

Promoting early diagnosis of breast, bowel and lung cancers

First report

2010/11 local projects

Promoting early diagnosis of breast, bowel and lung cancers

DH INFORMATION READER BOX

Policy	Clinical Commissioner Development Provider Development Improvement and Efficiency	Estates IM & T Finance Social Care / Partnership Working
Document Purpose	For Information	
Gateway Reference	17254	
Title	Promoting early diagnosis of breast, bowel and lung cancers: first report 2010/11 local projects	
Author	Cancer Research UK	
Publication Date	June 2012	
Target Audience	PCT Cluster CEs, NHS Trust CEs, SHA Cluster CEs, Care Trust CEs, Foundation Trust CEs, Medical Directors, Directors of PH, Directors of Nursing, Local Authority CEs, PCT Cluster Chairs, NHS Trust Board Chairs, Special HA CEs, Directors of HR, Directors of Finance, Allied Health Professionals, GPs, Communications Leads	
Circulation List	PCT Cluster CEs, NHS Trust CEs, SHA Cluster CEs, Care Trust CEs, Foundation Trust CEs, Medical Directors, Directors of PH, Directors of Nursing, Local Authority CEs, Directors of Adult SSs, PCT PEC Chairs, PCT Cluster Chairs, NHS Trust Board Chairs, Special HA CEs, Directors of HR, Directors of Finance, Allied Health Professionals, GPs, Communications Leads, Voluntary Organisations/NDPBs	
Description	The report presents the first evaluation of the local cancer awareness and early diagnosis initiatives funded in 2010/11	
Cross Ref	N/A	
Superseded Docs	N/A	
Action Required	None	
Timing	N/A	
Contact Details	Jennifer Benjamin Cancer Policy Team Department of Health Wellington House 133-155 Waterloo Road London SE1 8UG Telephone: 0207 972 4906	
For Recipient's Use		

Promoting early diagnosis of breast, bowel and lung cancers

First report

2010/11 local projects

Date prepared: 20/02/2012

Contents

Executive summary	7
Introduction	9
Setting up the programme.....	11
Selection process	11
Awarding the funds.....	11
Timing	12
Central support and governance	12
Evaluation	13
Metrics for 2010/11 evaluation.....	13
Methods	15
Challenges.....	15
Scope of the report.....	17
Metric 1: The interventions	18
1.1 Introduction.....	18
1.2 Caveats	18
1.3 Results.....	18
1.3.1 Timings	18
1.3.2 Target groups	20
Tumour type.....	20
Age	20
Socio-economic group	21
Ethnicity	21
1.3.3 Behaviour change techniques	21
1.3.4 Creative designs.....	24
1.3.5 Campaign focus.....	25
Public-facing activity	27
GP engagement.....	29
Other health professional engagement.....	30
Making changes to services	32
Metric 2: Campaign and cancer awareness.....	33
2.1 Introduction	33
2.2 Caveats	33
2.3 Statistical methods	33
2.4 Results.....	34
2.4.1 Campaign awareness	35
2.4.2 Awareness of cancer signs and symptoms	36
2.4.3 Confidence identifying symptoms.....	38
2.4.4 Anticipated help-seeking	40

2.4.5	Attitudes to cancer, early detection and treatment	42
2.4.6	Barriers to presentation	43
2.5	Summary	45
	Metric 3: Behaviour change	47
3.1	Introduction	47
3.2	Caveats	47
3.3	Methods.....	49
3.4	Results.....	51
3.4.1	Lung cancer.....	51
3.4.1.1	2WW referrals for suspected lung cancer	51
3.4.1.2	Number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer	57
3.4.1.3	Percentage of 2WW referrals for lung cancer which turn out to be cancer.....	62
3.4.2	Bowel cancer	67
3.4.2.1	2WW referrals for suspected bowel cancer	67
3.4.2.2	Number of diagnoses of bowel cancer after being referred via the 2WW for suspected bowel cancer	73
3.4.2.3	Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer	77
3.5	Summary of results – lung cancer	81
	Summary for lung	82
3.6	Summary of results – bowel cancer	84
	Summary for bowel.....	85
3.7	Summary	87
	Learning	88
	Reflections on success	88
	Promoting early diagnosis	88
	GP engagement.....	88
	Timing	89
	Sustainability.....	89
	Further analyses	89
	Possible areas for further analysis.....	90
	Local project activity	90
	Campaign and cancer awareness	91
	Behaviour change.....	91
	Case studies	101
	Bibliography	107

Appendices

Appendix 1:	109
Appendix 2: Proposal scoring criteria.....	110
Appendix 3: 2010/11 local projects and their allocated funds	112
Appendix 4: Project name and overall project aim	120
Appendix 5: Target population (estimate)	125
Appendix 6: Flexible/Early Diagnosis of Cancer survey.....	127
Appendix 7: Survey methods and data from projects providing information on campaign awareness and cancer awareness.....	148
Appendix 8: Survey methods of projects providing data on confidence in detecting symptoms, anticipated help-seeking, attitudes towards cancer, and barriers to presentation	150
Appendix 9: Behaviour change	153
Number of 2WW referrals for lung cancer, number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer, and percentage of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer across projects whose public facing activity finished in or before July 2011 (alphabetical order)	153
Appendix 10: Behaviour change	156
Number of 2WW referrals for bowel cancer, number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer, and percentage of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer across projects whose public facing activity finished in or before July 2011 (alphabetical order).....	156

Figures

Figure 1: Project start and finish dates.....	19
Figure 2: Percentage (%) of projects focusing on each age range	21
Figure 3: Techniques that were used for each cancer type (breast cancer n=18*; bowel cancer n=30*; lung cancer n=34*)	23
Figure 4: Proportion of the project focused on public-facing activity, GP and other health professional engagement, and service change (n=51)	26
Figure 5: What kinds of materials/resources did you use? (n=52 projects)	28
Figure 6: Types of health professionals engaged with during the course of the project/activity (n=47).....	31
Figure 7: Percentage of respondents who said they were aware of the campaign.....	35
Figure 8: Statistically significant changes in reported confidence between pre and post intervention surveys	39
Figure 9: Illustration of the need to wait for at least four months after referrals from 2WW before conversion data are examined (<i>number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer across 149* PCTs in England up to November 2011</i>)	49
Figure 10: Number of 2WW referrals for suspected lung cancer from October 2009 to November 2011 in 76 intervention PCTs and 73 control PCTs	51
Figure 11: Total number of 2WW referrals for suspected lung cancer in the ‘pre’ activity and ‘post’ activity periods. The projects are ordered from left to right starting from the project with the highest percentage change between these periods.....	56
Figure 12: Total number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer from October 2009 to July 2011	57
Figure 13: Number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer in the ‘pre’ and ‘post’ activity periods	61
Figure 14: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer from October 2009 to July 2011	62
Figure 15: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer in the ‘pre’ activity and ‘post’ activity periods	66
Figure 16: Total number of 2WW referrals for suspected bowel cancer from October 2009 to November 2011	67
Figure 17: Total number of 2WW referrals for suspected bowel cancer in the ‘pre’ activity and ‘post’ activity periods	72
Figure 18: Total number of individuals diagnosed with bowel cancer after being referred through 2WW for suspected bowel cancer from October 2009 to July 2011	73
Figure 19: Number of individuals diagnosed with bowel cancer after coming through the 2WW pathway for suspected bowel cancer in the ‘pre’ activity and ‘post’ activity periods	76
Figure 20: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer from October 2009 to July 2011	77
Figure 21: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer in the ‘pre’ activity and ‘post’ activity periods	80

Tables

Table 1: Purpose of engagement with GPs (n=45) 29

Table 2: Surveys used 34

Table 3: Average percentage recall of signs and symptoms (n=11 projects) 37

Table 4: Average percentage recognition of signs and symptoms (n=4 projects) 38

Table 5: Percentage of respondents reporting they would contact their GP to make an appointment within seven days of noticing a sign or symptom they thought could be cancer .. 41

Table 6: Average percentage of respondents agreeing with each of four statements 43

Table 7: Average percentage of respondents perceiving barriers to help-seeking 45

Table 8: Number of projects included in analyses by outcome 51

Table 9: Total number of 2WW referrals for suspected lung cancer from January to November 2010, and from January to November 2011 in 76 intervention PCTs and 73 control PCTs 52

Table 10: Number of 2WW referrals for lung cancer for each project that focussed some or all of their activity on lung cancer..... 53

Table 11: Total number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer from January to July 2010, and from January to July 2011 58

Table 12: Number of cancers diagnosed for patients having a 2WW referral for suspected lung cancer 59

Table 13: Average percentage of 2WW referrals for lung cancer which turned out to be lung cancer from January to July 2010, and from January to July 2011 62

Table 14: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer ... 64

Table 15: Total number of 2WW referrals for suspected bowel cancer from January to November 2010, and from January to November 2011 68

Table 16: Number of 2WW referrals for bowel cancer for each project that focussed some or all of their activity on bowel cancer 69

Table 17: Total number of individuals diagnosed with bowel cancer after being referred through the 2WW pathway for suspected bowel cancer from January to July 2010, and from January to July 2011 74

Table 18: Number of cancers diagnosed for patients having a 2WW referral for suspected bowel cancer 74

Table 19: Average percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer from January to July 2010 and from January to July 2011 77

Table 20: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer . 78

Table 21: Total number of 2WW referrals for suspected lung cancer across 36 projects and total number of 2WW referrals, diagnoses and conversion across 19 projects 83

Table 22: Total number of 2WW referrals for suspected bowel cancer across 32 projects and total number of 2WW referrals, diagnoses and conversion across 12 projects 86

Table 23: Local projects intended to collect data for the following metrics 92

Executive summary

The National Awareness and Early Diagnosis Initiative (NAEDI), a partnership between the Department of Health (DH), the National Cancer Action Team (NCAT) and Cancer Research UK (CR-UK), has been promoting earlier diagnosis since 2008. The activity has been aimed at increasing public awareness about cancer; encouraging people to see their GP if they experience the symptoms of cancer; and enabling GPs to respond appropriately to patients presenting with these symptoms.

In 2010, a programme of local public health interventions aimed at promoting the early diagnosis of breast, bowel and lung cancer, the three cancers responsible for the greatest number of 'avoidable' deaths, was launched. These projects covered 109 Primary Care Trusts (PCTs) across England, targeting a total population of over 13.6 million (equivalent to 72% of PCTs with the interventions covering an estimated 26% of the English population).

This report provides an overview of the programme, as well as the initial results relating to three key metrics: 1) a detailed description of the interventions; 2) the impact of the intervention on public awareness; and 3) the impact on behaviour. Not all data relevant to these metrics were available at the time of preparing this report and it is important to bear this in mind when interpreting the findings.

The results from the surveys on awareness, recognition of cancer symptoms, and barriers to seeing the GP about symptoms were varied across the projects, with some reporting positive findings. A clearer picture may become apparent when further analysis is conducted.

Analysis of urgent GP referrals for suspected lung cancers (or two-week wait (2WW) data) showed a statistically significant increase of 8% during project activity periods, when compared with the same calendar period in 2010. However, this increase was similar in size to the increase seen in the control PCTs and it follows the general increasing trend in the numbers of referrals from 2010 to 2011. Thus, the increase observed cannot necessarily be attributed to the local projects. The numbers of lung cancer diagnosed following a 2WW referral also increased, but this was only small and not statistically significant. Subsequently, the conversion rate decreased slightly.

The results for bowel cancer also showed a significant 12% increase in the numbers of 2WW referrals for suspected bowel cancer for the project activity periods, when compared with the same calendar period in 2010. Again, however, this increase was similar to the rise seen for the control areas. There was also a small non-significant increase in the numbers of bowel cancer diagnoses following a 2WW referral. Again, the conversion rate decreased slightly.

Promoting early diagnosis of breast, bowel and lung cancers

A number of projects focussed their activity at defined areas, such as ward level, GP practice population or super output area. Therefore, the 2WW analysis, conducted at a PCT level, may not be a true representation of the impact of the local interventions and further analysis is needed.

This is the first time this information has been shared and local project teams and the central teams (DH, NCAT, CR-UK) will consider these findings and the need for further analyses.

Introduction

More than one in three people will develop cancer during their lifetime and around 265,000 people were diagnosed with the disease in England in 2009. Cancer causes almost 129,000 deaths in England each year (Cancer Research UK, 2012). It has been estimated that up to 10,000 deaths could be avoided each year in England if cancer survival matched the highest in Europe (Richards 2009). Over the past decade, much effort has been directed at understanding why cancer survival in England performs below the level of comparable countries, why survival rates vary even within England, and how survival rates can be improved (Department of Health, 2009; Thomson & Forman, 2009; Coleman et al., 2011).

There are various reasons why cancer survival rates are lower and one key factor is likely to be delays in diagnosis and treatment (Richards, 2009). These delays can occur at a number of stages along the cancer pathway (Olesen et al., 2009). A patient may be unaware that certain symptoms are potentially serious and should be followed up as a possible sign of cancer with a GP, or they may be reluctant to visit a GP about their symptoms, contributing to what has been termed 'patient delay'. 'Doctor delay' can occur when GPs do not recognise warning signs or 'red flag' symptoms, and fail to follow these up with further consultations, investigations or referral to specialist cancer services. And patients referred to specialist hospital-based services may experience delays in clinical assessment and initiation of treatment, often referred to as 'system delay' (Nichols et al., 1981).

This Government has committed to improving outcomes for cancer patients and has set out an ambition to save an additional 5,000 lives per annum by 2014/15 (Improving Outcomes: A Strategy for Cancer, 2011). Earlier diagnosis of patients with symptoms is seen as key to achieving this ambition, along with improvements in screening and treatment. In order to promote earlier diagnosis, the National Awareness and Early Diagnosis Initiative (NAEDI) was established in 2008 as a partnership between the Department of Health (DH), the National Cancer Action Team (NCAT) and Cancer Research UK (CR-UK).

The Initiative has promoted further research to develop the evidence base on early diagnosis at the same time as taking action to promote public awareness, encourage earlier presentation and enable GPs to respond appropriately to patients presenting with possible cancer symptoms. Ultimately, the Initiative aims to improve cancer survival and improve outcomes for patients, and, while the focus of NAEDI is England, the insights generated will be applicable to other nations.

Public awareness of the signs and symptoms of cancer is low (apart from the symptom lump/swelling), especially among men, those from less affluent backgrounds or belonging to non-White ethnic groups (Robb et al., 2009). While the decision to seek medical help is complex, a lack of awareness about cancer symptoms is likely to be a contributing factor, but there is little evidence about which

Promoting early diagnosis of breast, bowel and lung cancers

interventions are effective in raising awareness and whether they lead to earlier diagnosis of cancer (Austoker et al., 2009).

