



Final Report for award holders – Closing the Gap through Clinical Communities

Project Title: Improving Lung Cancer Outcomes Project (ILCOP)

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[Royal College of Physicians](#) – Clinical Standards department, Clinical Effectiveness and Evaluation unit.

Partner organisations

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[National Lung Cancer Forum for Nurses](#) – Jeanette Draffan and Nicola Bell, lung cancer specialist nurses.

[NHS Improvement](#) – Gilmour Frew, Cancer programme director and Dr Mick Peake, National lead for lung cancer in secondary care.

[NHS Information Centre for Health and Social Care](#) – Dr Roz Stanley, Project manager for the National Lung Cancer Audit and Dr Mick Peake, Associate Director.

[Macmillan Cancer Support](#) – Julie Atkin, service development manager, and Jim Elliot.

[Roy Castle Lung Cancer Foundation](#) – Jesme Fox, Medical Director, and Susan Christie, Patient involvement coordinator.

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Glossary of terms

Cancer networks – NHS funded organisations that bring clinicians and managers together to support learning and address service delivery challenges across a region. Networks cover areas greater than commissioning areas, but are smaller than the spread of strategic health authorities.

CEEu – Clinical Effectiveness and Evaluation unit, Clinical Standards department at the Royal College of Physicians.

CNS – Clinical nurse specialist.

Core project team – Formed by the project clinical director, the project manager, the quality improvement facilitator and the project administrator.

ILCOP teams – Refers to the teams in the intervention arm of the project (n=30) versus those in the control arm (n=50).

LCNS – Lung cancer clinical nurse specialist

MDT – Multi-disciplinary team.

National cancer peer review – service accreditation scheme for NHS lung cancer services in England. It is led by the National Cancer Action Team, represented at the ILCOP steering group.

NLCA – National Lung Cancer Audit.

NSCLC- Non-small cell lung cancer. The most common type of lung cancer.

Project steering group – Core project team and representatives from the partner organisations.

QI – Quality improvement.

SCLC- Small cell lung cancer. This is a less frequent type of lung cancer that is characterised by a fast disease progression.

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SECTION 1: Project overview

- 1.1. Project abstract
- 1.2. Background of the quality challenge addressed
- 1.3. The local problem
- 1.4. The intended improvement
- 1.5. Changes along the way

1.1 Project abstract

Please describe the nature of the quality problem you addressed, the improvements you aimed to deliver through the intervention and the approaches you used to implement the intervention and what you achieved. In completing this section please imagine this is the information that will be used to describe your project on your website.

Lung cancer survival in the UK is poor, with a three-fold variation seen across England which is not wholly explained by differences in the patient case-mix, i.e. surgical resection rates can vary from 6% to 25% across regions, 2009, National Lung Cancer Audit (NLCA)¹. The Improving Lung Cancer Outcomes Project aimed to:

- a) Support teams to deliver local improvements in outcomes and patient experience
- b) Identify reasons for variation,
- c) Contribute to the knowledge base around how best to engage clinicians in quality improvement (QI) activities.

ILCOP had a bottom-up approach to address specific service and patient experience issues rather than centrally dictated changes. Teams participated in reciprocal multidisciplinary service reviews moderated by a QI facilitator. Strategies used to maximise project engagement included face-to-face workshops and on-going support from the facilitator and between peers. Other activities included theme-based web conferences and a webpage for resource sharing. Evaluation of activities was performed using anonymous feedback, interviews with participants and observations of programme activities by external researchers.

ILCOP achieved a high level of engagement from the multidisciplinary teams who felt that the process was supportive yet opened up the possibility of legitimate challenge to existing ways of working. Over 230 professionals took part in the project. The multidisciplinary service reviews were described by 99% of the participants as *good* or *excellent* in their ability to identify areas for improvement. More than 70 quality improvement plans were submitted to the core project team.

Local data collection demonstrated improvements in a number of areas. One site was able to reduce the time that patients wait for chemotherapy from 12 days to 2 days by streamlining the diagnostic pathway. This had an impact in the total number of small cell lung cancer patients being able to access treatment (57% in 2010, and 71% in 2011). Another site showed improvements in their patient satisfaction survey with a 20% increase in the number of patients who reported that information about diagnosis was given with sensitivity and care. Final project evaluation through indicators from the National Lung Cancer Audit is expected to be available towards the end of 2012.

Word count: 351/300.

1.2 Background knowledge of the quality challenge

Provide a summary of what the situation was at the start of the programme (both nationally and regionally). You may find it helpful to include information from your original application about:

- the significance of the health issue
 - the evidence of best clinical practice
 - the evidence of patients' views
 - and gaps in clinical quality.
-

Lung cancer is the commonest cause of cancer death in the Western world with around 38,500 cases diagnosed each year in the UK. Overall, the prognosis for patients with lung cancer is poor and long term survival has only improved slightly in recent years. However, patients diagnosed at an early stage have a better prognosis, largely as a result of being suitable for radical treatments, particularly surgery.

Over the last six years, data from the National Lung Cancer Audit (NLCA) has demonstrated wide variations in surgical resection rates across the UK (see figure 1) which do not seem to be explained by differences in case mix variables (age, deprivation index, performance status and stage).

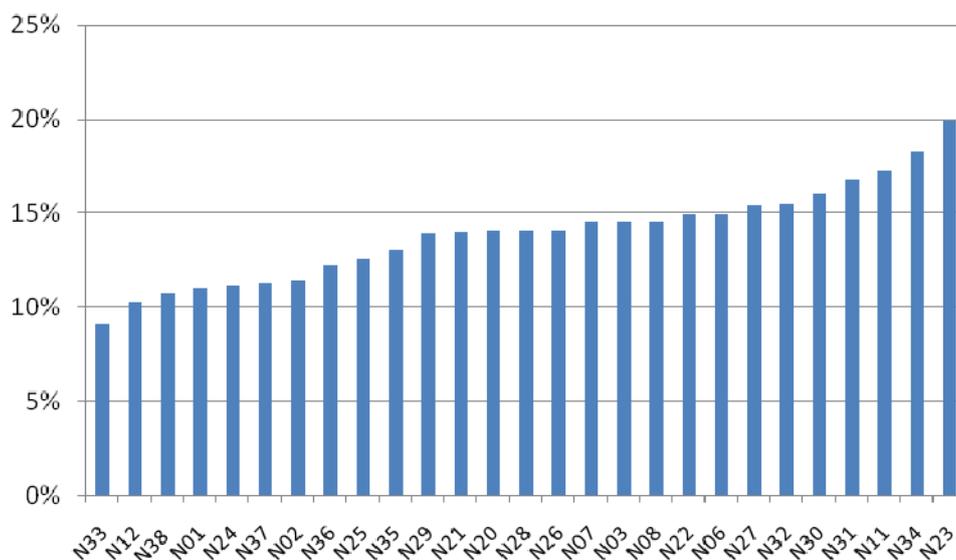


Figure 1. Variation in surgical resection rate across English cancer networks¹

In addition, data from the NLCA demonstrate wide variations in the proportion of patients receiving any active anti-cancer treatment, in particular chemotherapy for small cell lung cancer².

The 2008 national performance against NLCA standards is shown in the table 1 below:

¹ See glossary for *Cancer network*.

² See glossary for *Small cell lung cancer*.

Indicator	Standard	Trusts meeting standard
Histological confirmation rate	>75%	48%
CT before bronchoscopy	>90%	14%
Seen by CNS	>80%	26%
CNS present at diagnosis	>80%	4%

Table 1: 2008 national performance of lung cancer services against NLCA standards

The NLCA data also demonstrates variations in diagnostic times and the proportion of patients supported by a lung cancer nurse specialist through their diagnostic journey (figure 2), both of which can significantly contribute to increased patient anxiety. However, prior to this project there were no specific tools available to formally assess patient experience in lung cancer.

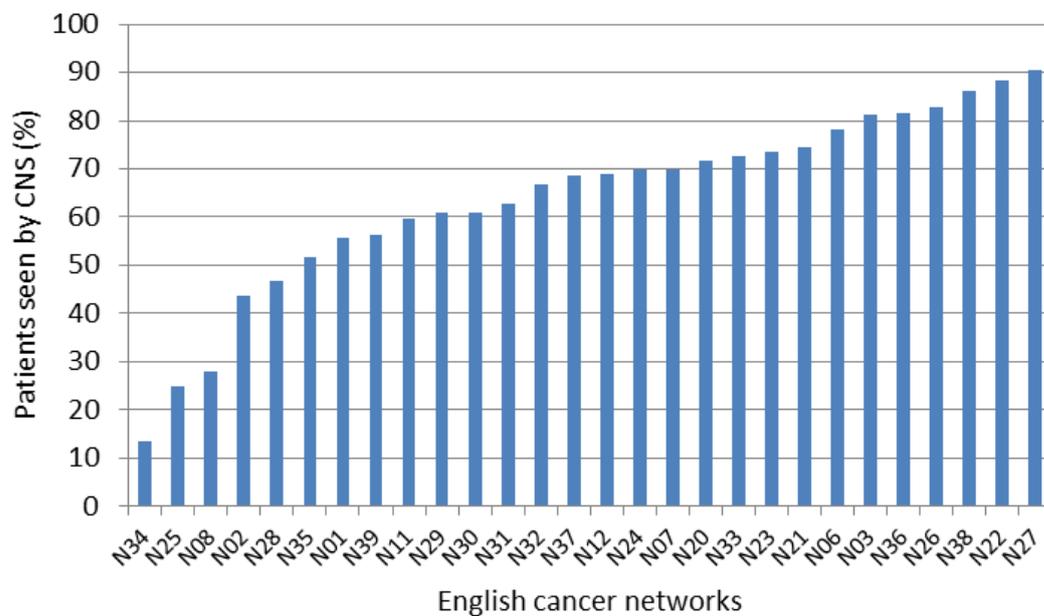


Figure 2. Variation in the proportion of patients seen by a lung cancer nurse specialist (CNS) across English cancer networks.

Contact with a lung cancer nurse specialist (LCNS) is associated with increased rates of active treatment, particularly chemotherapy or radiotherapy, but not surgery, and this effect is independent of patient's sex, age, disease stage and performance status. This association is being investigated further as there may be important additions to the known benefits that lung cancer specialist nurses provide to patients. Regardless of the explanation, all lung cancer patients should have the opportunity to benefit from the expertise of a lung cancer specialist nurse.

Word count: 351/400.

1.3 Local problem and context

Describe the nature and severity of the specific problem or system challenge that you planned to address. Please describe the context in terms of the environment into which your innovation was deployed; the key characteristics of the organisational setting(s) where the work took place.

Please include:

- *Geographic scope*
 - *Target group / population (e.g. people with COPD, adults with learning disabilities)*
 - *Primary / secondary / tertiary care*
 - *Types of organisation / services involved (e.g. voluntary sector provider, NHS acute hospital, mental health Trust)*
 - *Significant stakeholders (e.g. types of staff groups, commissioners, other service providers/ service users?).*
-

All 156 clinical lung cancer services teams based in NHS acute trusts in England were invited to take part in the project. The geographical distribution of the teams randomised to the intervention arm of the project is shown on the map below (Figure 3 – location of ILCOP intervention teams):



Figure 3: Location of ILCOP intervention teams

The key members of a lung cancer clinical team are the clinical lead (usually a respiratory physician), the lung cancer nurse specialist and the team coordinator. They work closely with colleagues of at least four other medical specialties to comprise the MDT: including oncologists, thoracic surgeons, radiologists and palliative care doctors, who can be permanently working with the core team or be based on a nearby trust and provide external input. Lung cancer multidisciplinary teams (MDTs) tend to report to cancer service

departments within their organisation who provide a variable level of managerial support. In addition the core members are expected to attend regular site specific cancer network³ meetings to agree pathways, review service results and plan improvements. Teams are also subject to national cancer peer review on an annual basis where evidence must be provided to demonstrate compliance with a number of quality standards. Formal reports are published nationally and feedback is given to the CEO and lung cancer clinical lead of each organisation.

Word count: 226/400.

³ See glossary for *Cancer network*.

