 and reported in 2009 (de Wet). de Wet’s main findings demonstrated a number of benefits ensuing from the first year of the SPSF Programme including: professional benefits, role expansion, development of skill, knowledge and understanding and a sense of enhanced credibility. Fellows were also reported as having dealt with a range of challenges including having too little study time and a lack of organisational support. Nevertheless, Fellows’ aspirations were raised, particularly in regard to their wish to undertake more influential roles in patient safety. They also expressed a need for continuing, ongoing and furtherance of patient support training and development as well as the intention to continue to support each other in that regard.

In de Wet’s outline of the successful outcomes of the 2008-9 Programme, he noted a number of achievements including the publication of two peer-reviewed articles by one Fellow, the presentation of another Fellow’s improvement project at an international conference, the involvement of some Fellows in facilitating SPSP learning events and the successful completion by all Fellows of their projects. The Programme was reported as having a number of ‘unique strengths’, including residential learning events, the inclusion of national and international patient safety experts and the practical focus of the Programme. One of the unique strengths noted by first Cohort Fellows was the small number of them involved (n 6) that being viewed as facilitating group strength, motivation, inspiration and mutually supportive learning. This aspect of de Wet’s review is perhaps particularly interesting to us in conducting our review, since in the current Cohort the membership (n 17) has risen to almost three times that of the first Cohort. Thus, one particular point of focus in our evaluation will be on the extent to which the unique strengths of the Programme, recognised as emerging from its original small cohort size, has been compromised by the Programme’s growth.
2.2 Evaluation Overview

This report provides the second evaluation of the SPSF Programme and we have included Fellows from Cohorts 1-5 inclusive (2008 – 2013). Our approach was designed to enable the continued exploration of the effectiveness of the SPSF Programme’s impact on participants and sponsors during the intervening five years. A key focus area for the SPSF Programme is its responsiveness to the context, i.e., working environment, in which it operates in regard to capacity and capability building in improvement expertise. In assessing that, it was vital to ask each Fellow to identify the challenges that exist for them concerning the implementation of a sustained improvement project. Recent publications from the Health Foundation emphasise the importance of both the context and the learning environment for the success of quality improvement in healthcare, and that focus must be placed on the identification of the necessary and sufficient conditions for change (Health Foundation, 2014a).

The research reported in this document was commissioned by both HIS and NES, supported by the Health Foundation and undertaken by the University of Dundee. Our evaluation is designed to build on the first impact report by de Wet (2009) by:

- Undertaking an impact assessment from the perspectives of the participating Fellows’ and the organisational sponsors’ views
- Informing the planning and delivery of future SPSF Programmes
- Informing sustainability plans of the SPSP Fellowships

Thus, our evaluation is intended to further enhance understanding of the SPSF Programme and its impact, from the point of view of Fellows, Sponsors and national Senior Leaders. The resultant knowledge will be capable of being used as a means of enabling SPSF Programme organisers to better engage with the continuing requirements within NHSS to build capacity and capability, underpinned by Improvement Science. As a consequence, the lessons learned from this evaluation will be useful in improving the SPSF Programme design and delivery in the future. In addition, a deeper understanding may be gained of what appears to be working and making a difference and what does not.
2.3 Research Objectives and Questions

In developing our research plan as a means of evaluating the SPSF Programme we devised a set of four research objectives through which we would seek to examine in detail the views of the participating SPSF Fellows, their sponsors and the SPSF Programme senior leaders. The purpose of these objectives was to:

- Identify and understand Fellows’ experiences of the personal and skill development elements of the SPSF Programme
- Determine the scope, range and sustainability of projects undertaken as part of the SPSF Programme in Cohorts 1-5
- Capture the views of the sponsors and senior leaders responsible for the continued support of SPSP Fellows in NHSS, including their perceptions of the potential scale-up opportunities of the Fellows work
- Identify any publications, presentations and shared learning experiences of Fellows undertaken as a component of the Fellowship within and out with NHSS

In order to achieve these objectives, we devised a series of guiding research questions as follows:

- What are the perceptions and reflections of the participant Fellows of the Programme and its intent for capacity and capability building in patient safety improvement?
- To what extent is the fellow supporting wider organisational improvement capability and development?
- In what way(s) are Fellows supported to complete an improvement project?
- How do sponsoring organisations support and contribute to the individual Fellow’s development in improvement?

Having devised both research objectives and guiding questions for our study, we move on to examine our research methodology, since a combination of that with the above would lead us to an appropriate set of instruments through which to actually gather our data. These elements are addressed in Sections 2.4 and 2.5 respectively.
2.4 Research Methodology

The purpose of this section is to outline our philosophical stance in regard to the nature of our reflections on this study and we go on to demonstrate how that has been operationalised in undertaking the research and producing this report. Doing this will help the reader to better understand our conclusions and why we have arrived at them.

We identify ourselves as qualitative researchers, in particular, as phenomenologists and interpretivists (Fearfull, 2005). Defining oneself in this way is not a wholly straightforward task, especially in the context of claiming a particular epistemological standpoint as being ‘the best’ for a particular purpose (Symon and Cassell, 2012). However, it is our view that, in order to gain as clear a picture of the field of study as possible, the phenomenological and interpretivist approaches, through which we are encouraged to treat any detail, no matter its size, as potentially significant, is vital. From that perspective it is our duty to attempt to appreciate, as closely as possible, the context(s) in which participants have offered their views, and thus we argue it is a highly suitable means of conducting research such as that leading to this evaluation.

In undertaking research from these standpoints, we have sought to understand as clearly as possible the meaning that direct stakeholders in the SPSF Programme\textsuperscript{15} make of the Programme. We have drawn particular reference to the Fellows themselves and their experiences while on and subsequent to their year of direct involvement with the Programme. The research methods that, we used in support of our qualitative framework (see Section 2.5 below), were selected as a means of allowing us to ‘describe’, ‘assess’ and ‘explain’ the impact of the current SPSF Programme from the perspectives of the Programme’s direct stakeholders.

Further aiding our approach, we have the benefit of considerable past experience in undertaking research in this manner\textsuperscript{16}, but perhaps more importantly, the first named author has in-depth occupational experience of NHSS at various levels and also within the Scottish Government. In such circumstances, and in the context of our methodological framework, it is important to account for such practical backgrounds. Having pre-understanding and pre-knowledge of a context or area under consideration can be extremely helpful, but it is vital that such does not limit one’s engagement. Rather, such pre-knowledge and -understanding can be put to good use:

“…preunderstanding…implies a certain attitude and a commitment on the part of the researcher/consultants. It involves their personal experience as an essential element in the process of collecting and analysing information. Moreover,

\textsuperscript{15} The direct stakeholders are the Fellows, their Health Board CEOs and Executive Sponsors, and the Programme Senior Leaders
\textsuperscript{16} O’Connor’s and Fearfull’s PhD theses and subsequent publications are available on request
researcher/consultants must demonstrate theoretical sensitivity and be able to change their paradigm – their basic world view – if reality requires them to do so.”

(Gummesson, 1991:53)

There is empirical recognition of the valuable contribution that qualitative research makes to the exploration of the social aspects of healthcare and other people-dominated interactive processes (Curry et al., 2009). Despite the longstanding debate in the literature about the processes and practices of qualitative research (Bogdan and Biklan, 1982; Guba and Lincoln, 1994), there is general agreement that it is capable of bringing out the depth and richness of experiences, whether positive or negative, as expressed by the participants. This approach is in marked contrast to the arguably contextually disengaged quantitative focus on numbers and frequency of events. Quantitative research includes any research methods that produce hard numbers, which can be turned into statistics. While quantitative research can tell you “when”, “where”, and “how often” things happen, qualitative research looks at the “why” and “how” they happen. Other contrasting details are as follows: qualitative research produces observations, notes, and descriptions of behaviour and motivation. In general, qualitative research does not seek to quantify data. Simple counts are sometimes used and may provide a useful summary of some aspects of the analysis emerging from qualitative approaches, but these are not driving elements of the research.

Dixon Woods et al. (2005) argue that, one aim in qualitative research is to understand the quality of the participant’s life in particular contexts including their social and working lives. In pursuit of such an understanding and of the explication of that, richly detailed material is produced. The resultant detail has been termed ‘thick description’, which Denzin (1989:83) points out:

“...goes beyond mere fact and surface appearances. It presents detail, context, emotion and the webs of social relationships that join persons to one another. Thick description evokes emotionality and self-feelings. It inserts history into experience. It establishes the significance of an experience, or the sequence of events, for the person or persons in question. In thick description, the voices, feelings, actions and meanings of interacting individuals are heard.”

(Denzin, 1989:83)

Our research was designed in such a way as to generate, wherever possible, the richness of ‘thick, rich description’ from our participants (Rousseau and Fried, 2001 and Weick, 2007). Given our interpretivist epistemology, it is our view that such description contains ideas or concepts that are capable of casting new light on the activity/ies under scrutiny, and which might help understand behaviours of and outcomes for the participants, as well as those from similar activity/ies elsewhere. We have highlighted elements of such thick and rich
description throughout Chapter 3. It will be noted there that we have reproduced participants’ narratives in Commentary Boxes for all 3 of our participant sets.

Another useful tool in our research ‘kit’ is Discourse Analysis (DA) (Fairclough, 2012), which enables enhanced engagement with participants ‘voices’ emerging through qualitative research such as ours. The aim of researchers using DA is to reveal the socio-psychological characteristics of a person/persons with whom the researchers are in ‘discussion’. To be clear, this is not a linguistic approach since, although DA is, adopted as a means of studying language and its use ‘beyond the sentence boundary’, it is also drawn upon to engage with ‘naturally occurring’ language. In this regard, it is capable of identifying, or consolidating one’s appreciation of, how, for example, people ‘share’ a set of values, beliefs, etc., and how they express them through use of particular language. In the context of the health service, for example, one could say that the frequent use of acronyms is indicative of a discourse having been developed that allows a method of linguistic ‘short hand’ (see for example Keller, 2011).

The SPSF Programme impact evaluation was designed to explore participants’ views as experience-related and explained in their own words. Drawing on an interpretivist framework, and through use of DA, we can extend beyond descriptions and reproductions of what the Fellows and other participants told us, to provide contexts and interpretations capable of illuminating the complexities and circumstances of learning and applying improvement methodologies within the healthcare environment. It is our contention that the results of our approach will better enable the sharing of perspectives within the wards or departments where Fellows normally work and beyond. In this context then, our approach is wholly consistent as a means of better achieving the benefits recognised through the nurturing of social networks (Greenhalgh et al., 2004; McCannon & Perla, 2009; Green & Plsek, 2002; Della Penna et al., 2009)

In summary, our research design builds on a qualitative methodological framework as a means of enhancing opportunities for drawing from Fellows' responses and revelations concerning their individual experiences of the Improvement Science educational SPSF Programme. Furthermore, we would argue that such an approach enables an assessment of the Fellows’ actual and future impact on their local practice and their ability to further engage their colleagues at all levels of practice. In particular, we adopted the phenomenological approach as a means of capitalising on the opportunity to capture the rich, perceptive views of the Fellows as demonstrated in their detailed questionnaire responses; and of CEOs and Programme Senior Leaders in their focus group and interview
settings respectively. Furthermore, this approach facilitates a better understanding for the ‘outsider’ of participants’ (Fellows’, Programme Senior Leaders’ and CEOs’) interpretations of events and issues in this context.

Combining the phenomenological approach with that of interpretivism presented further opportunities. It opened up our research area to investigate patient safety in context, combining the influence of policy, the local organisational context, and most importantly the participants’ perspectives and the ways in which all these elements interact. In addition, the sensitive use of an interpretivist approach has been recognised for its ability to aid exploration and appreciation of interactions undertaken by, and the cognitive processes involved for the participants (Fearfull, 2005). It can be argued that this is particularly the case when researchers have practical/occupational familiarity with the areas under examination (as is the case with the first named author), when they can draw on their pre-understanding and pre-knowledge of a context (Gummesson, 1991), without tethering the new knowledge and understanding to the old/existing.

Having given this methodological overview of our research, we move on to detail our research methods.

2.5 Research Methods

Our synopsis of the literature on capacity and capability building for healthcare improvement (Chapter 1), in combination with our ongoing inclusion and engagement with the literature, supports the rationale of NHSS in building and sustaining the SPSF Programme. However, to understand what is important to the SPSF participants we used a qualitative element to our enquiry, based in phenomenological and interpretive epistemologies to enable analysis of the information conveyed through language used by the Fellows.

Full disclosure of research methods and procedures is one of the basic tenets of scientific/social scientific research. It is via such a mechanism that knowledge can be accumulated as research is replicated and verified (Johnston and Owens, 2003). In this study, we used a multiple methods approach whereby each of the three sets of participants engaged with a different data collection instrument. As will be appreciated from the discussion above, our methodological approach facilitated our exploration of Fellows’ perspectives on the SPSF Programme and its outcomes. As argued above, such an exploration would have been ill served by a more quantitative style of research, which, we would contend, is insufficient for deriving the bases for illuminating individual perspectives,
not to mention any subtle variations in association with the points being made. For example, if we had used a standard, closed response-style questionnaire, and that alone, it would have been impossible to explore Fellows' perceptions and reflections; to identify any nuances in their 'answers' concerning the ability of the Fellowship and/or the Fellows themselves to support improvement; or to establish detail on sponsors’ support and contribution to improvement. Instead, at best, we would have had to second guess, even with the benefit of the literature, what kinds of views the Fellows and their sponsors might want to express in response to our questions. Nor would the inclusion of Likert scales have lent much insight other than the extent to which participants felt strongly or otherwise, agreed or disagreed in regard to a set sequence of statements.

Nevertheless, in regard to data collected from the Fellows, in view of the number of participants to be engaged, their wide spread national and international locations (from Cohorts 4 and 5), and our timescale for data collection and analysis, we used an adapted style of questionnaire (see Appendix 2). The adaptation was intended to facilitate Fellows’ more extensive responses and thus used open and extending response boxes. Thus we provided an instrument capable of capturing highly qualitative data, since it was able to expand to accommodate whatever the Fellows chose to write about, regardless of word length. Nevertheless, we were unprepared for the fulsome manner in which a significant proportion of the Fellows responded to our questions and we have incorporated their words in our analysis in Chapter 3.

We used a multiple methods approach applied in the extension to our study, in which we sought a degree of triangulation, through the elicitation of views on the SPSF Fellowship and from 2 other groups of participants: the Fellows’ sponsors (Health Board CEOs and other Senior Executives), and the Programme Leaders. The methods used in these contexts were again different from each other; we were able to hold a focus group session in the first instance and individual interviews in the second (see 3 and 5).

Thus, to answer our research questions and achieve our research objectives, we used three research methods:

- **Method 1**: A qualitative structured survey questionnaire was distributed by email attachment to all SPSF Fellows cohorts1-5 (from 2008-2013).
- **Method 2**: A focus group with the Chief Executive Officers of NHSS Health Boards
Method 3: semi-structured reflective interviews with Senior Leaders accountable for the SPSF Programme quality and safety improvement agenda at NHSS level.

The nature of each of these instruments and their value to our data collection is addressed in Appendix 3 a, b and c respectively. We go on now to outline the conduct of each of these methods.

2.5.1 Method 1: Structured qualitative survey questionnaire

We designed a qualitative structured survey questionnaire (Appendix 2), administered by email, to address 2 of our research questions:

- What are the Fellows’ perceptions and reflections of the Programme and on its intent for capacity and capability building in patient safety improvement?
- To what extent is the Fellow supporting wider organisational improvement capability and development?

2.5.1.1 Fellows’ questionnaire engagement

Although we were confident that Fellows would have no problems with our questionnaire, in order to ensure that they would understand the email request and questionnaire completion requirements, we tested the format and content with three SPSF Fellows and two national sponsor representatives. This kind of testing can reveal unanticipated problems with question wording, order and content description. Crucially, it can help to identify both the researchers’ and participants’ understandings of the questions. In addition, by means of this test, we could determine approximately how long it took to complete the questionnaire and attempt to identify and eliminate items that would not generate usable data. Thus, in October 2012, the pilot questionnaire was emailed to the three Fellows and two HIS sponsors.

In the pilot test we asked the 5 respondents to comment on:

- The time taken to complete the questionnaire
- The clarity of the instructions clear
- The manageability of the layout
- Whether any of the questions were ambiguous
- Whether any of the questions could be considered objectionable
- Whether any important topics were omitted
Following the pilot, minor amendments were made to the questionnaire order in relation to the impact of local project work and spread of project activity. Once we had made the appropriate amendments, the SPSF Programme administrators obtained agreement from the Fellows for the distribution to them of the email survey. We then emailed the questionnaire to every member of each of cohorts 1-4 (from 2008 to 2012).

The initial email survey, distributed in November 2012, revealed that over 30% (n=16) of the email addresses held on record were incorrect, an interesting finding in itself! Following communication with the SPSF Programme administration team, alternative addresses were sourced. The full email address list took over 10 weeks to complete at which point the emails were redistributed. Follow-up emails were sent every 2 weeks throughout November and March 2013 to non-responders to provoke a high response rate. Cohort 5 was added in December 2013 and follow-ups were made up to March 2014 using the same method. A copy of the email request is provided in Appendix 4. Fellows informed us that the questionnaire took between 30 minutes to 1 hour to complete including the attachment of project work and data.

To answer the next two research questions we undertook a focus group with Board CEOs, followed by semi-structured interviews with SPSF Programme Senior Leaders. In the next section we outline the conduct of the focus group.

2.5.2 Method 2: Focus groups

Our next two research questions: were directed towards a focus group of NHSS CEOs since these are either the sponsors of the Fellows, or the senior manager of the sponsor. The research questions relevant to the focus group were:

- In what way are Fellows supported to complete an improvement project?
- How do sponsoring organisations support and contribute to the individual Fellows development in improvement?

Thus, in November 2012, we met and discussed key elements of the SPSF Programme with Board CEOs, the most senior individuals responsible for the health systems in Scotland, to elicit their views on the wider impact of the initiative at organisational level.
2.5.2.1 The CEOs’ focus group engagement

The Chief Executive of NHSS national forum brings together the most senior group of leaders in the country who are ultimately accountable for the quality of care in each NHSS Board. Accordingly, their views of the impact of the Fellowship Programme in Scotland, and the opportunities afforded locally for Fellows to influence clinical improvement in practice, is of interest. Holding the focus group enabled the views of all of the NHSS CEOs attending to be included. The structure of the CEO focus group discussion was jointly agreed regarding the research questions as related to improvement capability building and wider organisational development.

Prior to conducting the focus group, the outline structure of our areas of interest was shared with the meeting administrator and CEO Chairperson in a briefing paper emailed to them in November 2012 (Appendix 5). No amendments were requested and the Chairman, in keeping with the agenda, endorsed the format and content. We were allocated 30 minutes on the agenda enabling discussion, and responses and opinions from the CEOs around our Focus Group Question Schedule as part of the briefing paper (Appendix 5). Both authors were present and both took extensive field notes throughout the session.