The NHS has been using social marketing principles for a number of years to help change public behaviour, for example, to encourage smoking cessation and to promote healthy eating. Successful social marketing requires insight into the attitudes, beliefs and lifestyle behaviours of the target audience, as well as potential barriers preventing behaviour change (Appendix 1 for the stages of social marketing as defined by the National Social Marketing Centre).

In recent years, many of England's cancer networks have led projects designed to explore why patients may be slow to seek medical advice when they experience warning signs of cancer, and to develop ways to promote early diagnosis. Much of this activity was supported through DH/NCAT funding, which began in 2009/2010 with the awarding of grants to fund 62 local projects.

In 2011, DH piloted a bowel cancer awareness campaign in two regions (the South West and the East of England) using the newly developed 'Be Clear on Cancer' branding. The campaign began at the end of January 2011 and ran for eight weeks, using TV advertising and paid for media along with local events to encourage people with bowel cancer symptoms (advertised in the campaign as 'blood in poo' and/or 'looser poo') to see their doctor. The results of the pilot have now been published by DH at www.dh.gov.uk/health/2012/03/evaluation-bowel-cancer-pilot/.

In addition, to the bowel cancer pilot, DH and NCAT also funded a programme of local public awareness campaigns targeting breast, bowel and lung cancers – three cancers which cause the greatest number of 'avoidable deaths' (Abdel-Rahman et al., 2009). These local 'signs and symptoms' projects were developed to promote earlier diagnosis of cancer among the public, GPs and other health professionals. For most of the 2010/11 projects, social marketing principles were applied and behaviour change was encouraged through a coordinated mix of activities including health promotions/marketing, community outreach activities and sometimes changes to services - addressing both 'push' and 'pull' approaches: 'pushing' people towards services and then working with services to 'pull' them through as quickly as possible. This funding presented the opportunity to pilot and develop existing interventions at both a local and regional level, to build on the existing evidence base and primarily to increase early diagnosis - thereby reducing the number of 'avoidable' deaths from breast, bowel and lung cancer.

Setting up the programme

Selection process

In March 2010, DH announced funding for PCTs to build on the progress achieved by cancer networks and to accelerate local implementation of early diagnosis interventions or services. PCTs were invited to bid for up to £100,000 to run campaigns and other community-based interventions targeted at one or more of the three biggest cancer killers: breast, colorectal and lung cancer. Over 100 bids were submitted in April 2010.

A two-stage process for selection was established:

- A Local Implementation Advisory Group (LIAG) reviewed all the bids and scored proposals against the essential criteria (Appendix 2). This group consisted of representatives from DH, NCA, local public health teams, primary care, secondary care, cancer networks, Strategic Health Authorities (SHAs) and the charity sector. The LIAG provided specialist guidance on key areas, including clinical, policy and social marketing aspects of the bids.
- The Local Implementation Investment Decision Group (LIIDG), chaired by Professor Sir Mike Richards, made the final decision on the PCT proposals to be funded. As well as looking at the scoring, the LIIDG also considered geographic spread, numbers of projects looking at each tumour site and the variety in scale and scope of individual projects to ensure there was a good mix of activity across the programme. A total of 59 projects were selected for funding.

Awarding the funds

In August 2010¹, over £9 million of funding was awarded to the 59 projects, which would be run by 109 Primary Care Trusts (PCTs). There was a fair spread of projects across England with at least one project running in most cancer networks. A full list of projects can be seen in Appendix 3.

The successful projects were awarded between £22,750 and £100,000 per PCT to develop and run their intervention. Since receiving the funding, some PCTs have combined their activity and therefore 53 individual projects are referred to in this report. The overall aim for each project is detailed in Appendix 4.

¹ There was a delay between the time of agreeing the 59 projects for funding and awarding funds because of the General Election in 2010 and a new process to review public spend for specific activities by the Cabinet Office Efficiency and Reform Group (ERG).

Timing

The timeline for project delivery was as follows:

- **1 October 2010:** Confirmation of project plans. Each project team was asked to confirm plans against their original proposal. The full payment of funds was not released until satisfactory plans were put in place.
- **31 December 2010:** First project monitoring report to outline progress.
- **19 March 2011:** Second project progress report.
- **29 July 2011:** Final project report.
- **31 October 2011:** Final evaluation results.²

Central support and governance

A core steering group was established bringing together DH cancer policy and communications teams, NCAT and CR-UK. At a later stage, representation from the Central Office of Information (COI) was added to this group due to their involvement in both local project work and supporting DH teams with plans for the bowel cancer pilot – ‘Be Clear on Cancer’.

As well as sitting on this core group, CR-UK was commissioned by DH to support the local projects. CR-UK’s primary aim was to work with the local teams to ensure deadlines were met and that relevant information was flowing between local and central teams. In addition, the wider CR-UK team brought expertise in project management, evaluation, social marketing, cancer information and the evidence base for early diagnosis. The CR-UK team was accountable to the core steering group.

² A final evaluation deadline was deferred to 31st October 2011.

Evaluation

Metrics for 2010/11 evaluation

The evaluation of the 2010/11 programme aimed to assess the following:

- The impact of the local projects on public awareness and anticipated behaviour, two-week wait referrals and cancers diagnosed.
- To gather information about the process and feasibility of implementing local public health interventions so that insights could be shared and used to inform the development of future programmes.

CR-UK coordinated the evaluation of the 2010/11 programme, providing guidance and support to the projects on behalf of DH about how to carry out their local evaluations, and collating information centrally.

In November 2010, DH gave local projects the metrics that would be used to assess the impact of their interventions, two of which were to be collected centrally (coordinated by DH), and the remainder needing to be collected at a local level, as appropriate.

Centrally collected metrics:

- Two-week wait (2WW)³ referral activity
- Screening uptake (bowel and breast)⁴

Locally collected metrics:

- Information about the area(s) the intervention ran in, and a list of general practices in these areas
- A detailed description of the interventions
- Public awareness of the campaign/project activity
- Public awareness of key cancer symptoms
- Public anticipated behaviour
- GP requests for diagnostic tests
- Percentage of cancer cases diagnosed following emergency presentation
- Number of cancers diagnosed
- Stage of disease at diagnosis
- Radical treatment rate

³ Two week wait (2WW) referrals are urgent GP referrals for suspected cancer.

⁴ Screening data were later considered to be outside the scope of the evaluation for the local projects and were not collected centrally.

Promoting early diagnosis of breast, bowel and lung cancers

Further guidance advised the projects that they must collect data on three of these metrics:

- **Metric 1: A detailed description of the interventions:** Projects were required to provide their specific aims and objectives, an explanation of how these aims would be addressed through the chosen intervention, as well as details of the area covered (specifically GP practices within their target locality).
- **Metric 2: Campaign and cancer awareness:** Projects were required to provide some measure of the target group's awareness of the project activities and key messages (preferably, using 'pre' and 'post' surveys).
- **Metric 3: Behaviour change:** Projects were required to provide some measure of the target group's behaviour in response to their project activities. This could include intentions to visit the GP with signs or symptoms, and how quickly, and actual or reported visits to the GP with signs or symptoms. Two-week wait (2WW) referrals were assessed centrally.

Methods

Data were gathered using four different methods:

1. An online survey which captured project aims and objectives; detailed information about project activities; impact on awareness and behaviour; and overall reflections from project staff. The survey was developed by CR-UK in collaboration with DH, and NCAT. The survey was designed to collect detailed information about each local project in a standardised format which would enable analysis of the programme as a whole; comparisons between projects; and an in-depth analysis of the association between various project characteristics and project impact (e.g., the impact of the weight of public-facing activity as compared with GP engagement). This was necessary for ongoing analytical purposes. The survey was built and hosted by Snap Surveys and went through extensive testing by CR-UK staff before being launched in July 2011. The survey was available for projects to complete on an ongoing basis with downloads of the data taken at the end of July, October and December 2011.
2. An Excel spreadsheet providing data fields for the projects to enter data on⁵:
 - Locally collected two-week wait (2WW) referrals
 - Routine referrals (not referred under the 2WW referral route)
 - Duration of time prior to presentation to primary care
 - Number of presentations to primary care
 - GP requested diagnostic tests
 - Number of cancers diagnosed
 - Stage of disease at diagnosis
 - Resection rates
 - Screening uptake (breast and bowel)
3. A secure password protected site was set up for projects to upload any additional information about their projects, project proposals, promotional material and reports. The site was available from July 2011.
4. Trent Cancer Registry provided 2WW data at a PCT level.

All the data analysis carried out for this report has been conducted by CR-UK. The specific approach taken for each metric is outlined within the relevant sections of the report.

Challenges

The 2010/11 programme of work was extensive, making the evaluation challenging. Each local project decided on their evaluation methods, based on what was appropriate for the resources available and the type of intervention they were running. In addition, each project ran bespoke activities, starting and finishing at different times and including various combinations of the three tumour sites. The context in which local projects were implemented was varied, for example, some areas have also been subject to pilots on improving bowel screening uptake,

⁵ This information was held at Trent Cancer Registry because some of the data were patient identifiable.

Promoting early diagnosis of breast, bowel and lung cancers

implementation of the Risk Assessment Tool and campaigns by local cancer charities. All these external activities may have impacted on the overall levels of cancer awareness and referral – both in PCTs where funding has been allocated and in PCTs that have not received funding – therefore making it difficult to have ‘clean’ control areas.

There have also been challenges in data collection. Projects were often ambitious about the levels of information they could access at the outset and had to adjust their plans as projects evolved and resources became restricted. The lag time in obtaining cancer data and the different systems in place in different areas was also an issue for many projects, particularly those working collaboratively.

Scope of the report

There is a commitment to report on this programme in 2012. However, not all of the results are available at the time of preparing this report, because some projects are still running and for others there has not been time to analyse all the relevant data.

Therefore, the purpose of this report is to provide an overview of the 2010/11 programme using the available data relating to key metrics projects were required to measure and report on by December 2011. This includes a description of:

1. The interventions:
 - Project timings
 - Target group and locality
 - Achieving behaviour change
 - Creative design
 - Campaign focus
2. Campaign and cancer awareness:
 - Campaign awareness
 - Awareness of cancer signs and symptoms
 - Confidence detecting symptoms
 - Anticipated help-seeking
 - Attitudes to cancer, early detection and treatment
 - Barriers to presentation
3. Behaviour change:
 - 2WW data for suspected lung cancers
 - 2WW data for suspected bowel cancers

Further analyses, including an analysis of 2WW data for suspected breast cancers, data on other metrics (e.g., GP requests for diagnostic tests) and a more in-depth analysis of the impact of this programme, will be reviewed later this year (see 'Further analysis' for more information).

Metric 1: The interventions

1.1 Introduction

This section of the report provides details on the type of activities that have been run by local projects. All the findings in this section are taken from the online survey that the projects were asked to complete and are therefore self-reported. The survey has enabled aggregation of information and to obtain a better understanding of both the scale and scope of the work. Taken together, the funded projects targeted a population of approximately 13.6 million people (see Appendix 5 for more information about the size of populations targeted by each project).

1.2 Caveats

The following caveats apply because the information in this section is from the online survey:

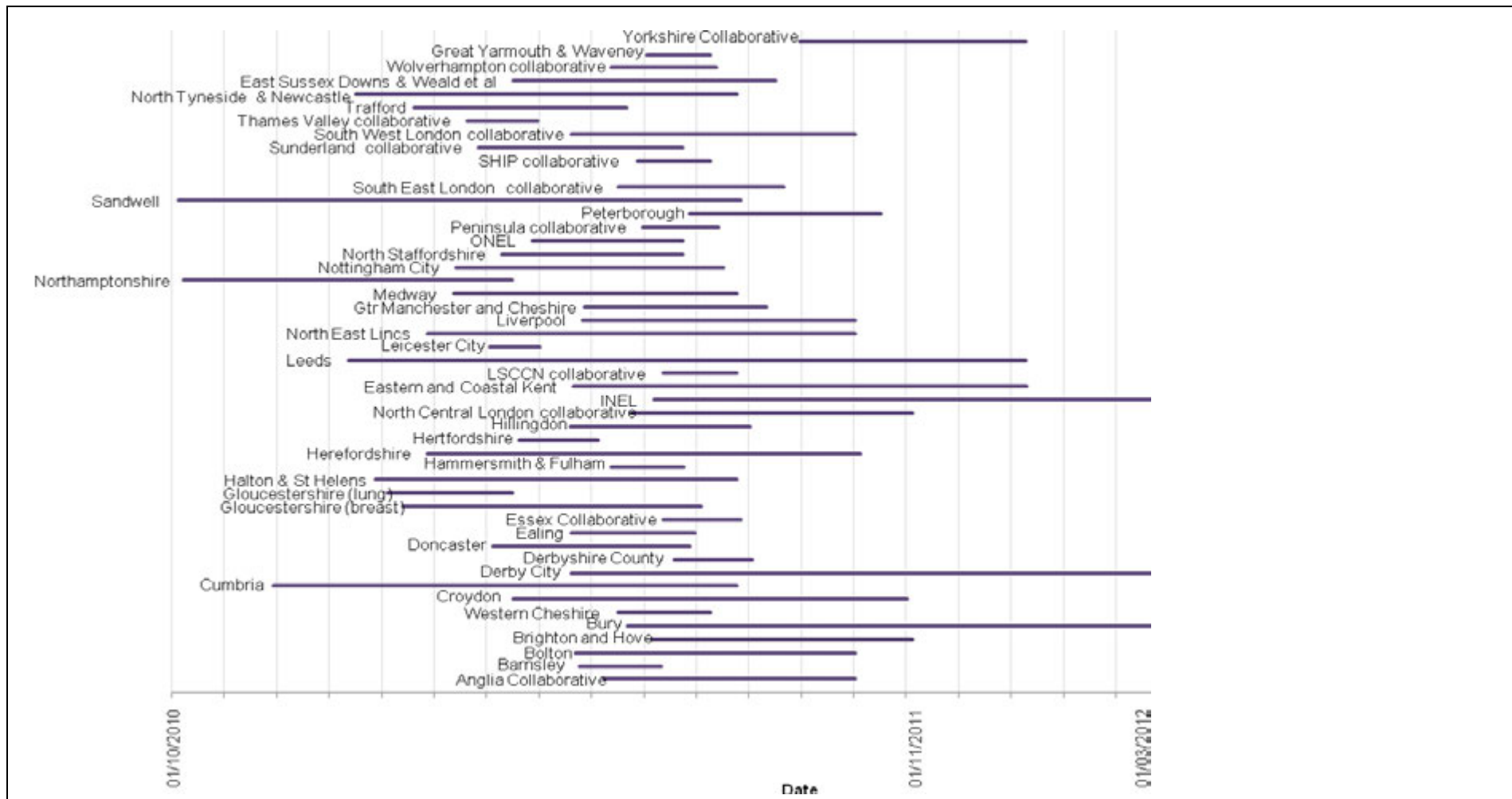
- Results are self reported;
- The sample size for each question varies depending on the number of projects for whom that question was relevant and reported;
- Although guidance on completing the survey was given to the projects to help standardise the information, there is still the potential for questions to be interpreted in different ways by respondents.