1.4 Intended improvement

Describe the aim(s) of your intervention(s) (the changes / improvements in processes, clinical quality, patient reported quality, clinical engagement and team working, and the impact on quality outcomes). You may find it helpful to refer to section 3 of your application. 400 words

State precisely the primary improvement – related question and any secondary questions that the Closing the Gap approach is designed to answer. Please include your driver diagram to help the reader to understand your project.

At the outset what factors did you think would help or hinder the work succeeding?

ILCOP seeks to achieve improvements in lung cancer patient experience and survival. Primary and secondary drivers for improvements in survival and patient experience were outlined upon project initiation, see table 2. Secondary drivers that have been trialled and implemented by teams are highlighted in bold.

Improving Lung Cancer Outcomes – Project driver diagram		
Outcomes	Primary drivers	Secondary drivers (examples)
Survival	Proportion achieving histological confirmation rate of 75%	Diagnostic MDT with specialist radiologist Access to full range of tests e.g. EUS Pre-clinic CT Pathology turnaround times/access
	Proportion achieving active anticancer treatment rate $\geq 60\%$	Better data at MDT meetings (PS, performance status) present by someone who knows the patient Increase access to oncology Increase access to EGFR testing Attendance by all specialists Increase proportion seen by CNS Liaise with primary care re early detection
	Proportion achieving surgical resection rate $\geq 14\%$	Better data at MDTM (lung function) Specialist surgeon input at all MDT meetings Increase access to PET, EBUS, EUS Attendance by all specialists Protocols by stage Guidelines - fitness for surgery
	Proportion achieving chemotherapy in advanced non-small cell lung cancer of $\geq 54\%$	Better data at MDT meetings (accurate PS) Oncologists see all patients PS 0-2 Protocols by stage
	Proportion achieving chemotherapy in small cell lung cancer $\geq 62\%$	Better data at MDT meetings (performance status) Rapid diagnostic pathway Protocols e.g. pathologist alert as soon as SCLC seen Oncologists to see all patients

Continued

Patient experience	Proportion seen by CNS \geq 80%	CNS champion Automated alerts/referrals
	Communication & Information	Increase proportion seen by CNS Advanced communication skills courses Check lists & protocols
	Privacy, Respect and Dignity	CNS champion Increase proportion seen by CNS MDT reflection
	Emotional & Physical Support	Increase access to palliative care Increase proportion seen by CNS

Table 2: ILCOP project driver diagram

The ILCOP theory of change for clinical engagement and promoting change is shown in figure 4.

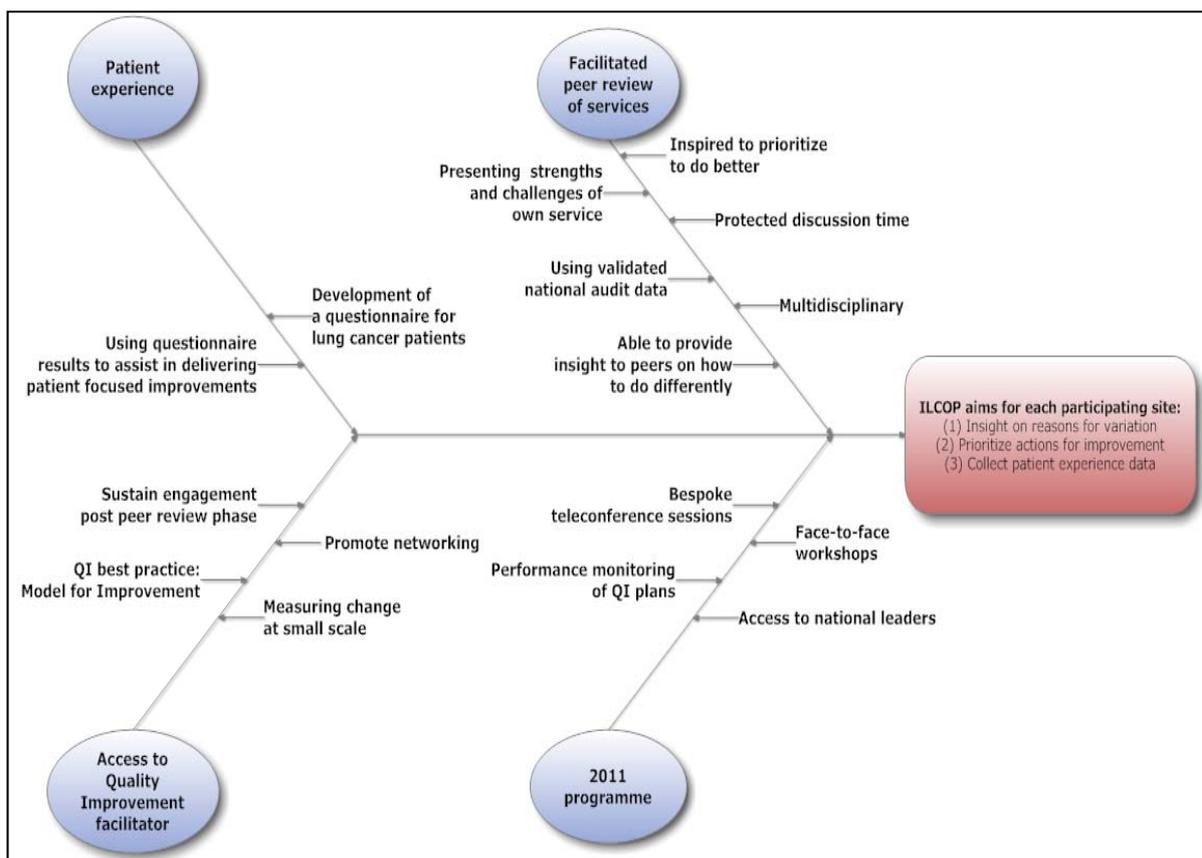


Figure 4 – ILCOP theory of change for clinical engagement

Factors identified prior to the project that may have hindered implementation included:

1. The timely appointment of a suitably qualified project manager and quality improvement facilitator
2. Recruitment of interested lung cancer MDTs and organisation of peer review visits.
3. Difficulty in developing and obtaining responses to the patient questionnaire
4. Monitoring and sustaining change management

The project timelines are shown in figure 5.

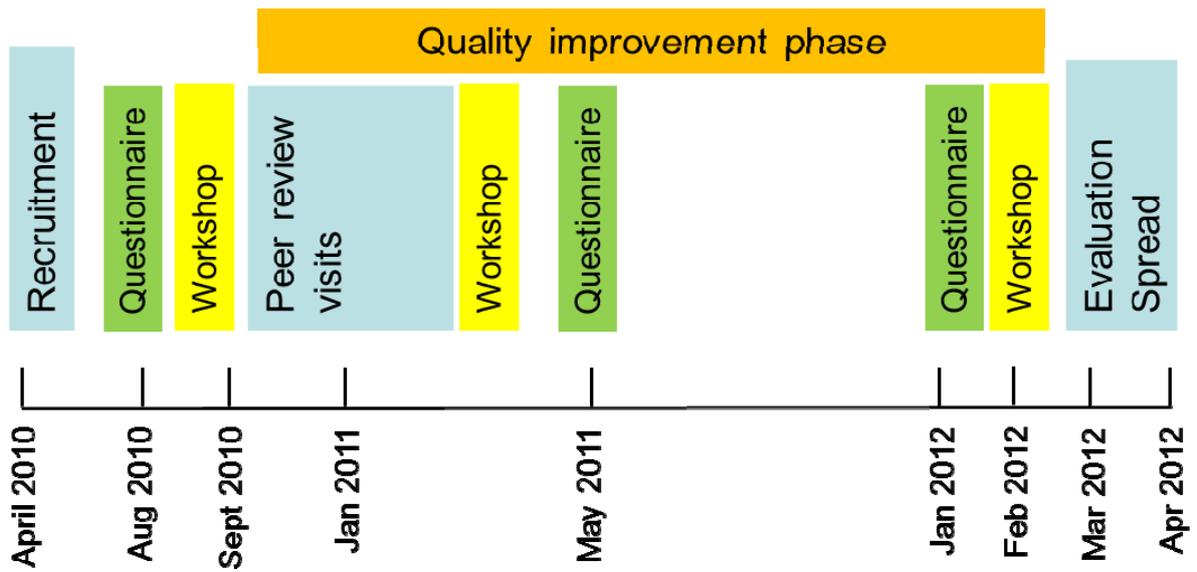


Figure 5 – Project timelines

Word count: 388/400

1.4 Changes along the way

Identify what changes you have had to make to your original design, methodology, sample size, intervention. The reasons why and the impact this has had on the design of the intervention.

The development of a patient reported outcome measure was abandoned when NHS Improvement announced that a cancer specific tool was being developed nationally.

A mid-project patient experience survey was added to allow stronger statistical analysis of change throughout the project and to reinforce the participating teams' awareness on being measured against patient experience feedback.

Two additional project workshops were delivered upon completion of the peer review phase (same programme, two venues, February and March 2011). This helped teams to renew their commitment to the project by exchanging improvement experiences and firming up ideas for change projects. See section 4.3 *Project achievements and challenges* for workshop impact on participants.

Team prioritisation for additional targeted site visits. The 30 ILCOP intervention teams were categorized into 3 groups on the basis of their prior performance and their willingness to engage with the project support:

- **Priority 1:** eleven teams (36%) with most improvement needs (as per national audit data) and likely to perceive a face-to-face meeting as a motivator in providing evidence of QIP progress.
- **Priority 2:** six teams (20%) with improvement needs (as per national audit data) and likely to provide evidence of QIP progress through project telephone support and email communication.
- **Priority 3:** thirteen teams (43%), who were either classified as excellent performers by the national audit or were giving signs of low engagement with the project and peers.

The eleven *Priority 1* teams received a follow up visit from the Quality Improvement Facilitator, which aimed to revise QI plan progress and support implementation of the improvement plans.

Use of web conferencing: In order to continue providing networking and peer support opportunities, the project team grouped the teams around several improvement topics and announced a number of teleconferences chaired by the QI facilitator. All the teleconferences were supported by relevant national experts. Each team was invited to focus on at least two of those themes; however, all teams were invited to the teleconferences. Please see table 3 below:

ILCOP web conferences	
Date	Theme
1st June	Data with Ian Woolhouse and Roz Stanley
5th July	Histological confirmation rates , with Paul Beckett
7th and 11th July	Surgical resection rates with Mick Peake, Richard Page and Sion Barnard
13th July	Active Treatment Rates, with Andrew Bates and Dennis Talbot
25th July	Clinical nurse specialist with Jeanette Draffan
10th August	Small cell chemotherapy
30th November	Comparing your ILCOP patient experience survey results

Table 3 – ILCOP webconferences

Interim and final reports. The project team agreed in May 2011, to create team-specific project interim reports that would be sent to the teams and their senior trust managers. These interim reports were conceived as an opportunity to create in their team a sense of internal accountability with regards to the implementation of their QI plans.

Pair teleconferences: In the last quarter of 2011, intervention teams were encouraged to participate in a teleconference chaired by the project Quality Improvement Facilitator. The aim was to report improvement progress to their paired team, with whom they took part in the service reviews in the last quarter of 2010.

Bespoke web conferences and phone calls: The ILCOP team held bespoke teleconferences with the teams, focused on helping them implement their improvement plans and capture data to demonstrate change.

Word count: 536/400.

SECTION 2: Project methods

- 2.1. The choice of the intervention
- 2.2. Description of the intervention
- 2.3. Measurements:

2.1 The choice of intervention

You should write this in such a way that other people would be able to understand what you did. Therefore include:

- *the main factors that contributed to your choice of the intervention(s) and the evidence that originally led you to believe it would deliver the desired aims.*
- *any contextual factors that you believed would be necessary for successful implementation?*
- *What the intervention was*
- *What you actually did – how was the intervention carried out*
- *Who was involved*
- *Who were the key stakeholders*
- *The membership and roles of the group/team leading the work*
- *What was the role of partner organisations*

Please remember that people with no knowledge of your project will read this report so the intervention should be fully explained. It may be helpful to ask someone not familiar with your project to review this and see if they fully understood what you did.

Lung cancer multidisciplinary teams make key decisions regarding diagnosis and treatment for lung cancer patients and hence we placed these teams at the centre of our project. The teams are familiar with external peer review for service accreditation purposes but experience tells us that this serves more to ensure a minimum standard is met, as opposed to driving all teams up to the standard of the best.