2.5.3 Method 3: Semi-structured interviews

The third method of data collection used was semi-structured reflective interviews (Appendix 4) through which we explored the views of the Senior Leaders responsible for the SPSF Programme. The purpose of the reflective interview is to obtain descriptions of the lived world of the interviewees with respect to their interpretations of the meaning of the described phenomena (Roulston, 2010), such as their role(s) and involvement in the SPSF Programme i.e., in the context being studied (Green, 2000). This technique is used to collect qualitative data by arranging individual interviews with participants to allow them the time to elucidate their views and opinions on a particular subject as congruent with the study. The purpose of the interview process, in our study, was to encourage participants to reflect on their involvement in the SPSF Programme and consider sharing their views on the implementation, the desired and the actual impact(s) of the Fellows’ efforts on the local and national patient safety agenda.
2.5.3.1 Senior Leaders' interview engagement

We interviewed nine Senior Leaders, the average time taken being one hour. The interviews were arranged in accordance with the requests and time available of the participants. In some cases, this meant that we met face-to-face; in others the interviews took place over the telephone. The first named author was present for all nine interviews, with the second named author being available for just three, all of which were conducted by both interviewers face-to-face with the participants in an office setting. Whenever possible, the interviews were audio recorded, where that was not possible, extensive notes were taken by the interviewer(s).

2.6 Dealing with the Data

In the section above, we detailed how we managed the process of data collection process in the light of our having three sets of research participants. In any study, once data has been collected it needs to be managed efficiently in order to ensure that the ensuing analysis is effective and apposite. Achieving such an outcome in a single method study with a single constituent group involves a complex series of steps; achieving it when the study involves three distinct methods and three discrete constituent groups, ratchets up the complexity somewhat. In this section we will detail how we managed our data once collected.

Our three research methods generated a great deal of data and we managed it in the following ways:

2.6.1 The Fellows

The Fellows’ questionnaire responses were filed consecutively by date order of receipt. The Fellows know each other and they are known both by their sponsors and the SPSF Senior Leaders, therefore to retain anonymity, allowing us to draw on and cite the views of individual Fellows as part of our evaluation, each response was de-identified by removing each Fellow’s name and allocating a unique reference number along with their professional group. For example; R1 Doctor, R2 Nurse, R3 Pharmacist, etc. We used Salaña’s (2013) coding framework (Appendix 6) to inform the 1st cycle of our data analysis and adapted it in order to handle our own data for this study (Appendix 6), grouping all responses in question order, i.e., all question 1 responses together, all question 2 responses together, etc. The data themes emerging from the text when ordered in this way were then listed. All the data relevant to each theme were identified and examined using a process called constant comparison (Maykut and Morehouse, 1994), in which each item is checked or compared...
with the rest of the data to establish analytical categories. The rationale for this approach is as follows:

"...words are the way that most people come to understand their situations; we create our world with words; we explain ourselves with words; we defend and hide ourselves with words".

Thus, in qualitative data analysis and presentation:

"...the task of the researcher is to find patterns within those words and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it"

(Maykut and Morehouse, 1994: 18).

2.6.2 The CEOs

The focus group discussions were recorded in field note format by both researchers. These notes were then analysed independently and the categories relating to the sponsors’ roles in the development of the Fellows were identified and compared. The combined themes were then used as a 2nd cycle analysis to agree the emergent themes (Saldaña 2013).

2.6.3 The Senior Leaders

The semi-structured interviews with the senior leaders were audio recorded and transcribed or recorded in note form by the interviewers as described above. The themes emerging from the text were identified and recorded in written form, again using Saldaña (2013) first and second cycle coding.

Having explained the methodology and methods used for our data collection and analysis, we move to Chapter 3 in which we present and engage with our findings.
Chapter 3: Findings and Discussion: Part 1: The Fellows

3.1 Introduction

As will be appreciated, the volume of our data was significant. The number of words included in Fellows’ responses alone was 53,330\textsuperscript{17}. We cannot reproduce every response, nor would it be appropriate to do so. However, as with all qualitative research, the reproduction of participants’ words is apposite. This is because it allows readers of the report to ‘hear’ the participants; it also allows us, as the researchers and interpreters of the data, to ground our interpretation in such a way that readers of the research can have greater confidence in our findings.

We begin this Section of our report by reproducing one Fellow’s response to the question, “Can you summarise your overall experience of the SPSF?”

“The Scottish Patient Safety Fellowship was one of the most rewarding educational experiences I have ever had and made me want to do my job better”. R\textsuperscript{37} Doctor

While R\textsuperscript{37} expressed this view particularly succinctly, the sentiment was apparent in responses from many other participants. We offer R\textsuperscript{37}’s statement here since it is our view that it captures the essence of the SPSF Programme as it was envisaged at its inception. However, as will be seen later, such a positive view cannot be applied to all aspects of the Fellows’ experiences.

The intention in conducting the research leading to this report was that our evaluation of the SPSF Programme would be useful to policymakers responsible for capacity and capability building within NHSS. We are confident that our aim in that regard has been fulfilled because in the light of our intensively qualitative approach, the research has been able to engage directly with the Fellows’ who have participated in the Programme since its inception up to the present Cohort. As a result, we have been able to describe and engage with the settings in which improvement expertise and learning have been implemented.

The SPSF Programme involves complex human interactions the nature of which can rarely be studied or explained in simple terms. Complex educational situations demand complex understanding, thus it is our argument that, in order to develop an in-depth understanding of

\textsuperscript{17} An accurate count was made possible since they typed in their responses to our emailed qualitative questionnaire and these responses were then simply run through the word count software with the words used in the questions removed to arrive at the total number of words written by the Fellow’s.
the educational context and outcomes of the SPSF Programme, the most appropriate methods to use are those which enable qualitative insight and analysis. Buttressed by qualitative approaches, such as interpretivist phenomenology and discourse analysis, we are confident that our study is both insightful and robust. In accordance with those approaches, the research leading to this report involved the qualitative collection, analysis, and interpretation of data. These data relate to the social world, within which the SPSF Programme Fellows work, learn and apply their expertise. The development of insight reported here does not easily reduce to numbers and we have not attempted to report in that manner, because it is our contention that qualitative research can provide a better understanding of the nature of educational problems and thus add to insights into teaching and learning in a number of contexts. The next three parts of this section will present the results in relation to the three sets of constituents and the three data collection methods used as follows:

- **Part 1** will present the themes and concepts derived from participant responses to the SPSF Programme questionnaire
- **Part 2** will present the key points and feedback regarding the SPSF Programme from the focus group discussions with attendees at the NHSS CEOs’ forum
- **Part 3** will present key themes and responses from the interviews held with the senior leaders of the SPSF Programme.

### 3.2 Part One: Results from the SPSF Fellows Questionnaire

Our first two key research questions framed the questionnaire (see Appendix 2), which was emailed to all participants from Cohorts 1-5 inclusive (n = 76). The key questions were as follows:

- What are the perceptions and reflections of the participant Fellows’ regarding the intent for capacity and capability building in patient safety improvement?
- To what extent does the Fellowship support wider organisational improvement capability development?
3.2.1 Responses

The survey questionnaire, with reminders as necessary, was emailed initially to all Fellows of present and past (Cohorts 1-4) within and out with Scotland (n=76), from December 2012 to March 2013. Since additional funding was made available during our write-up period, members of Cohort 5 were emailed with an invitation to participate in the study, again with reminders as necessary, from December 2013 through to March 2014. During the survey periods, four reminders were circulated to all non-responders every two weeks emphasising the importance of the return of completed questionnaires to the future planning and delivery of the SPSF Programme. For Fellows working outside Scotland, the research questions directly relating to SPSP capacity building were reframed to generalise improvement capability building in their own local healthcare context. By the close of the collection period, the overall response was 85% with a 93% response rate from Scottish Fellows. A breakdown of these figures is presented in Table 2 below.

Table 2

Fellows’ Questionnaire Responses:
(December 2012 to March 2014)

<table>
<thead>
<tr>
<th>Fellow's Country of Origin</th>
<th>Total</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>60</td>
<td>56</td>
<td>93%</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>10</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>International</td>
<td>6</td>
<td>4</td>
<td>66%</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>65</td>
<td>85%</td>
</tr>
</tbody>
</table>

As can been seen from Table 2 above, over Cohorts 1 to 5, there were six international Fellows’ and ten from Northern Ireland. This number represents just over 18% of the total number of participants. As already stated, the primary objective of our research was to examine the perceptions of Fellows sponsored by NHSS Boards in relation to the SPSF Programme, while also paying attention to their views on the opportunities they had to develop and apply new improvement skills in support of the SPSP. In view of their involvement on the SPSF Programme, we also considered the experiences as related by the international Fellows’ and those from Northern Ireland as they too are pertinent to the ability of the SPSP to inculcate safety, capability and capacity building, albeit not for application within Scotland. Indeed, it is our view, as a result of our evaluation that, regardless of the shortcomings to be addressed below, the SPSF Programme can be assessed as having made considerable contribution to the enhancement of safety, capability and capacity.
building on an international scale, through the quality of commitment of all participating Fellows.

3.2.2 Key themes identified

The thematic analysis of the text provided by Fellows’ responses to our qualitative survey involved a number of steps using a descriptive coding framework developed by Saldaña (2013), as detailed in Appendix 6. We adapted Saldaña’s framework (2013) to enable us to code Fellows’ questionnaire responses (Appendix 2). As a result of that adaptation, the first cycle of coding of those responses involved highlighting in the text the key adverbs and adjectives that Fellows’ used to describe their individual experiences and learning opportunities. The second cycle identified 8 main themes from responses framed around the question responses. These themes are detailed in Table 3 below:

Table 3
The Eight Key Themes Identified from the 2nd Cycle Thematic Coding

<table>
<thead>
<tr>
<th></th>
<th>Overall experience of the SPSF Programme: content, delivery and most and least helpful elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Personal Development / personal impact</td>
</tr>
<tr>
<td>3</td>
<td>Knowledge/skills developed</td>
</tr>
<tr>
<td></td>
<td>• New</td>
</tr>
<tr>
<td></td>
<td>• Statistical</td>
</tr>
<tr>
<td></td>
<td>• Coaching</td>
</tr>
<tr>
<td>4</td>
<td>Theory to practice links expressed</td>
</tr>
<tr>
<td>5</td>
<td>Project implementation / outcome / spread - Making clinical change happen locally and in the wider organisation</td>
</tr>
<tr>
<td>6</td>
<td>Networking</td>
</tr>
<tr>
<td>7</td>
<td>Supporting future development of safer healthcare systems</td>
</tr>
<tr>
<td>8</td>
<td>Confidence</td>
</tr>
</tbody>
</table>

The themes will now be examined in detail.
3.2.3 Theme 1: Fellows’ overall experiences

Methods of conducting a content analysis of text are well established (Bauer, 2000) and results published (e.g. Okazaki and Mueller, 2007). Thematic analysis involves taking chunks of text and labelling them in certain categories or themes (Saldaña, 2013). However, while there are relatively few published guides on how to carry out thematic analysis. In this section, where we engage with the first theme from Fellows’ responses, we can begin to demonstrate the benefit of our interpretivist phenomenology approach to analysing our data by demonstrating our use of the tool Wordle™. As a first step, the full responses to Question 1 of our email questionnaire; Can you summarise your overall experience? were coded and processed in Wordle™. The Wordle™ depiction, (see Figure 3 below) summarises the overall experience of all participating Fellows’. It can thus be discerned from the Wordle™ depiction below, that the words mentioned most often by Fellows in summarising what they had, in essence, gained from their involvement on the SPSF Programme were: opportunity, experience, improvement, learning, confidence, project and network.

Figure 3

Wordle™ depicting ’ expressions of their experiences and outcomes from participation on the SPSF Programme

---

18 Wordle™ is a software system that creates a ‘word cloud’ of the most frequent key words and phrases used in any selected text passage. The results are displayed by font size, largest to smallest, based upon the number of times the word appeared.
Given the context of our study, our interpretation of the finding from Question 1, as expressed in the Wordle™, is that the Programme has given Fellows the opportunity to gain greater experience of improvement measures and initiatives through their developing project work and joining a network which has enhanced their learning and helped them develop more confidence. Secondary, but nonetheless important to Fellows’, and to our evaluation, is the prominent presence of words such as: patient, safety, excellent, positive, practical, fantastic, share, support, best, learn, knowledge and life changing.

By further considering Fellows’ responses to Question 1 without the use of a tool such as Wordle™, we can offer further insight to the SPSF Programme. All respondents (n=65) made positive statements regarding their overall experience of the SPSF Programme. However, we also saw that everyone had taken the opportunity to record free text of between 100 – 300 words to describe how they felt. This overwhelmingly positive response essentially speaks for itself. However, the fact that participants took the time, indeed their own time, to write up to 300 words in answer to one question strongly suggests not only their positive outlook, but also their commitment to the furtherance of the Programme. Of particular note in that regard are Fellows’ comments relating to the structure and format of the SPSF Programme: the design and delivery and the benefits they believed helped them to put into practice the theories taught through the Programme to improve their clinical expertise for application in their workplace.

As mentioned above, it is not appropriate for us to reproduce each transcript. However, we have included a series of Commentary Boxes for each of our three sets of participants. In Part 1 of this chapter, we will look a the Fellows’ Commentary Boxes; in Part 2 we will look at CEOs Commentary Boxes and in Part 3 we will look at Senior Leaders Commentary Boxes. Theme 1, Commentary Box 1.1 (below) provides a flavour of Fellows’ responses in regard to their overall experiences of the Programme.
### Theme 1: Commentary Box 1.1

#### Fellows' Overall Experiences

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall experience</td>
<td>“The blended learning styles helped me implement the changes I wanted to put into practice by making the theory and practice links more visible”. R9 Doctor</td>
</tr>
<tr>
<td></td>
<td>“I enjoyed the whole Programme: the format of residential sessions, class work, site visits and local project application made it easier consolidate and apply the changes I wanted to make in practice”. R20 Doctor</td>
</tr>
<tr>
<td></td>
<td>“The Fellowship transformed my capability to bring about meaningful change in practice. I am very much more confident as a result”. R21 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Learning the theories and then applying the practice of the science of improvement during the action learning periods helped me to implement the changes I was trying to make in the workplace”. R18 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“Practical knowledge and skills I learned linked to the Improvement Science theory I could not have accumulated in the same time frame out-with the structured Fellowship Programme”. R23 Doctor</td>
</tr>
<tr>
<td></td>
<td>“One of the most beneficial experiences I have ever had”. R9 Doctor</td>
</tr>
<tr>
<td></td>
<td>“One of the best things I have done in my career to date”. R47 Quality &amp; Safety Coordinator</td>
</tr>
<tr>
<td></td>
<td>“Best thing I’ve done in years”. R40 Pharmacist</td>
</tr>
</tbody>
</table>

In addition to the positive views on the SPSF Programme overall, several Fellows took the time to express the overall impact of the Programme on a sub-theme of their personal and professional life using powerful language such as ‘life changing’. These comments were offered separately in this context of the second main theme of impact on Personal and Professional lives as noted in Theme 1, Commentary Box 1.2 (below):
Theme 1: Commentary Box 1.2

Impact of the SPSF Programme on Personal and Professional Lives

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content delivery and impact</td>
<td>&quot;Inspiring&quot; R21 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Amazing” R7 Nurse</td>
</tr>
<tr>
<td></td>
<td>“Fabulous and really worth while” R24 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“Enthusiastic” R32 Nurse</td>
</tr>
<tr>
<td></td>
<td>“Motivating, excellent” R31 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“Folks from IHI were amazing” R32 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Many of the skills have used in my personal life” R26 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Content renewed my focus to put the patient first study trip was the opportunity of a lifetime” R12 Nurse</td>
</tr>
</tbody>
</table>

The questionnaire was designed to lead Fellows to share their views on the positive aspects of the SPSF Programme, while encouraging them to suggest changes they would make to improve the Programme. The SPSF Programme curricula timetable was commented on by over half (n=42) (64%) of the Fellows, with particular requests to review the order of topics suggesting a review of Quality Improvement as a discipline or body of knowledge. The use of international speakers and those experienced in healthcare improvement was well received, some Fellows naming specific IHI Faculty members. Through Theme 1, Commentary Boxes 1.3 and 1.4 below, we have used the same technique as above to allow the reader to ‘hear’ Fellows’ voices regarding other sub-themes from the ‘Overall Experience’ section of the questionnaire, and what they felt to be the most and the least helpful aspects of the Fellowship Programme.
**Theme 1: Commentary Box 1.3**

**What Did Fellows Find Most Helpful About the Programme?**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most helpful to Fellows</strong></td>
<td></td>
</tr>
<tr>
<td>&quot;As a young doctor involved and leading QI this is the best Foundation Imaginable&quot;</td>
<td>R5 Doctor</td>
</tr>
<tr>
<td>&quot;An appreciation of all kinds of experimental methods&quot;.</td>
<td>R21 Doctor</td>
</tr>
<tr>
<td>“Site visits and study trips”</td>
<td>R1 Nurse</td>
</tr>
<tr>
<td>“The most helpful thing to me was the learning and sharing the challenges and successes&quot;.</td>
<td>R5 Nurse</td>
</tr>
<tr>
<td>“Networking, knowing I have someone to talk to outside my organisation helps me”.</td>
<td>R42 Doctor</td>
</tr>
<tr>
<td>“The model for improvement”.</td>
<td>R2 Doctor, R2 Nurse, R24 Pharmacist, R25 Doctor, R48 Q &amp; S Coordinator</td>
</tr>
<tr>
<td>“Data data data”.</td>
<td>R9 Nurse</td>
</tr>
<tr>
<td>“Measurement and learning about SPC”.</td>
<td>R1 Nurse</td>
</tr>
<tr>
<td>“Learning how to measure improvement”</td>
<td>R5 Nurse</td>
</tr>
<tr>
<td>“Measurement and data analysis sessions”</td>
<td>R10 Doctor</td>
</tr>
<tr>
<td>“Networking.&quot;</td>
<td>R19 Doctor, R15 Doctor, R22 Nurse, R52 Doctor, R53 Doctor</td>
</tr>
</tbody>
</table>
Around a third \((n=24)\) of the respondents found all aspects of the Fellowship helpful. However, the remaining two thirds \((n=41)\) mentioned a number of aspects that they perceived as unhelpful to themselves or other Fellows. Nevertheless, a number of these less positive aspects were tempered by some Fellows who offered suggestions for improvement regarding: the structure of the overall SPSF Programme; communication systems for the Programme; measurement including difficulties with data capture, in practice and support for time out proved a challenge at times. Again, we interpret such constructive criticism as supportive of the Programme. Some of these aspects are reported, using the Fellows’ voices, in Commentary Box 1.4 (below):