1.3 Results

1.3.1 Timings

Although the majority of these projects are now complete, a few are still running activities. Figure 1 shows the duration of the public-facing elements of the local activity. Before beginning their public-facing activity, projects spent months planning and scoping their work, and many engaged with colleagues in public health, primary, and secondary care in this pre-public launch phase. Following the end of their public-facing activity, projects have been (or will be) involved in the period of review and evaluation.

Figure 1: Project start and finish dates



Source: 2010/11 local projects online survey

*Abbreviations are detailed in Appendix 3

1.3.2 Target groups

Although some projects selected a total population for their campaigns (rather than a specific age, socio-economic or ethnic group), this was often influenced by the advertising activities which could be viewed by anyone within their community. However, most projects carefully considered how to make Opportunities To See (OTS) relevant for their target groups, for example, by placing advertising on bus routes in more deprived areas. In addition, projects often used a mix of high-level advertising to raise awareness of the campaign and then more targeted face-to-face community outreach activities for specific subgroups, such as those over 50 years of age from more deprived communities.

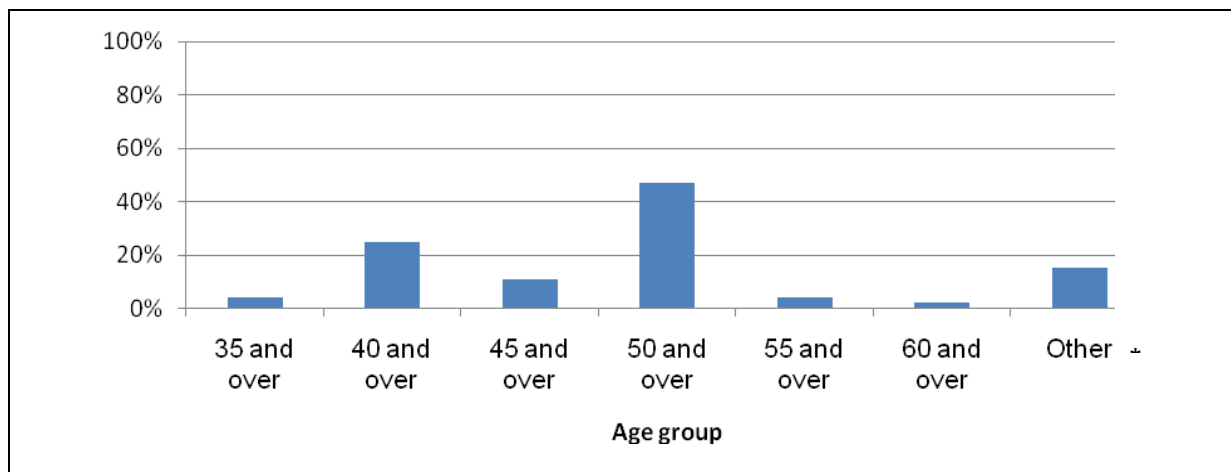
Tumour type

Based on an assessment of their local population – demographic breakdown, rates of cancer incidence and mortality – PCTs decided which of the three cancers it was appropriate for them to focus on. Some projects opted to focus on more than one tumour site. Across the 53 projects, 74% ran activity on lung cancer, 68% on bowel cancer, and 43% on breast cancer (6% of projects also ran activities on other tumour types for example, prostate cancer or cancer in general). Approximately 10.3 million people were targeted with lung cancer campaigns, 10.6 million for bowel cancer, and 5.8 million for breast cancer. It should be noted that these numbers do not total 13.6 million as highlighted above since some projects included more than one cancer type, and so some people could be included in more than one cancer type population.

Age

With the likelihood of developing cancer typically increasing with age, the biggest target group included those aged 50 years and over, with 47% of projects selecting to focus their activities on this group.

Figure 2: Percentage (%) of projects focusing on each age range



Source: 2010/11 local projects online survey

* Six categories were pre-specified and 'other' was selected by projects that did not fit into these specific groups

Socio-economic group

A total of 77% of projects tailored their campaigns at more deprived groups. None of the projects focused solely on those from higher socio-economic groups, but the remaining 23% targeted both lower and higher socio-economic groups.

Ethnicity

Nine percent of projects targeted some of their activities at Asian ethnic groups (including Indian, Pakistani, Bangladeshi, Other Asian, Asian British or Chinese), 2% targeted activities at Mixed ethnic groups (including White and Black Caribbean, White and Black African, White and Asian, any other mixed background) and 8% targeted 'Other' groups (e.g., gypsies and travellers).

1.3.3 Behaviour change techniques

Twenty-seven of the projects drew on a health behaviour or behaviour change theory or model to inform their project/activity⁶. All projects were also asked what behaviour change techniques ('magic ingredients') they used to raise awareness of cancer or increase early presentation⁷. The three most popular techniques used in the 47 projects that responded to this question were:

- Using content or messaging that referred to the credibility of the source of the information/activity (e.g., including the NHS logo on creative materials);

⁶ Health behaviour theories and models try to identify the optimal set of predictors of health behaviour (e.g. specific thoughts and beliefs), as well as the mechanisms or processes that lead to behaviour or behaviour change. Theories can therefore help guide interventions that are designed to change behaviour.

⁷ The constructs included in the survey were based on known behaviour change techniques (Abraham & Michie, 2008).

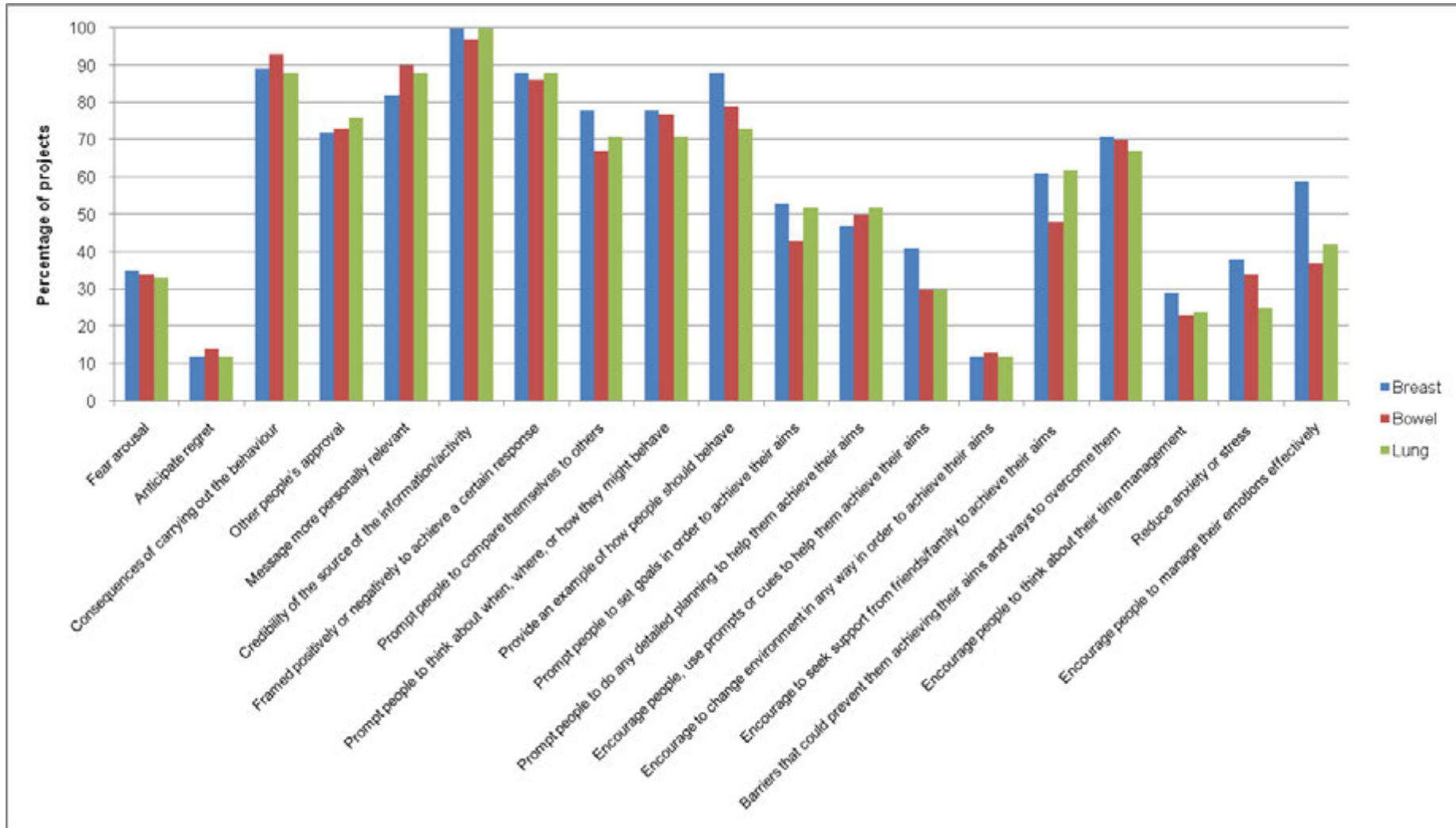
Promoting early diagnosis of breast, bowel and lung cancers

- Using content or messaging that provided people with information about the consequences of carrying out the behaviour (e.g., including the message ‘finding it early makes it more treatable and could save your life’);
- Using content or messaging that made the message appear more personally relevant (e.g., including case studies that represented the target audience age or, ethnicity).

More detail on the techniques used by tumour type is shown in Figure 3.

Figure 3: Techniques that were used for each cancer type (breast cancer n=18*; bowel cancer n=30*; lung cancer n=34*)

*There were fewer data returns for some of these techniques



Source: 2010/11 local projects online survey

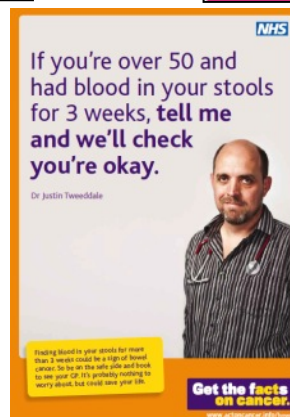
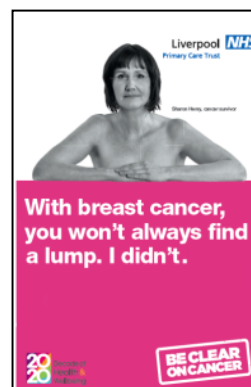
1.3.4 Creative designs

Most of the projects used a 'creative design' to help convey their key messages. By 'creative design' we mean materials that have a consistent look and feel, often with a brand logo or strap line.

In 2010/11, the local projects could create a new identity for their campaign, but they were encouraged to use an existing 'creative design' or DH produced 'Be Clear on Cancer' design. Existing creative designs included: 'Cough Cough', and 'Don't be a Cancer Chancer'. The 'Be Clear on Cancer', 'Cough Cough' and 'Don't be a Cancer Chancer' designs were used by 54%, 10% and 8% of projects (27, five and four projects) respectively (based on data from 50 projects), largely because of the ease of availability and the lower cost of using pre-existing designs. Some projects, for example, three out of five of those using 'Cough Cough', modified the existing designs to make them more appropriate for their target community, for instance by adding local case studies or statistics.

If projects had opted to run campaigns covering more than one cancer, they may have chosen different creative options for each campaign, for example, 'Be Clear on Cancer' for bowel cancer activities and 'Cough Cough' for lung cancer activities.

Promoting early diagnosis of breast, bowel and lung cancers



Examples of different creative designs



1.3.5 Campaign focus

To help us understand the scope of each intervention, we asked the projects to state what percentage of their activities was dedicated to each of the following predefined categories:

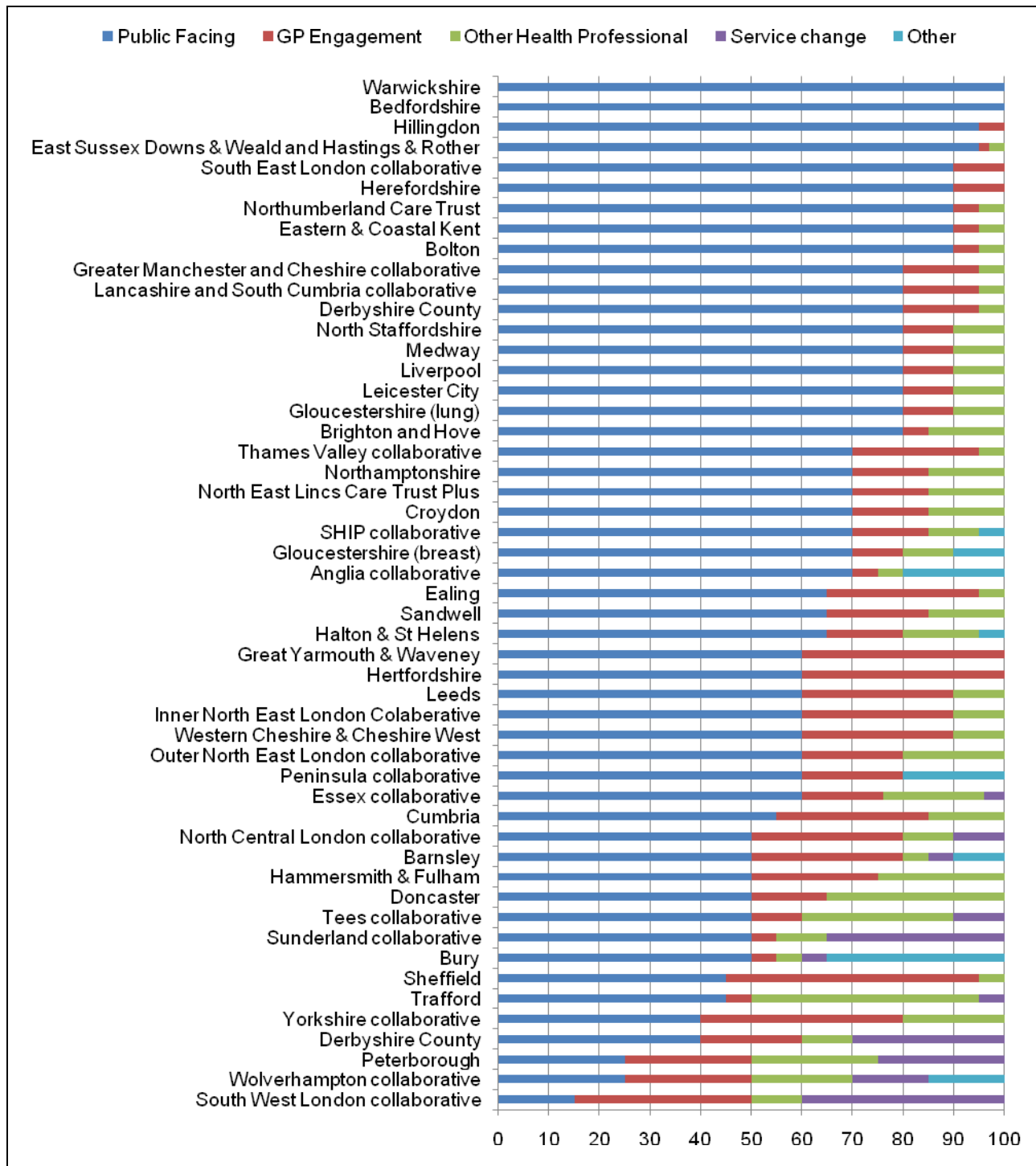
- Public-facing activity (e.g., advertising/community events)
- GP engagement
- Other health professional engagement (e.g., pharmacists)
- Making changes to services (e.g., extending surgery opening hours or direct access to chest x-ray)

Each project decided on the split, with virtually all projects covering the first three to some extent: of 51 projects that reported how their activities were divided, all included public-facing activities, 96% included activity targeted at GPs, and 94% sought to reach out to other health professionals. Figure 4 shows the breakdown of activity by project. (Note, nine projects also pursued activities that did not fall into

Promoting early diagnosis of breast, bowel and lung cancers

these four defined categories, such as liaising with local employers, councillors, and occupational health teams.)