Prior to ILCOP, a proportion of lung cancer teams performed highly within the current system and we wanted to understand how they achieved those good results and identify which learning was transferable across teams. This underpinned our decision to pair up teams performing well in different areas, for example a team with a high surgical resection rate but low rate of CNS contact paired with a team with contrasting results.

Evidence from the National COPD Resources and Outcomes Project (NCROP⁴) demonstrated that reciprocal site visits can be a powerful stimulus for quality improvement although monitoring this once the visits were complete was problematic. Therefore, we developed the NCROP methodology further by incorporating a quality improvement facilitator to facilitate the reciprocal site visits and to monitor and support the subsequent quality improvement work.

Role of the partner organisations

The following is a list of our partner organisations and their contributions to the project:

- **Macmillan Cancer Support** – Macmillan works in partnership with organisations to improve and support development of cancer services. Macmillan worked in partnership with ILCOP in supporting the project and providing input into the design of the patient experience questionnaire, interpretation of the results and to spread the learning and achievements of the project.

⁴ Roberts CM, Buckingham RJ, Stone RA, Lowe D, Pearson MG. The UK National Chronic Obstructive Pulmonary Disease Resources and Outcomes Project (NCROP) – A feasibility study of large scale clinical service peer review. *J Eval Clin Pract* 2009

- **National Cancer Action Team:**
 - Advised ILCOP on alignment with other national initiatives, specifically the self-assessment tool for MDTs which is in development and planned for national roll-out by spring 2013.
 - Linked the project team together with researchers able to undertake statistical analysis of the patient experience survey data
 - Facilitated dissemination of the project findings via the Network Development Programme conference in March 2012, attended by over 400 cancer network members.

- **National Lung Cancer Forum for Nurses** - crucial to mobilise and motivate the lung cancer nurses, especially during the periods of patient experience data collection and MDT projects.

- **NHS Improvement** - Gilmour Frew shared his learning and experience from years of involvement on previous cancer improvement initiatives.

- **NHS Information Centre for Health and Social Care** – key for ILCOP to make the best use of the National Lung Cancer Audit database.

- **Roy Castle Lung Cancer Foundation** – set up the patient advisory groups for the development of the ILCOP patient experience questionnaire and assisted with implementation and analysis of the results.

Please see section 7.2 *Plans for spread* for details on project dissemination thanks to our partner organisations.

2.2 Description of the intervention

ILCOP intervention phases	
Phase	Phase length
Set up	3 months, January 2010 to March 2010
Facilitated peer review	7 months, Sept 2010 to March 2011
Quality Improvement	12 months, Dec 2010 to December 2011
Spread and sustainability	3 months, January 2012 to March 2012

Table 4 – ILCOP intervention phases

The project workshops (two every year, in two different locations) aimed:

- In 2010, to present the project methodology
- In 2011, to facilitate networking and ensure that quality improvement methods were embedded in the quality improvement phase
- In 2012, to spread learning, and showcase participant's improvements

Team recruitment and randomisation for facilitated peer review

All trusts treating lung cancer in England were invited to participate in the project in April 2010. Ninety two (59%) expressed an interest and 80 were deemed eligible on basis of sufficient quality baseline NLCA data for the audit year 2008. The eligible trusts were asked

to provide representation from three members of their lung cancer multidisciplinary team (see section 1.2) and sign off was required from the Chief Executive Officer of the trust.

Teams were paired on the basis of their NLCA performance in four key indicators with the aim to match trusts with different performance in each indicator, not just good with bad. In addition, the aim was to keep travelling time between pairs to a maximum of 2 hours. The process is summarised in figure 6.

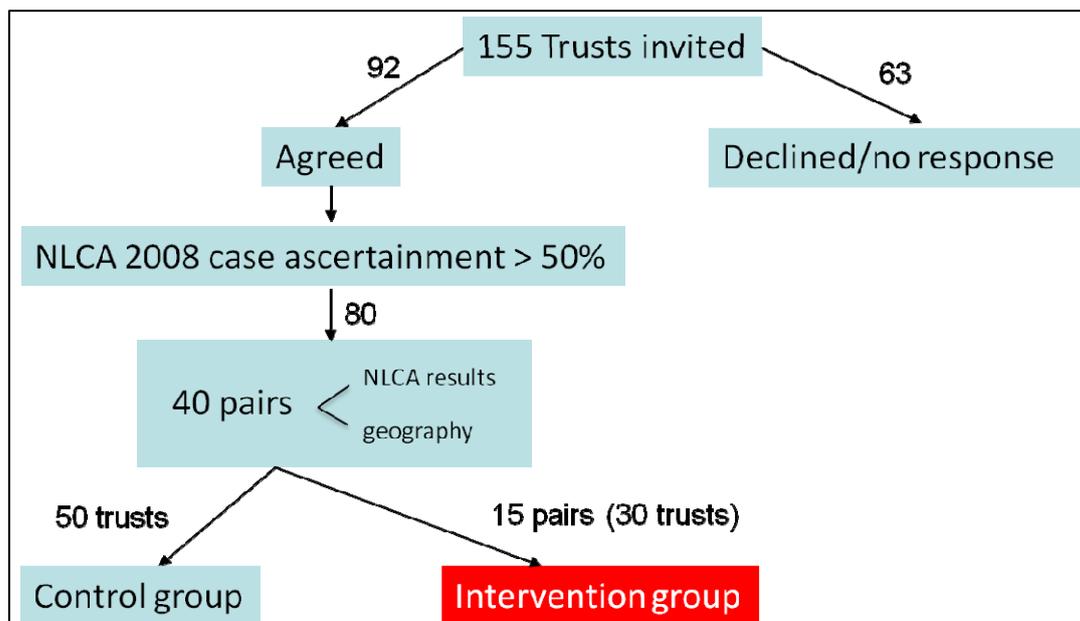


Figure 6 – ILCOP recruitment and randomisation process

Facilitated peer review methodology

Thirty reciprocal peer to peer review visits were delivered between the 30 of September 2010 and 15 March 2011. The core elements of the visits were:

1. Purpose and ground rules for hosts and visitors
2. Host team introduces service set up and the local context.
3. Observation of the host team's MDT meeting. The visiting team used a structured form to note comments and suggestions about the functioning of the MDT meeting.
4. Discussion of the host MDT meeting, broken into four steps:
 - Step 1: Peer reflection, based on professional background (i.e. nurses with nurses, MDT coordinator with MDT coordinator)
 - Step 2: Teams assessment of step 1. Both host and visitors used structured form.
 - Step 3: Host team present a self-assessment followed by visitor feedback. All members of the team allowed to presented on behalf of their team (i.e. not always the lead physician)
 - Step 4: Host team response followed by general discussion and identification of 'areas of improvement'
5. Discussion of host's national lung cancer audit data and patient experience questionnaire data. This either followed the same structure as the MDT discussion or took the form of a group discussion.

6. Summary and Quality Improvement Plan: the final session aimed at confirming the focus of improvement work to be undertaken, explain how quality improvement plans should be drawn up and provide a short introduction to Plan-Do-Study-Act cycles (PDSA).

Quality improvement phase

ILCOP has introduced the teams to different QI concepts and tools. These are summarised in table 5 below:

QI concept/ tool	Method
Driver diagrams Model for improvement & PDSA Variation, reliability and run charts	Workshops ILCOP QI Manual Reciprocal peer review visits Web conference themed discussions One-to-one support

Table 5 – QI tools and concepts used throughout project life

Word count: 1012/800.

2.3 Measurement

ILCOP will use three project outcomes measures in order to capture the impact of the project intervention:

- Local data collected by the participating teams (intervention arm only)
- ILCOP patient experience questionnaire (intervention arm only)
- Selected data items from the National Lung Cancer Audit (both intervention and control arms)

Local data

We encouraged participating teams to collect data locally to assess the impact of their quality improvement plans. This included run charts and pre and post snap shot audit data.

ILCOP patient experience questionnaire

The project developed a lung cancer specific patient experience questionnaire with the support of a patient group facilitated by the Roy Castle Lung Cancer Foundation. This questionnaire measures patients' experience with regards to five different themes: communication, privacy and dignity, emotional support, physical support and information. Additionally, there are three questions for free text input. The participating teams were asked to distribute 30 questionnaires to patients recently seen in their services. The clinical nurse specialists distributed the questionnaires to patients, who anonymously returned them to the Royal College of Physicians.

This process was completed at three points throughout the project life:

- September 2010, before the quality improvement phase
- May 2011, during the quality improvement phase
- November 2011, toward the end of the quality improvement phase.

The results of the first wave of patient questionnaires were reported to the teams during the service reviews, see section 2.2. *Description of the intervention*. The results of subsequent visits have been provided to the teams via electronic reports.

National Lung Cancer Audit

The indicators shown in the table below will be used to measure improvement upon completion of the quality improvement phase.

Data completeness	Expected cases (%)
	Performance status (P.S) and stage (%)
	Treatment recorded (%)
Process and Outcome	Discussed at MDT (%)
	Histological diagnosis (%)
	Any active treatment (%)
	Surgery (%)
	Small Cell Chemo (%)
Process and Outcome	Seen by CNS (%)
	CNS Present for Diagnosis (%)

Table 6 – NLCA indicators used for ILCOP evaluation

The deadline for trusts to enter data for the audit year 2011 is June 2012 i.e. beyond the lifetime of the project. However, data can be entered in real time and we have strongly encouraged participating sites to upload data on a monthly basis during 2011. Given these limitations we plan to use the following time periods for our preliminary analysis:

Baseline: April to September 2009 and October 2009 to March 2010

Post intervention: April to September 2011 and October 2011 to March 2012

We will assess improvement in the intervention sites against improvement in the control sites. To capture improvements beyond the lifetime of the project we plan to compare the audit years 2009 to 2011 and then 2012, via our links with the national lung cancer audit team.

Word count: 453/400.

SECTION 3: Project results

3.1 Outcomes

3.2 Quality of data

3.3 Project impact

3.1 Outcomes

You should refer to the baseline, process, outcome and balancing measures. Include summaries of baseline data and an explanation of any statistical techniques used to demonstrate significance. Please use images, graphs, charts or other media to summarise and support your data where this will aid understanding. Please remember to fully annotate any charts

Process Measures: Reflect the care delivery to the patient; what is done to, for, with, or by defined individuals or groups as part of the delivery of services.

Outcome Measures: Evaluate the degree of change in the wellbeing of a defined population related to an intervention. Improvement in outcome measures reflects the results we are aiming for related directly to the patient and has an effect on mortality and morbidity.

Balancing Measures: May be process or outcome measures, and usually measure some aspect of the system that may inadvertently be affected by changes in specific areas of the model or track a competing explanation for improvement. Balancing measures together with the selected process and outcome measures help to foster systems thinking.

ILCOP outcomes were measured using local data provided by participating trusts, patient experience data from the ILCOP questionnaire and data submitted to the NLCA.

3.1.1. Process measures

Baseline NCLA data completeness and process measures for the intervention sites are shown in figure 7.