**Theme 1: Commentary Box 1.4**

**What Did Fellows Find Least Helpful About the Programme?**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least Helpful to Fellows</td>
<td>“The community internet portal was set up to make it easier to share information and contact colleagues directly but was not very much be several of us”&lt;br&gt;R21 Doctor&lt;br&gt;“The community of practice portal a ‘good idea’ but was not embraced as a discussion forum”.&lt;br&gt;R31 Pharmacist&lt;br&gt;“The benefits of a whole afternoon to present the Knowledge Network NES system was considered “excessive” and may not apply to all”.&lt;br&gt;R54 Paramedic&lt;br&gt;“The QI Hub was interesting but may not be applicable to all, particularly the international attendees”.&lt;br&gt;R19 Doctor&lt;br&gt;“The elements of the life coaching”.&lt;br&gt;R53 Doctor&lt;br&gt;“Personality traits I didn’t find it useful”&lt;br&gt;R8 Doctor&lt;br&gt;“I would suggest a review and changes in the selection and matching of my experience and their project topics more closely.”&lt;br&gt;R25 Doctor&lt;br&gt;“Schedule of events and timing of the residential sessions were mentioned by a few suggesting shorter sessions and a range of start and finish time.”&lt;br&gt;R63 Doctor</td>
</tr>
<tr>
<td>Helpful Suggestions from Fellows</td>
<td></td>
</tr>
</tbody>
</table>
Less positive comments, when they occurred, tended to relate to the impact of time-related elements of and around participation on the Programme. Thus, a recurring theme was the issue of how clinical commitments could render problematic Fellows’ complete concentration on the Programme. To be absolutely clear in our view, this issue has no bearing on the extent of Fellows’ commitment to the Programme but rather it raises the matter of protected time or, more appropriately, the lack of it. Several Fellows reported finding it difficult to secure enough time to undertake their improvement project back within their service departments. Some mentioned having to engage with much of the Fellowship work in their own time, an issue also commented on by Programme Senior Leaders when we interviewed them. A sample of Fellows’ comments in this regard is provided in Theme 1, Commentary Box 1.5 (below):
## Theme 1: Commentary Box 1.5

### Fellows’ Perceptions of Sponsor Support

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions</td>
<td>“Distance learning/reading generally had to be done in my own time. As I was an observer from a non-clinical area...I was unable to get permission from my own organisation to attend [conferences and study trips]. More organisational support would have been helpful”</td>
</tr>
<tr>
<td></td>
<td>R31 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“No clear understanding of our role after the Fellowship”</td>
</tr>
<tr>
<td></td>
<td>R21 Doctor</td>
</tr>
<tr>
<td></td>
<td>“There was a great wealth of knowledge [but] sadly not any time to study and fully appreciate this information. It was often hard enough to secure time off for the residential visits and after trying to squeeze a project into busy working schedules there was unfortunately not time left to do anything else”</td>
</tr>
<tr>
<td></td>
<td>R28 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“Doing this Fellowship on top of a full time job was difficult. Although I was allocated study leave, there was still all the clinical work to catch up with and a project to do as well”</td>
</tr>
<tr>
<td></td>
<td>R51 Doctor</td>
</tr>
</tbody>
</table>

On the associated theme of time constraints and the impact of their professional lives, fitting in Webex™ conference calls was described as a “challenge when back at the clinical sharp end” (R28 Pharmacist). Some Fellows suggested that their Sponsors be mandated to facilitate requirements of the Programme; and that a mandate be monitored routinely by Programme Leaders and mentors. The inference that we have drawn from that view, i.e., our interpretation of Fellows’ perceptions, is that such a mechanism would not only allow Fellows to reap fully the benefits of the Programme, but would also enhance the chance of their Sponsor organisations to achieve an appropriate return on their investment, and that bodies such as NHSS, HIS, NES, etc., would do so also.

Fellows also commented on aspects of the Programme, which we would interpret as being frustrating for them, in the extent to which they felt unable to fulfil Programme expectations in particular regard to the reading requirements of the Programme. Several mentioned the long reading list; some described it as “excessive” for the duration of the Fellowship and others
regarded it as an “ambition” e.g. (R18 Doctor; R32 Nurse; R39 Doctor; R28 Pharmacist). One Fellow described it as:

“Ultimately greater than could be read within the time constraints and clinical commitments”.

R18 Doctor

We will return to the points made here later, since they are clearly perceived by Fellows as problematic elements of the Fellowship, potentially compromising Fellows’ enjoyment of the Programme but, perhaps more importantly, the objectives of the Programme. In addition, some of these issues were raised by Senior Leaders in their interviews and thus, we would argue, are indicative of perceived problems in regard to Programme support from Sponsors.

Moving onto another potentially problematic element, over a third (n=26) of the Fellows commented that communications concerning the SPSF Programme were confusing at times and generally difficult to follow, one Fellow was particularly clear on this matter:

“[I] have to say that the communication and paperwork around the programme as a whole was not good – it was erratic, incomplete, late and in some cases just not there. I do know that there were issues with admin support for the programme and I hope this is now rectified as it does impact on the programme and participant preparation”.

R42 Doctor

On a similar theme regarding the availability of information, Fellows also reported that if they missed a Session or part thereof, there was no opportunity to fill that gap, or the possibility to receive the information in an alternative format:

“Unfortunately we missed a session as a result of delayed flights, we think we missed a particularly important session that was never recovered”.

R21 Nurse

Measurement for improvement is a key element of the Programme and over half of the Fellows’ commented on its use regarding the content of measurement sessions and the software recommended for data capture. Although some had difficulty with the measurement for improvement theory particular praise was mentioned of the Faculty for this subject namely Drs. Bob Lloyd and Lloyd Provost from IHI. Theme 1, Commentary Box 1.6 gives a flavour of the mixed views on Measurement.
Theme 1: Commentary Box 1.6
The Pros and Cons of Measurement Education

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement</td>
<td>“More measurement support and coaching earlier in the Programme”. R49 Nurse</td>
</tr>
<tr>
<td></td>
<td>“Measurement software seems to be an issue for many”. R12 Nurse</td>
</tr>
<tr>
<td></td>
<td>“Opportunity to catch up if missed class or need further clarification”. R14 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Data was important being able to generate and display data”. R18 Doctor</td>
</tr>
<tr>
<td></td>
<td>“I found it difficult to secure follow-up help with the use of their local data”. R33 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“Help with data post Fellowship” R38 Nurse</td>
</tr>
<tr>
<td></td>
<td>“I struggled on an individual basis with the aspects of measurement and more practical application of the measurement skill from someone using data at the frontline would have been helpful”. R48 Quality and Safety Coordinator</td>
</tr>
<tr>
<td></td>
<td>“Better understanding and reporting of data”. R8 Doctor</td>
</tr>
<tr>
<td></td>
<td>“The grounding in improvement statistics has been invaluable”. R11 Pharmacist</td>
</tr>
</tbody>
</table>

Before moving on to our examination of the second theme emerging from Fellows’ participation in the study and given the volume of information above, we will summarize the above in Summary Discussion Box 1, below:
We now move on to engage with the second theme emerging from Fellows’ participation in the study.

3.2.4 Theme 2: Personal development and impact of the Fellowship Programme

The quality of NHSS services is dependent upon the skills and abilities of the people delivering the vast array of associated services to the public throughout the country. The personal development of all employees in NHSS is a priority. With reference to the SPSF Programme (at December 2012) the implementation plan set out priorities to ensure that the appropriate people have the appropriate skills to improve the quality of healthcare in NHSS. Fellows commented on the benefits of the Programme regarding their development of personal skills and their perceptions on the impact they could make within the service as a

---

19 The priorities are set out in the recently published NHSS 2020 Workforce Vision document *Everyone Matters* (Scottish Government, 2013)
result. These comments are contained within Theme 2, Commentary Boxes 2.1 and 2.2 respectively (below):

### Theme 2: Commentary Box 2.1

**Personal Development**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Development</td>
<td>“Learning to understand myself.” R11 Pharmacist</td>
</tr>
<tr>
<td></td>
<td>“More mature and learned to channel energy efficiently, brought the excitement back to work.” R35 Nurse</td>
</tr>
<tr>
<td></td>
<td>“More connected as a result to the local SPSP work Programme and local implementation which is further boosting my skill and confidence.” R14 Doctor</td>
</tr>
<tr>
<td></td>
<td>“It’s helped me develop some leadership qualities...my professional confidence...a slightly higher self esteem!” R8 Doctor</td>
</tr>
<tr>
<td></td>
<td>“I’ve developed a new set of skills that are now fundamental to my role as a leader” R9 Nurse</td>
</tr>
<tr>
<td></td>
<td>“…it equipped me with knowledge and skills within improvement [and] has allowed me to have confidence when teaching and coaching others” R12 Nurse</td>
</tr>
<tr>
<td></td>
<td>“It has given me a good grounding in [QI] including practical experience” R13 Nurse</td>
</tr>
<tr>
<td></td>
<td>“My personal development revolved almost entirely around acquiring skills in QI...the Fellowship has augmented by ability to carry out my job as clinical lead” R21 Doctor</td>
</tr>
<tr>
<td></td>
<td>“I was able to apply my skills and expertise outside my own immediate environment and support colleagues...more confident in my ability to lead”. R22 Nurse</td>
</tr>
</tbody>
</table>
One of the main drivers for the introduction of the SPSF Programme was the need to develop and strengthen clinical leadership and improvement capability in NHSS in order to support the implementation of SPSP. The role of clinical leadership development is not exclusive to the SPSF Programme as the National Leadership Unit, as part of NES, also has a role in the development of strong and effective clinical leadership through the established Delivering the Future Programme20. Because of the mutual goals of developing knowledge and skills for use in the future, the two Programmes are linked by a teaching session within the Fellowship regarding the Delivering the Future programme.

While for some of the Fellows (n=34), concern with the future was not at the forefront of their minds, we recognised a virtuous cycle from Fellows’ responses in the context. Over 50% of the Fellows declared increased confidence in their work as a result of SPSF Programme participation along with their ability to do their job, improving their confidence. We interpret

20 The focus of the Delivering the Future Programme is on developing strategic clinical leaders from across the clinical professions, for future roles at NHS Board regional and national levels.
that finding as having a direct payoff regarding the extent to which the Fellows would be able to make a personal impact on the future effectiveness of NHSS. We have already ‘heard’ Fellows’ views on their personal developments through the programme, In Theme 2, Commentary Box 2.2 (below); we will hear what Fellows had to say about the impact of the Programme on both their personal and professional lives.

**Theme 2: Commentary Box 2.2**

**Impact on Personal and Professional Lives**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| **Personal Impact**                | “On a personal basis the whole Fellowship was enjoyable, rewarding and unique, affecting my life in and outside work.”  
R28 Doctor  
“The experience was life changing.”  
R5 Nurse, R7 Doctor, R29 Doctor  
“The Fellowship affected me personally helping me to improve life outside work.”  
R40 Doctor  
“There was a welcoming atmosphere. The group dynamics seemed to encourage discussion including disclosure of personal worries and fears about the work.”  
R35 Pharmacist  
“Best thing I have done in my career to date and it changed me!”  
R40 Doctor  
“Coming out of my comfort Zone was a great stretch for me personally and professionally.”  
R4 Nurse, R47 Nurse  
“I’ve changed in a positive way how I interact with others. The status of the role of fellow was important to me and others I think it was seen as having some weight locally when discussing service change.”  
R52 Doctor  
“I was...able to raise my profile as an improvement expert and continue more broadly to the national Quality Improvement agenda working at a national level.”  
R22 Nurse  
“The experience has brought me back to why I went into medicine – to put the patient first and improve the safety, quality and experience that a patient has at each encounter”  
R23 Nurse |
| **Impact on Personal and Professional Lives** |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
Supplementary to the above commentary addressing the effect of the Programme on Fellows' development and the impact of that on their personal and professional lives, we recognised Fellows' perceptions that such development had an effect on their work roles. Over 80% of respondents (n=52) claimed enhanced responsibilities as a result of their Fellowship activity, including a change of role (50% or n=26). The vast majority (81% or n=53) of all respondents claimed that what they had learned coupled with the teaching methods they had experienced had made them more confident in their own practice and working with others.

For some, such changes were typified as simply doing more within the role, for example R16, a Pharmacist, said:

“I am still in the same job but I have become much more involved with quality improvement within my own organisation and also nationally”

Some told us that they had not taken on new roles but that changes to their existing roles involved them more in quality improvement. One respondent said they had simply become busier, with another indicating the same outcome by listing their acquisition of three new roles on their completion of the Fellowship. Others had experienced changes to their role by various means including: secondment; undertaking professional/clinical lead roles; developing training sessions on quality; becoming advisory lead on a number of quality groups; becoming a Service Improvement Team manager; becoming a national lead for safety; running a medical safety campaign, and becoming a Change Agent/QI Advisor. Three Fellows mentioned specifically that they had been promoted following their participation with the Programme. We interpret these findings along with the others detailed above as correlating with the enhanced confidence and effectiveness expressed by respondents.

Important aspects of the Programme validated the finding related to the question of personal development, sharing networking confidence, understanding of the model for improvement, and other practical tools for implementing change in practice.

Before moving on to our examination of the third theme emerging from the Fellows’ participation in the study, we will summarise the above in Summary Discussion Box 2:
The third theme to emerge from our qualitative questionnaire to was their development of increased knowledge and new skills and it is to this theme that our discussion now turns.

### 3.2.5 Theme 3: Knowledge and skills development

The Health Foundation has recently identified a number of skills that they consider to be vital to achieving quality improvement; these skills have been typified as: ‘soft’, i.e. people-related; ‘technical’ and ‘learning’ skills. Although no hint of these typifications was made to Fellows' expressed their experiences of the Programme in this regard as entirely positive. Drawing from the Commentary Boxes and our discussion above, we have interpreted Fellows’ experiences as being:

- Becoming more understanding of self and others, including strengths and weaknesses
- Enhancing maturity
- Increasing confidence / credibility / enthusiasm to accept a challenge
- Improving diplomacy
- Raising their level of leadership qualities
- Elevating their teaching and coaching skills
- Developing greater awareness of QI

In regard to the impact of the Fellowship on their personal lives, Fellows perceived a number of life enhancing aspects including:

- The improvement of their home and leisure lives
- The ability to share and be more comfortable with discussing problems with colleagues

Fellows also perceived the Fellowship to have enhanced their ability to have an impact on Service delivery and mentioned aspects such as:

- Their having been stretched both personally and professionally
- The Fellowship having raised their status / profile / credibility giving their opinions and actions more weight
- Reminding them of the professional objectives and aspirations key to effective Service delivery

New and more expansive roles had also been taken on by a number of Fellows'. However, while for some this meant formal promotion, for others it had merely led to their having more work to do.
Theme 3: Commentary Box 3.1

Knowledge and Skills Development

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soft</strong></td>
<td>“Enhanced leadership skills.”</td>
</tr>
<tr>
<td></td>
<td>“I now actively seek to engage my colleagues’ first before I even think about change.”</td>
</tr>
<tr>
<td></td>
<td>“New skill being able to challenge in a constructive manner.”</td>
</tr>
<tr>
<td></td>
<td>“I am a far better communicator.”</td>
</tr>
<tr>
<td><strong>Technical</strong></td>
<td>“Understanding of leadership and what it takes in practice the norms patient safety and process and improvement”</td>
</tr>
<tr>
<td></td>
<td>“…negotiating and prioritising QI tools…better communication of data analysis and data collection.”</td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td>“Knowledge of QI Data and the confidence in how to use it.”</td>
</tr>
<tr>
<td></td>
<td>“New skills of the HOW to improve practice.”</td>
</tr>
<tr>
<td></td>
<td>“I had no idea how to improve care now I have the language tools and experience necessary.”</td>
</tr>
</tbody>
</table>

Knowledge transfer and learning are universally accepted as the ultimate goals in teaching (Akintunde, 2007). Our interpretation of Fellows’ views in regard to their skill and knowledge acquisition is that such are entwined with the development of confidence as discussed
above. Over half of all responding Fellows mentioned both *that* and *how* the Fellowship had boosted their confidence; some believing they could better support colleagues as a result, while others believed themselves to be a better leader as a result. In providing an opportunity for Fellows’ to enhance their knowledge and further develop their skills as outlined above, the Fellowship Programme also leads to Fellows to embrace their new-found or improved levels of confidence. Since the Programme is designed to enable Fellows to do their jobs more effectively, it is our contention that the confidence gained through the Programme is robust rather than ungrounded, and that, as a result, Fellows will induce the confidence of their colleagues and their patients and other Service users, thereby leading to improved experience of care and their greater chance of recovery.

This finding might be considered particularly important in regard to the contribution of the Fellowship to quality improvement, since several authors suggest the application of skills and successful knowledge transfer is difficult to achieve (e.g., Argote *et al.*, 2000), for a number of reasons including: the inability to recognise & articulate “compiled” or highly intuitive competencies associated with the development of tacit knowledge (Nonaka and Takeuchi, 1995); distance between learners and teachers (Galbraith, 1990); limitations of Information and Communication Technologies (ICTs) (Roberts, 2000), and the lack of a shared/super ordinate social identity (Kane, Argote and Levine, 2005). In our final summary Box 3 (below), we highlight the data in relation to the Fellows' knowledge, skills and development.