Figure 4: Proportion of the project focused on public-facing activity, GP and other health professional engagement, and service change (n=51)



Source: 2010/11 local projects online survey

Public-facing activity

Out of 51 projects who reported on the breakdown of their activities, all engaged with the public to some extent and 86% spent at least half of their time on activities directed at the public (the median proportion of public-facing activity was 65%). Most projects used a blend of activities to raise awareness, and engage, with the public.

Projects applied their chosen creative design to a variety of public-facing materials. Most used a mix of mass audience promotion (above the line), such as bus advertising or billboards, as well as materials more suited for a community setting, such as posters and leaflets. Local press and media also played an important role in local activity, with case studies, coverage of local events and key messages being highlighted. This mix of communications enabled local projects to obtain both breadth of audience and depth with more targeted activities. More details showing the range of materials is shown in Figure 5.

Community events were a significant component of the public-facing activities. Of the 48 projects for which data are currently available, 40 (83%) engaged in some kind of community event and a total of 1,792 events were run, engaging approximately 436,000 people.

These included diverse activities, such as:

- Creating stalls or exhibition displays set up in public spaces, such as supermarkets (34 projects: 741 events; ~280,000 people)
- Training and recruiting community volunteers/cancer champions (33 projects: 337 events; ~101,000 people)
- Public talks and presentations (29 projects: 622 events; ~51,000 people)
- Theatrical, musical or comedy productions (3 projects: 15 events; ~380 people)

There were 77 other types of events, reaching an additional ~4,000 people.

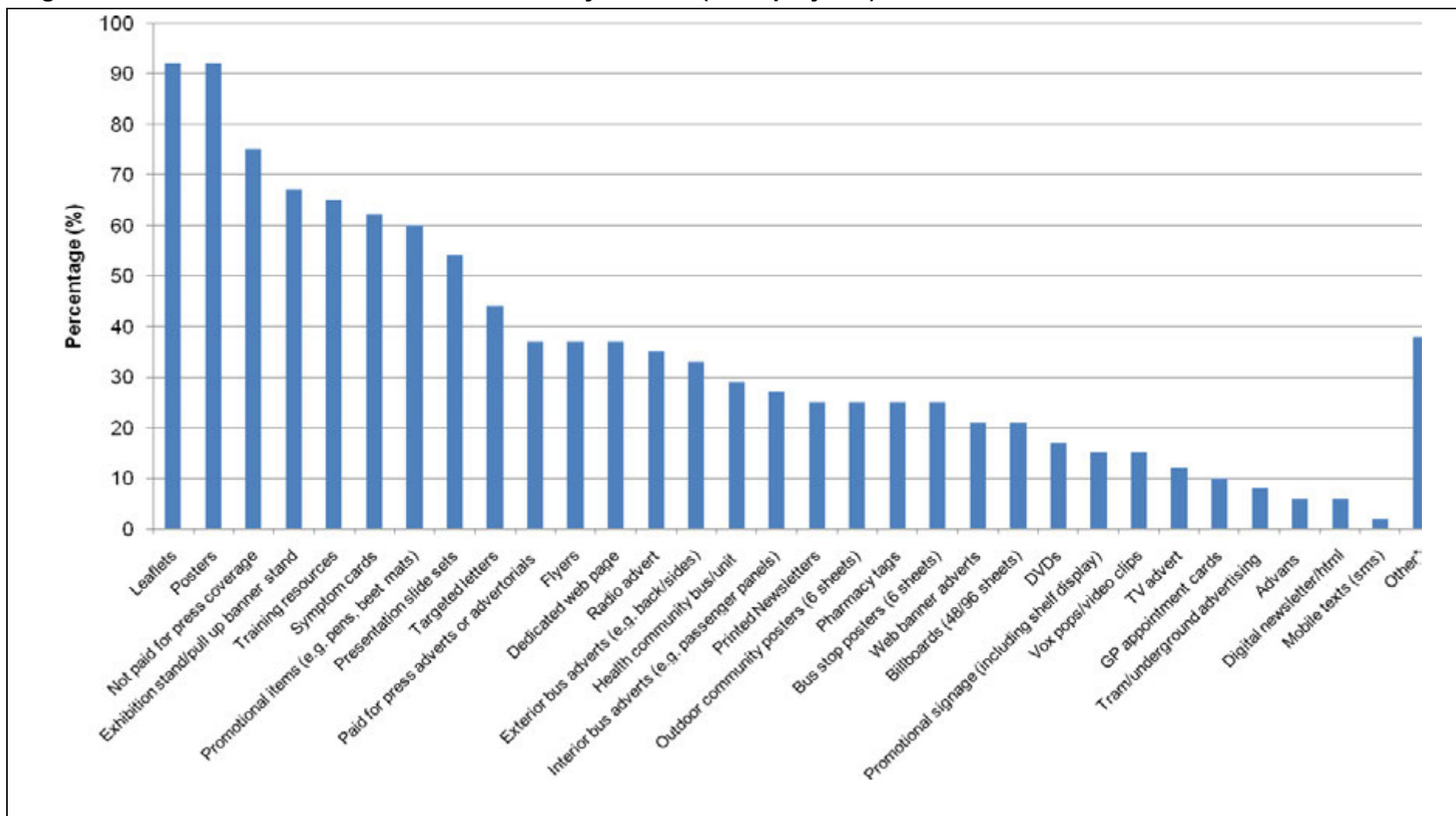


Press coverage profiling a successful case of early diagnosis due to campaign activity



Community champions at a local event

Figure 5: What kinds of materials/resources did you use? (n=52 projects)



Source: 2010/11 local projects online survey

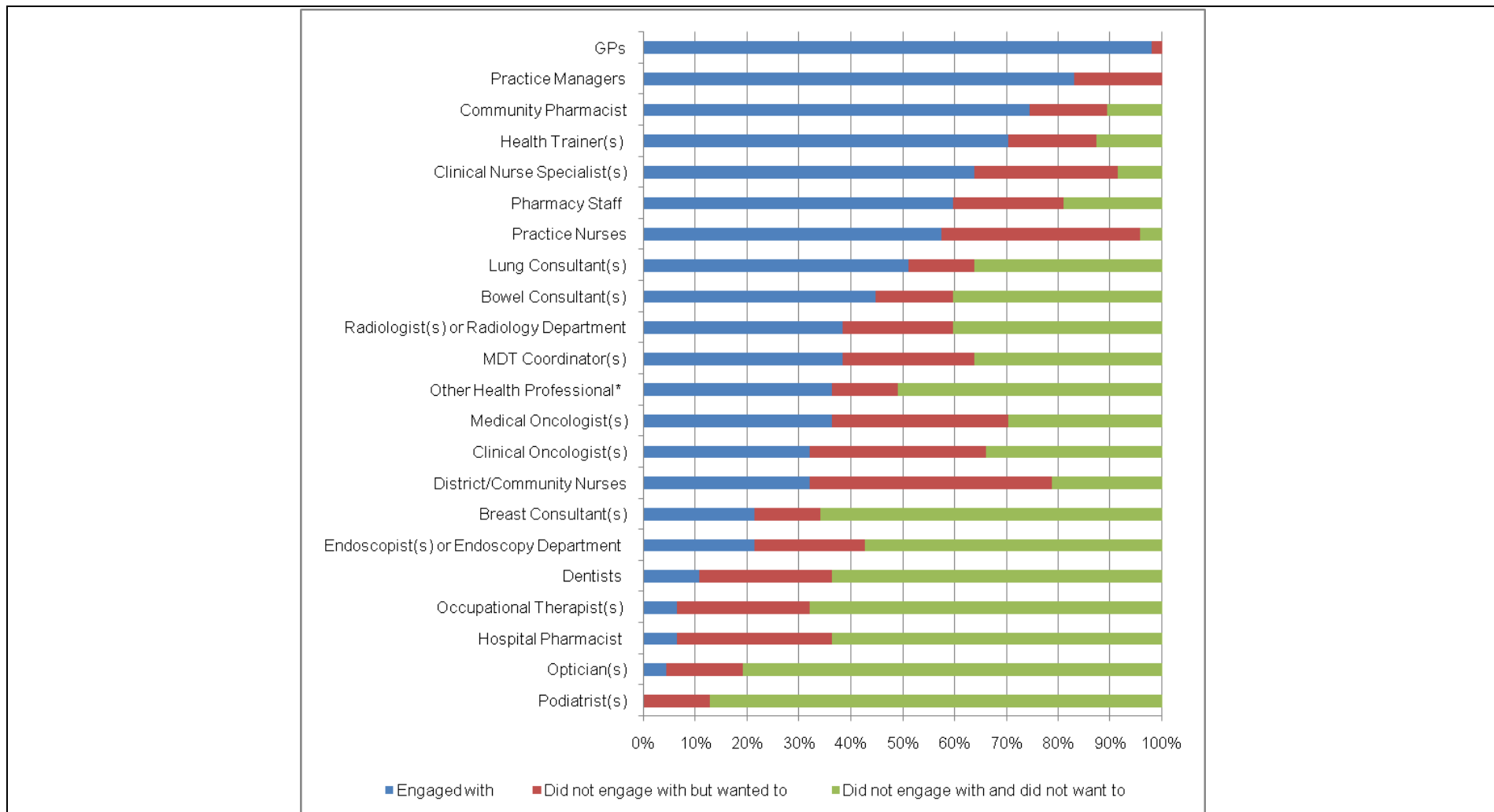
*Other included social media adverts, lamppost banners, street team activity, scratch cards, branded camper van and an inflatable colon

Other health professional engagement

In addition to engaging with the public and GPs, many of the local projects engaged with a variety of other health professionals. Community pharmacists were part of the engagement activities for 35 projects, with 15 of the projects running more than 130 events. The wider GP practice teams were also important, with 39 projects engaging with practice managers and over 85 events being run for practice nurses.

Projects were asked to identify which health professionals, if any, they had wanted to engage with but had not been able to, perhaps due to changes in the NHS landscape and timing of the projects. Figure 6 shows not only those that they had engaged with, but also those they would have liked to have engaged with.

Figure 6: Types of health professionals engaged with during the course of the project/activity (n=47)



Source: 2010/11 local projects online survey

* 'Other' health professionals include: GP receptionists, stop-smoking services, community matrons, health improvement specialists, care home staff, respiratory nurses, physiotherapists and private-sector care workers.

Making changes to services

Alongside activities designed to raise awareness about cancer and encourage people to visit their GP with warning signs of cancer, a number of projects also implemented changes to existing services or developed new services designed to encourage earlier diagnosis or ease pressure from the potential impact of the projects on health services. Such initiatives included:

- Extending surgery opening hours to accommodate extra demand for GP appointments;
- Liaising with hospitals to plan for increased demand on services;
- Creating direct access to flexible sigmoidoscopy for suspected colorectal cancer;
- Refinement of two-week wait (2WW) referral forms to increase sensitivity, provide clarity about the role of the GP, and provide contact details for locally based secondary care Multi-Disciplinary Teams;
- Establishing direct access to chest x-rays through walk-in services for over-50s.

Data returns from 50 projects show that nine (18%) implemented a new service or adapted an existing service or pathway. This included two of 23 breast cancer projects (9%), six out of 36 bowel cancer projects (17%), five out of 39 lung cancer projects (13%), and two out of three projects focused on other cancers (67%). (Note, some projects focussed on more than one type of cancer and were implementing different services/pathways for them).

Metric 2: Campaign and cancer awareness

2.1 Introduction

Projects were encouraged to use a 'pre' and 'post' survey to measure the impact of their interventions on public awareness of the campaign as well as knowledge of the key messages being promoted. The development and availability of the Cancer Research UK Cancer Awareness Measure (CAM) made it possible for projects to use standardised and validated items to measure cancer awareness and to compare their data with results from national population-based surveys.

2.2 Caveats

- Survey data was self-reported.
- Projects were encouraged to select survey items from a pool of standardised questions (the Flexible/Early Diagnosis of Cancer (EDC) survey, see Appendix 6), many of which were taken from the CAM to increase consistency. However, many projects chose to use one of the validated CAMs (generic, breast, bowel or lung versions). As a result, there is a degree of variability in question formats, wording and response options across projects.
- Sample sizes and sampling methods varied across projects (e.g., baseline survey sample sizes ranged from 171 to 3,779). Some projects sampled all age groups within their target area, whereas others targeted the over 50s. Furthermore, the timings of the 'pre' and 'post' surveys were different for every project, some taking place in close proximity to the project activity start and/or end dates, but others being carried out several months before and after the start and end of the intervention.
- Sample sizes for items measuring awareness of signs and symptoms were too small to carry out statistical analysis.
- Eleven projects used the same research agency (ICM Research) to conduct research on cancer awareness in their area. Data was supplied in the same format, making it possible to include further analysis for these 11 projects in this report – in particular an analysis of campaign awareness and awareness of cancer signs and symptoms. In future reporting, analysis of these questions will be expanded to include data from as many projects as possible.