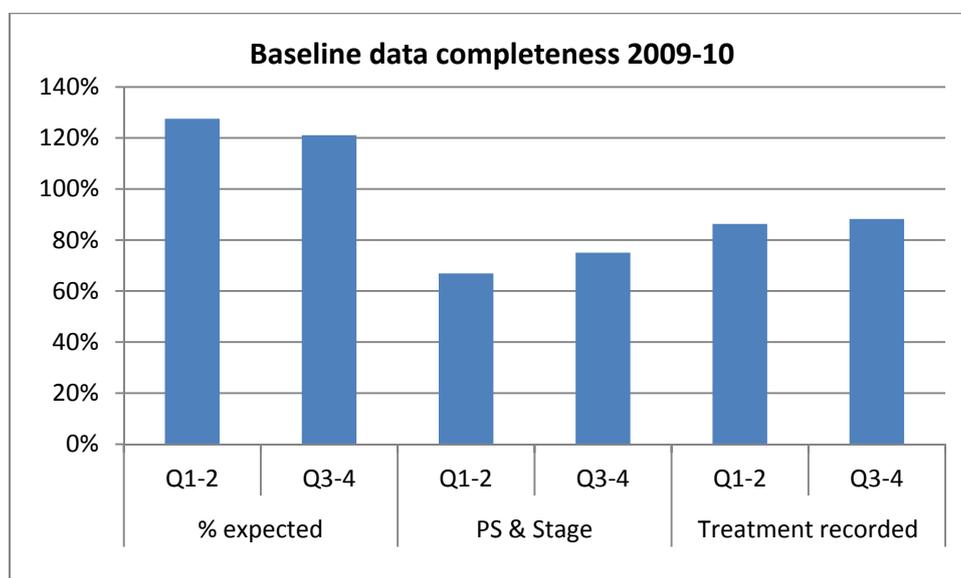


Figure 7 – Baseline data completeness for ILCOP intervention trusts, 2009-10

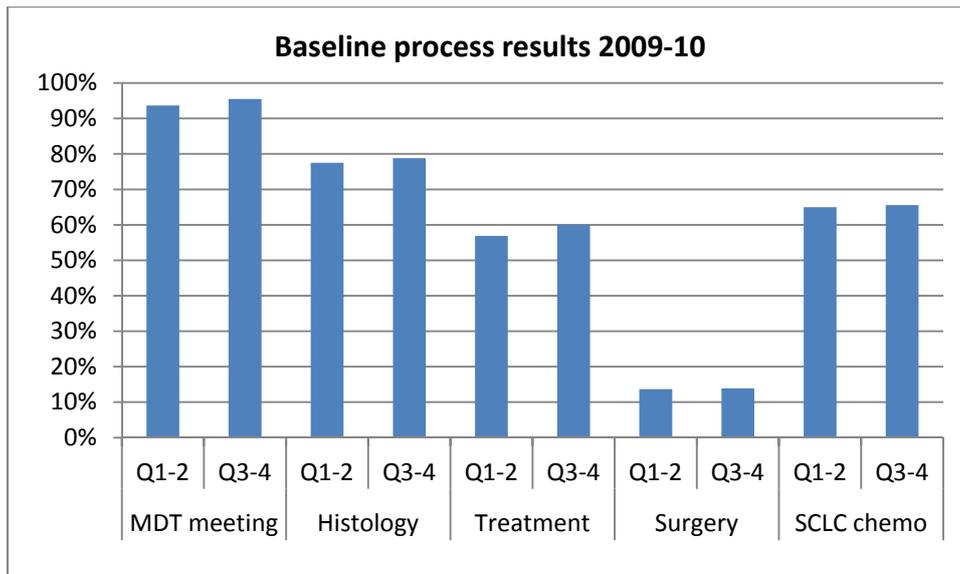


Figure 8 – Baseline process results for ILCOP intervention sites. Q1-2: October to September, Q3-4: October to March.

Local data and stories collected by participating sites have highlighted a number of significant achievements. Examples are described below:

Case Study A – Improving MDT effectiveness and promoting accurate data collection

Team A implemented 'live' data capture on a large screen during the MDT meeting, made changes to their patient list and started to consistently include a summary of the outcome discussions for each patient. The effect of this intervention was assessed using a 10 consecutive patient audit, as shown in figure 14.

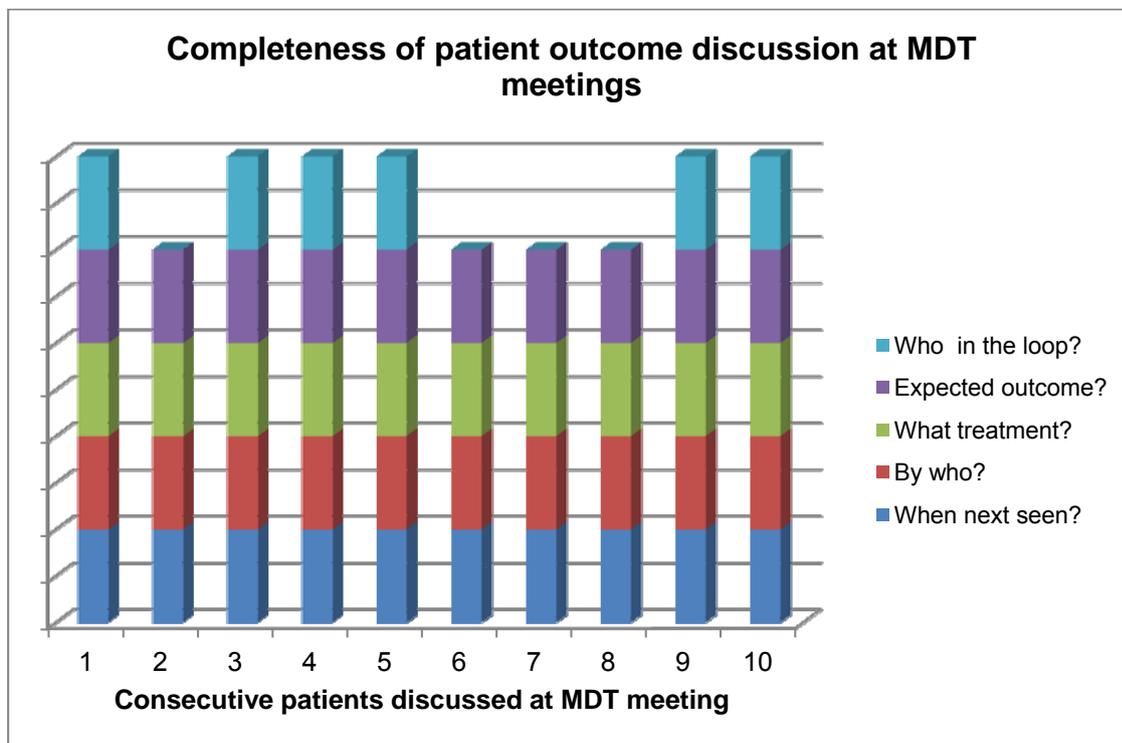


Figure 9 – Example of data collection by an ILCOP participating team to demonstrate impact of changes

Case study B - Reducing diagnostic waiting times

To address delays in the diagnostic pathway for patients potentially suitable for curative treatment, team B processed mapped their pathway and found that identifying patients likely to need a PET scan much earlier in the pathway may reduce waiting times. The impact of this pathway was assessed using a run chart pre and post the new pathway (figure 12)

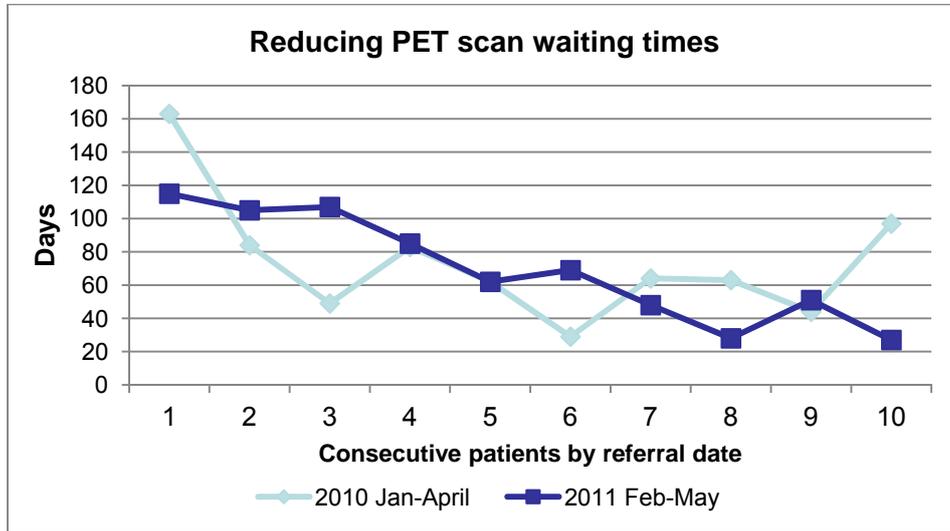


Figure 10. Example of data collection by ILCOP participating team

Case Study C – Reducing treatment waiting times

The pathologist, lead clinician, LCNS and MDT Co-ordinator at team C introduced a new system for the review of the pathology specimens for SCLC patients which ensured that small cell lung cancer patients are seen more quickly by the oncologist. The impact was assessed using the run chart figure 11 i.e. capturing the time to treatment following the introduction of changes in 10 consecutive patients- and in figure 12, where a 20% increase in small cell lung cancer patients is noted from patients seen in 2010 versus 2011.

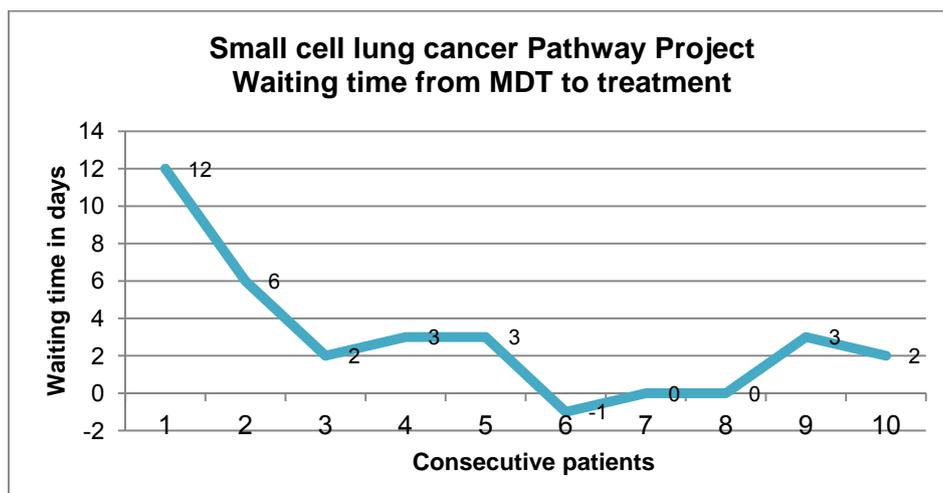


Figure 11. Prospective data collection example from an ILCOP team.

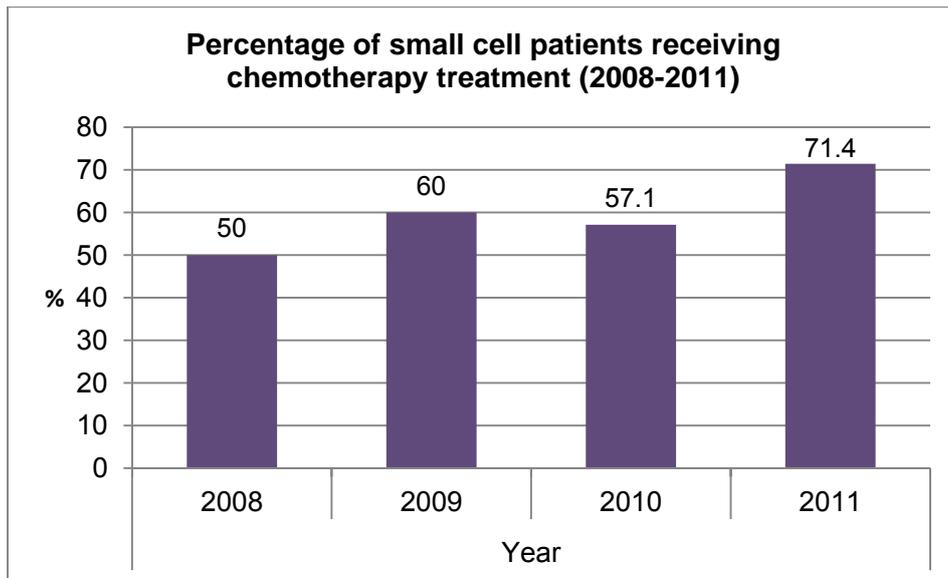


Figure 12 – Percentage of small cell patients receiving chemotherapy treatment in case study trust (2008 – 2011). Data source: National Lung Cancer Audit database.