**Summary Box 3**

<table>
<thead>
<tr>
<th>Knowledge and Skills Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Once again, Fellows’ expressed their experiences of the Programme in this regard as entirely positive. Drawing from the Commentary Boxes and our discussion above, we have interpreted experiences of knowledge and skills and development as being appropriate for:</strong></td>
</tr>
<tr>
<td>• The requirements of the Quality Improvement agenda</td>
</tr>
<tr>
<td>• Service users’ needs to feel confident in the expertise of those addressing those needs and requirements</td>
</tr>
<tr>
<td>• The requirements of their Sponsors and senior managers</td>
</tr>
<tr>
<td><strong>However, based on our analysis of Themes 1 and 2 above, in conjunction with Fellows’ clear enthusiasm to fully utilise their new-found capabilities, we are concerned:</strong></td>
</tr>
<tr>
<td>• With the extent to which Fellows’ appear to be susceptible to underemployment by their Sponsors</td>
</tr>
</tbody>
</table>
Theme 4: 3.2.6 Theory to practice links

The fourth theme to emerge from the Fellows' qualitative questionnaire responses was that of linking theory to practice. The following narrative from R21, a Doctor, exemplifies how a significant number of Fellows had engaged with the theory to practice link:

“The Fellowship has transformed my capability to bring about meaningful change...(it’s resulted in) Practical knowledge and skills inked with theory, which I could not have accumulated in the same time frame out with a structured programme…greater scientific skills which can be applied generally”

In the Theme 4 Commentary Box 4.1 below, we have compiled examples of Fellows' views on the context of theory to practice transfer as indicative of the extent to which they were able to relate their Programme experiences with practice needs. It is important to see how they were able to identify where the theoretical elements of the Programme informed their practice on return to their organisations.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| Theory to practice links | “Didn’t realise how difficult it was going to be in practice.” R32 Nurse  
“I learned how to apply what I learned in practice.” R5 Nurse  
“Linking the learning from the residential sessions to my actual improvement work and getting results was great!” R20 Doctor  
“Applicability to my day to day practice.” R24 Pharmacist  
“In the past, I have struggled to make things stick. What I learned here was unique compared to other learning experiences. I was able to sustain the changes (in practice) I have made as a result of the Fellowship.” R36 Doctor  
“Helped me to gain a good understanding of Improvement Science and its practical application.” R2 Doctor  
“My practice is more reliable.” R5 Nurse  
“I have always been well intentioned clinically but the Fellowship has brought a clear focus, structure and method to improving practice and the safety and quality of care that I and others provide.” R18 Doctor  
“I’ve learnt a lot about the underpinning of theories of process improvement which has helped me when debating practical issues with other staff. In my HB there has been a significant push for Lean Methodology but being able to explain that it is all very well being able to identify how the system could be improved and what could be done to improve it, but without an understanding of the science of process improvement most interventions either fail to achieve what was intended or cause problems elsewhere in the system.” R11 Pharmacist |
Another term to explain the notion of theory to practice linking is Evidence-based Practice. Evidence-based Practice, in a medical context, involves “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett, 1997). According to Sackett, good doctors use both individual clinical expertise and the best available external evidence on the premise that they are mutually dependent for high quality care. Practicing evidence-based medicine effectively, Sackett contends, involves a continuous process of life-long, self-directed learning and the maintenance of state of the art information on methods and delivery of medical aspects such as diagnosis, prognosis, therapy, and other clinical and healthcare issues. From that perspective, it is important that workers in the healthcare field constantly evaluate their performance to enable development of best practice. Within the SPSF Programme not all participants are doctors; however, the matter of implementing quality and safety measures is important whatever profession one is working in within the healthcare sector and the above narratives demonstrate that point very well.

However, as Evidence-based Practice has evolved in scope and definition (Dawes et al., 2005), it requires that decisions about healthcare be based on the best available, current, valid and relevant evidence. From this perspective, any such decisions should be made by those receiving care while being informed by the knowledge, both tacit and explicit, of those providing care and within the context of available resources. We do not have evidence of the extent to which Fellows have incorporated the views or wishes of patients and, in order to support any such aim, healthcare professionals need to be able to gain and apply new knowledge and to have both the time and expertise to develop their ability to adapt to the ever-changing circumstances throughout their professional lives. However, we do not see it as being beyond the scope of the Programme to incorporate this element of practice in the future. Importantly though, we do see evidence from the Fellows’ questionnaire responses that they are critically engaged with their practice in whatever their field of operation. As pointed out by Dawes et al. (2005), all healthcare professionals need to have a critical attitude to their own practice and to any evidence that they wish to utilise in their practice: “Without these skills, professionals and organisations will find it difficult to provide ‘best practice’”. It would appear then that the SPSF Programme has incorporated the element of critical analysis and is inculcating this within Fellows to better enable their practice.

Theme 4 Commentary Box 4.1 above relates the Fellows’ experiences of relating theory to practice or, alternatively, of working towards the development of successful evidence based practice. It is important to note here that contributors whose voices are being heard are representative of a range of professional groups within the healthcare sector, as is befitting
given the nature of the SPSF Programme, but not necessarily traditionally represented within the literature in this area.

3.2.7 Theme 5: Project implementation and spread

This theme emerged from Fellows’ narratives about their Project experiences whilst undertaking their Fellowships. Essentially, Fellows explained how their Project work enabled them to make changes happen locally and in the wider organisation; or how circumstances within their project setting prevented that. Key aims of the project work were well defined and understood by most Fellows, as were numerical goals and dedicated end points for measurement purposes (Langley et al., 2009).

As can be seen from Table 4 below, a simple count demonstrates that, by a significant majority (74% or n=48), Fellows considered their projects to be wholly, or at least partially successful.

Table 4
Fellows’ Perceptions of Project Achievements

<table>
<thead>
<tr>
<th>In-Part</th>
<th>Achieved</th>
<th>Not Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>24</td>
<td>17</td>
</tr>
</tbody>
</table>

Of these, over a third of projects have been successful in achieving a level of dissemination beyond the local system (n=27). Some of the results have been published in journals (n=6); others have been presented at conferences (n=11), and 10 Fellows have made international presentations. In addition, four individuals have won national awards in recognition of the improvement work that they have undertaken or initiated during their Fellowship. As can be seen from Table 4 above, only 17 (26%) of Fellows told us that, as far as they were concerned, their projects had not been successful. Of Fellows who believed they had achieved the project goals some submitted examples and data to corroborate the outcomes achieved along with their responses to our qualitative questionnaire (Appendix 2). As with any improvement exercise the learning on the journey is a hugely important element as a recognition and evidence of knowledge into action.

Areas in which Fellows’ projects were undertaken are presented in Table 5 below:
Table 5
SPSF Fellows’ Project Areas

<table>
<thead>
<tr>
<th>Infection control</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduce infections</td>
<td>• Use of SBAR (a succinct communication tool)</td>
</tr>
<tr>
<td>• On time antibiotics</td>
<td>• Daily goals</td>
</tr>
<tr>
<td>• Detect and reduce sepsis</td>
<td>• Safety briefings</td>
</tr>
<tr>
<td></td>
<td>• Huddles</td>
</tr>
<tr>
<td></td>
<td>• Use of technology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient flow</th>
<th>Safety Specific topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Throughout the hospital</td>
<td>• Improved rescue</td>
</tr>
<tr>
<td>• Reduction of non attendance at appointments</td>
<td>• Deep venous thrombosis prevention</td>
</tr>
<tr>
<td>• Reduced length of stay in Intensive Care Unit</td>
<td>• Full implementation of the surgical checklist, surgical pause</td>
</tr>
<tr>
<td>• Increased referrals</td>
<td>• Implementation of evidence based care for heart failure</td>
</tr>
<tr>
<td>• Faster access to test results</td>
<td>• Medication safety</td>
</tr>
<tr>
<td>• Discharge planning and preparation</td>
<td>• Patient and family centred care and experience</td>
</tr>
</tbody>
</table>

In response to the question, *Does the project/intervention continue in your organisation?*, over 83% (n=54) of Fellows answered in the affirmative, with over half (n=37) detailing how the intervention had spread to other areas both within (n=29) and out with the organization (n=8). Not all Fellows provided details of their project work but from those who did, we have provided an anonymised list of Fellows’ Projects since 2008 (see Appendix 7).

Engaging in a safety improvement project focused Fellows’ learning on the use of the model for improvement and, as part of this, on the need for effective communication and negotiation skills in order to better effect change. A component part of this development is feeling confident with the measurement tools for improvement as a means of making a case.
for improvement and its success amongst colleagues, junior and senior alike. We will be looking closely at the issue of confidence in Theme 8 below, but Fellows were clear that the particular style and enthusiasm brought to the subject of measurement by Dr Lloyd of IHI was both enlightening and confidence inducing. The measurement techniques were thus recognised as an appropriate and useful means of understanding the extent to which they could see whether or not their project work was working and achieving ‘spread’.

In the Theme 5 Commentary Box 5.1 below, we have presented a sample of Fellows’ narratives to demonstrate their perspectives on both sides of the project implementation coin.

**Theme 5: Commentary Box 5.1**

**Project Implementation and Spread: Successes**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Successful Implementation and spread</strong></td>
<td>“(I learned) how to get a project back on track.” R14 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Surgical pause and checklist were not widely understood. I found that surprising. Began testing the tool myself and expecting it to be used and lead by any member of the surgical team. Learning point…how can something so easy be so difficult? (But I) achieved, introduced and used surgical pause and WHO checklist for all patients on my list” R39 Doctor</td>
</tr>
<tr>
<td></td>
<td>“We learned so much about our own tolerances, causing the delays (is) very upsetting to patients. Not enough time for me to detail all the delays but they were numerous and I couldn’t believe how many people had the autonomy to delay, the patient, porter, theatre nurse, doctor, administrator.” R35 Nurse</td>
</tr>
<tr>
<td></td>
<td>“The project achieved the goals that we set out to…one of the most powerful outcomes was the information we gained from patients in the community (information) that we previously had no knowledge of” R12 Nurse</td>
</tr>
</tbody>
</table>
Consideration of whether or not projects are implemented is important for evaluation of the SPSF Programme, since the quality of projects and their implementation represent key indicators of the success of the Programme as a whole. However, taking a brief look at some of the literature in this context in helpful for explaining how problematic such an evaluation is. In a quantitative study, Durlack and DuPre (2008) assessed the impact of implementation on programme, or project, outcomes, identifying factors that affect the implementation process. They found empirical support for their view that the level of implementation affects the outcomes, and that the process of implementation is affected by variables related to communities, providers and innovations in association with projects. Along with those factors, Durlack and DuPre suggested that aspects of the prevention delivery system (which they referred to as organizational functioning), and the prevention support system (referred to as training and technical assistance) must be considered. They argued that in evaluating the implementation of programmes/projects, it is essential to fully understand the nature of implementation, noting that evaluators need to have more information on which and how various factors influence implementation in different settings, and how they do this.

We would concur with Durlack and DuPre’s argument and suggest that such a perspective be central to examining the success or otherwise of Fellows’ projects and the extent to which they have been successfully implemented. This is because, as Durlack and DuPre have suggested, the quality of a project alone is not enough to ensure its implementation, other factors, out with the control of the Fellows, can mitigate against project implementation, regardless of its quality. In their paper on power knowledge transfer in project-based organisations, Ajmal and Koskinen (2008) give more weight to that perspective by considering the issue within the context of prevailing organizational culture. They identify a range of obstacles to knowledge transfer in some organizations, suggesting the problems inherent when attempting to so engage in unsupportive, perhaps inflexible cultures. Thus they emphasize the importance of developing organizational and project cultures that are capable of flexing in accordance with projects appropriate to organisational goals. Ajmal and Koskinen’s study provides suggestions for improving knowledge transfer in project-based organizations and notes the implications of their paper for project management. In considering the comments made by Fellows in response to our qualitative questionnaire, it is apparent that issues raised in each of the two papers outlined above are pertinent. With reference to Fellows’ responses, in some cases, preventive barriers resulted from loss of staff either by them leaving the service altogether or moving on to other roles. More troubling, from the perspective of our evaluation are those aspects that can be seen from Fellows’ narratives. In this regard, it is evident that Fellows perceive that (in)flexibility, culturally or otherwise, is the issue leading to project blockage or sluggishness of
implementation. As will be seen in Section 3.4 below (analysis of Senior Leaders’ interviews), all but one of the Senior Leaders expressed a similar view.

Theme 5 Commentary Box 5.2 below demonstrates some of the barriers faced by Fellows in implementing their projects.

### Theme 5: Commentary Box 5.2

**Project Implementation and Spread: Barriers/Partial Successes**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barriers to Implementation and spread</strong></td>
<td>“I had to change my project due to politics between different types of staff. (on the changed project) We achieved some success but found that if we stopped measuring for any length of time (when restarting) results were poor again. Sustainability is the hard part” R3 Doctor</td>
</tr>
<tr>
<td></td>
<td>“I didn’t achieve my goal for a number of reasons, largely due to patient volume…and what I believe to be disordered department processes” R14 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Barriers, Physician behaviour patterns (‘whose job is it to question our practice’, etc.). Cultural behaviours (a ‘new thing being dropped in from the region’). A belief that there was little need for more checking and additional paperwork. A regional target based solely on process compliance without measured outcomes” R17 Doctor</td>
</tr>
<tr>
<td></td>
<td>“(My success was) partial, I did not anticipate how difficult it would be to examine the content and make it brief, adding into a system that already exists was a big learning point as most wanted to reinvent the wheel” R32 Nurse</td>
</tr>
<tr>
<td></td>
<td>“Rotational programme is prohibitive for continuity working on how to fix the next issue” R34 Doctor</td>
</tr>
<tr>
<td></td>
<td>“The main barriers are reluctance of fellow doctors, and I never expected to be able to change all their hearts and minds within the timeframe of the project, but significant improvements are now being made” R43 Doctor</td>
</tr>
<tr>
<td></td>
<td>“The barriers to achieving my goals has been a lack of resources for measuring improvement as well as a resistance by clinicians to adopting the change” R46 Doctor</td>
</tr>
</tbody>
</table>


### 3.2.8 Theme 6: Networking

Healthcare professionals associated with the SPSF Programme, in any capacity, are able to communicate via social networking media such as Twitter and Facebook in association with bodies such as IHI, SPSP and the Health Foundation. They can also use the dedicated community site to blog. However, the very existence of the Programme offers the opportunity for Fellows of all Cohorts, past and present, to engage with a potentially very powerful network, and there is no doubt that the 3 x 2.5 day residential were key to building this network and community. Thus, it might be interesting to note that although Fellows were not asked directly about networking in their qualitative questionnaire, 69% (n=45) of them wrote about it in some way. So, for example, some of their responses came in reaction to the question, ‘What aspects of the SPSF are important to you? In some cases the response was short and simple, for example, R56 Doctor simply said “Networking”, R55 Doctor said “To continue contact with my cohort”; R53 Doctor said “Contacts”. Theme 6, Commentary Box 6.1 below displays some of the Fellows’ comments on the value of these opportunities for networking.

### Theme 6: Commentary Box 6.1

**Networking**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Networking</td>
<td>“Relationships (are important) no matter what the problem I now have someone who will know someone who can help.”</td>
</tr>
<tr>
<td></td>
<td>R22 Nurse</td>
</tr>
<tr>
<td></td>
<td>“I still meet with 2/3 of my cohort.”</td>
</tr>
<tr>
<td></td>
<td>R4 Nurse</td>
</tr>
<tr>
<td></td>
<td>“One fellow suggested that more time be dedicated to wider sharing of the information and learning international experiences with the class whole class.”</td>
</tr>
<tr>
<td></td>
<td>R40 Doctor</td>
</tr>
<tr>
<td></td>
<td>“The networking event of all cohorts of Fellows together was believed to be ‘a bit intimidating at such an early stage in the Fellowship’ and perhaps needs to be held later when Fellows are ‘a bit more confident’.”</td>
</tr>
<tr>
<td></td>
<td>R10 Doctor</td>
</tr>
<tr>
<td></td>
<td>“Fellow colleagues, lots of support and practical feedback given. Fantastic networking opportunities with Fellows and international experts.”</td>
</tr>
<tr>
<td></td>
<td>R56 Doctor</td>
</tr>
</tbody>
</table>
“SPSF has enable me to become a connector within my organisation. Instead of trying to change the world on my own (unsuccessfully), I always engage others.”

R4 Nurse

“(SPSF is important for me, my job and my organisation) For all three the educational and networking opportunities have been vital”

R10 Doctor

“Networking opportunities, remaining in contact with some of my Fellow Fellows, knowing you can contact someone outside your own area, sharing learning experiences”

R42 Doctor

The notion of purposive networking suffers to some extent from its association with the concept of the ‘old boy network’, or the deliberately engineered preservation of social élites, usually men. However, the organisation of professional networking is ostensibly focused solely on interactions and relationships of a ‘business’ nature rather than including personal or non-business interactions (Vascellaro, 2007). Professional networks are promoted as being a way to either find work or progress in an existing career. They can also be used as a means of gaining resources and further opportunities for networking. According to the SNCR, (as reported by DiMauro and Bulmer 2009) “three quarters of respondents rely on professional networks to support business decisions”. Reliance has increased for essentially all respondents over the past three years; younger (20-35) and older professionals (55+) are more active users of social tools than “middle aged professionals”. From our data there is no doubt that the opportunity to network and to share problems with the opportunity to solve them together is a major boon for the Fellows. It would seem that this boon applies to Fellows whatever their particular healthcare profession, and whether or not their profession is deemed socially go be of a ‘higher’ or ‘lower’ status than that of another Fellow. This phenomenon is relatively unusual and tends to support a point made by a number of the Senior Leaders during their interviews, that there is something special about the SPSF Fellows, as will be seen in our discussion of the Senior Leaders interview data in Section 3.4 below.

We now turn to the 7th Theme to emerge from the Fellows’ questionnaire responses: their role, and the role of the Fellowship, in supporting the future development of safer systems.
3.2.9 Theme 7: Supporting the future development of safer systems

Although the Fellowship is highly regarded (by both Fellows and CEOs) none of the Fellows described how they were personally connected to the SPSP work by their project in a detailed structured manner to address a particular aspect of safety or QI. On a positive note they had an understanding that their attendance in theory would add to capacity building locally in their service.

Over half of the Fellows suggested that their organisations could make better use of their enhanced skills, knowledge and expertise. It is important for there to be mechanisms in place to assess Fellows' knowledge development over time during the Fellowship, and opportunities for follow up and additional coaching where necessary to ensure effectiveness in this regard. Techniques that can help in this context include: competency survey collection; focus group feedback; faculty mentorship; project review, and use of documents such as a competence mapping. Competency mapping is a technique that can be used to define effective competencies for professional activities (Ayana, 2012).

Much has been written on the subject of enhancing patient safety (see for example The Health Foundation; Marck et al., 2006), but the extract below from Reason (1994: xiv) epitomizes the problems of ensuring patient safety:

"Unsafe acts are like mosquitoes. You can try to swat them one at a time, but there will always be others to take their place. The only effective remedy is to drain the swamps in which they breed. In the case of errors and violations, the "swamps" are equipment designs that promote operator error, bad communications, high workloads, budgetary and commercial pressures, procedures that necessitate their violation in order to get the job done, inadequate organization, missing barriers, and safeguards . . . the list is potentially long but all of these latent factors are, in theory, detectable and correctable before a mishap occurs".