2.3 Statistical methods

For each project, where 'pre' and 'post' survey data were available, a two-sample test of proportions was used to test for statistically significant differences. For projects asking comparable questions, the average difference (across projects)

between the 'pre' and 'post' survey measures was calculated and a paired t-test was used to establish whether this difference was significant. For both tests, a p-value of <0.05 was considered statistically significant.

2.4 Results

The majority of projects (47) used a 'pre' survey to measure cancer awareness, attitudes and anticipated behaviour before their project had started. Only three projects said that they did not use a 'pre' survey (a further three projects did not answer this question). In some cases the 'pre' survey helped to inform the development of the intervention, often guiding the choice of target group (e.g., those with lowest levels of awareness). In others, it formed a baseline against which 'post' survey data could be compared to establish whether the project was likely to have had an impact on awareness, attitudes or anticipated behaviours. Fewer projects used a 'post' survey after the project/activity had started (40), but of those who had not, most were still planning to at the time of reporting. Table 2 provides more information about the types of surveys used.

Table 2: Surveys used

Survey	Pre survey (n=47)		Post survey (n=40)	
	Number of projects	% of projects	Number of projects	% of projects
Flexible/EDC survey	15	32	13	33
Generic CAM	18	38	7	18
Bowel CAM	8	17	9	23
Lung CAM	7	15	9	23
Breast CAM	3	6	2	5
Other*	7	15	8	20

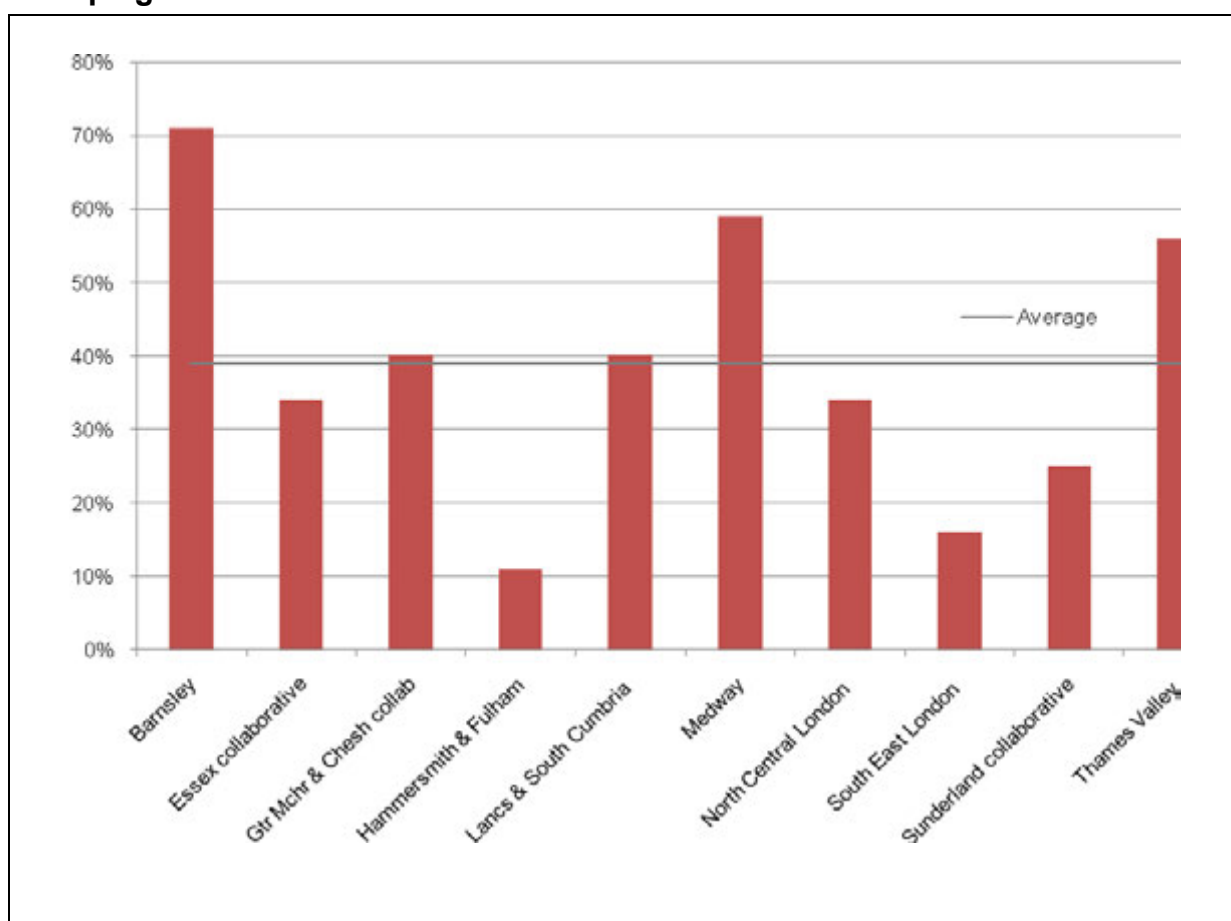
Source: 2010/11 local projects online survey

*Other surveys used included questionnaires produced in-house, comprising questions from the Lung CAM; a general health questionnaire, a 'baseline assessment of colorectal cancer' questionnaire, the 'CAM Plus', and selected questions from the Lung CAM.

2.4.1 Campaign awareness

Information about campaign awareness was assessed for 10 projects (out of the 11 who used the same agency) (see Appendix 7). Of these, an average of 39% of respondents had seen, read or heard something about their local project in the post-intervention survey. However, there was wide variation across surveys with the percentage of people who had seen the campaign ranging from 11% to 71% (see Figure 7). This is important to bear in mind when interpreting how effective a project's activity has been based on awareness results.

Figure 7: Percentage of respondents who said they were aware of the campaign



Source: ICM Research

2.4.2 Awareness of cancer signs and symptoms

Knowledge of cancer signs and symptoms was assessed using two questions taken from the CR-UK CAM. The 'unprompted' question asked: 'There are many warning signs and symptoms of cancer. Please name as many as you can think of'.

Across 11 projects, the four symptoms mentioned most often at both the 'pre' and 'post' stages were:

- lumps/swellings
- bleeding
- cough/hoarseness
- pain

However, awareness of these symptoms was still relatively low at 28% or lower across projects. While knowledge of lump, bleeding, and pain was higher at the post-intervention stage, the average changes between 'pre' and 'post' surveys were small (only 1-2%) (see Table 3).

Table 3: Average percentage recall of signs and symptoms (n=11 projects)

Symptom mentioned	Average % pre	Average % post	Change %
Change in bowel/bladder habits	7%	11%	4
Weight loss	14%	17%	3
Generally unwell	7%	10%	3
Pain	18%	20%	2
Coughing up blood	13%	15%	2
Tiredness/fatigue	10%	12%	2
Lump/swelling	27%	28%	1
Bleeding	20%	21%	1
Chest/shoulder pain	7%	8%	1
Change in the appearance of a mole	5%	6%	1
Feeling weak	3%	4%	1
Difficulty swallowing	2%	3%	1
Persistent cough	2%	3%	1
Change to a long term cough	0%	1%	1
Cough/hoarseness	18%	18%	0
Loss of appetite	5%	5%	0
Nausea/sickness	4%	4%	0
Chest infection	4%	4%	0
Sore that does not heal	2%	2%	0
Bruising	1%	1%	0
Blurred vision	0%	0%	0
Change in skin colour	0%	0%	0
Headaches	0%	0%	0
Fainting/blackouts	0%	0%	0
Rashes/spots/blisters	0%	0%	0
Discharge	0%	0%	0
Bad breath	0%	0%	0
Nothing	16%	15%	-1
Shortness of breath	9%	8%	-1
Breathlessness/difficulty breathing	7%	6%	-1
Other	9%	5%	-4

Source: ICM Research

Prompted awareness was assessed by the question: 'I'm going to list some symptoms that may or may not be warning signs for cancer. For each one can you tell me the extent to which you think it is a warning sign for cancer?' With response options: 'strongly agree', 'agree', 'disagree' and 'strongly disagree'.

Each of the 11 projects who reported data for this question used a list of eight and 14 symptoms. The number and description of possible symptoms differed from project to project, and so the total pool of symptoms exceeded 14. However, 16 individual symptoms from the total pool were employed by at least four projects and Table 4 below shows the average agreement at 'pre' and 'post' intervention. Unsurprisingly, recognition of symptoms from a prompted list showed higher levels of knowledge compared with unprompted recall. All but one symptom (changes in shape of fingers

Promoting early diagnosis of breast, bowel and lung cancers

and nails) were recognised as a possible sign of cancer by more than 50% of respondents. Because fewer projects collected baseline data for this question it is not possible to assess the change in awareness for some of these symptoms. However, where 'pre' and 'post' data has been provided, it shows increases in recognition across all but one symptom (persistent chest or shoulder pain).

Table 4: Average percentage recognition of signs and symptoms (n=4 projects)

	Average % pre*	Average % post	Change %
Unexplained lump/swelling	-	95	-
Unexplained bleeding	-	87	-
Unexplained weight loss*	77	80	3
Persistent unexplained pain	-	76	-
Persistent change in bowel/bladder habits	-	89	-
Persistent cough/hoarseness	-	73	-
Persistent cough for 3 weeks or more	68	77	9
Painful cough	72	78	6
Coughing up blood	82	85	3
Worsening or a change in an existing cough	71	79	8
Persistent shortness of breath	73	78	5
Persistent chest/shoulder pain	67	54	-13
Changes in the shape of your fingers or nails	18	19	1

Source: ICM Research

*n=8 projects

2.4.3 Confidence identifying symptoms

At the time of writing, 35 data returns from 27 projects have been received for this question (some projects had more than one set of data if their project focussed on more than one cancer). Results presented here relate to the 25 data returns where both 'pre' and 'post' intervention results were submitted (see Appendix 8).

The question: 'How confident are you that you would notice a cancer sign or symptom?' was used but was also frequently adapted by individual projects to reflect the focus of their activity, for example, 'How confident are you that you would notice a bowel cancer sign or symptom?' or 'How confident are you that you would notice a breast cancer sign or symptom?'. Response options varied, but the majority of projects provided the following confidence levels: 'very', 'fairly', 'not very' or 'not at all' confident⁸.

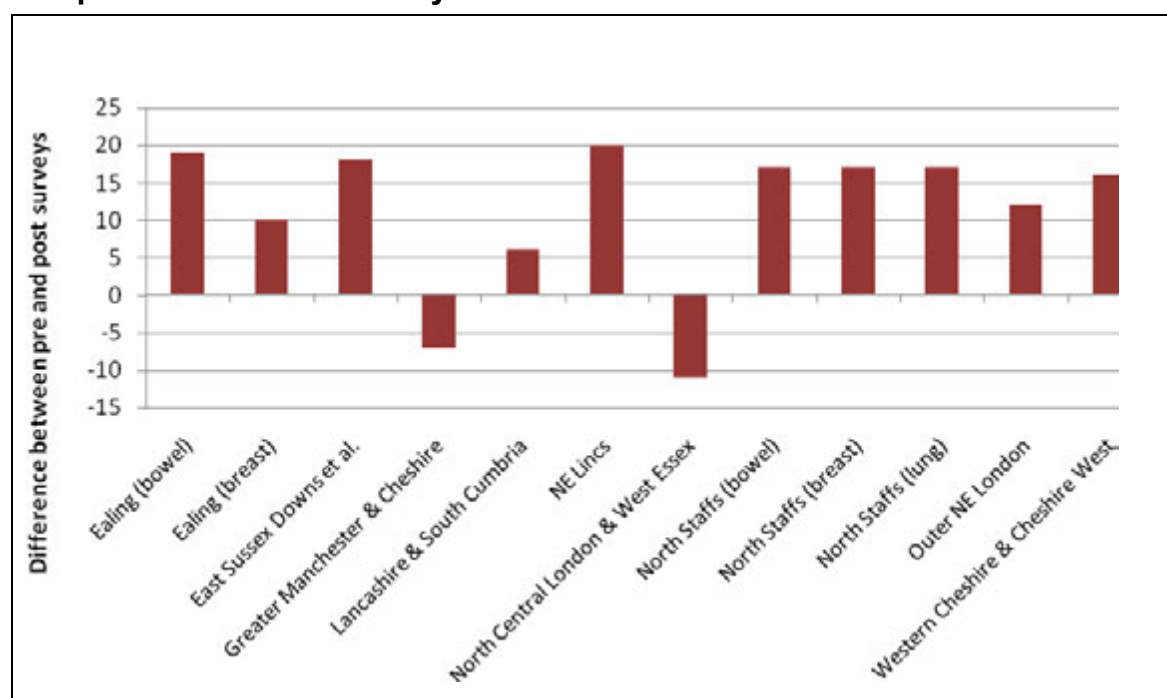
There was wide variation in self-reported confidence in spotting cancer signs post-intervention. The percentage of respondents reporting that they were 'fairly' or 'very'

⁸ NE Lincolnshire used a slightly different wording 'Do you feel confident about...?' with response options 'Yes' or 'No'. Gloucestershire used 'Slightly confident' instead of 'Fairly confident'. Anglia used response options 'Very confident' and 'Confident'.

confident ranged from 26% in the Hammersmith & Fulham project focussing on lung cancer (down from 27% pre-intervention) to 82% in the Ealing project focussing on breast cancer (up from 72% pre-intervention). This variation between projects could be due to the focus on different tumour types.

Across the 25 data returns, there was also variation in whether confidence was higher in 'post' versus 'pre' intervention surveys, by how much confidence changed, and whether changes were statistically significant. Taking an average across the 25 data returns, there was a statistically significant increase in confidence of 6% (from 52% pre-intervention to 58% post-intervention; paired t-test, $p=0.001$). At the individual project level, 10 out of 25 data returns reported increases in confidence that were statistically significant. However, two projects reported that confidence had significantly decreased after the intervention. Figure 8 shows that of these significant changes, seven out of the 10 increases were more than 15%, while both of the two significant decreases were less than 15%.

Figure 8: Statistically significant changes in reported confidence between pre and post intervention surveys



Source: 2010/11 local projects online survey and local reports

2.4.4 Anticipated help-seeking

Anticipated help-seeking was assessed using the following item: 'If you had a symptom that you thought might be a sign of cancer, how soon would you contact your doctor to make an appointment to discuss it?'

The results from 32 data returns (from 29 projects) were grouped into five categories:

- Respondents who said they would make an appointment within three days.
- Respondents who said they would make an appointment within four to seven days.
- Respondents who said they would wait longer than a week to contact their GP.
- Respondents who said they wouldn't contact their doctor at all.
- Respondents who said they were not registered with a GP.