Case Study D – Improving communication skills

The results of the first patient experience survey prompted this team to focus on improving how information was communicated to patients. Specifically, the team ensured that all members attended Communications Skills training. Subsequent patient surveys demonstrated a significant increase in the proportion of patients who completely understood their diagnosis (figure 13)

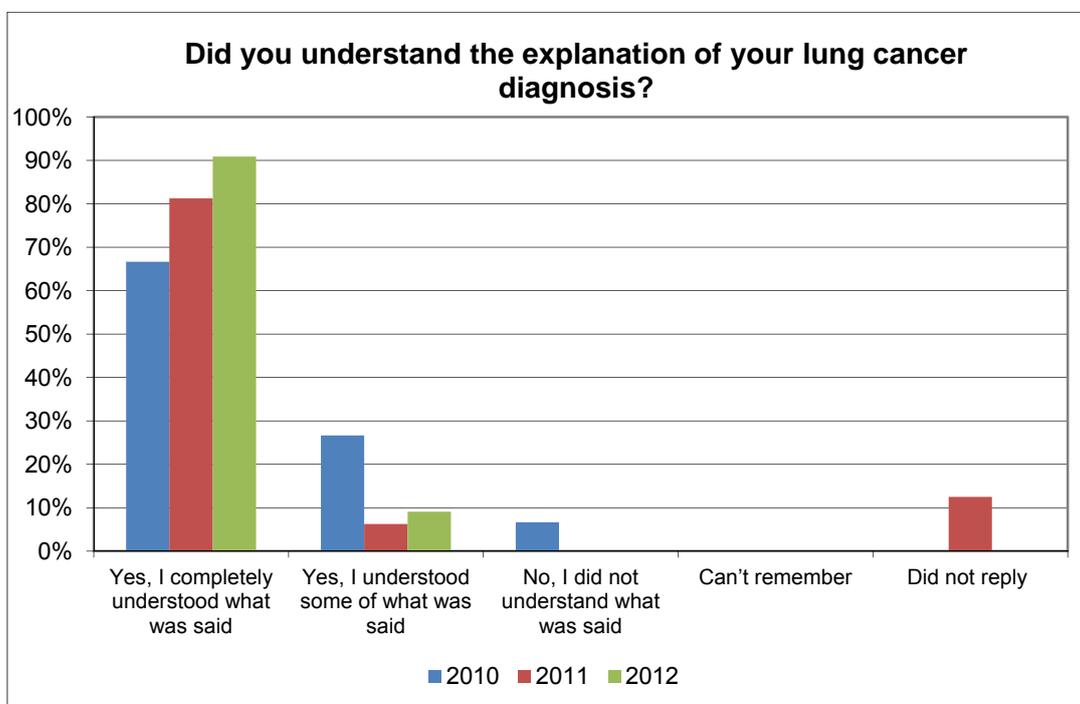


Figure 13. ILCOP Patient experience survey results (question no.2) demonstrating improvements in patient experience and communication skills.

3.1.2. Outcome measures

Patient Experience

Patient experience data were collected from the intervention teams via the ILCOP questionnaire at three time points during the project. We compared the results of the first wave of questionnaires with those from the 2010 National Cancer Patient Experience Survey and found a broadly positive correlation suggesting that our shorter lung cancer specific questionnaire designed for ILCOP is valid as a tool for assessing patient experience.

We commissioned a formal quantitative analysis of the results from Green Cross Medical and a qualitative analysis from Leicester University. A summary of the results is presented below.

Quantitative analysis

	Wave 1	Wave 2	Wave 3
Teams returning questionnaires	30	30	27
Total no. of questionnaires returned	438	444	372

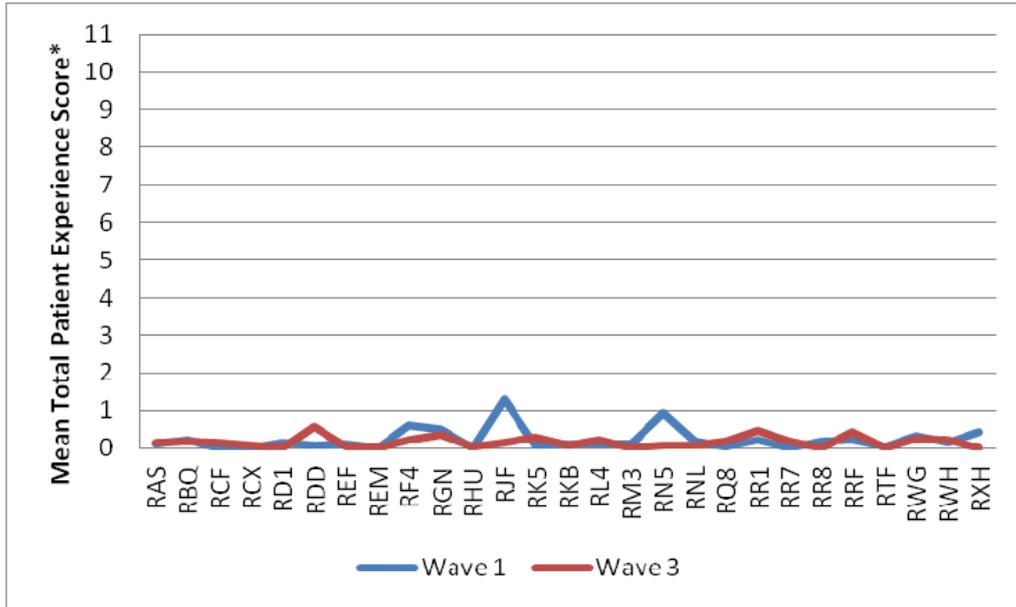
The number of patients per MDT providing data ranged from 4 to 21.

Individual question scores were labelled and re-coded to separate them into the “worst” patient experience category (score 1) versus “all other responses”. These scores were then summated to create domain (communication, privacy, respect and dignity) and a total patient experience score with a possible range of 0-11, whereby a higher score indicates a worse patient experience.

Baseline total scores were low (0 to 1.31) indicating high levels of patient satisfaction with the care received, although there was statistically significant ($p < 0.001$) variation in results by MDT. In particular, the proportion of patients responding yes to the question “did you find that the person who told you about your diagnosis did so with sufficient sensitivity/care?” did varied significantly by MDT from 57% to 100% ($p < 0.001$).

The total questionnaire scores did not change significantly from wave 1 to wave 3 (0.22 to 0.17, $p = 0.377$). This is not surprising given the high levels of patient satisfaction at baseline. However, the mean total score for the five trusts with the worst baseline scores did significantly improve from 0.86 to 0.22, $p < 0.001$ (figure 14). The biggest improvement in this group was seen in the proportion of patients responding yes to the question “did you find that the person who told you about your diagnosis did so with sufficient sensitivity/care?” which increased from 75% to 90% ($p = 0.05$). The four domain scores did not change significantly from wave 1 to wave 3 but a significant improvement in the rating of the quality of information provided was seen from 53% to 59%, $p < 0.05$ (figure 15)

The full quantitative report is shown in the *Resources* section.



*Total score is out of a possible 11 (higher scores suggest worse patient experience)

Figure 14. Mean total ILCOP wave 1 and 3 questionnaire results by trust.

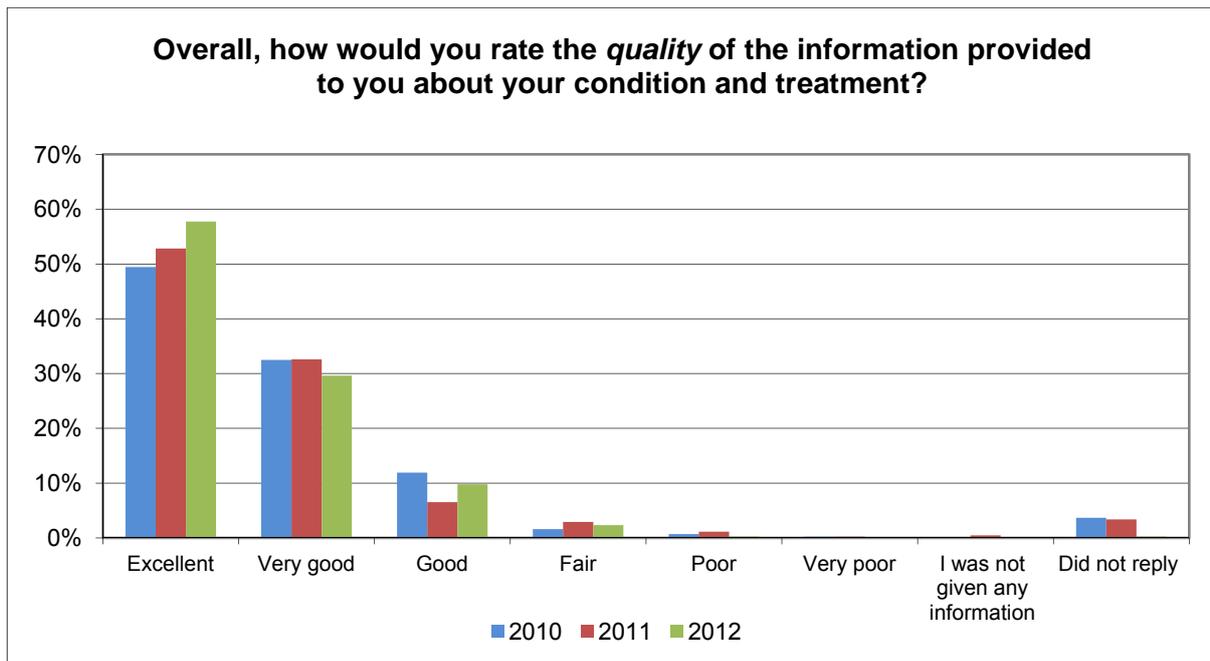


Figure 15. ILCOP Patient experience survey results, *How would you rate the quality of information provided?*

Qualitative analysis

Some of the most powerful patient feedback to drive local change came from the free text sections of the questionnaires. In all three surveys, the most popular answers were 'generally good or excellent', and 'caring and kind staff'. The percentage mentioning generally good or excellent care increased significantly from 21% in wave 1 to 39% in wave 3 (figure 16).

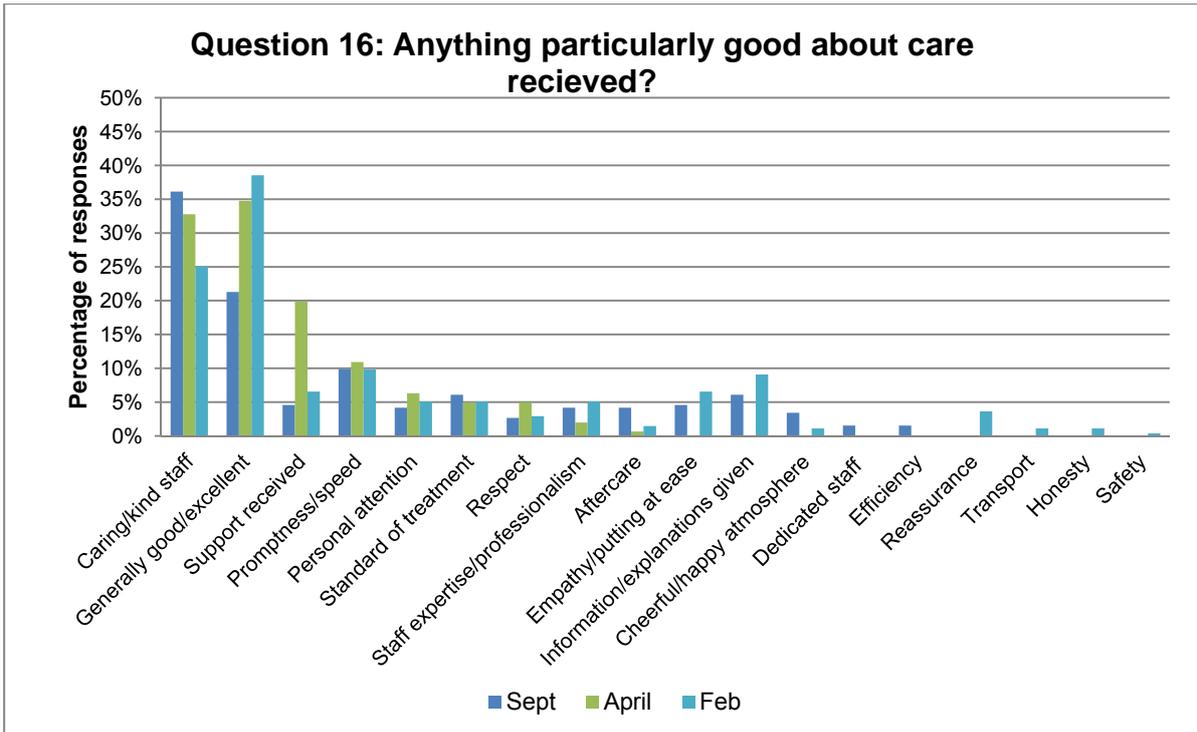


Figure 16. Summary of patient comments captured in question 15, *Was there anything particularly good about the care received?*

A much smaller proportion of patients identified any areas for improvement and this did not appear to change significantly during the project (figure 17).