(Reason, 1994: xiv)

One of the main purposes, if not the primary purpose, of the SPSF Programme is to ensure that the safety systems worked on with, and developed by, Fellows as part of their Fellowship are sustainable. We would argue that without such sustainability the system as a whole could not be regarded as robust or even fit for purpose. Indeed, we saw that Fellows indicated their concern in this regard in Commentary Box 5.2 above where they discussed the barriers to the implementation and spread of their project work. In Theme 7, Commentary Box 7.1 below, we have reproduced Fellows’ narratives to indicate the contexts in which they have considered the issue of supporting the future development of safer systems.
### Theme 7: Commentary Box 7.1
#### Supporting the Future Development of Safer Systems

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| Support for future development | “The wider NHS does not seem to have a plan that contributes to the national capacity for improvement. How is support for national activities and contributors identified? Its future plan is not clear”  
R5 Nurse  
“[There needs to be] more thought – and direction – on how Boards should use their Fellows and also a debate on whether Fellows should have protected time to carry out the work of helping to develop others”  
R11 Pharmacist  
“Fellows should be engaged in improvement initiatives in the wider NHS to fully utilise the skills learned during the Fellowship”  
R15 Doctor  
“Need to consider how this type of educational delivery could be replicated at local or at least regional level to benefit the wider capacity building agenda.”  
R39 Doctor  
“The lessons learned and achievements made by the SPSP should be adopted more widely to reduce costs, deliver better care and improve safety for patients more widely.”  
R17 Doctor  
“…formal academic recognition of Fellowship completion….perhaps certificate or diploma to create academic credibility of Improvement Science.”  
R17 Doctor  
“From my perspective the current limited understanding of the executive sponsors have of ‘execution’, that is the application of improvement science to accelerate improvements in the quality of healthcare delivery, makes application of these generic skills…in a wider sense, challenging”  
R20 Doctor  
“We need to promote the idea with the sponsoring organisation that time/support will be required long term to sustain QI work. Perhaps a long term link with someone in local area board with scrutiny over QI work”  
R21 Doctor |
It is our view that, in discussing the issue of supporting the future development of safer systems, Fellows are commenting on what steps could/should be taken as a means of ensuring the implementation and sustainability of best safety practice. It is clear from the above that Fellows see themselves as not being appropriately utilised. The Fellows clearly indicate, the Fellowship, in partnership with the Boards, needs to develop a method or methods for ensuring that the good work of the Fellowship Programme is not wasted through lack of understanding on the part of Sponsors or other senior managers, of what is available to them and their Boards. We wholly concur with that view.

Although, as mentioned above, there is a growing body of literature in the area of patient safety, in a general sense we are still more used to seeing the drive for safe systems emerging from industry (O’Connor, 2011). Nevertheless, medicine and healthcare systems are, like industry, increasingly using micro technological systems. As will be seen in our analysis of the Senior Leaders’ interviews, one participant suggested the need for increasing the use of IT in the service of patient safety within healthcare. However, as Hatton (1995) reminds us, software failure in areas such as aerospace, defence and medicine frequently makes the headlines because of the potentially disastrous consequences associated with it. We are far from experts in technology development and implementation, but it could be that, in considering how some of the support outlined in Theme 7 Commentary Box 7.1 above, an appropriate technological system could be developed and used to ensure that the skills, knowledge and expertise being ‘grown’ within the SPSF Programme are captured in a database. Such a tool could then be tapped into to ensure that Fellows can be utilised effectively at both local and national levels, so that, in the first instance, CEOs and other senior managers have at their finger tips a resource that is able to tell them who has expertise in what and how best that might be used for whatever problem or issue it is that they are confronting.

3.2.10 Theme 8: Building Clinical Confidence

This theme, like that of networking examined above, did not emerge from a direct question on the Fellows’ qualitative questionnaire. Similarly to the issue of networking, that of confidence was present throughout Fellows’ responses. The positive aspect of this finding in regard to our evaluation of the SPSF Programme is clear; and we have included a number of the Fellows’ narratives to demonstrate this in Theme 8, Commentary Box 8.1 below:
### Theme 8: Commentary Box 8.1

**Building clinical confidence**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| **Building Clinical Confidence** | “Gave me the confidence to ‘just do it’”  
R47 Quality and Safety Coordinator  
“I would not have had the confidence to do this (change job) without the Fellowship experience”  
R1 Nurse  
“I believe I am more confident as a result of the Fellowship and that confidence is helping me to have an impact on others”  
R5 Nurse  
“I have gained confidence and am able to challenge in a constructive manner”  
R5 Nurse  
“It has helped with my professional confidence significantly”  
R8 Doctor  
“I feel much more confident when speaking with others about patient safety and process improvement”  
R11 Doctor  
“It has given me increased confidence and credibility when undertaking my day to day work on quality improvement”  
R13 Nurse  
“I have the confidence to use and teach these newly learned skills”  
R16 Pharmacist  
“I am more confident as a leader and a far better communicator”  
R30 Doctor  
“I have been able to apply my new skills and therefore am more confident in my managerial abilities”  
R52 Doctor  
“The Fellowship enhanced my leadership skills and I have developed more confidence in my leadership abilities. This has reinforced my belief that the NHS in Scotland in Scotland is the best healthcare system in the world”  
R56 Doctor  
“I am more confident as a person and a professional”  
R64 Nurse |
“I am much more confident about speaking ‘improvement speak’”

R42 Doctor

“Advising and teaching others outside my own sphere of practice was new to me and would not have happened if it were not for the Fellowship. I gained the confidence. Despite my moving on my project is still in place I am very proud of that.”

R1 Nurse

In considering the implications of the issue of confidence in regard to the Fellowship Programme, it is useful to examine the literature in the area, which, among other things, tells us that belief in one's abilities to perform an activity comes through successful experience and may add to, or consolidate a general sense of self-confidence (Burke et al., 2002). Self-confidence is usually referred to as generating a general sense of wellbeing about one’s life (Rollnick et al., 2000: 92). As part of the overall goals of the SPSF Programme, it is likely that one aim is to develop the self-confidence of participants. However, that is not a specifically stated aim of the Programme. Thus we would say that this finding, which has emerged from our qualitative work, is significant and that the Programme ought to acknowledge this important component in order to embed it in the theoretical components of the taught programme. Our data suggest that the development of self-confidence through Programme participation is a vital component in the effective completion and eventual implementation of an improvement project.

One of the most important questions in education is how to be assured that learners really understand what they need to know in order to apply the learning and use that new knowledge confidently and reliably:

“There have been few researchers (Bruno 1987, Hunt 2003) over the past two decades who have attempted to address this issue and have concluded that confidence and knowledge are correlated and both are critical determinants in evaluating future performance”.

(Adams and Ewan, 2009:2)
Hunt (2003) suggested that confidence positively affects the retention of knowledge with learners achieving 15-20% higher grades. In the follow-up work a year later, learners had retained 79% of the material, thereby positively affecting the application of their knowledge in practice. Stankow et al.’s (2012) work on confidence in students concurs with that view since, in a large sample study (n=3726), they found confidence to be the best predictor of achievement. In a large study of 3800 students by they found confidence to be the claimed to be the best predictor of achievement.

Furthermore, Bandura’s (1997) Social Cognitive Theory21, as applied to the concept of self-efficacy, is a key influence on human behaviour. In evaluating the emergence of the issue of self-confidence, we were interested in the belief that Fellows expressed regarding their ability to conduct a change in practice and then to teach others to do the same. Some of their thoughts in this context are reproduced above. As was seen in our summary of Fellows’ overall experiences (Theme 1 Commentary Boxes), Fellows highlighted an increase in confidence both overall as individuals and in particular with quality improvement skills. These skills involved elements such as: setting aims; designing measurement for improvement initiatives, and general colleague engagement. This is a significant finding of our study and one, we would suggest, that needs to be built upon in the future development of the Programme.

We now move on now to Part 2 of this Chapter where we will examine and analyse the results of the focus group with the NHSS CEOs.

---

21 Albert Bandura is a psychologist who has contributed to his field in a number of path-breaking ways including social cognitive theory, psychotherapy and social cognitive theory. He played a key role in developing the transition between behaviorism and cognitive psychology. He is credited as being the originator of social learning theory and the theoretical construct of self-efficacy (Hagbloom, 2002)
Chapter 3: Findings and Discussion: Part 2: CEOs

3.3 Focus Group with NHSS CEOs

Again, our key research questions framed the conduct of our focus group with the NHSS CEOs. The purpose of the focus group was to answer the latter two of those questions:

- To what extent does the Fellowship support wider organisational improvement capability development?
- How do sponsoring organisations support and contribute to each individual’s Fellows development in improvement?

The CEOs are the accountable officers of NHSS. As such their leadership of and support for improving the local health system is vital. As part of the SPSF application process they must demonstrate their support for ‘their’ Fellow’s project. If they do not directly oversee that project it needs to be monitored, and a member of the local executive team must mentor the Fellow. Executive sponsorship is fundamental to the Fellow sustaining their project and supporting others within their organisation in new QI work (Reinstein, 2008).

As outlined in Chapter 2, in order to undertake our focus group with CEOs we were invited to join the private session of the planned meeting on the 6th November 2012. Twelve of Scotland’s Boards were represented at the focus group. We sent short briefing paper in advance to the group administrator (Appendix 5). This paper gave an overview of the SPSF Programme and the key areas that we wanted to discuss in relation to quality improvement skills at local and national level including:

- Fellows project implementation
- Successes so far
- Current challenges in Boards with SPSF work
- CEO views and or advice on the next steps for the SPSF Programme development

Twelve CEOs participated in the focus group from a possible 22 CEOs across the NHSS Boards. Of those Boards, 14 are Territorial and eight are Special Boards. Although there has been Fellowship participation from within the Special Boards in later cohorts, the primary focus of the SPSF Programme has been on clinical staff within Territorial Boards. Of the 12 focus group participants, nine were CEOs of Territorial Boards, this participation

---

22 These Special Boards are as follows: NHS Health Scotland; Healthcare Improvement Scotland; Scottish Ambulance Scotland; Golden Jubilee National Hospital; State Hospital for Scotland and Northern Ireland; NHS24; NHS Education for Scotland; NHS National Services Scotland.
representing 64% of possible participation and therefore a significant proportion of Board participation.

We began the focus group session by introducing the paper and inviting a general group discussion regarding the hosting of Fellows within their Boards. The discussion revealed a wide variation in the levels of individual CEO’s knowledge of and support for Fellows, and the work in which they were involved. It was clear that the CEOs recognized that not all Boards had SPSF Fellows. However, beyond that, as a group, the CEOs were unsure of where Fellows were in place, and not all of the CEOs were aware of their work or of the nature of Fellows’ participation in the Programme.

A striking theme emerging from the Focus Group was the CEOs’ positive perceptions of the SPSF Programme. At least five of the 12 CEOs present voiced their perceptions in this regard. Theme 1, Commentary Box 1.1 below provides extracts of those narratives:

**Theme 1: Commentary Box 1.1**

**Positive Perceptions of the SPSF Programme**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive comments on SPSF</td>
<td>“Our Fellow’s work in ICU has been outstanding. The presentation of the data brought to light the changes that can be made from a fairly minor investment the impact and outcomes for the patients has been outstanding. Overall I am very supportive I think the Fellows know their knowledge is bringing great rewards”.</td>
</tr>
<tr>
<td></td>
<td>“The Fellow’s work was shared at the Board and we are very proud of the fact that we have a Fellow to go to when we need an expert”</td>
</tr>
<tr>
<td></td>
<td>“The Fellow’s example and simple data collection within the theatre project helped us to spread other areas”.</td>
</tr>
<tr>
<td></td>
<td>“It’s been great having a Fellow in our organisation and it’s really helped to transform our clinical governance work and bring together patient safety to the centre of our work. The Fellow’s work was a great example against which we could benchmark”.</td>
</tr>
<tr>
<td></td>
<td>“Our nurse Fellow has received national recognition for her work and we have celebrated that success locally. The intervention put in place as part of the Fellowship is now spread throughout the organisation”</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
However, at the other end of the scale there were several gaps in the CEOs’ knowledge and they recognized challenges for them, as CEOs, in relating to the Fellow’s participation and knowledge of their work. The narratives relating to these concerns are produced in Theme 2, Commentary Box 2.1 below:

**Theme 2: Commentary Box 2.1**

**Gaps in Knowledge and Challenges to CEOs of the SPSF Programme**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| Gaps and challenges re SPSF  | “I didn’t even know I had a Fellow in my area I’m going back to look into this. I know we could do with more help at strategic level with improvement”. CEO2  
“I think the SPSF is a good thing, but with all the pressures it’s sometimes difficult for me to keep track and connect with the Fellow” CEO3  
“I don’t even know how and where to start with the SPSF. Is it widely circulated? Can anyone apply? Is it just for Doctors? There’s a lot more I need to know. Some of these gaps are in my knowledge rather than the SPSF team letting me know ” CEO4  
“We don’t have any Fellows and that is a problem. Some of the staff have applied but not been successful. I need to know how I can support them and perhaps feeding back to the SPSP Programme manager in how to change our applications for the next time would help”. CEO5  
“I think we have Fellows but to tell the truth I haven’t met them. They are linked to the Nurse and Medical Director I think!” CEO8 |

The variation apparent in these two sets of responses correlates with the Fellows’ perceptions of CEOs’ ad hoc approach to involving them, as expressed in their responses to our qualitative questionnaire. As will be seen in below, the latter set of narratives also concurs with the views expressed by SPSF Senior Leaders during our interviews with them. It will be seen in our discussion there that all but one Senior Leader expressed criticism of CEOs’/Sponsors’ engagement with Fellows; and we have engaged with that criticism by
suggesting why CEOs might behave in the ways that the Senior Leaders perceived them to do. Furthermore, in Chapter 4, we will extend our analysis not only to offer explanations for any such behaviours, but also to suggest ways in which any perceived shortcomings in that regard might be addressed and ameliorated. Suffice it to say, at this point, explanations for any such behaviour cannot be placed unilaterally at the door of the CEOs.

Returning to the focus group findings, on a positive note, key successes related to the mainstream clinical governance work had been noticed. For example, there was clear recognition of the value of the Fellows and the wider SPSF Programme in some Boards where one Fellow’s work had been recognized. In those instances, the roles that Fellows had played in teaching others involved in local quality improvement, in local work streams as part of the SPSP was recognised. In one case, in a whole system change in the delivery of their Board’s approach to their person-centred care work was celebrated in the focus group setting.

Moving on to the issue of change, the CEOs offered a range of suggestions to improve the SPSF Programme. The first, related to the issue that not all Boards had had the opportunity to sponsor Fellows. There was consensus within the group that the SPSF recruitment process should be reviewed to consider what service gaps are already identified in particular Boards and how a Fellow in that area could support these. A detailed discussion took place suggesting that the current QI needs of each Board, or the topic specific services currently challenged, should be mapped and reviewed at national level. In such a model, Fellows could be linked to the current service improvement needs of each Board, with their Fellowship activities and work thereafter targeted toward areas of most need in their locale. It is our view that such an approach would not compromise the overall aims of the SPSF Programme, nor would it limit Fellows to local activities. This is because their acknowledged expertise, supported by the networking element of the Programme, could be tapped into at a national level as and when appropriate. In support of their model outlined above, the group suggested that Fellowship applications should not be driven by individuals alone, but much like the Delivering the Future initiative\(^\text{23}\), a specific plan could be developed to identify places per Board over a period of time, for example, 2-5 years, so that all Boards would have a similar opportunity to benefit from the SPSF Programme.

\(^{23}\) The focus of the programme is on developing strategic clinical leaders from across the clinical professions, for future roles at NHS Board regional and national levels. The programme is delivered over an 18-month period with up to 24 participants from across the NHS Board areas in Scotland. [http://www.knowledge.scot.nhs.uk/home/portals-and-topics/leadership--management/programmes/delivering-for-the-future.aspx](http://www.knowledge.scot.nhs.uk/home/portals-and-topics/leadership--management/programmes/delivering-for-the-future.aspx)
The second suggestion was related to provision for rural needs. CEOs suggested that such needs could be provided for through a Scottish regional arrangement. For example, one CEO suggested that a regional model could be developed whereby several Boards could share the expertise of one or a number of Fellows sponsored by Boards counted within any such region.

Several CEOs believed that they could be more involved in the programme perhaps as visiting speakers or, as CEO6 said:

“...to give an insight into the CEO’s role by making shadowing the CEO for a day an embedded part of the Fellowship and perhaps one of the first things that a Fellow does back in the organisation”.

Key national priorities for change and improvement were discussed in reference to the SPSF. The CEO group asked if the Fellows, as a group, could be mobilised to tackle a NHS Scotland topic which may be linked to an existing gap identified by HIS consistently across Boards through inspections. Such gaps would be seen as representing a performance issue identified as a priority by the Scottish Government or emerging from the evidence base. On this matter, there was a view that involving Fellows both locally and nationally should be discussed between Programme Senior Leaders and the wider CEO group. This suggestion was expressed as emerging from the focus group’s concern that Fellowship involvement seems to be driven by a few individuals rather than as a result of consensus on the greater need at local and/or regional level. Members of the group argued that mobilisation of the Fellows at national level should be discussed with the CEOs as they perceived that some Fellows had become involved in the Programme on a more personal basis and that that was to the detriment of local capability building.

The CEOs voiced that, at the current rate of Fellowship completion, the Fellowship is not capable of supporting the demands of the service. They argued that further work could be done by NES and HIS to look at how the Programme could be scaled up or modified in some way to increase the number of individuals able to be released to attend. Again related to the national Boards responsible for SPSF Programme, the group asked for a regularly updated national map of Fellows’ locations, and details of their projects and associated expertise, to be made available to all via the web site.

Specifically related to their responsibilities, the CEO group discussed and agreed that the Fellowship Programme should have embedded within it a semi-formal but mandatory, regular six to eight week check-in with the Executive Sponsor. The CEOs considered that,
as part of that process, feedback to the SPSF Programme though individual Fellows would be helpful to all parties. Maintenance of such an approach was also considered as having potential value, since it could facilitate identification of post-Fellowship support needs for both the Fellows individually and as part of a team in which was embedded expertise that could be tapped into nationally.

Although this has not happened so far, it was recognised within the group that there is potential for Fellows and/or the SPSF Programme Senior Leaders to present to the CEOs’ group on matters addressing expectations of the Programme and of the Fellows themselves. Such an approach, the CEOs believed, would be extremely helpful in regard to the sharing of ideas and future plans of both the SPSF Programme and the Fellows, and how they would blend with the requirements of CEOs in serving the needs across their Boards. CEOs suggested that they would also like to have a report, written or verbal, on the Fellows’ experiences of their external site visits. From our focus group discussion, it was clear that the CEOs were committed to reviewing the ways in which Fellows could lead improvement locally within their SPSF-generated project work and within their Board within more general terms.
Chapter 3: Findings and Discussion: Part 3: Senior Leaders

3.4 Semi-structured Interviews with SPSF Senior Leaders

Our research questions, which framed the semi-structured interviews, (Appendix 8) conducted with the SPSF Programme Senior Leaders (n = 9), were the same as those for the CEOs as discussed above, and are as follows:

- To what extent does the Fellowship support wider organisational improvement capability development?
- How do sponsoring organisations support and contribute to each individual Fellow’s development in improvement?

The participation in this evaluation of the Senior Leaders, as with the Fellows and the CEOs, was vital to an effective evaluation of the SPSF Programme. Again, we were able to identify particular themes emerging from our interview data. In some cases, a particular issue was raised by every participating leader thus we could identify this as a dominant theme. Not every emergent theme was dominant in this way but nevertheless; some topics were addressed regularly enough within the 9-person data set for them to be recognisably themes, or matters of significance.