In both 'pre' and 'post' surveys, the majority of respondents said they would seek help within one week of noticing a sign or symptom. Overall, anticipated time to seek help remained fairly stable from 'pre' to 'post' intervention across all projects, although four of the projects did show statistically significant increases in the percentage of respondents saying they would visit their GP within one week of noticing a sign or symptom.

For example, averaging pre-intervention survey data, 82% of people said they would make an appointment with their GP within seven days, with 84% respondents endorsing this at 'post' intervention. Averages for those who would make an appointment within three days are 69% and 68% 'pre' and 'post' intervention, respectively. Reassuringly, nearly all respondents would try to see a doctor; only 3% or fewer respondents would not contact their GP to make an appointment, and 3% or lower were not registered with a GP.

These averages, however, conceal a wide range of variation. For example, the percentage of respondents who said they would see a GP within seven days 'pre' intervention ranged from 53 to 95% and at 'post' intervention from 63 to 93%. Notably, four projects showed statistically significant increases in the percentage of respondents who said they would go to a GP within seven days, with three of them (Warwickshire, Hammersmith & Fulham, and Gloucestershire (lung)) reporting an increase of more than 10% (and Thames Valley reporting an increase of 4%). However, six projects reported statistically significant decreases in the percentage of people who would see their GP within seven days (see Table 5).

Table 5: Percentage of respondents reporting they would contact their GP to make an appointment within seven days of noticing a sign or symptom they thought could be cancer

Project	Pre %	Post %	Change %	P value*
Peninsula collaborative ⁹	53%	78%	25	-
Warwickshire	67%	91%	24	<0.01
Hammersmith & Fulham	79%	93%	14	<0.01
Gloucestershire (lung)	70%	83%	13	<0.01
Thames Valley collaborative	79%	83%	4	0.03
Sunderland collaborative	85%	89%	4	0.21
Lancashire & South Cumbria collaborative	85%	88%	3	0.15
Anglia collaborative	78%	80%	2	0.06
Derbyshire County	82%	84%	2	0.39
Halton & St Helens	72%	74%	2	0.60
Essex collaborative	88%	89%	1	0.52
Hillingdon	87%	88%	1	0.65
Brighton & Hove	92%	92%	0	0.99
Outer North East London collaborative	92%	92%	0	0.99
East Sussex Downs & Weald and Hastings & Rother	63%	63%	0	0.99
North Staffs (breast)	80%	79%	-1	0.78
Gtr Manchester and Cheshire collaborative	87%	85%	-2	0.12
Western Cheshire & Cheshire West	89%	87%	-2	0.49
Barnsley	88%	84%	-4	0.15
Cumbria	92%	87%	-5	0.10
Gloucestershire (breast)	95%	90%	-5	0.02
South East London collaborative	95%	90%	-5	<0.01
Tees collaborative	82%	77%	-5	0.03
North Central London collaborative	89%	81%	-8	<0.01
North Staffs (lung)	82%	73%	-9	0.02
North Staffs (bowel)	83%	73%	-10	0.01
Croydon	-	89%	-	-
South West London collaborative	-	84%	-	-
Doncaster	-	83%	-	-
Great Yarmouth & Waveney	92%	-	-	-
Eastern & Coastal Kent	72%	-	-	-
Northumberland	63%	-	-	-

Source: 2010/11 local projects online survey and local reports

*Two-sample test of proportions

⁹ Data for number of respondents to survey is missing, and therefore a p-value for a two-sample test of proportions cannot be calculated.

2.4.5 Attitudes to cancer, early detection and treatment

Attitudes and beliefs towards cancer were assessed with the following item: 'I'm going to read you some statements that are sometimes made about cancer. Can you tell me how much you agree or disagree with each statement?'

- If cancer is diagnosed early it can be treated more successfully;
- Going to my GP/doctor early with a symptom of cancer makes no difference to my chances of surviving;
- Going to my GP/doctor early with a symptom of cancer provides reassurance that the issue is now being addressed;
- Most cancer treatment is terrible. It is even worse than death.¹⁰

People were asked to respond using the following options 'strongly disagree', 'disagree', 'agree', or 'strongly agree'¹¹.

The results reported here are the aggregate of 'agree' and 'strongly agree' responses. On average, there were no significant differences between 'pre' and 'post' intervention for any of the four statements. Attitudes towards early presentation were generally very positive across the board, with nearly nine out of 10 respondents agreeing that if cancer is diagnosed early it can be treated more successfully, and that going to see their GP provides reassurance that the issue is now being addressed. Only a minority of respondents thought that going to the GP early would make no difference to their chances of surviving. However, nearly one-third of respondents across projects agreed, some strongly, that 'most cancer treatment is worse than death' (see Table 6).

¹⁰ NE Lincs used the following items: 'Many cancers can be cured if you catch them early enough' and 'There isn't much point going to the doctor if you have lung cancer'.

¹¹ Halton & St Helens used response options 'Yes' or 'No'; Cumbria included an additional option 'Neither agree nor disagree'.

Table 6: Average percentage of respondents agreeing with each of four statements

	Number of data returns	Average Pre	Average Post	Change %	P value*
If cancer if diagnosed early it can be treated more successfully	17	86%	87%	2%	0.74
Going to my GP/doctor early with a symptom of cancer makes no difference to my chances of surviving	16	14%	15%	1%	0.94
Going to my GP/doctor early with a symptom of cancer provides reassurance that the issue is now being addressed	14	86%	87%	1%	0.89
Most cancer treatment is terrible. It is even worse than death	11	30%	27%	-3%	0.35

Source: 2010/11 local projects online survey and local reports

*Paired t-test

2.4.6 Barriers to presentation

Perceived barriers to seeking help for a potentially serious sign or symptom were assessed using the following question: 'Sometimes people put off going to see the doctor, even when they have a symptom that they think might be serious. Could you say if any of these might put you off going to the doctor?' Potential barriers included:

- Being too embarrassed;
- Being too scared;
- Being worried about wasting the GP's time;
- Feeling the GP would be difficult to talk to;
- Finding it difficult to make appointment with the GP;
- Being too busy to make time to go to the GP;
- Having too many other things to worry about/too many other priorities;
- Finding it difficult to arrange travel to the GP;
- Being worried about what the GP might find;
- Not wanting to know if they have cancer;

Promoting early diagnosis of breast, bowel and lung cancers

- Lack of confidence talking about symptoms;
- Concerns that GP might not understand language/culture.¹²

Respondents were asked to state whether they would endorse these as possible reasons that could prevent them from seeing a GP, and response options were either 'Yes' or 'No', or 'Yes, often', 'Yes, sometimes' and 'No'.

The most endorsed barrier to seeking medical help was being worried about what the GP might find, which on average was endorsed by 39% of respondents (both before and after interventions). In the 'post' intervention survey data, other important barriers included difficulty making an appointment (27%), being too scared (20%), and being worried about wasting the GP's time (19%). The least significant barrier to seeking medical help was difficulty in travelling to the GP (4%).

There were few changes from 'pre' to 'post' intervention, although the percentage of respondents saying that they would be too busy to make time to go to the GP significantly reduced from an average of 16% to 13%, and those saying that they had too many other things to worry about significantly dropped from 17% to 14%.

Projects also reported increases in endorsement of some barriers at 'post' intervention compared to 'pre' intervention. The Southampton, Hampshire, Isle of Wight and Portsmouth (SHIP) collaborative, for example, reported that 29% of respondents said they would be too embarrassed in the 'post' survey compared with 13% in the 'pre' survey. Similarly, 59% of respondents said they would be worried about wasting the GP's time in the 'post' survey, compared with 44% in the 'pre' survey. Such findings warrant further investigation.

¹² This item is from the Breast CAM.

Table 7: Average percentage of respondents perceiving barriers to help-seeking

	Number of data returns	Average pre %	Average post %	Change %	P value
Too busy to make time to go to GP	13	16%	13%	-3%	0.01
Too many other things to worry about	14	17%	14%	-3%	0.01
Too scared	14	21%	20%	-1%	0.22
Difficult to arrange travel to GP	14	5%	4%	-1%	0.31
Don't feel confident talking about symptoms	14	10%	10%	-1%*	0.1
GP would not understand my language/culture	2	8%	8%	-1%*	-^
Worried about what the GP might find	23	39%	39%	0%	0.29
Worried about wasting GP's time	24	19%	19%	0%	0.76
Difficult to make an appointment with the GP	16	26%	27%	1%	0.57
Too embarrassed	20	13%	14%	1%	0.79
GP would be difficult to talk to	23	10%	11%	1%	0.25
I wouldn't want to know if I have cancer	10	14%	16%	2%	0.64

Source: 2010/11 local projects online survey and local reports

NB: A negative change shows that there has been improvement.

^Paired t-test not carried out due to a sample size of only 2.

*Changes are due to rounding differences.

2.5 Summary

All of the local projects funded to deliver activity in 2010/11 sought to promote earlier diagnosis through raising awareness of cancer signs and symptoms and encouraging prompt help-seeking behaviour among their target audience. While it has not yet been possible to analyse data from all projects, results have not shown significant changes in unprompted or prompted awareness of cancer signs and symptoms when comparing 'pre' and 'post' intervention surveys from those projects who have reported this data. This may indicate a lack of project impact (efficacy or reach), but it may also be a failure on the part of the survey to capture any change (due, for example, to inadequate numbers of the target audience in the sample). It may be that future analysis of data relating to remaining projects presents a different picture.

Promoting early diagnosis of breast, bowel and lung cancers

Data from several of the projects examined the impact of interventions on respondents' confidence they would notice a cancer symptom, the speed with which they would act on noticing a symptom, barriers to seeing the GP about symptoms, and attitudes about cancer and early diagnosis. The early results are encouraging, with several projects reporting statistically significant changes. However, there are some findings, particularly the statistically significant decreases in confidence in detecting a symptom and in anticipated help-seeking, which warrant further exploration.

Metric 3: Behaviour change

3.1 Introduction

Trent Cancer Registry provided honorary contracts for two members of CR-UK staff and granted access to two-week wait (2WW) data in early January 2012. Given the timing of this report it was therefore not possible to review all three tumour sites in detail. There were more lung and bowel projects than breast cancer projects and regional 'Be Clear on Cancer' activity has run on both lung and bowel cancers. Therefore, these tumour sites were prioritised.

Thirty-nine projects carried out local activity for lung cancer (comprising 76 separate PCTs) and similarly there were 36 projects for bowel cancer (77 separate PCTs). Some PCTs were funded as part of a collaborative project and also as an individual PCT project undertaking its own activity. Therefore, for lung cancer, six PCTs (Bedfordshire; Bolton; Bury; Croydon; Great Yarmouth & Waveney; and Peterborough) were both included as their own project and as part of a collaborative. For bowel cancer, there were seven PCTs (Bedfordshire; Bolton; Bury; Croydon; Great Yarmouth & Waveney; Peterborough; and Trafford) in a similar situation.

This section examines whether two-week wait (2WW) referrals¹³, cancer diagnoses from 2WW referrals, and the percentage of 2WW referrals which turn out to be cancer increased after the local project activity occurred. 'Start' and 'finish' dates of public-facing activity (self reported in the online survey) were used to assess this.

3.2 Caveats

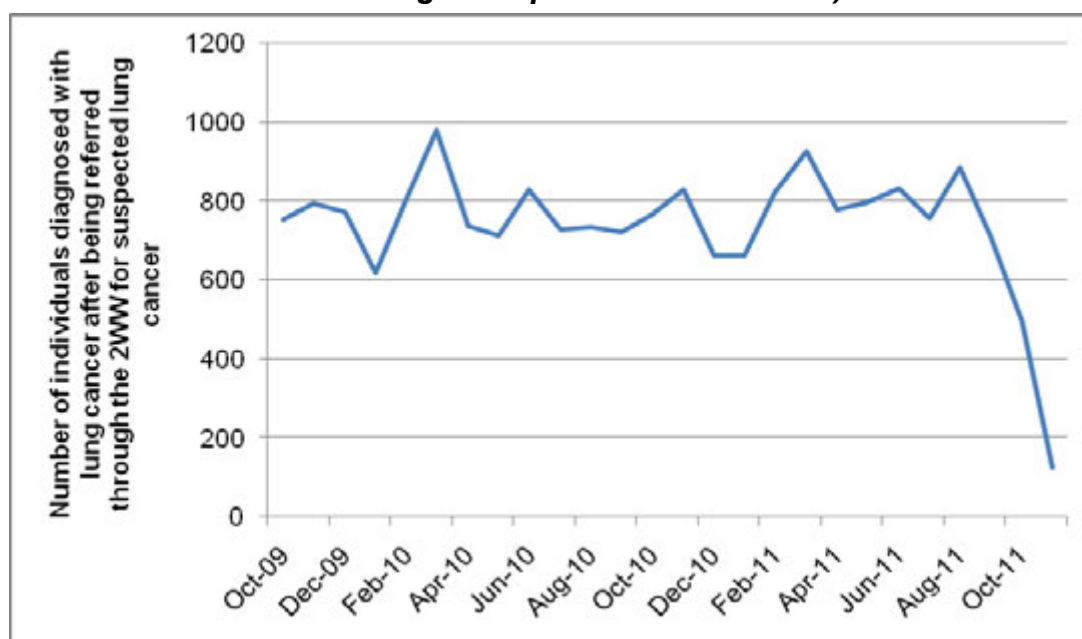
- It should be noted that this analysis looks at a PCT level only. Some projects did not target the entire PCT population but a subset (e.g. several GP practices or wards), and so any effects may have been diluted.
- Whilst the control PCTs did not receive funding, they may have run their own early diagnosis campaigns or residents of the control areas may have been influenced by neighbouring PCTs that did receive funding.
- At the time of reporting, 2WW referral data for bowel and lung cancers was available up until the end of November 2011.

¹³ Two-week wait (2WW) are urgent GP referrals for suspected cancer.