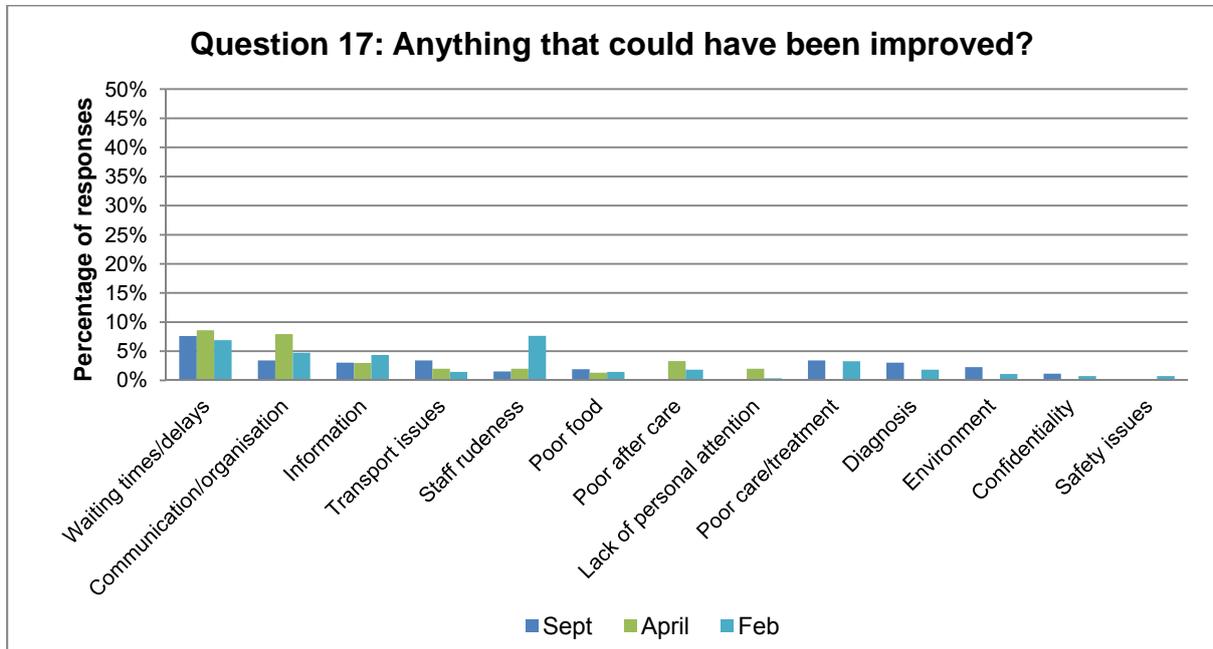


Figure 17. Summary of patient comments captured in question 16, *Is there anything that could have been improved?*

National lung cancer audit indicators

The full NLCA results for all patients first seen in England in 2011 will be available towards the end of 2012. We plan to perform a formal statistical comparison of the key headline indicators between the ILCOP intervention group, the control group and those trusts that did not agree to participate in the project.

Survival of lung cancer patients

Survival data for patients first seen in 2011 will not be available until 2013. Although this is well beyond the lifetime of this project we still plan to compare pre and post intervention survival via our links to the National Lung Cancer Audit team.

Word count: 1108/1000.

3.2 Data quality and robustness

Comment on the validity and reliability of your measures, both qualitative and quantitative. This answer should cover:

- What were the barriers or difficulties you encountered in obtaining good quality data?
- What assumptions have been made?
- What limitations are there in your analysis?

You may refer to appendices to support your assessment.

Please include an appendix which describes the instruments and procedures (qualitative, quantitative, or mixed) used to assess

- The effectiveness of implementation*
 - The contributions of intervention components to the effectiveness of the intervention*
 - Analysis of contextual factors*
 - Process measures, outputs, primary and secondary outcomes*
-

Local improvement plan data

The varied nature of the QI plans meant that we were unable to use a standardised template to monitor impact. In addition, teams had not necessarily anticipated that they would need to collect data so did not always have local baseline data. Those teams that did collect data were inclined to follow traditional audit methodology to demonstrate the impact of their quality improvement plans. Encouraging teams to collect and share data for PDSA cycles was challenging. A number of teams successfully did so, but we have no way of externally validating local process measurements.

Patient experience surveys

Each ILCOP team was asked to distribute 30 questionnaires amongst their recently seen patients. Survey response rates per ILCOP team varied from 20% to 70% (absolute numbers: 7 to 21). Consequently, absolute numbers of responses per participating site were low in some cases raising concern for those clinical teams on the validity of the results. That said, the mean response rate across all ILCOP teams of 49% in surveys 1 and 2 and 34% in survey 3 is higher than generally seen in national cancer patient surveys. It is generally accepted that obtaining patient experience data is more challenging than many other tumour sites due to the age of the patients, the poor performance status and the short survival (average 190 days).

In addition, we did not anticipate that the patient experience ratings would be so high at baseline. For example, the response rate for the question *Did you find that the person that told you about your lung cancer diagnosis did so with sufficient sensitivity and care?* was 91% and 92% for surveys 1 and 2 respectively. Demonstrating quantitative improvement on this background of high baseline scores was challenging, however performing subgroup analysis of the worst performing trusts was very helpful to demonstrate where improvement was possible.

National Lung Cancer Audit

The National Lung Cancer Audit is now well established with near 100% case ascertainment and very high levels of data completeness. As previously described, the challenge for ILCOP was to ensure participating teams regularly upload data onto the national database to ensure representative results are available prior to project completion. Whilst some teams have done this and then used local downloads to monitor the impact of their QIPs, the majority

have not. Similarly, the control group have variable levels of data uploaded on to the NLCA database so it will not be possible to do the formal comparison of the intervention and control groups until after the annual NLCA deadline of 30th June 2012.

Word count: 406/400.

3.3 Project impact

Please summarise the impact and outcomes that the innovation has had, including:

- *Who has benefited and how?*
 - *How has the intervention contributed to building clinical teams' skills in improving quality?*
 - *How has it contributed to knowledge about how to engage clinicians in QI?*
 - *Are there any other benefits that have emerged beyond the original scope of the project?*
 - *Are there any disadvantages?*
-

The majority of clinical teams participating in ILCOP had only very basic, if any, QI skills at the start of the project. The workshops and in particular the facilitated peer to peer visits quickly improved this so that over 70 quality improvement plans were submitted during the project. In addition, with support and prompting from the project team, 18 participating sites grasped the concept that change is only an improvement if it can be measured and collected local data on process variability.

ILCOP in numbers:

- 210 clinicians and managers participated in 30 facilitated peer to peer service reviews
- 71 quality improvement plans were submitted
- 6 workshops were delivered (2 every year of the project: 2010-2012)
- 30 clinicians and managers (average) attended each of the workshops
- 18 teams collected data to demonstrate improvements
- 1 website was used to share 25 resources for clinicians and managers

We were keen to gain a greater understanding of the impact and perception of ILCOP so we commissioned the University of Leicester to conduct individual telephone interviews with members of participating MDTs (excluding those 6 teams already being evaluated through the Closing the Gap main evaluation). Thirty-four people were recruited across 17 ILCOP teams (12 clinical leads, 4 other clinicians, 10 specialist lung cancer nurses, 5 team co-ordinators and 3 managers). Key preliminary findings are highlighted below:

Reasons for participating:

- Wanting to make their service better
- ILCOP was attractive (RCP-backed, organised)
- Helping overcome isolation
- Sounded interesting, fun, exciting

Overall experience of participation:

- Overwhelmingly positive
- ILCOP team did a great job supporting them
- Sharing knowledge with others was invaluable
- ILCOP gave 'permission' to contact others
- Sense of 'team spirit'

What could have been improved?

- Some would have liked even more contact
- Not all found teleconferences worked well
- Could ILCOP have engaged managers more?
- Some came into post after ILCOP started and struggled to get up to speed
- Minority thought peer review pairing could have been better

Did ILCOP make a difference?

- Majority felt changes were already planned or begun but ILCOP helped focus and add impetus
- ILCOP got senior backing and this helped protect time and add legitimacy
- Some very personal impacts e.g. confidence, self-esteem, enjoyment of their job

We also collaborated with the University of Leicester on a piece of work to determine the lessons for optimising peer-led service reviews. The key findings are presented below:

Organisation - making it happen:

- Organisation by dedicated, core team vital
- Legitimise participation by gaining CEO sign-off
- Minimise the logistical burden for participants

Ensuring credibility

- Include observation of 'live' practice
- Ensure data is perceived as credible

Creating a safe & productive environment

- Recognise team achievements, not just weaknesses
- Pair teams with differing strengths, not 'good'/'bad'
- Maximise peer influence and peer-to-peer learning by including team members from a range of disciplines
- Reciprocity of visits within pairs promotes constructive attitudes and trusting relationships
- Plan the structure of visits carefully
- Use a skilled facilitator to maintain solution-oriented focus

Ensuring implementation & impact

- Make sure participants understand what they are signing up to
- Identify roles and responsibilities early on – who will do what, when?
- Involve managers
- QIPs should reflect local priorities BUT need to avoid under-ambitious 'easy wins'

The following free text feedback quotes summarise a number of commonly expressed opinions from participating teams.

“It seems like this project has maybe created that opportunity for people who’ve maybe been sitting in their MDTs thinking “This isn’t right” but not quite getting that link of how they could improve it. Suddenly sort of opening up ideas for them to be able to do that”

“Very helpful reflection methodology”

“Much better and more appropriate than traditional peer review”

“Very informative about ideas and how to take things forward”

“Very useful in finding areas of improvement”

Whilst the above demonstrate that the reciprocal peer to peer review process utilised by ILCOP has largely been successful, we recognise that such a process is relatively resource intense and does not necessarily expose all participating teams to the very highest or the most innovative levels of practice. There may be scope to combine an “ILCOP-lite” approach with the national cancer peer review and MDT FIT self-assessment programmes in the future.

Word count: 690/1000.

SECTION 4: Discussion and learning

4.1 Summary

4.2 How to establish a clinical community?

4.3 Project achievements and challenges

4.4 Interpretation

4.1 Summary

Summarise the most important successes and difficulties in implementing your intervention and main changes observed in the quality of care; and in increasing clinical engagement and skills in Quality Improvement.

Successes

1. Design and implementation of a new lung cancer specific patient experience questionnaire.
2. Excellent attendance at the ILCOP workshops.
3. Completing 30 reciprocal peer-to-peer review site visits with excellent feedback from 210 participants⁵.
4. The submission of 71 quality improvement plans focussing on a wide range of issues.
5. Numerous examples of local improvement stories.

Difficulties

1. Organising site visits within a fixed time period.
2. Low baseline skills in QI methodology from the ILCOP team members, i.e. clinical leads, nurses and MDT coordinators.
3. Maintaining engagement of busy clinical teams.
4. Validity of patient experience results when response rates were low.

Word count: 113

⁵ See figure 18, page 39.

4.2 How to establish a clinical community?

How you think it impacted on the success of your project; what was the added value of approaching the problem through a clinical community?

There are several historical factors that are likely to have helped in setting up the lung cancer clinical community in ILCOP:

- Clinical leadership: Clinicians and other professionals working in lung cancer services clearly recognise the clinical leadership at national level of Dr Ian Woolhouse and Dr Mick Peake.
- Robust national dataset that has been collected since 2003.
- History of participating in peer-led activities⁶ such as the on-going national peer-review scheme for quality assurance.
- The stakeholder organisations have previously worked in partnership to support initiatives related to lung cancer service improvement.

The core project team also played a role in bringing together the lung cancer clinical community. In addition to project administration, the key roles of the core project team were to help teams to:

- Develop new relationships amongst peers.
- Help them to keep those new relationships alive.
- Enable them to share their experience in an open, non-threatening manner.
- Expose them to new resources, ideas or enabling them to have conversations that they had not had before.