3.4.1 Key themes identified

The thematic analysis of the interview transcripts following our semi-structured interviews with the Senior Leaders followed a similar, but not identical, process to that already described above in regard to the Fellows’ data. In the case of the Senior Leaders’ interviews, the first cycle of coding involved theme recognition by reading each transcript before highlighting the common issues raised by interviewees. It was at this point that we identified clearly the point made by every interviewee. The second cycle involved Discourse Recognition and Analysis (DA) (Reiner, 2011) to identify terminology that Leaders used to describe and/or explain particular aspects of the programme or its outcomes as related to the participating Fellows, their Sponsors or the health service in general. The first cycle of coding identified 5 key themes as shown in Table 6 below:
Table 6
The 5 Key Themes Identified from the 1st cycle coding: Thematic Recognition

<table>
<thead>
<tr>
<th></th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate CEO and Senior Management Support for Fellows</td>
</tr>
<tr>
<td>2</td>
<td>Inadequate use made by sponsors of Fellows expertise post-Fellowship</td>
</tr>
<tr>
<td>3</td>
<td>Follow-up on Fellows post-Fellowship</td>
</tr>
<tr>
<td>4</td>
<td>Need for a wider range of representation on the Programme</td>
</tr>
<tr>
<td>5</td>
<td>Fellows are ‘especially talented/committed’</td>
</tr>
</tbody>
</table>

The themes will now be examined in turn.

3.4.2 Theme 1: Inadequate CEO and Executive Sponsor support for Fellows

By far the most dominant theme was the perceived inadequate support for Fellows within their Sponsoring organisations, particularly by their CEOs and Executive Sponsors. With the exception of one, every SPSF Programme Senior Leader commented on this issue. In almost all cases, this perception was strongly articulated to include commentary on the need for increased accountability on the part of CEOs in regard to their support of Fellows, and that lack of support for Fellows’ practical and disseminatory use of their development should be taken into account when assessing future applications from prospective Fellows of such Boards. Theme 1, Commentary Box 1.1 below allows us to see these views in the words of the Senior Leaders.
### Theme 1: Commentary Box 1.1

**Inadequate CEO and Senior Management Support for Fellows**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate CEO and Senior Management Support for Fellows</td>
<td>“I feel there’s a disconnect between NHS Scotland and the frontline…the Fellows need to be more connected to the ‘higher ups’…Fellowship support must be meaningful. Time out for the Fellows should not be taken as annual leave to attend residential…To do the day job and the Fellowship needs more time and this is not currently widely recognised and I am very concerned about this” SL3</td>
</tr>
<tr>
<td></td>
<td>“I would like more people to understand (the aim of the Fellowship) especially the senior leaders within NHS Scotland. Nurse Directors, Directors of Finance, Directors of Operations. I would like them to be more involved and not just contractually. As an example, each contract requires 5 days of the Fellows to work Nationally, but I am unsure that this is being nurtured by the senior leadership. I would like the senior leaders to know the value and know the detail of the Fellows’ work” SL6</td>
</tr>
<tr>
<td></td>
<td>“Lip service is no good!” SL3</td>
</tr>
<tr>
<td></td>
<td>“Some Fellows seem to have the support of the organisation…some have not been well supported and well-acknowledged by their organisation” SL2</td>
</tr>
<tr>
<td></td>
<td>“Fellows would welcome and benefit from engagement from CEOs…the role of the host organisation needs to be more developed” SL1</td>
</tr>
<tr>
<td></td>
<td>“CEOs, Directors of Nursing, etc. Don’t know what to do with the Fellows, using them in ways not necessarily appropriate. There’s a tendency not to use them at the frontline” SL8</td>
</tr>
<tr>
<td></td>
<td>“It was intended that the hosts would come to better appreciate their own roles and their own responsibilities, become more engaged. We would say from our data that some are certainly not as engaged as others. Any lack in their eyes could reflect their lack of engagement” SL8</td>
</tr>
<tr>
<td></td>
<td>“Fellows have fed back that there was no time to get things done. The Senior Leadership in NHSS need to see the Fellows in a new light” SL6</td>
</tr>
</tbody>
</table>
“(Fellows are) not visible across Boards, perhaps not valued by the Board and Fellows are not given enough time...Sponsors need to be doing more than just signing (the Fellowship application form)...coming along for part of each residential...ought to be a requirement”

SL4

“Success was never going to be 100%. We knew there would be a normal bell curve. However, we hoped to shift the curve to the right. We had hoped that Boards would give commitment to Fellows after the Fellowship. We wanted organisations to use Fellows’ skills more and we need to look at this (shortcoming) at a systematic level particularly now for health and social care...Executive sponsorship did not work. It was merely a signature on a piece of paper”

SL5

In ‘listening’ to these comments, a not insignificant degree of frustration on the part of the Leaders can be heard in regard to the experiences of Fellows within their organisations. This frustration echoes what the Fellows said in this regard, it also chimes with comments made in the CEOs’ focus group, where we heard some of the CEOs acknowledging their lack of engagement with the Programme. However, frustration is clearly not the only emotion being felt by the Leaders. It is also clear that they are deeply concerned and, in some cases, angry about, what they see as, the waste of resources ensuing from this perceived lack of support. As the current evaluators of the Programme, an element of frustration for us is the fact that de Wet (2008) noted a similar shortcoming when he evaluated the Programme after the first cohort completed their Fellowship. It would have been anticipated that any issue concerning Sponsors’ support for ‘their’ Fellows would have been resolved and ameliorated at that point. Furthermore, we would suggest, Senior Leaders themselves could have been involved in that ameliorative process.

Another strong theme emerging from the interviews with Leaders was their perception that inadequate use was made of Fellows post-Fellowship. This finding is closely related to the one above and we can see, in the Theme 2 commentary box below, the strength of feeling held by the Senior Leaders in this regard.
3.4.3 Theme 2: Inadequate use made by Sponsors of Fellows post-Fellowship

In addition to the perceived lack of support given to Fellows during the Fellowship as detailed above, SPSF Programme Senior Leaders also believed that, once their Fellowship was ended, Fellows were not given adequate opportunity to put into practice the knowledge, skill and expertise that they had developed over the previous 10 months. One participant mentioned the possibility of negative outcomes if Fellows were wasted in this way, saying:

“There is a tendency for people to misbehave if they aren’t equipped to make appropriate change once they’ve recognised the need”

SL8

This view is certainly supported by the literature in the area of employee misbehaviour (e.g. Ackroyd and Thompson, 1999; Karlsson, 2011; Lukács, Negoescu and David, 2009). Such behaviours might include: sabotage; stealing company property; harassment; violence; substance abuse; ‘accidents’; cheating management and misleading customers/clients, and even inappropriate use of email. While there has been no evidence of any such behaviour emerging from our study, it can and does occur in the care sector (Vardi and Weitz, 2002), and thus, the lone, but explicit, view expressed above cannot be dismissed in an evaluation such as ours. Given that a number of our interviewees bemoaned the lack of Sponsor-support for Fellows, as did some of the Fellows themselves in regard to our analysis of the Fellows’ data above, the importance of this area for further consideration cannot be disputed. The combination of Fellows’ and Senior Leaders’ views reported and examined in this evaluation suggests an element of exploitation of Fellows. It is not our contention that such behaviour and apparent neglect is deliberate on the part of CEOs and Executive Sponsors, at a common sense level that would be nonsensical given the investment that they make in Fellows. It is more likely that the Executive Sponsors take-for-granted the skills and expertise of ‘their’ Fellows (see Theme 5 below). Nevertheless, it is our view that there is a need for further consideration of this matter both within our evaluation of the Fellowship and beyond.

In the Theme 2, Commentary Box 2.1 below, the strongly held views of some of the Senior Leaders on the matter of inadequate use being made of Fellows post-Fellowship are evident.
## Theme 2: Commentary Box 2.1
### Inadequate use made by Sponsors of Fellows post-Fellowship

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate use made by sponsors of Fellows post-Fellowship</td>
<td>“Fellows feel underused, especially after the Fellowship, what they’ve learned, been encouraged to learn in then not implemented...frustrating for Fellows, capacity building is being built but not put into play: focus is generally placed on reducing waiting times...Fellows should become a national resource, government and arms length bodies need to identify key areas...they should consult the Fellows as a knowledgeable group...Policy makers should call on them to ask, ‘do you see any practical issues in implementation?’ ...Any aptitude that Fellows have should be tapped into, it needs to be made real, what’s the point if this isn’t done?” SL3</td>
</tr>
<tr>
<td></td>
<td>“There needs to be serious thought about the role of fellows once they have completed their development and include this in the application process. There needs to be commitment for time back from the CEO. In terms of the delivery against the contract it’s black and white ands if not, find the reasons why this has not been delivered” SL2</td>
</tr>
<tr>
<td></td>
<td>“We need a better spread across all boards; we need to be more ruthless and not to continue to accept Fellows from an organisation where they are not put to good use...We need organisations to want to have fellows but having them and making good use of them after the fellowship” SL4</td>
</tr>
<tr>
<td></td>
<td>“(One Fellow) had a fabulous time (on their Action Learning Visit) in a supportive and innovative learning environment but came back to a system that was not fertile for further QI development” SL5</td>
</tr>
<tr>
<td></td>
<td>“In terms of knowledge (the Fellowship) is a fantastic investment in (Fellows) and there is a moral responsibility to do something with it” SL2</td>
</tr>
<tr>
<td></td>
<td>“I have not got any examples of where it’s working well but maybe I just don’t know. I have a general sense of (Fellows) not being able to put into practice what has been learned. Boards’ infrastructure is not clear, it is not in the Fellows’ job plans” SL4</td>
</tr>
<tr>
<td></td>
<td>“Their eyes have been opened and their newly developed aspirations cannot be fulfilled...(because of that)...the danger is that the Fellows will operate individually, it’s difficult for them to see through the local fog” SL8</td>
</tr>
</tbody>
</table>
In considering how the two themes discussed above might be addressed, we note the narrative below, from SL6, which demonstrates insight to the type of workplace circumstances that might give rise to problems and, further, how such a scenario might be dealt with in the context of the Fellowship delivery:

“We need to understand the psychology that affects work. Why do people feel uncomfortable and why does the work not get done? We need to study the psychology of change and the social anthropology and spend more time on that or at least part of it, as it can be impactful. This should be taught better in the Fellowship and this whole theme requires to be developed further”

Although the above discussion around Themes 1 and 2 is of considerable importance in the context of this evaluation, Theme 3, which emerged from Senior Leaders talking about Fellows’ activities post-Fellowship, demonstrates that some of the ‘graduating’ Fellows have put their experiences to good use.

3.4.4 Theme 3: Follow-up on Fellows post-Fellowship

There is some degree of difference in what the SPSF Programme Senior Leaders have expected to happen with Fellows post-Fellowship. In some cases it was clear that expectations were focussed on national level contributions, while in others, they were at local level. For some, the agenda in this regard was not fixed as the following narrative demonstrates:

“The Fellowship was designed not to be seen as a hierarchy of individuals but to include junior and senior people. The intent of the Fellowship was for individuals to make a bigger contribution to the QI agenda. Some of the Fellows demonstrate interpersonal innate leadership skills, some have no great desire to be a national lead…The Fellowship was never about creating more national leaders but was intended to be embedded into every level”

SL5

The Theme 3, Commentary Box 3.1 below illustrates some of the contrasting views, as they were made apparent to us during the Senior Leaders’ interviews.
## Theme 3: Commentary Box 3.1

**Follow-up on Fellows post-Fellowship**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Follow-up on Fellows’ post-Fellowship</strong></td>
<td>“Initial Fellows have been very successful in supporting improvement at local and national level. Some now have national roles; one has won Scottish Nurse of the Year. I think in general, SPSF as a brand has increased the visibility of SPSP at national and international levels”</td>
</tr>
<tr>
<td></td>
<td>SL4</td>
</tr>
<tr>
<td></td>
<td>“The key strength (of the Fellowship) is operational or near operational projects. The clinical nature needs to be nurtured perhaps in partnership with management trainees. (Fellows) need some management-based learning programmes…to be more involved in lean and flow projects…project experience and more involvement in safety measurement”</td>
</tr>
<tr>
<td></td>
<td>SL6</td>
</tr>
<tr>
<td></td>
<td>“(Some) Fellows have facilitated events at national level, cohort 5 have been most active, but it’s the same Fellows tending to be the facilitators. Cohort 1 had successful outputs…gone on to better things”</td>
</tr>
<tr>
<td></td>
<td>SL1</td>
</tr>
<tr>
<td></td>
<td>“It’s unacceptable to have all Fellows working nationally. We can’t keep doing this”</td>
</tr>
<tr>
<td></td>
<td>SL4</td>
</tr>
<tr>
<td></td>
<td>“Sports coaching is a good analogy, use them or lose them…(the Fellowship) raises confidence and frustration when skills are not put to good use. Often Fellows are poached by national Programmes”</td>
</tr>
<tr>
<td></td>
<td>SL8</td>
</tr>
<tr>
<td></td>
<td>“I would like to bring the Fellows and the Fellowship all together in a network twice a year with a purpose to create new ways to design and deliver care”</td>
</tr>
<tr>
<td></td>
<td>SL6</td>
</tr>
</tbody>
</table>

With reference to the narratives above, it would appear that this element of the Programme, i.e., what happens after the Fellows ‘graduate’, has not been addressed systematically as part of the Programme. There is an indication that some Fellows become more prominent in
the patient safety arena, whereas others seem to ‘disappear’. If that is the case, it could be
indicative of the continuing support played by CEOs and Sponsors within host organisations.
If they have not extended an appropriate level of support while ‘their’ Fellow is actively on
the Programme, they are less likely than more supportive peers elsewhere to support
Fellows post-Fellowship. That could explain why only certain Fellows are seen to be hosting
nation events and participating in others internationally.

Similarly, if a CEO expects a Fellow to use their annual leave to attend Fellowship
residential, there would be very little chance of them supporting leave to participate in
conferences/colloquia on a post-Fellowship basis. Such a situation is likely to frustrate a key
aim of the Fellowship, which is dissemination of knowledge and expertise gained through
Fellowship participation both during and after Fellowship participation. Alternatively, it could
be related to the point made in the CEOs’ focus group, where they voiced their concern that
the Fellowship might, in effect, preference certain Fellows above others. If that is the case,
some Fellows could receive greater prominence, and therefore greater national recognition,
than others who are equally worthy of such recognition.

The call for the Fellowship to embrace a wider range of professional and/or disciplinary
participation was another prominent theme emerging from the interviews with the SPSF
Programme Senior Leaders, and it is to this that we now turn.

3.4.5 Theme 4: Need for a wider range of representation on the Fellowship

One of the original aims of the SPSF Programme was:

“To equip clinical leaders with the ideas and will to help their staff to improve their
effectiveness...Safety wasn’t recognised at the academic level, and that was a bog
problem. Clinical leaders didn’t know how to fix that because they didn’t have the
toolkit”

SL8

Over the years, since the inception of the Programme, many changes have occurred, not
least of which has been a move away from the predominance of doctors on the Programme
to inclusion of other professions including nurses, paramedics, dentists and pharmacists. In
addition, as has been shown above, there is now an international element. However, some
of the Senior Leaders also talked about the need to extend the Fellowship further to offer
opportunities to others including health service managers, and specialists from Finance and IT. These three aspects are represented in Theme 4, Commentary Box 4.1 below:

**Theme 4: Commentary Box 4.1**

**Need for a Wider Range of Representation on Fellowship**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
<th>SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for a wider range of disciplinary representation on Fellowship</td>
<td>“The Fellowship needs to be run on a partnership model to include dentistry, mental health, infection control, midwifery, maternity safety, etc. There is a limited range of professions involved, mostly doctors. The wording of the application form needs to recognise other professions as valuable to the scheme...perhaps have targeted places...outcomes and impact could then be significantly wider ranging and more effective regarding the public”</td>
<td>SL1</td>
</tr>
<tr>
<td></td>
<td>“There still isn’t (sic) enough participants from dentistry, mental health, psychiatry, etc.”</td>
<td>SL5</td>
</tr>
<tr>
<td></td>
<td>“I would like to open this up to non-clinicians, managers and service leads. Limiting to mid-career clinicians was ok in the beginning but other individuals, for example, Chief Operating Officers should have this opportunity”</td>
<td>SL7</td>
</tr>
<tr>
<td></td>
<td>“What we need to do now is invest in board level spread and sustainability WE need to create opportunities for managerial leaders to be Fellows...more multidisciplinary team attendance and rolling out to more non-clinical staff”</td>
<td>SL5</td>
</tr>
<tr>
<td></td>
<td>“There needs to be more focus on the use of IT innovations in healthcare and that needs to be nurtured by the Fellowship...We are currently preparing the groups for technology from 10 years ago but the systems used in the NHS are more than 40 years old and they can’t cope”</td>
<td>SL6</td>
</tr>
<tr>
<td></td>
<td>“I would like to expand the European connections…the SPSF gives us a presence on the global stage…and Scottish clinicians get a see and feel what it’s like in other healthcare systems like Scandinavia and Ireland”</td>
<td>SL7</td>
</tr>
<tr>
<td></td>
<td>“Our focus needs to be creating financial stability moving forward, use the money we have to deliver in a different way. We need to look at the different elements. It’s more than about the Scottish Fellows. We need to consider the international aspect. There are advantages of having the breadth of knowledge and expertise, networking...The tension is that we have only 30 places; currently there are 12 international, so just over 50% Scottish. The number of applications is going up, the demand of the Scottish requirements needs to be debated”</td>
<td>SL4</td>
</tr>
</tbody>
</table>
3.4.6 Theme 5: Fellows are ‘especially talented / committed’

As citations included in the Theme 5 Commentary Box 5.1 indicate, some of the SPSF Programme Senior Leaders were particularly effusive about the Fellows, past and present; and the degree to which they (have) demonstrated extraordinary levels of expertise and commitment to the cause of patient safety, hence Theme 5. Since the application and selection process for the Programme is arguably key to its success, it is worth considering some of the views expressed in this regard. Taking on board such views could be paramount to the further development of the Fellowship’s applications and selection process, and the continuing, if not enhanced, success of the Programme. For example, the insights could be built into the applicant assessment criteria, and become part of the ‘essential’ attributes of successful applicants. In addition, since our study has indicated a strong sense of Fellows’ Sponsors not always being wholly supportive of ‘their’ Fellows, awareness of the esteem in which Fellows are held by the Senior Leaders might be useful in encouraging CEOs, etc., to look beyond, what we suggested earlier might be, their taken-for-granted views of the Fellows, so that they can better appreciate the actual and potential contributions to be made by them both locally and nationally, perhaps internationally, as appropriate.