Promoting early diagnosis of breast, bowel and lung cancers

- To get a reliable estimate of the numbers of cancers diagnosed following a 2WW referral, the recommendation is to wait for a minimum of four months, and ideally seven months. This is because it is necessary to wait for the patients identified through the 2WW referral process to have had their treatment for cancer reported (note, a treatment can include 'decision to give no treatment'). If they do, they are assumed to have a cancer diagnosis. Figure 9 illustrates why this is important. Patients referred via 2WW in September, October and November may not have had their treatment reported by the time the data was reviewed (in November), hence the number of diagnoses in these months is much lower than in previous months. Therefore, data on cancer diagnoses was only assessed for projects which had completed their activity by July 2011, to allow sufficient data completeness (Figure 9). When interpreting 2WW data it is essential to consider both the change in the number of 2WW referrals and the change in the number of cancers diagnosed as a result. This is referred to as the conversion rate. This is because the percentage of 2WW referrals that turn out to be cancer is suggestive of whether these referrals were made appropriately, as demonstrated by the following scenarios (please note these are examples and not an exhaustive list):
 - An increase in the percent conversions could occur if the percentage increase in the number of cancers diagnosed was higher than the percentage increase in the number of 2WW referrals. This suggests that the right people were being referred (i.e. the additional referrals led to a cancer diagnosis).
 - Conversely, a decrease in the percent conversions could occur if there were an increase in the number of 2WW referrals but a decrease in the number of cancers diagnosed overall. This would suggest that the additional referrals did not lead to a cancer diagnosis.
 - A small decrease in percent conversions could occur if the percentage increase in the number of cancers diagnosed was lower than the percentage increase in the 2WW referrals. This would suggest that some of the right people were being referred.

Figure 9: Illustration of the need to wait for at least four months after referrals from 2WW before conversion data are examined (*number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer across 149* PCTs in England up to November 2011*)



Source: National Cancer Waiting Times Monitoring Dataset

*2 PCTs dropped due to data problems.

3.3 Methods

Data are reported on three outcomes: 2WW referrals; cancer diagnoses from 2WW referrals; and percentage of 2WW referrals which turn out to be cancer.

If a patient was referred via 2WW for lung cancer and subsequently turned out to be diagnosed with one of the ICD-10 codes C33, C34, or C45¹⁴, they were classified as having a ‘matching’ diagnosis – i.e., they were referred via 2WW for lung cancer and turned out to have lung cancer.

Similarly, if a patient was referred via the 2WW for bowel cancer and subsequently turned out to be diagnosed with one of the ICD-10 codes C18, C19, C20 or C21¹⁵, they were classified as having a ‘matching’ diagnosis – i.e., they were referred via the 2WW for bowel cancer and turned out to have bowel cancer.

All matching of 2WW referral and treatment data was done at an individual patient-level to ensure that the results are as accurate as they can be given the data available at the time of reporting.

¹⁴ Patients with mesothelioma (C45) were also captured via this route in the 2WW dataset.

¹⁵ Patients with cancers of the anus (C21) are included as bowel cancers in the 2WW dataset.

Promoting early diagnosis of breast, bowel and lung cancers

For each outcome two types of analysis were carried out:

Part 1 looked at trends over time (from October 2009 to November 2011) for all PCTs in the intervention area (76 for lung and 77 for bowel) compared with the control PCTs (all those PCTs in which no funded local activity took place for that tumour type; 73 for lung cancer¹⁶ and 74 for bowel cancer).

Part 2 used the 'start' and 'finish' dates for each project's public-facing activity, comparing the numbers of 2WW referrals or diagnoses of bowel or lung cancers with the same period in the previous year. For example, the Thames Valley collaborative ran public-facing activity from 7th March 2011 to 14th April 2011. The numbers of referrals and cancer diagnoses after a 2WW referral were compared with the numbers in March and April 2010. The month when public-facing activity started was taken to be 'time 0' or the 'start' of the project. For simplicity, even if the project did not start until the 31st of the month, this month was still taken to be the 'start' month. Any months prior to the 'start' month were assumed to be 'pre-activity periods'; any months from the 'start' were assumed to be 'post-activity periods'.

For lung cancer, two projects (five PCTs) did not provide 'start' and 'end' dates in the online survey (Tees collaborative and Warwickshire). These projects have therefore been excluded from Part 2 of the analysis. For bowel cancer, three projects (six PCTs) were excluded for the same reason (Leicestershire County & Rutland, Tees collaborative and Warwickshire). Also, Bedfordshire, which undertook activity for both bowel and lung cancers, did not provide 'start' and 'end' dates. However, since this was part of the larger Anglia collaborative, the 'start' and 'end' dates for the collaborative project were used for Bedfordshire.

Two PCTs involved in lung activity (Newham and Waltham Forest) had missing data for one month (September 2010 for Newham and February 2010 for Waltham Forest) for all outcomes. For these missing months the average of the two months either side of the missing month was used for all measures.

A paired t-test was used to check whether any increases or decreases were statistically significant for 2WW and cancer diagnoses as a result of 2WW.

The months of data used in Part 2 of the analysis for each outcome were:

- 2WW referrals: October 2009 to November 2011;
- Diagnoses from 2WW referrals: October 2009 to July 2011;
- Percentage of 2WW referrals which turn out to be cancer: October 2009 to July 2011.

Table 8 shows the numbers of projects included in the analyses for each of the outcomes.

¹⁶ Two control PCTs were excluded due to problems with their data.

Table 8: Number of projects included in analyses by outcome

Outcome	Number of projects	
	Bowel (n=36)	Lung (n=39)
2WW referrals for suspected cancer	33	37
Number of individuals diagnosed with cancer after coming through the 2WW for suspected cancer	14	22
Percentage of 2WW referrals which turn out to be cancer	14	22

3.4 Results

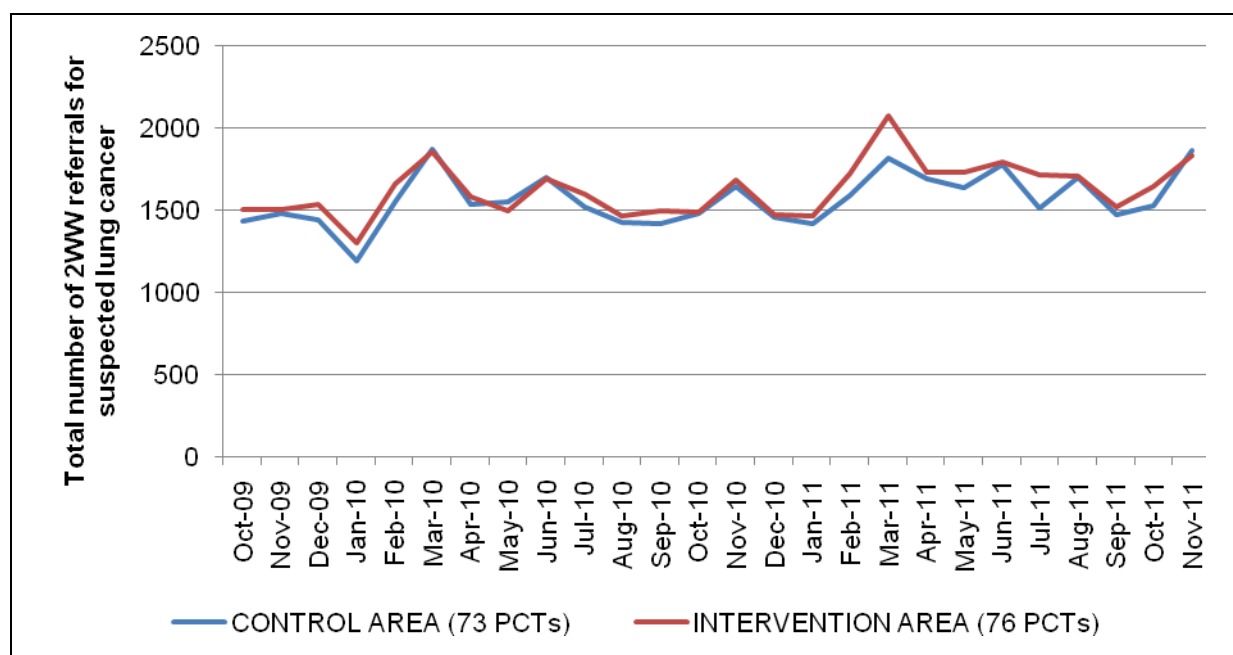
3.4.1 Lung cancer

3.4.1.1 2WW referrals for suspected lung cancer

Part 1 – Intervention PCTs vs. control PCTs¹⁷

Figure 10 shows the number of individuals referred each month through the 2WW pathway for suspected lung cancer from October 2009 to November 2011. The local projects generally began running in 2011 (although all started in different months). There is a suggestion that there were comparatively more referrals in the intervention area than in the control area in 2011; this was not apparent in 2009.

Figure 10: Number of 2WW referrals for suspected lung cancer from October 2009 to November 2011 in 76 intervention PCTs and 73 control PCTs



Source: National Cancer Waiting Times Monitoring Dataset

For the 76 PCTs involved in a local project for lung cancer, there was a 9% increase in the number of individuals referred via the 2WW for suspected lung cancer

¹⁷ Information for Northumberland Care Trust is currently being checked due to a discrepancy highlighted by the local project team. This is likely to have a small effect on both the results for the intervention and control PCTs.

Promoting early diagnosis of breast, bowel and lung cancers

between January-November 2010 and January-November 2011 (Table 9). The control area PCTs also saw an increase, although this was slightly lower (7%). There is borderline evidence (Fisher's exact test, $p=0.08$) that the number of 2WW referrals for suspected lung cancer increased more in the intervention PCTs than the control PCTs. However, it should be noted that different PCTs started public-facing activity in different months (with some not starting until mid- to late-2011), which may mean an under-representation of the success of some of the projects. Part 2 of the analysis takes into account the 'start' and 'finish' dates of each project's public-facing activity, possibly giving a more accurate picture of the impact of the 2010/11 projects.

Table 9: Total number of 2WW referrals for suspected lung cancer from January to November 2010, and from January to November 2011 in 76 intervention PCTs and 73 control PCTs

	January – November 2010	January – November 2011	% change
Control area (73 PCTs)	16,947	18,064	+7%
Intervention area (76 PCTs)	17,335	18,964	+9%

Part 2 – Project level

Across the 37 lung cancer projects¹⁸ (Table 10), there was strong evidence that, on average there was an increase in 2WW referrals for lung cancer during the project activity time when compared with the same period a year earlier (paired t-test $p=0.006$).

Table 10 shows the number of 2WW referrals by project during their activity time, and for the same months in the previous year. Twenty-four projects saw an increase in the number of 2WW referrals for suspected lung cancer (ranging from an extra 2% to 44%); 10 projects saw a decrease (ranging from 2% to 17% fewer referrals) and three projects saw no change. These are also shown graphically in Figure 11.

¹⁸ Note, some PCTs were included in more than one project.

Table 10: Number of 2WW referrals for lung cancer for each project that focussed some or all of their activity on lung cancer.

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected lung cancer (at PCT(s) level)		% change
			PRE	POST	
Inner North East London collaborative¹⁹	Jun–Nov 2010	Jun–Nov 2011	200	288	44
Peterborough*	Jul–Oct 2010	Jul–Oct 2011	20	28	40
Essex collaborative*	Jun–Jul 2010	Jun–Jul 2011	133	182	37
Leeds²⁰	Jan–Nov 2010	Jan–Nov 2011	455	604	33
Great Yarmouth & Waveney*	Jun–Jul 2010	Jun–Jul 2011	10	13	30
Hertfordshire*	Apr–May 2010	Apr–May 2011	123	159	29
Wolverhampton collaborative*	May–Jul 2010	May–Jul 2011	162	201	24
Herefordshire*	Feb–Oct 2010	Feb–Oct 2011	75	88	17
Western Cheshire & Cheshire West*	May–Jul 2010	May–Jul 2011	55	63	15
Sunderland collaborative*	Mar–Jun 2010	Mar–Jun 2011	266	300	13
East Sussex Downs & Weald and Hastings & Rother*	Apr–Aug 2010	Apr–Aug 2011	186	209	12
Bury²¹	Jun–Nov 2010	Jun–Nov 2011	88	97	10
Thames Valley collaborative	Mar–Apr 2010	Mar–Apr 2011	228	249	9
Peninsula collaborative*	Jun–Jul 2010	Jun–Jul 2011	242	264	9

¹⁹ Public-facing activity runs until March 2012. Therefore, June–November 2011 (the most recent data available at the time of reporting) was compared to June–November 2010.

²⁰ Public-facing activity ran until December 2011. Therefore, January–November 2011 (the most recent data available at the time of reporting) was compared to January–November 2010.

²¹ Public-facing activity runs until March 2012. Therefore, June–November 2011 (the most recent data available at the time of reporting) was compared to June–November 2010.

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected lung cancer (at PCT(s) level)		% change
			PRE	POST	
Halton & St Helens*	Jan–Jul 2010	Jan–Jul 2011	188	205	9
Gloucestershire*	Jan–Mar 2010	Jan–Mar 2011	115	124	8
Lancashire and South Cumbria collaborative*	Jun–Jul 2010	Jun–Jul 2011	240	258	8
Sheffield*²²	Jan–Nov 2010	Jan–Nov 2011	366	391	7
Greater Manchester and Cheshire collaborative*	May–Aug 2010	May–Aug 2011	787	836	6
Cumbria*	Nov 2009–Jul 2010	Nov 2010–Jul 2011	339	359	6
Bolton*	May–Sept 2010	May–Sept 2011	102	108	6
Bedfordshire	May–Sept 2010	May–Sept 2011	99	102	3
Sandwell	Oct 2009–Jul 2010	Oct 2010–Jul 2011	101	103	2
Leicester City*	Mar–Apr 2010	Mar–Apr 2011	24	24	0
Medway*	Feb–Jul 2010	Feb–Jul 2011	87	87	0
Anglia collaborative	May–Sept 2010	May–Sept 2011	659	658	0
Liverpool	May–Sept 2010	May–Sept 2011	174	171	-2

²² NHS Sheffield did not have a finish date for public-facing activity. Therefore data was looked at until November 2011 (the most recent data available at the time of reporting).