The added value of developing a multi-site and multidisciplinary clinical community was to facilitate the rapid spread of ideas amongst teams and team members. The ideas learned during the bespoke programme of activities proved to be a valid reason to ensure that the new ideas were implemented in their trusts.

The core project team learned that there are a number of ways in which peer pressure can materialise:

- External peer pressure from teams from different trusts.
- Provide opportunities for everyone to become involved in improvement more frequently than hierarchical teams can do.
- Enabling teams to report their progress and challenges to senior members in their organisations.

⁶ See footnote 4, page 17

Other learning on setting up and managing a national clinical community:

- A non-clinical facilitator for the peer to peer service reviews is able to encourage, challenge and highlight achievements in a different and very valued way, as opposed to a clinical figure that could be perceived as expert or biased.
- Help teams see how their efforts link into the overall project outcome – this can be done by sharing much of the overall top level project information that project steering groups create for analysing project progress.
- Develop local expertise and responsibilities in measuring for quality.
- Agree the method and timeliness through which achievements and outcomes could be reported.
- Regularly offer varied opportunities for engagement.
- Where possible, agree at the start of the project the methods of communication (email, phone, and web conferencing).

Word count 408/400.

4.3 Project achievements and challenges

Your response to this question should cover the following points:

- *What did you hope to achieve?*
- *Did you achieve it all or partly? If so what helped you to do so?*
 - *Was it the contribution of a particular individual or group of people that made the difference? - cross reference*
 - *How did you get staff buy-in to carry out this innovation? Were any approaches more successful than others? Why do you think that was the case?*
 - *What have you learnt about how to engage clinicians in improving quality? -*
 - *Was it an aspect of organisational culture, technology or policy (national or local) that helped you? Audit & peer review to accreditation, Having QIF. Did the involvement of national/regional partners help or was this more of an obstacle?*
 - *Did you develop new ways of working as a clinical community – were there particular changes which helped you to work as a clinical community?*
- *If you didn't achieve what you hoped for, what were the reasons for that?*
 - Difficult balance between face-to-face time and telephone*
 - Didn't have a clear plan for engagement in the QI phase*
 - *What were the challenges / barriers that contributed to this?*
 - *Were there any aspects of organisational culture, technology or policy (national or local) that acted as a barrier?*
 - *Lack of experience using web conferencing & preconceptions*
 - *Did staff change or leave at site teams – Coventry example*
 - *What did you do to try to overcome the challenges? How successful were these efforts?*
 - *Were your original ambitions realistic given available resources and timescales? - Yes*
- *Whether you were as successful as you wanted to be or not, what would you do differently next time? Better planning of QI phase*

This is your opportunity to tell us what worked well and what didn't work as well as you had hoped. The Health Foundation believes that there is as much learning to be gained from the things that haven't gone according to plan as those that have, so please be honest in your reflections.

Please use a narrative style and try to provide different perspectives; not only from the clinical lead but also from front line clinicians such as clinic or ward staff, partner organisations and patient experience quotes or stories.

Achievements

The high level of engagement of the teams with the project maintained over a long period of time required much flexibility from the teams as they were asked to participate in activities that were not always specified at the start of the project.

Figure 18 reflects the participants' view on the ability of the service reviews to identify areas for improvement:

- Patient experience results: At times, teams dismissed patient comments claiming that that instance was exceptional and did not represent the majority of the performance of the service.

Another 'challenge' for the project was the various changes of personnel representing the partner organisations on the Steering Group: three organisations changed its representative once over the project life time; and one organisation change representatives three times.

Word count: 770/800

4.4 Interpretation

Explore possible reasons for differences between observed and expected outcomes paying particular attention to components of the intervention and contextual factors that helped determine the effectiveness (or lack thereof).

Include the types of settings in which this intervention is most likely to be effective. Suggest steps that might be modified to improve future performance and finally review issues of opportunity cost and actual financial cost of the intervention (where possible).

We require the full results from the National Lung Cancer Audit data in the autumn of 2012 to determine the full project impact in terms of clinical outcomes.

Of the 18 trusts who provided us with local data to measure the impact of their QIPs, around half were able to demonstrate improvement. Whilst these results have not been externally validated, they would be in keeping with our expectation given that we included teams in ILCOP whom had little room for improvement and that, in general, only around a third of improvement projects within NHS organisations are successful. In addition, as previously discussed, a number of teams did not provide us with any local data and they may be relying on the data they enter into the NLCA database to demonstrate the impact of their improvement plans.

At first glance, the patient experience results are disappointing in that we were not able to demonstrate significant improvements in the overall or domain scores. However, on further analysis it is clear that this relates to high levels of patient satisfaction at baseline for the majority of trusts. It was pleasing to see that significant improvements were seen for the worst five trusts suggesting we achieved our aim of reducing variation. We still maintain that our patient experience questionnaire is a useful and valid tool for use by lung cancer teams to obtain a snapshot of patient satisfaction, however a more refined and sensitive tool is probably required for the research purposes when assessing the impact of an intervention.

SECTION 5: Resources to share

Please attach any information or materials created as part of your work. These help The Health Foundation to really understand your approach and to promote it to the wider world, for example, government, patient organisations and professional bodies. Information could include:

- Patient information leaflets
 - Copies of presentations – internal and external
 - Reports, articles and posters
 - Training materials
 - Press cuttings
 - Board papers
 - Marketing materials
-

Please see [ILCOP website](#) and folder attached containing:

Patient experience

- Patient experience questionnaire
- ILCOP patient experience report – Surveys 1, 2 and 3
- Qualitative analysis of the free text captured in the ILCOP surveys
- Quantitative analysis of the ILCOP surveys

ILCOP Newsletters⁸

- February 2011
- May 2011
- June 2011
- August 2011
- November 2011
- December 2011
- January 2012
- February 2012

Posters, presentations and documents⁹

- ***2010 British Thoracic Society Winter Meeting.**
Development of a new Patient Reported Experience Measure for the Improving Lung Cancer Outcomes Project.
Poster display.
Authors: Susan Christie, Tasia Malinowski, Nicola Bell, Antony Roberts, Ian Woolhouse.
- ***2010 British Thoracic Oncology Group.** January 2011.
Early results of a newly developed patient reported experience measure for the national improving lung cancer outcomes project.
Poster display.

⁸ No newsletter in March or April 2011 as project workshops were delivered

⁹ Asterisk indicates that documents are included in the electronic resources file attached on submission.

Authors: Jeanette Draffan, Susan Christie, Lisa Martin, Senai Jiménez, Ian Woolhouse.

- **2011 National Cancer Action Team - MDT development group.**
Oral presentation by Ian Woolhouse and Lisa Martin.
- ***2011 National Forum for Lung Cancer Nurses.**
Oral presentation by Senai Jimenez and Lisa Martin.
- ***2011 British Thoracic Society Winter Meeting.**
The improving lung cancer outcomes project: a study of the feasibility of a national reciprocal peer review and facilitated quality improvement programme.
Poster and oral communication.
Authors: S Jimenez, L Martin, E Aveling, G Martin, I Woolhouse.
- ***2012 British Thoracic Oncology Group.**
Patient experience data collection in the Improving Lung Cancer Outcomes Project: one year on.
Poster display.
Authors: Jimenez S, McNicol S, Martin L, Draffan J and Woolhouse I.
- ***2012 Sustaining and Implementing Universal Healthcare Coverage.**
Oral presentation by Senai Jimenez.
- ***2012 ILCOP booklet**
- **2012 Article submitted for publication at BMJ Quality and Safety: Reciprocal peer review for quality improvement: an ethnographic case study of the Improving Lung Cancer Outcomes Project.**
- ***2012 Network Development Programme – National Cancer Action Team.**
Oral presentation (x2) by ILCOP team.
- **2012 National Cancer Intelligence Network - Lung chairs meeting (19th April 2012)**
Oral presentation.
- ***2012 International Forum for Quality and Safety.**
Improving lung cancer outcomes in England through the clinical communities approach. Poster.
Authors: Jimenez S, Martin L, Aveling E, Martin G and Woolhouse I.
- **2012 Cancer Outcomes Conference, National Cancer Intelligence Network and UK Association of Cancer Registries. 14-15th June 2012, Birmingham.**
Oral presentation of the abstract 'Addressing inequalities in lung cancer through a clinical communities approach'.

Other

- Improving lung cancer outcomes project: Reflections on economic evaluation.
- Patient experience survey – analysis report

SECTION 6: Plans for sustainability

Explain what you have done and plan to do to ensure your work is sustained. In responding to this question please include the following points:

- What have been the challenges to sustaining the work? How have you overcome them?
 - What has helped to sustain the work into “business as usual”?
 - What do you see as the main challenges to future sustainability of your work?
 - What has been the impact of working through a clinical community and working with a national/regional partner?
-

Sustainability at project level

ILCOP did not set out to specifically introduce a particular set of pre-determined changes; rather it aimed to stimulate local improvement activity relevant to improving outcomes at participating sites. This can be perceived as a challenge when thinking about spread and sustainability of the project. We have broadly divided sustainability into two levels; local and national.

Sustainability at local level

Teams have provided us with impressive examples of measured improvement as outlined in section 3.1. From the outset the ILCOP core team has underlined the importance of involving key stakeholders (especially hospital managers) to ensure sustainable changes in processes were implemented, as opposed to quick fixes or “work arounds”. The QI facilitator also emphasised the importance of sustainability within the follow up pairs teleconference¹⁰. For example, one team attempted to reduce the number of breaches of the 62 day treatment target by implementing LEAN thinking. This project had some success but ILCOP helped this team realise they needed to consult more widely with their oncologists, surgeons and administrative staff, to achieve the greater gains which appeared to be within their reach.

We also invited the NHS Institute of Innovation to present their Sustainability Guide and Model at final project workshops in March and April 2012. The participants used the model to reflect as individuals and as teams on the strengths and areas for improvement of their current projects in terms of sustainability. The areas of greatest need to ensure sustainability of our teams improvement plans were identified using the model and the results are summarised below:

Senior leadership engagement	8
Infrastructure	6
Behaviours	5
Fit with goal and culture	2
Monitoring	2
Adaptability	2
Benefits beyond helping patients	1
Credibility	1
Training and involvement	0
Clinical leadership	0

¹⁰ See section 1.4 *Changes along the way*.

This activity helped the teams to embed their positive changes into their normal practice and to think about sustainability beyond the life of the ILCOP award.

Word count: 317/600

SECTION 7: Plans for spread

- 7.1 Spreading learning and outputs
- 7.2 Promoting your innovation
- 7.3 Replicating this project
- 7.4 Main challenges on spreading

7.1 Spreading learning and outputs to the wider clinical community

The ILCOP team feels that one of the successes of the project is the availability of a central team that coordinates the project activities, reduces the administrative burden and acts as a vehicle to transfer learning amongst teams.

Hence, the spread of ILCOP will be dependent on close collaboration with national project stakeholders such as the NHS National Cancer Action Team, NHS Improvement or Macmillan Cancer Support. The National Cancer Action Team (NCAT) has been interested in both capitalising and spreading the positive feedback that our external peer-led service review methodology has received. It has ensured that ILCOP had the opportunity to deliver presentations at events and working groups that influence cancer services of all specialities, such as the Network Development Programme event (March 2012), the NCAT *Multidisciplinary team development working group* (March 2012) and the National Cancer Intelligence Network Lung network clinical leads (April 2012).

NCAT is developing a multidisciplinary team self-assessment tool, called *MDT-Fit*. The MDT-Fit development team shadowed one ILCOP peer-led service review and has been in continuous contact with the ILCOP team, to ensure that learning from the ILCOP methodology is taken into account as part of MDT-Fit development.

We have also produced and disseminated ILCOP methods and impact via a booklet, '*Improving care for lung cancer patients: a collaborative approach*'. The booklet has been formally disseminated through a press release by the communications team at the Royal College of Physicians. It will also be distributed to ILCOP participants, cancer network directors and managers and cancer managers of all English NHS acute trusts¹¹. The booklet aims to:

- Explain the project purpose and methodology
- Feature the improvement journeys of four lung cancer teams
- Highlight possible reasons for variation across lung cancer services, and
- Include resourceful national organisations in the fields of improvement and cancer

The British Medical Journal picked up on the booklet press release and following an interview with the ILCOP clinical lead will publish an article in the news section of the journal.