Theme 5: Commentary Box 5:1
Fellows are ‘especially talented / committed’

<table>
<thead>
<tr>
<th>Theme</th>
<th>Supportive Commentary Data</th>
</tr>
</thead>
</table>
| Fellows seen as ‘especially talented / committed’ | “Some Fellows ... have probably got some inner drive that makes them want to do a great thing”  
SL2  
“They have patient safety DNA”  
SL3  
“There is a huge enthusiasm and passion from the groups of Fellows and it’s a privilege to spend a day with them…we need to continually support the joy”  
SL6 |
In addition to the concerns regarding support for Fellows within their sponsoring organisations (as discussed above in Themes 1 and 2), one Leader expressed reservations around the money invested in the running of the Fellowship Programme. That reservation was in the light of the level of investment and the extent to which it was able to allow Fellows to fully capitalise on their enhanced levels of expertise: when back at their ‘day job’:

“I feel the whole thing is being organised on a shoe string and these people (Fellows) should be champions in patient safety when they go back to the day job to do what they always do”

SL1

On the face of things, these two ideas might seem quite separate. However, it is our contention that they are related and, further, that they are also related to the perspective that all but one of the SPSF Programme Senior Leaders held: that CEOs and Executive Sponsors did not fully support ‘their’ Fellows effectively. It is our view that a better understanding of these inter-relationships could further enhance the SPSF Programme. Building on this view, it could be argued that the cost of participation in the SPSF Programme (at £13,000/Fellow) is arguably too small to convey the value and/or status of the Programme to the Fellows, their Sponsors, their colleagues, patients and families. Clearly, it is the intention that, on completion of the Fellowship, Fellows would be in the position to deliver enhanced quality. However, conveying a sense of value to others is not straightforward.

In a business marketing sense, when setting the price of a good or a service the cost of production can be augmented by the reflection of how the product/service is perceived in the marketplace. For example, two perfumes could smell and behave on the skin identically, but if one perfume is branded by Chanel, and the other by Superdrug, the former will be regarded as being of a higher value; it would be more prestigious to own by some and such people would pay more for it regardless of the similarity between the two. In the case of the Fellowship, while the Programme itself is seen as highly prestigious, it could be that by keeping the charge to Boards as low as £13,000/Fellow, Fellows themselves are not seen as embodying much added value in and of themselves. Thus, it could be that Boards are keen to sponsor an employee to become a Fellow since the Board could then enjoy the (internally-recognised) prestige by association, but at relatively little monetary cost. This view is enhanced if the apparent tendencies of Fellows to have to take annual leave in order to participate fully in the Programme. In that scenario, the Boards do not contribute in any
significant way. In other words, it could be that CEOs are willing to pay so that they can be seen as being in the ‘club’ by investing in their employees’ participation in a programme so highly respected that involvement in it must be beneficial to its constituents, the patients. If that example is indicative of their mind set, conscious or unconscious, it would not be surprising that the Boards offer less than magnanimous support to ‘their’ Fellows.

However, in a contradictory sense, Boards might expect Fellows’ association with the SPSF Programme to have some deliverables. In that case, Fellows would be expected to be able to return to ‘their day job’ with enhanced capability (developed at low cost), and that they would be expected to apply all day every day. In this context, CEOs and senior managers would be expecting Fellows to be able to produce ‘more bang for the buck’ (Heacock 2003) as a result of undertaking the Fellowship Programme, which, in this conceptualization, is interpreted as synergistic. When an organisation is seen to deliver high value at a low price, the perceived value to the customer may be low. The key to delivering a service/product of high-perceived value is in attaching value to those involved in its production. If the organisation is able to make people believe that the service being offered is excellent or beyond expectation, then they are likely to be successful in achieving their goal. One problem with this concept, however, is that raised by one of our interviewees regarding the tendency towards misbehaviour for people who are frustrated in their workplace as discussed above. In that light, we would argue that it is of the utmost importance that CEOs and Executive Sponsors are made aware of the implications of their engagement and support as expressed to us, by two groups of participants in this study i.e. the Fellows and the SPSF Programme Leaders. This suggestion, of course, requires Senior Leaders to engage with the CEOs and Executive Sponsors, and to discuss the matter in a developmental sense with them.

Having concluded the presentation of our findings in relation to our three sets of participants, and our discussion of those findings, we now turn to Chapter 4, the final chapter of this Evaluation: our conclusion and recommendations.
Chapter 4: Conclusions, Limitations and Recommendations

4.1 Introduction

The original and specific remit of the SPSF Programme was to develop and strengthen the clinical leadership and improvement capability of doctors in NHSS as a means of supporting the comprehensive implementation of SPSP. In learning the “how” as part of the SPSP, teams of healthcare staff come together at national and local learning events to gain expertise in the application of Improvement Science. Such national engagement ably demonstrates the commitment of the Scottish Government and NHSS to the health and safety of its citizens and all people living within Scotland. In the next section we provide an overview of our examination of the SPSF Programme.

4.2 Overview of our Examination of the SPSF Programme

Building capability in the workforce to improve healthcare services is central to the current NHSS quality ambition. The SPSF Programme is a fundamental part of that plan. Understanding the impact of the Programme on the patient safety agenda in Scotland is essential to inform the capability gap in relation to results and workforce development. Over the past 5 years 76 Fellows have complete the program 65 of whom are Scottish. Our research explored three key areas:

- Fellows’ perceptions of the SPSF Programme
- The CEOs’ understanding of the SPSF and their sponsorship role, and
- The SPSF Senior Leaders’ views of the Programme over time

In preparation for this research evaluation we were aware that the perceptions of participants on any educational programme could be difficult to measure. Their having successfully accessed the SPSF Programme though a competitive process, we concur with Edmonsson’s (2013) opinion that self-motivated learners, in this case the SPSF Fellows, may positively bias their views as:

“they will have received the affirmation of being a success working in a rarefied atmosphere among other high-flyers; and the nature of both the environment and the interventions will all do their part to influence their perception of the Programme, and its impact on all aspects of their lives”.

Edmonsson, (2013:14)
Nevertheless, the positive views of the Fellows, and the candour with which they shared them, clearly demonstrates that the Fellowship had an impact on their practice by translating their learning and understanding of the collaborative and knowledge into action theories into deliverables. Evidence of this was apparent in the extent to which their Project work was successful or partially successful (successful/partially successful n=48: unsuccessful n=17).

As the Vignettes in Chapter 1 suggest, the return on investment (ROI) of improvement capability such as the SPSF programme can be significant not only in cash savings as a result of safer and more efficient systems but most importantly improved patient outcomes. Although we did not have the opportunity to explore the detailed impact of particular projects in financial terms 3 fellows did provide details of calculated savings of over £100,000 associated to their project work. In the current financial climate such claims are worthy of a more detailed analysis.

4.3 The Fellows’ Experiences

We have discussed this element of our evaluation in detail in Chapter 3, so in this section we have summarized our presentation of the Fellows’ experiences simply and straightforwardly as a bullet-pointed list below:

- The SPSF Programme enabled Fellows to complete a patient safety improvement project and contribute to the goals of SPSP
- The Programme builds confidence and competence in local clinicians and they believe that this in turn may enhance their ability to teach others how to improve healthcare services
- There is clear evidence of Fellows’ beliefs that their participation has had a transformative and translational effect facilitating incorporation of their new-found knowledge and expertise into practice
- The Fellows expressed clear benefits of their Fellowship participation to their practice back in the workplace, identifying the multi-disciplinary team learning at the residential sessions as key in that regard. In our interpretation of the data we extended that notion to incorporate the collaborative and Action-based Learning opportunities facilitated through the Programme
- Although we did not ask Fellows to consider or comment on the existence of Networking, that came to be a thick seam of high quality data emerging from our research. It was clear that the opportunity to become part of a network, and to engage in extensive networking, had come to play an important role both within the
residential sessions and as an ongoing support context

- Of all participants, over 80% of respondents (n=52) claimed enhanced responsibilities as a result of their Fellowship activity, including a change of role (50% or n=26) who reported having a new promotional post

- As a result of the some of the improved outcomes of the Fellows’ projects and innovations in practice, six Fellows have published their work. This includes presentations at National and international conferences; in addition, five Fellows have been recipients of local and national quality awards

- Nevertheless, some of the Fellows did express that they felt inadequately supported by their Executive Sponsors in fulfilment of some aspects of the Fellowship. They suggested that they would benefit from being granted protected time for Fellowship associated work

Many of the Fellows included details of their projects and examples of graphs and measurements including and patient outcomes. We have not included these in the study, as some of the examples would have identified individuals.

4.4 The CEOs

Again, in this section, we have summarized our presentation of the data gathered from our involvement in the National NHSS Chief Executives’ Group monthly meeting in November 2012. Thus, below we have bullet-pointed our findings from the CEOs’ participation in the study simply and straightforwardly:

- The CEOs recognised that they had a significant role to play in the sponsorship of SPSF Programme

- Due to the nature and competing priorities, they accepted that they should/could meet and support Fellows more constructively

- They believed that they could mobilise and deploy the Fellows’ expertise in a more constructive and purposeful way for local QI

- Some CEOs expressed their view that the Fellowship does not necessarily address the QI Gaps that they have at Board and service level, and that the Fellowships could be more equitably distributed among the Boards

- They were unanimous in their view that they would like to be involved in, or have a representative on, the future planning of the SPSF Programme
4.5 SPSF Senior Leaders

Again, we have summarized our presentation of the data from the Senior Leaders’ interviews, providing bullet-points of our findings from the their participation:

- The Senior Leaders were proud of the Fellows’ achievements (personal, professional and project-related) as demonstrated in their interactions with them

- They were concerned regarding the financial stability of the programme going forward

- They felt themselves to be emerging from a difficult and unstable period of transition of the Programme from HIS to NES management, which has affected the administration and delivery of the Programme

- All but one of the nine Senior Leaders suggested that the CEOs/Executive Sponsors provided inadequate support for Fellows, failing for example, to extend protected time to them to attend residential, or to fully engage with their Fellowship work. As seen above, Fellows also displayed their concerns in this regard. Furthermore, a degree of acknowledgement for such possible shortcomings emerged from our CEOs’ focus group. This has led us to question why Senior Leaders had not discussed their concern in this regard directly with the CEOs

- The Senior Leaders had already begun to explore ‘scale up’ of the fellowship to meet demand and the changing nature of health and social care in Scotland

In a general sense, it is our view that our study contributes to the aims of the Scottish Patient Safety Programme through the ability of the SPSF Programme to enhance Fellows’ expertise to achieve the programme goals. Furthermore, that it links to findings presented in recent studies including Skilled for Improvement (Gabbay et al., 2014) in so far as the Fellows expressed in detail many of the skills necessary for leading improvement. In addition, our findings concur with some of the views presented in recent evaluation of NHSS Delivering the Future programme (Upton et al., 2013) of the leadership skills developed that led to role expansion and enhancement.
4.6 Suggestions for Dissemination of Findings for this Study

Our recommendations are that this evaluation should be shared widely with:

- Internal stakeholders in NES
- National stakeholders for example the Scottish Government, HIS, and the wider NHSS community particularly NHS Scotland’s Chief Executives.
- External stakeholders including sponsors of the international Fellows
- International quality improvement conferences

Furthermore, we would suggest that support be given to both Fellows and Executive Sponsors to showcase the work done in partnership as part of the Fellowship. For example, such could include presentations at the NHSScotland Annual Event and through the SPSP Programme itself. We believe also that consideration should be given to supporting Fellows to organize and run their own annual conference, perhaps around particular themes including transferability, knowledge into action.

In addition, we have developed a publications’ plan as means by which we will seek to further disseminate our findings through both profession and academic journals. In the first case this would include the *British Medical Journal*, and *Quality and Safety in Healthcare*; and in the second, it could include the *British Journal of Management*; the *Academy of Management, Learning and Education*, and the *Journal of Public Administration: Research and Theory*.

4.7 Limitations of the Study

The Fellows in Cohorts 1-5 represent a wide range of disciplines. As such, they do not necessarily represent all improvement advisors/leaders within the NHSS. Although we had a high response rate of 90% this is a relatively small sample of individuals with QI expertise compared to the 130,000 staff working in NHSS as a whole.

The multi-layered contextual levels within which healthcare staff work are complex, and they play an important role on the success of QI efforts to improve services for patients. The
influence of context on outcomes is well recognised (Powell and Davies 2009). We did not explore, in any detail, the important role of context within which the Fellows are working. In addition the self-reported project outcomes have possible bias and therefore this aspect is acknowledged as a limitation.

4.8 Practical Application of the Study

Where this study adds particular value is in the identification of the key elements of the specific QI skills that make a difference to the implementation of Fellows’ Projects at that individual practitioner level. Our examination and analysis of Fellows’ contributions to this study revealed that, through the development and implementation of their project work, they had incorporated and enhanced many of the key elements of Gabbay et al.’s (2014) Improvement Skills Pyramid (see Appendix 9).

4.9 Recommendations

Our recommendations for the SPSF are as follows; that:

- The recruitment process be reviewed to consider the inclusion of CEOs and or Medical /Nurse Director representation
- A system of continued follow-up support for Fellows is created and maintained
- Greater focus be placed on measurement for improvement and links between the theoretical and practical learning to context specific examples within NHS Boards in accordance with their strategic priorities. Specific links to the performance and management systems within NHS Boards could be made.
- A communications plan is developed and maintained to increase the visibility of the SPSF Programme, locally (within individual Boards), nationally and internationally
- Macro-, meso- and micro-level managers within the sponsoring NHS Boards could be involved in the wider context of the SPSF Programme in order to ensure that continuing projects spread and improvement support is embedded within organisations
- The financial structure of the SPSF Programme is reviewed to ensure its sustainability. Inherent to that review we suggest that the fee structure, through which Boards pay for ‘their’ Fellows, could be considered
- The SPSF Programme could have evaluation embedded and measured within the design of the Programme at the outset, and include the views and opinions of the CEOs/Executive Sponsors’ intended impact of Fellows’ Project work. A ‘view’ measure from the service managers’ patients and families, as to the effectiveness of
the Project intervention, would also enhance understanding of the impact of the Projects undertaken

- Impact evaluators should work alongside the Fellows and Sponsors throughout the Fellowship experience including consideration of the use of a return on investment model

- Future training events within the Fellowship apply some focus on how to publish improvement work. This addition would allow Fellows to share their learning more widely while also providing them with external and peer-reviewed validation of their successes

- The Fellows should be required to submit to their Executive Sponsor a report on the outcomes of their fellowship including details of the projects which should include how the organisation benefits from this QI work

**Recommendations for Quality Improvement education in general**

- The creation of a national map of QI capability and expertise, alongside the pace of change required to achieve the quality ambition of the NHSS, and how the current SPSF Programme contributes to that, is developed and maintained

- Further research is conducted, with CEOs/Board Medical and Nurse directors as participants, to explore their QI needs and their understanding of the requirements in each NHS Board

### 4.10 Final Words

According to the Health Foundation (2012), there appears to be a significant gap in the market for training that supports management teams to put quality improvement principles into practice. Based upon our evaluation of the SPSF Programme addressing Cohorts 1-5 (2008-2013), it is our view that the SPSF Programme, enhanced by the recommendations detailed above, could fill that gap. An important decision would have to be made, however, on the extent to which there is a desire or a goal to generate capital and a ROI from the Programme.
References


Department of Health, (2008), *High Quality Care for all, NHS Next Stage Review Final Report*

DiMauro, V. and Bulmer, D (2009) ‘The New Symbiosis of Professional Networks Survey Results’. Harvard University. 6 November: pg.4


Gabbay et al. (2014) *Skilled for Improvement*. The Health Foundation


Green, P. L. and Plsek, P.E. ‘Coaching and leadership for the diffusion of innovation in healthcare: A different type of multi-organization improvement collaborative’. Joint Commission Journal on Quality Improvement. 28: 2: 55-71


Health and Care Professional Council (2012) Standards of Conduct Performance and Ethics


Lemer, and Moss (2013) *Quality and Safety in Healthcare patient safety and junior doctors are we missing the obvious?*


Matrix (2003) *NHS Modernisation, Making it Mainstream*


NHS Confederation 2004 *Variation in healthcare does it matter and can anything be done?* London

NHS Institute for Innovation and Improvement, (2008), *Evaluation of the Improvement in Pre-registration Education Programme: Final Report*


Nursing and Midwifery Council (2008) *The code: Standards of conduct, performance and ethics for nurses and midwives*


Penny, J. (2002), *Building the Discipline of Improvement for Health and Social Care: Next Steps for NHS Improvement, the early vision and way forward*, MA Management Board November unpublished paper


Penny, J. (2002). *Building the Discipline of Improvement for Health and Social Care: Next Steps for NHS Improvement, the early vision and way forward,* MA Management Board November unpublished paper


Sahlqvist, S.; Song, Y.; Bull, F.; Adam, E.; Preston, J. and Ogilvie, D. The iConnect consortium Effect of questionnaire length, personalisation and reminder type on response rate to a complex postal survey: randomised controlled trial


http://www.scotland.gov.uk/Publications/2010/05/10102307/0


Sharpe, V.A. and Fadden, A.I. (1998), *Medical harm. Historical conceptual and ethical*


Smith, C.M. (2013) ‘Adult Learning and Development: Perspectives From Educational Psychology’. In T. Pourchot (Ed.) Routledge


The Health Foundation (2013) *Quality Improvement made simple.*

The Health Foundation Safer Clinical Systems Testing and demonstrating improvements to healthcare systems to make care safer


World Health Organisation ExpandNET (2009) Practical guidance for scaling up health service innovations
Overview of Scottish Patient Safety Programme

Background
Since its launch in 2008, the Scottish Patient Safety Programme has contributed to a significant reduction in harm and mortality to acute adult inpatients through:

- Introduction and development of quality improvement methodology through testing of focused safety interventions
- Testing and implementation of leadership activities that provide organisational support for safety
- Building of capacity and capability within clinical and non-clinical roles
- Tangible patient impact on patient outcomes through reduction of infection rates such as Ventilator Associated Pneumonia and Central Line Bloodstream Infections
- Widespread implementation of safety briefs, daily goal setting in ICU and surgical brief and pause
- Improvement in the recognition and treatment of Deteriorating Patients and Sepsis, and
- Transition of now well-established interventions from improvement to day to day care through 10 Essentials of Safety (see table below).

The Next Phase
In 2012, the Cabinet Secretary for Health & Wellbeing announced stretching new aims for the Acute Adult programme:

- To further reduce mortality in Scotland’s acute hospitals
- To further reduce harm experienced by patients in Scotland’s acute hospitals

To achieve these aims, the Acute Adult programme will continue to work with NHSScotland boards to test and implement processes that will further improve reliable care delivery across a range of clinical areas. Information on the 9 Points of Care Priority Areas and the Scottish Patient Safety Indicator. Additional information and resources can be found below and on the SPSP Acute Adult community site. (N.B. Access to this portal requires registration and is currently available to NHSScotland staff only).