Please see section 7.2 *Promoting your innovation* for more examples of project learning dissemination outside of the ILCOP intervention teams.

The ILCOP team has collaborated closely with the evaluation team from University of Leicester and a manuscript has been submitted for publication at BMJ Quality and Safety. The article focuses on our project approach to peer review for quality improvement.

Word count: 393/400.

¹¹ Please see Section 2, *Methods*.

7.2 Promoting your innovation

Please provide a description of how you plan to promote your innovation and what you intend to achieve through doing so.

ILCOP has been able to disseminate findings about our interventions and its value since December 2010, within forums of the Royal College of Physicians (RCP), as well as at national meetings and thanks to our links with partner organisations. All members of the steering group supported ILCOP by providing opportunities to disseminate our work beyond the intervention teams.

ILCOP has already delivered oral presentations at:

- Lung Cancer Specialist Advisory Group at the British Thoracic Society Winter Meeting, London, December 2010.
- NHS NCAT – MDT development steering group, London, September 2011, chaired by Sir Prof Mike Richards.
- The [National Lung Cancer Forum for Nurses](#), Glasgow, November 2011.
- [British Thoracic Society Winter Meeting, London, December 2011](#). Oral presentation of poster and update at the Lung Cancer Specialist Advisory Group.
- British Thoracic Oncology Group, January 2011, with a poster on early patient experience results.
- Oral presentation at the [Sustaining Universal Healthcare Coverage: 4 perspectives for 5 continents](#), Bocconi University, Milan, Italy, February 2012.
- NHS NCAT – Network development programme event, London, March 2012.
- NHS NCAT – MDT development steering group, London, March 2012.
- Poster display at the International Forum for Quality and Safety in Healthcare, April 2012, Paris.

The communications team at the Royal College of Physicians helped us to develop a communications plan for 2012. This has includes:

- Publication and dissemination of a booklet that summarises our methodology and approach to quality improvement. 1000 copies printed and distributed amongst cancer services, other stakeholder national organisations and NHS networks.
- Press release upon project completion (embargoed until 17th April 2012).
- Collaboration with journals such as the British Medical Journal, which interviewed Dr Ian Woolhouse, and Nursing Times.

We plan to submit an abstract to the [International Society on Quality in Healthcare](#) meeting in 2013.

Additionally we have sought to spread the project learning beyond the frontiers of our project and the world of lung cancer. For instance, by using the RCP channels:

- Dr Ian Woolhouse contributed to the section '*In focus*' at the RCP Membership magazine *Commentary* (December 2011) which debated the question "*Can clinicians change healthcare?*"

- Jonathan Potter, previous Clinical Director at CEEU, and Rhona Buckingham, CEEU Manager, presented the project progress and learning in a number of RCP forums, such as the College Officers Forum (2010) and to overseas visitors from Oman and Mexico (2011).
- ILCOP also has had a presence at stands held by the Clinical Standards department, during the 2010 national conference for NHS medical directors as well as the CEEU Associate Director meetings (2012 and 2011).
- Internally, ILCOP staff has hosted 2 Master classes to the staff of the Clinical Standards department: spreading information and sharing knowledge about 'facilitations skills' (Lisa Martin) and quality improvement (Senai Jimenez) with great feedback from attendees.

Word count: 509/300.

7.3 A word of advice on replicating this project

In your answer to this question please consider:

- What levers should they employ to facilitate change?
 - What barriers and challenges should they prepare for?
 - What risks should they be aware of?
 - Where should they target their efforts to enhance their chances of success?
 - What should they do to ensure they are successfully measuring the effects of their intervention and producing robust evidence?
-

On running the project:

- Ensure there are enough national stakeholder organisations supporting the project
- Ensure teams feel this is an equal process with no hidden agenda
- Ensure the service reviews are reciprocal
- Be clear on the process – create new relationships when face-to-face time is available, nourish the new relationships that have been created (paired teams) through email and telephone.

On running the service reviews:

- Ensure there is a non-clinical facilitator for running the day as well as the preparation before the meeting
- Base discussions on data collected in a similar manner across all sites
- Make all data as close as possible to the team that is being reviewed (lung cancer rather than all cancer) and as timely as possible
- Minimise the admin burden on clinicians
- Be clear and concise in your communication
- Be clear of your expectations – how much quality improvement knowledge would you expect teams to use?

Additionally, in order to produce robust evidence of the project impact, we would recommend clearly planning and agreeing the phases of activity, as well as the timelines for collecting data and reporting it.

It is important to bear in mind that there can be a disparity between what projects set themselves to achieve (i.e. improve health population outcomes) and what the teams perceive that it is in their hands to change (meeting dynamics and service processes).

Below we present some of the learning shared at the final project steering group meeting, March 2012:

On leading projects and teams:

- *“Need to be flexible with methodology”*
- *“Introduce senior leadership links early on”*
- *“Don’t make assumptions about what will work”*
- *“Planning is crucial – spend more time, not less”*
- *“Getting to know people as individuals helps with team work”*
- *“Different teams preferred different levels of interaction”*
- *“Teleconferencing isn’t particularly ‘acceptable’ to clinical teams – a tool for sharing”*

- *“Despite service pressures, clinicians and teams still engage in this type of work and want to improve patient care“*

On teaching and implementing quality improvement methods

:

- *“Necessity for simple reiteration of QI principles“*
- *“I have learned just how difficult it is to demonstrate change in patient experience“*
- *“Measurement is always difficult – needs reiterating again and again“*
- *“Importance of measuring the impact of changes in real time“*
- *“How reliability and standardisation are key to improving quality“*
- *“Effort to articulate importance of interpersonal relationships and how can stop them getting ‘written-out’ of evaluation“*

About the value of facilitated peer review:

- *“A chance ‘to peer over someone else’s shoulder’ is illuminating“*
- *“The importance of getting teams to take time out to speak to each other“*
- *“The importance of individualised facilitator feedback – helpful in creating a no-blame environment“*

Please see sections 4 *Discussion and learning*.

Word count: 442/500.

7.4 What do you see as the main challenges to the future spread of your work?

The NHS National Cancer Action Team is developing a portfolio of resources for all cancer clinical teams, so that teams are able to select the tools that can contribute best to their development needs. Resources might have a diagnostic approach, such as the MDTfit tool¹², or a developmental approach, such as reciprocal peer review visits. The most important challenges for other organisations to undertake this work might be the lack of funding due to the overall economic climate and the need to have, in the clinical community terminology, a *strong vertical core* where national stakeholder organisations support the project, such as NHS improvement, NHS National Cancer Action Team and the team that delivers the National Lung Cancer Audit.

Word count: 134/300

¹² MDTfit is an MDT effectiveness diagnostic tool being developed by the National Cancer Action Team.

SECTION 8: Return on investment

For those teams involved in the additional support from Springfield Consultancy please include the results of the work and explain how you have or intend to use the information.

8.1 Can you estimate the cost of the intervention and the benefits accrued?

8.2 What have been the cost implications to your work?

8.3 What were the main difficulties you encountered in identifying cost and benefits of your work?

The Improving Lung Cancer Outcomes Project can be broken down into 4 phases:

Project phase	Phase length
Set up	3 months, January 2010 to March 2010
Facilitated peer review	12 months, April 2010 to March 2011
Quality Improvement	9 months, April 2011 to December 2012
Spread and sustainability	3 months, January 2012 to March 2012

Table 4 – Project phases

The core interventions of ILCOP that aimed to create a clinical community were:

- Two project-start workshops (London and Leeds, Sept 2010)
- 30 facilitated peer-led service reviews
- Two mid-project workshops (London and Leeds, March 2011)

These interventions could be delivered by another national healthcare agency over a 12 month period with the following cost breakdown:

- **Salaries** - £80,000. Includes the 1 weekly session of a clinical director, one full time project manager, one full time administrator and full time quality improvement facilitator (August 2010 to March 2012)¹³
- **Consumables** - £3,000
- **Travel, meetings and workshops** - £25,000 (includes mobilising 90 participants for 30 service reviews within 2 hours travel of their base, four national workshops, and four quarterly national Steering Group meetings)

Additional funding may be required for information technology resources or support administrative services.

Most of the benefits delivered by the project have not yet been fully realised and hence, are difficult to cost. No additional funds were provided to teams to deliver changes.

Other teams have worked in improving the efficiency of their patient pathways: whereas this might not have a direct cost to the patient as the NHS remains free at the point of care, it is unclear whether it might have meant an increase in costs to their trusts or to their commissioners.

¹³ Note that the role of the quality improvement facilitator was planned as one full time WTE, however due to recruitment difficulties; it was only available for 0.8 of the 12 months period.

This information will be used by the ILCOP team to communicate to the project partners such as NHS Improvement, NHS National Cancer Action Team and Macmillan Cancer Support, the cost of spreading and sustaining an additional set of peer-led service reviews.

See section 5 *Resources* – for a summary of the work undertaken with the guidance of Springfield consultancy.

Once data from the National Lung Cancer Audit has been made available with regards to the project impact for control and intervention teams, we plan to compare the project benefits against the project costs.

Word count: 411/600 words

SECTION 9: Conclusions

How well do you feel the project met the programme (Closing the Gap through Clinical Communities) aims?

- *build the knowledge and skills of clinical teams in how to make improvements in the quality of care*
 - *contribute to the creation of a systematic body of knowledge concerning how best to engage clinicians in quality improvement activity*
 - *stimulate learning about quality improvement amongst health professionals*
 - *support clinical communities to make demonstrable improvements in quality by tackling known gaps between best practice*
 - *support routine delivery of care*
-

We were surprised at the low baseline level of improvement knowledge and skills of the clinical teams participating in ILCOP. Once this became clear we endeavoured to up skill teams as quickly as possible via QI workshops, QI booklets and direct support and advice from the core project team. The subsequent submission of over 70 QI plans from all but one of the participating teams suggests that our approach was successful. Furthermore, nearly two thirds of teams sent us local data to measure the impact of their plans, including a number of run charts which was a new concept to the majority of teams.

We learnt that clinical teams are keen to improve services and there was much initial enthusiasm for participating in our national improvement project. The reasons given for this varied from wanting to make their service better to more personal reasons such as overcoming isolation and increasing self-esteem. Teams seemed to thrive on the face to face contact provided by the reciprocal peer review visits and the workshops, where they had the chance to listen to experts but more importantly network with peers. This appeared to be in contrast to views expressed regarding centrally mandated programmes such as national cancer peer review which many viewed as “box-ticking” exercise providing little stimulus for quality improvement.

Maintaining engagement once the early enthusiasm had receded was challenging. The key reasons for this appeared to include lack of time, lack of resources, conflict with other priorities and national programmes, and changes in team personnel. We tried a number of strategies to deal with this. The follow up workshops, face to face visits from our QI facilitator and peer to peer teleconferences were well received and appeared to reinvigorate teams to continue with their improvement activities. Web based seminars/teleconferences were less well attended and multiple electronic communications seemed to be counterproductive for a small number of teams.

Providing accurate and relevant data was crucial to demonstrate to teams where gaps in best practice existed. Despite the very high quality of the NLCA data, a number of teams were still inclined to blame poor performance on the data and not the service. In addition, a number of teams were resistant to acting on negative patient feedback if it only came from a small number of patients. The presence of an independent and external QI facilitator at the site visits was pivotal to ensure that teams did not dwell on data quality but instead reflected on what the data said about how their service could improve. This was reinforced by the strong “vertical core” provided by the project steering group who emphasised this message at all the workshops and via other non-ILCOP routes.

We have some impressive local data provided by participating teams to demonstrate how they have started to close the gap and achieve best practice, in particular showing significant improvements in active treatment rates and communication skills. The patient experience scores also demonstrated that teams with lower levels of baseline patient satisfaction were able to address this and significantly reduce the overall variation in patient experience.

Interestingly, feedback gathered from our external evaluation suggests that many teams felt changes had been planned or already started before ILCOP, but that the project helped add focus and impetus. We await the results of the NLCA with interest to determine whether the improvements we have demonstrated thus far translate in to a reduction in national variation, and ultimately an improvement in survival, above that seen in trusts who did not participate in ILCOP.

Word count: 588/600 words