The 10 Essentials of Safety

1. Hand Hygiene
2. Leadership Walkrounds
3. Daily Goal setting in ICU
4. Safety Briefing in General Ward
5. Surgical Brief and Pause
6. Early Warning Scoring
7. Ventilator Bundle
8. Central Line Insertion Bundle
9. Central Line Maintenance Bundle
10. Peripheral Cannula Maintenance Bundle
## Scottish Patient Safety Fellows Questionnaire

<table>
<thead>
<tr>
<th>No.</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Can you summarise your overall experience of the SPSF?</td>
</tr>
<tr>
<td>2.</td>
<td>How is this experience related to your personal development?</td>
</tr>
</tbody>
</table>
| 3.  | What aspects of the SPSF are important to:-  
   (i) You  
   (ii) Your Job  
   (iii) Your Organisation |
| 4.  | What skills were developed /enhanced as a result of SPSF? |
| 5.  | Which elements of SPSF programme were most helpful to you and in what way(s) were they helpful? |
| 6.  | Which elements of the SPSF programme were least helpful and why was this the case? |
| 7.  | Please tell us about your SPSF Project:  
   (i) What was your aim and key outcome?  
   (ii) Do you believe the project achieved the goals; if so in what way; if not, what were the barriers? |
<p>| 8.  | Does the project / intervention continue in your Organisation? If so, please provide example(s); if not, please explain why. |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Has the intervention change spread to other areas within /out with your Organisation, if yes in what way?; if not, please explain why.</td>
</tr>
</tbody>
</table>
| 10. | Teaching and coaching others is a key goal of SPSF to build capacity and capability in improvement methods in NHS Scotland.  
In what ways are you involved in any improvement capacity building activities? :-  
- Locally  
- Nationally  
- Internationally |
| 11. | What is your current role? |
| 12. | Has your role changed in any way since your SPSF Fellowship? If Yes in what way? |
| 13. | How are you currently involved in the Scottish Patient Safety programme? |
| 14. | What would you like to happen next in relation to the SPSF programme that would be of benefit to:-  
(i) the National Programme  
(ii) the wider NHS |
| 15. | Has anything changed in your practice as a result of SPSF? Give examples:- |
Appendix 3

Methods

The Nature of the Structured the Qualitative Survey Questionnaire

Structured questionnaires are especially useful in surveying people who are dispersed over a wide geographical area, where the travelling demands on the interviewers and the sponsored funder would be excessive. With surveys delivered by these means, researchers are advised to keep questions simple and straightforward and the questionnaire has to be clear and easy to complete because no interviewer is available to assist the respondent. Such surveys can be especially useful when respondents need time to gather information or consider their answers. Given the educational level of our participants, we had few concerns regarding their ability to understand our questions. Nevertheless, to ensure a high response rate we followed suggestions made by Rea and Parker (2012) for multiple response inducing techniques including:

- Making the questionnaire easy to access and complete – it was sent as an email attachment for download, completion and return
- Providing frequent reminders post-sending of the questionnaire, and extending the duration of response time if necessary - 4 reminders were sent at 2 weekly intervals to each Cohort
- Persuading respondents that the information will be used to inform the further SPSF programme development included in the email
- Assuring anonymity - all responses were de-identified before coding and allocated a unique number preserving the professional group identity

Surveys using self-completion questionnaires by email have a number of distinct advantages over face-to-face interviews:

- They are inexpensive to administer since there is practically no cost involved once the set-up has been completed and they have been electronically distributed. The emailed questionnaire can gather several responses within a day or two.
- They allow for a greater geographical coverage than face-to-face interviews without incurring the additional costs of time and travel. Thus, they are particularly useful when...
carrying out research with geographically dispersed populations such as our own, where Fellows are widely spread from the Scottish Borders to the Scottish Islands and, since Cohort 4, internationally Cohort. Sending out reminder emails and follow-up postings of the questionnaire is relatively simple and can increase response rates, though this does mean that the fieldwork element of such surveys can be lengthy and it is important for researchers to set a final deadline beyond which no further reminders will be despatched. In our research, we sent out email questionnaires to cohorts 1-4 from January 2013 with two weekly reminders to non-responders until the March 2013. Due to the availability of additional funding during the final write up period, we had the opportunity to include Cohort 5. Using the same criteria for circulation beginning January 2014 with 4 reminders every 2 weeks with the final questionnaire received on 24th March 2014.

- **Using self-completion questionnaires reduces biasing error** caused by the characteristics of the interviewer and the variability in interviewers’ skills. The absence of an interviewer also provides greater anonymity for the respondent. When the topic of the research is sensitive or personal it can increase the reliability of responses. Again this was ideally suited to the achievement of the research objective regarding individual personal development and organisational support.

- **Response rates in self-completion surveys tend to be maximised** when respondents have an interest in the subject of the research and are therefore motivated to complete the questionnaire.

Electronically-based research can take many guises with various levels of sophistication, extending from online ‘survey monkey’ types that ‘tap into’, for example, product user groups enabling a random sample to be attracted to a study without researcher or participants having any idea who they are, to targeted email approaches where the nature of, and even the individuals within, the target participant group are known. The electronic administration approach was ideal for our purposes because we knew who the Fellows and their sponsors were, and, since most NHS staff use email as part of their work, we had access to their email addresses. One particular advantage of this approach is that participants can engage with the questionnaire in their own time and they need not complete it at one sitting. Given that we had devised an adapted questionnaire style in which open and extending response boxes were provided, that was a valuable advantage.

In addition, there is evidence that research participants are often more willing to give honest answers via email or other electronic form, than to a person or on a paper questionnaire (Keisler and Sproull 1986). Furthermore, by sending the survey electronically, interviewer bias arising from the fact that different interviewers can ask
questions in different ways is eliminated. Email surveys can involve embodying questions in the text of an email, or in an attachment, which participants complete and return. Such surveys are economical in both monetary and time contexts since email surveying allows large numbers of respondents to be questioned simply by populating the ‘send to’ line with their email addresses, or more appropriately, by so populating the Bcc line thereby enabling the participants to be anonymous to each other. In the case of our research, this was not an item for concern since the Fellows are aware of whom they and others are within their cohorts.

However, there are a number of disadvantages of self-completion surveys by email. Aspects of these are as follows, and we have included our observations regarding their applicability to our particular study:

- A full list of email addresses is essential: Initially, we had some difficulties with some of the email addresses supplied however; the Fellowship Programme administrator from HIS rapidly resolved this.

- Duplicate responses may be received and instructions could be ignored: again, this was not an issue for our study in view of the relatively small number of participants in a ‘whole world’ sense.

- Some individuals dislike unsolicited email; however, the specificity of our study and our ability to pre-signal it to our participants negated this disadvantage.

- Questionnaires have to be short and easily understood: there is no opportunity to probe or clarify misunderstandings; again, this was less applicable to our study, in part because of the nature of the participants and their level of educational background and also because the survey could be pre-signalled.

- There is no control over who fills out the questionnaire: from this perspective the researcher can never be sure that the right person has completed the questionnaire; however, once again, the specificity and signalling of our study would tend to minimise any such problem.

- Email surveys cannot be use to generalise findings to the whole population: no research can be used to do this. In essence this aspect only becomes a problem if that is what researchers are seeking to do. In any case it is never the objective of qualitative work such as our own to be generalisable. In the case of our study, our objective was to explore the questions detailed above as a means of illuminating the experiences of the Fellows and the perceived outcomes in regard to patient safety activity in NHSS.
Email Introducing Fellows Questionnaire

From: OConnor Pat (NHS TAYSIDE)
Sent: 23 January 2014 11:45)
Subject: The Scottish Patient Safety Fellowship (SPSF) Programme Impact Evaluation

Dear All,

Please refer to the above attachments’ in relation to Cohort 5 Fellows Evaluation. Apologies for the short turn around, however we are preparing a final Evaluation Report and want to include Cohort 5. Details can be found within the attachments.

I look forward to your responses in due course.

Kind Regards

Pat

Dr Pat O’Connor
Clinical Director of Research and Development
NHS Tayside,
Kingscross,
(former CHP block Rm H1014)
Clepington Road,
Dundee,
DD38EA

pat.oconnor@nhs.net
+447740937087
Honorary Professor
University of Dundee Business School

PA Karen Campbell e:kcampbell9@nhs.net
Contact by mobile 07580840583
Dear Colleague,

The Scottish Patient Safety Fellowship (SPSF) Programme Impact Evaluation

Healthcare Improvement Scotland considers that regular evaluation is an essential part of the SPSF development. We are currently seeking the views of past participants in the Scottish Patient Safety Fellowship (SPSF) regarding any impact the programme has had on you as an individual and the wider improvement agenda.

As a reminder the SPSF was designed to:

- develop and strengthen clinical leadership capability in order to support the Scottish Patient Safety Programme
- contribute to the development of a long term quality improvement and patient safety culture
- establish a learning support network for transformational leadership
- strengthen existing collaborations within NHS Scotland; and
- support workforce development

Information gathered may help to improve programme design and delivery and more importantly enable a deeper understanding of what appears to be working and making a difference.

Our intent is to document and understand the views of participants in relation to fellowship aims. In this respect, a semi structured questionnaire is attached to gather your views.

Please return the completed questionnaire with any additions and/or comments by 31st January 2014 to Karen Campbell at kcampbell9@nhs.net

Apologies for short turn around however we are preparing a final Evaluation Report and wanted to include Cohort 5.

Kind regards

Pat O'Connor
Appendix 5

Please find attached a short summary outline of the Scottish Patient Safety Fellowship Evaluation for the CEO's meeting on 6th November. We would like to cover the following themes from the sponsors view:

- Capacity development at local and national level
- Fellows project sustainability
- Successes so far
- Current challenges
- CEO view/advice on next steps


Background

The Scottish Patient Safety Fellowship (SPSF) programme was designed to:

- Develop and strengthen clinical leadership capability in order to support the SPSP,
- Contribute to the development of a long term quality improvement and patient safety culture,
- Establish a learning support network for transformational leadership,
- Strengthen existing collaborations within NHS Scotland and
- Support workforce development.

Healthcare Improvement Scotland considers regular programme evaluation an essential part of organisational Governance. This evaluation is designed to explore how satisfied participants and sponsors are with the SPSF programme to date, whether it is responsive to the context (working environment) and what the challenges exist in implementation. Information gathered may help to improve programme design and delivery, as well as develop a deeper understanding of what appears to be working and making a difference. Evaluation research is often is considered as an end stage activity, taking place at the closing stages of a programme or intervention in order to determine whether the programme worked. However, evaluation research is equally, if not more, valuable, when conducted at regular intervals during the programme lifespan. This impact assessment will form a second phase of NHS Education Scotland’s and Healthcare Improvement Scotland’s formative approach to the SPSF programme review process.
Evaluation of programme implementation is essential as it may help to identify opportunities for improvement before the ends. Documenting and understanding the views of the participants and sponsors will support the continuing development of Improvement science capacity and capability enabling replication elsewhere.

**Methodology**

This evaluation is designed to:

- Undertake a programme impact assessment from the perspectives of the participating fellows, organisational sponsors and the national fellowship project group
- Inform the planning and delivery of the programme for cohort 6 and 7 groups (2012/13)
- Inform sustainability plans of Improvement fellowships
- Build on the first impact report by De Wet (2009)

The evaluation will use qualitative methodologies to ‘describe’, ‘assess’ and ‘explain’ the impact of the current patient safety fellowship programme from the participant and sponsor perspective. The evaluation themes will include:

- Personal effectiveness and development of fellows
- The scope, range and sustainability of projects undertaken as part of the programme
- Continuing opportunities for fellows to teach and coach others
- Opportunities for fellows to participation in national and international healthcare work
- Publications, presentations and shared learning as a result of SPSF
- Opportunities for wider learning within and out with NHS Scotland

**Timescale**

Research planning meeting with SPSF leaders Aug 2012

A structured questionnaire will be emailed to all SPSF fellows (n=54) September/October 2012

A focus group will be held with the NHS Chief Executives to obtain their views of the above themes. Nov 2012
Telephone interviews with national leads associated to the fellowship programme including representation from all stakeholder groups Nov 2012.

**Dissemination**

Reporting arrangements will follow the routine governance pathway through Healthcare Improvement Scotland's fellowship steering group, NHS Education for Scotland and Scottish Government. Outcomes will be shared with all stakeholders and previous sponsors the Health Foundation and reported to national and international conferences.

All publications will list accreditation to the collaboration of NHS Tayside, University of Dundee and Healthcare Improvement Scotland. Intellectual property of is governed by the HIS governance arrangements and the NHS Tayside IP Policy 2011.

**Dr Anne Fearfull,**
Director of Business Management Programmes, University of Dundee, School of Business

**Pat O’Connor**
Honorary Professor University of Dundee Business School. Research Portfolio Healthcare Improvement and Innovation,
Appendix 6

Thematic Coding Method

1st and 2 Cycle Coding Framework for questionnaire responses

The aim of the coding exercises was to identify themes in the fellow’s responses as related to 2 of our key research questions:

- What are the perceptions and reflections of the participant fellows of the programme and its intent for capacity capability building in patient safety improvement?
- To what extent does the fellowship support wider organisational improvement capability development?

1st Cycle Coding
Descriptive adjectives and adverbs used in sentences to identify positive and negative meaning were highlighted.

2nd Cycle Coding
As a second step the highlighted text was analysis further revealing the following 7 themes:

1 Overall the SPSF Programme Set Up, content, delivery, impact , most and least helpful elements

2 Personal development

3 Knowledge/skills
   a) New
   b) Advanced
   c) Theoretical
   d) Statistical
   e) Leadership
   f) Coaching
   g) Quality Improvement methods

4 Theory to practice links

5 Project implementation/ outcome /spread -Making clinical change happen locally and in the wider organisation

6 Networking

7 Supporting future development of safer healthcare systems
Appendix 7

Summary list of Projects undertaken by Fellows

- Implement daily goal setting in ICU
- Reduce rate of Central Line Infections
- Assessment of patients for VTE Prophylaxis in Gynaec Patients
- Reducing Sabs due IV Cannula
- Ward Communications and Handovers
- Focussed on daily goals element of getting into practice 95% of all patients
- To reduce medication errors by 50% in one area
- To implement daily goals / structured ward rounds
- Test assessment of SIRS and Sepsis – appropriate of Sepsis 6
- Reduce length of time for on call FY1 to assess acutely sick patients during weekday evening shift to 30 mins
- To improve quality of medicines reconciliation in Surgical Pre-Operative Assessment Clinic (SPOA)
- Reduce overall rate of SSI in abdominal surgery to 5% overall (2% clean/clean contaminated, 10% contaminated at 6 months.
- Increase referrals from baseline to smoking cessation SVS among Cardiac In-patients
- Improve the time to ECG in chest pain patients ideally to have 80% done within 15 mins
- To conduct 95% of multidisciplinary
- To attain 90% compliance with the WHO safer surgical checklist in 6 months
- To reduce hospital-associated infection in our inpatient wards by 50% by end Nov 2012
- Reliable process around heart failure bundle of care
- To reduce average length of stay by 1 day within one year
- To reduce the mortality rate from severe sepsis in ICU by 50% by reducing time to antibiotics to a mean of less than 60 mins
- To involve people who were patients in ICU and their families with the process of setting daily goals
- Assessment of patients for VTE Prophylaxis in Gynae patients
- To ensure 90% of patient medication records are accurate within the GP practice prescribing system following hospital discharge by July 2012
- Improve the patient experience for “frequent fliers” to A&E with mental health problems/crises
- Achieving 300 days between VAP in ventilated patients with a non-neurological diagnosis
- Elective postoperative patients to be ready to go home before 9am on the first post-op day
- Explore how can medicines reconciliation be delivered on discharge
- Process reliability with CVC bundle
- Apply minimum standard of care to all patients admitted with heart failure
- To introduce Medicines Reconciliation in 1 unit
- Introduce daily safety briefs within the ward area 3 times a day
- To reduce missed doses of medications within 1 medical unit by 50%
- Introducing medicine reconciliation into the ward round to ensure all junior Doctors understand medication safety
- Work to getting 1st patient to theatre on time – 9am
- To introduce daily goals during all ward rounds
- Introduce safety briefing as part of ward round
- Using SBAR to call medics to see patients
- Used surgical pause for all patients on list
- Drugs and Drips – Improving the number of patients eligible for intravenous (IV) to enteral (PO) antimicrobials, switch at day 3 or the intravenous antimicrobial prescription to PO alternative
• Pre-hospital identification of SEPSIS

• Patients who were on Warfarin were safely discharged from Dr Gays hospital to the community

• To create a structure ward round Proforma that improved medicines reconciliation and created a more patient-centred approach

• Ensure patients who were discharged on Warfarin were given key information about Warfarin and this was communicated reliably to the GP

• To improve patient safety on my ward with the key outcome of a 20% reduction in harmful events to the patients by end of 2013 through introduction of a Patient Safety Huddle

• To improve handover in Intensive care through the use of technology

• To reduce DNA, ascertain reasons for non-attendance and improve current practice

• Increase the use of our asthma discharge checklist and delivered Asthma action plans to 95% of children admitted to our hospital with acute paediatric asthma

• Ward round checklists, to improve VTE resuscitation status reviews and discharge planning. Introduction of a structured ward round tool

• To ensure patients presenting with signs of sepsis receive antibiotics within an hour >90% of the time

• Fully implement the surgical checklist to local anaesthetic cataract surgery outcomes

• Improving the initial assessment of children in Forth Valley Royal Hospital Emergency Department – the paediatric observation bundle

• Discharge Summaries, key outcome percentage of summaries completed with one month of patient discharge

• To improve the recognition of deteriorating children or young people in Scotland
Appendix 8

Scottish Patient Safety fellowship leaders interview question schedule

<table>
<thead>
<tr>
<th>No.</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What is your current role?</td>
</tr>
<tr>
<td>2.</td>
<td>How is that role connected to the fellowship?</td>
</tr>
<tr>
<td>3.</td>
<td>What is your understanding of the aim of the fellowship?</td>
</tr>
<tr>
<td>4.</td>
<td>Why was the Fellowship established</td>
</tr>
<tr>
<td>5.</td>
<td>Are you aware any of the outputs from the Fellowship?</td>
</tr>
<tr>
<td>6.</td>
<td>What are your expectations for fellows?</td>
</tr>
<tr>
<td>7.</td>
<td>What about after the fellowship what do fellows do?</td>
</tr>
<tr>
<td>8.</td>
<td>Has anything in the fellowship programme changed over time? / What and why were these changes made?</td>
</tr>
<tr>
<td>9.</td>
<td>What and why were these changes made?</td>
</tr>
<tr>
<td>10.</td>
<td>What would you like to see happen next?</td>
</tr>
</tbody>
</table>

Pat O’Connor
Professor, University of Dundee Business School
Dr Anne Fearfull,
Director of Business Management Programme, University of Dundee
Skilled for improvement?
The improvement skills pyramid

Print, cut out, fold and glue this diagram to create a model of the 'three-sided improvement pyramid', representing the three sets of skills required for successful implementation of improvement.