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected lung cancer (at PCT(s) level)		% change
			PRE	POST	
Doncaster	Mar–Jul 2010	Mar–Jul 2011	130	125	-4
Nottingham City	Mar–Jul 2010	Mar–Jul 2011	90	85	-6
North Staffordshire*	Mar–Jun 2010	Mar–Jun 2011	64	59	-8
Croydon*	Apr–Oct 2010	Apr–Oct 2011	53	48	-9
Barnsley	May–Jun 2010	May–Jun 2011	47	42	-11
Eastern and Coastal Kent**²³	May–Nov 2010	May–Nov 2011	448	400	-11
Northamptonshire	Oct 2009–Mar 2010	Oct 2010–Mar 2011	241	213	-12
Hammersmith & Fulham*	May–Jul 2010	May–Jul 2011	14	12	-14
North East Lincs*	Feb–Sep 2010	Feb–Sept 2011	84	70	-17
Northumberland**²⁴	Jan–Jul 2010	Jan–Jul 2011	-	-	-
TOTAL (Across 36 projects)	-	-	6,695	7,225	8
AVERAGE (Across 36 projects)	-	-	181	195	8

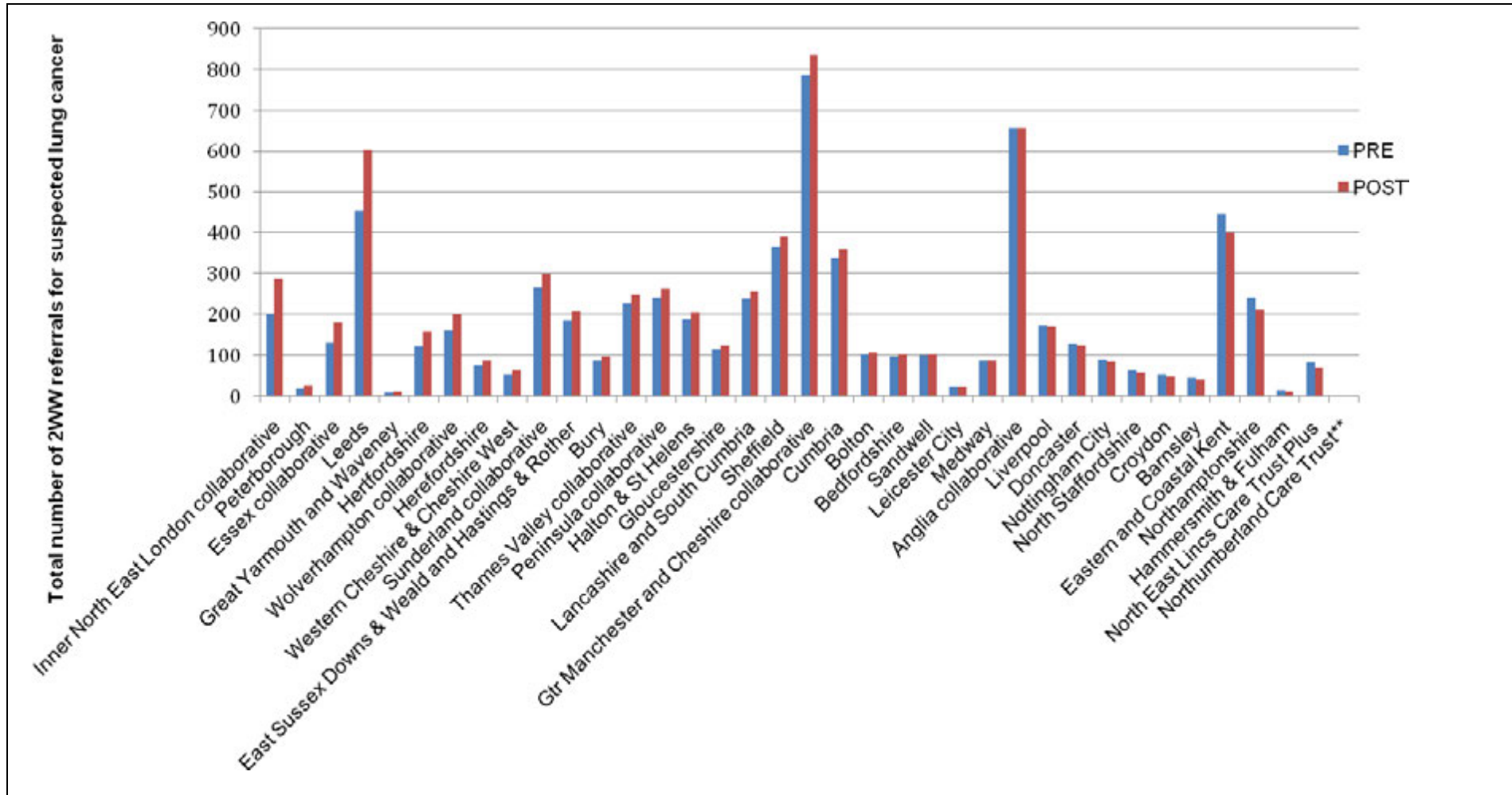
Source: National Cancer Waiting Times Monitoring Dataset

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey).

²³ Public-facing activity ran until December 2011. Therefore, May–November 2011 (the most recent data available at the time of reporting) was compared to May–November 2010.

²⁴ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 11: Total number of 2WW referrals for suspected lung cancer in the ‘pre’ activity and ‘post’ activity periods. The projects are ordered from left to right starting from the project with the highest percentage change between these periods



Source: National Cancer Waiting Times Monitoring Dataset

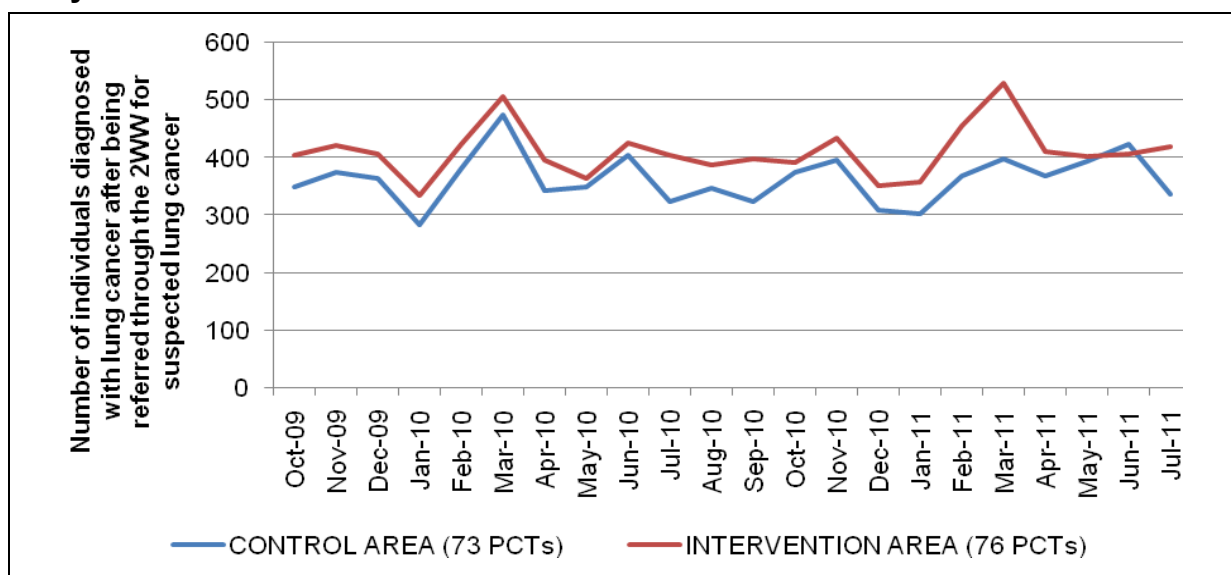
**Data removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

3.4.1.2 Number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer

Part 1 – Intervention PCTs vs. control PCTs²⁵

Figure 12 shows the trend in the number of diagnoses occurring in patients referred through the 2WW pathway for October 2009–July 2011. There were consistently more cancers diagnosed following a 2WW referral in the intervention PCTs than in the control PCTs (there were three more intervention than control PCTs). There appeared to be a spike in February and March 2011 in the intervention PCTs, with a subsequent drop thereafter. This may be due to seasonal variation as a similar pattern was seen in the previous year.

Figure 12: Total number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer from October 2009 to July 2011



Source: National Cancer Waiting Times Monitoring Dataset

²⁵ Information for Northumberland Care Trust is currently being checked due to a discrepancy highlighted by the local project team. This is likely to have a small effect on both the results for the intervention and control PCTs.

Promoting early diagnosis of breast, bowel and lung cancers

Between January–July 2010 and January–July 2011 there was a 4% increase in the number of diagnoses of lung cancer following a 2WW referral for the intervention PCTs; this compared with 1% in control PCTs (Table 11). There was no evidence (Fisher’s exact test, $p=0.43$) that the increase was higher in intervention than control areas.

Table 11: Total number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer from January to July 2010, and from January to July 2011

	January – July 2010	January – July 2011	% change
Control area (73 PCTs)	2,560	2,593	+1%
Intervention area (76 PCTs)	2,859	2,985	+4%

Part 2 – Project level

The number of patients diagnosed with lung cancer after coming through the 2WW pathway for suspected lung cancer for each project are shown in Table 12²⁶. There was no evidence that, on average, there was any change in the number of diagnoses from 2WW referrals for lung cancer during the project activity time compared with the same period a year earlier (paired t-test $p=0.56$). Figure 13 shows these results graphically.

Eight projects saw an increase in the number of individuals diagnosed with lung cancer after coming through the 2WW pathway; 10 saw a decrease and one saw no change. Two projects had very small numbers of individuals being diagnosed in their ‘pre’ and ‘post’ period, and these numbers have been suppressed.

²⁶ Each of these projects had a public-facing activity finish date in or before July 2011.

Table 12: Number of cancers diagnosed for patients having a 2WW referral for suspected lung cancer

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer (at PCT(s) level)		% change
			PRE	POST	
Western Cheshire & Cheshire West*	May-Jul 2010	May-Jul 2011	9	19	111
Cumbria*	Nov 2009-Jul 2010	Nov 2010-Jul 2011	75	121	61
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	45	63	40
Wolverhampton collaborative*	May-Jul 2010	May-Jul 2011	29	36	24
Lancashire and South Cumbria collaborative *	Jun-Jul 2010	Jun-Jul 2011	66	69	5
Sunderland collaborative*	Mar-Jun 2010	Mar-Jun 2011	70	73	4
Doncaster	Mar-Jul 2010	Mar-Jul 2011	31	32	3
Essex collaborative	Jun-Jul 2010	Jun-Jul 2011	44	45	2
Barnsley	May-Jun 2010	May-Jun 2011	11	11	0
Thames Valley collaborative	Mar-Apr 2010	Mar-Apr 2011	62	60	-3
Northamptonshire	Oct 2009-Mar 2010	Oct 2010-Mar 2011	73	68	-7
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	10	9	-10
Gloucestershire*	Jan-Mar 2010	Jan-Mar 2011	30	25	-17
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	29	23	-21
Medway*	Feb-Jul 2010	Feb-Jul 2011	23	18	-22
Peninsula collaborative*	Jun-Jul 2010	Jun-Jul 2011	73	57	-22
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	20	15	-25

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer (at PCT(s) level)		% change
			PRE	POST	
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	20	14	-30
Hertfordshire*	Apr-May 2010	Apr-May 2011	32	22	-31
Great Yarmouth & Waveney*	Jun-Jul 2010	Jun-Jul 2011	◇	◇	◇
Hammersmith & Fulham*	May-Jul 2010	May-Jul 2011	◇	◇	◇
Northumberland Care Trust ²⁷	Jan-Jul 2010	Jan-Jul 2011	-	-	-
TOTAL (across 19 projects)	-	-	752	780	4
AVERAGE (across 19 projects)	-	-	40	41	4

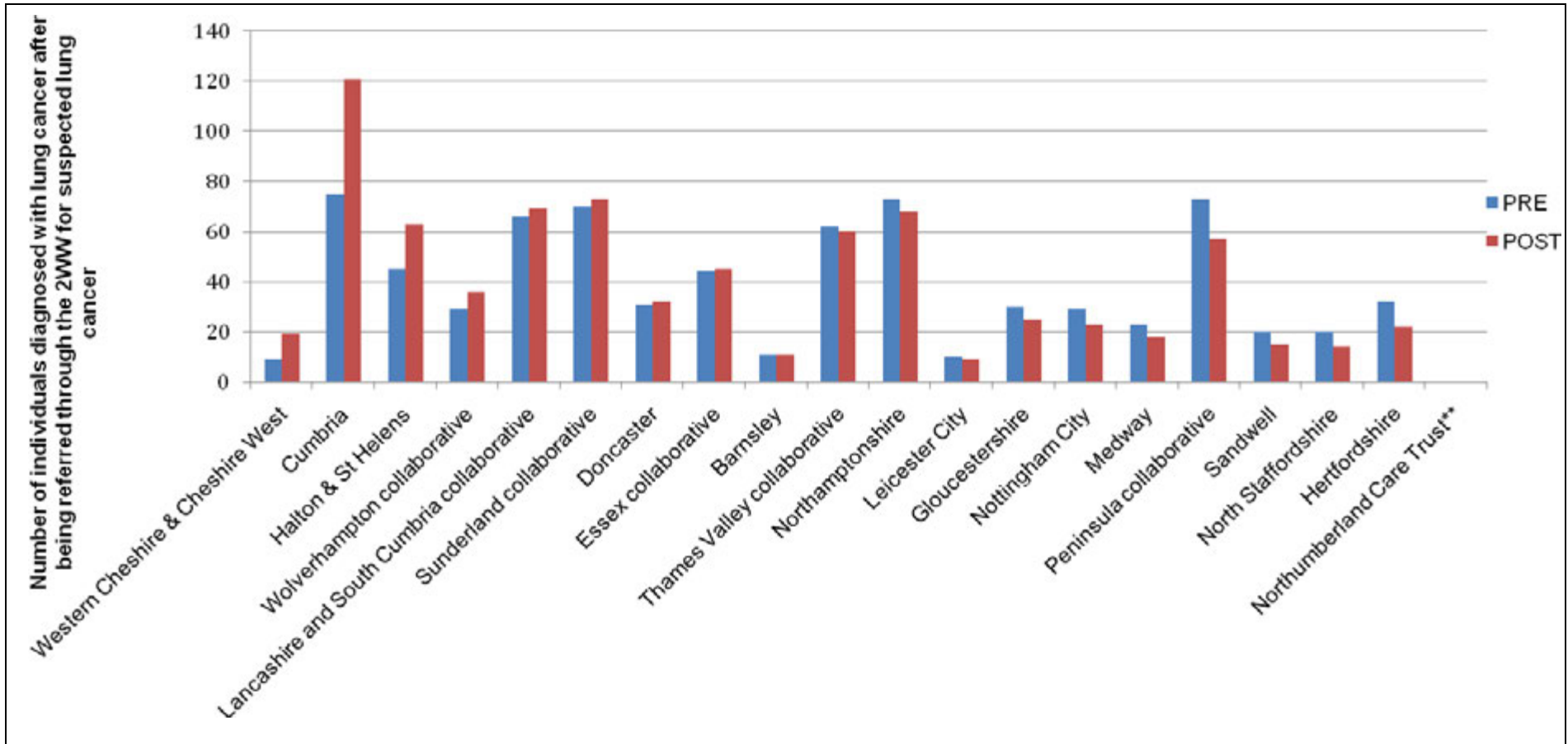
Source: National Cancer Waiting Times Monitoring Dataset

◇ Suppressed due to numbers being less than 5.

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey).

²⁷ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 13: Number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer in the 'pre' and 'post' activity periods



Source: National Cancer Waiting Times Monitoring Dataset

Note, the projects are ordered from left to right starting from the project with the highest percentage change between these periods. Hammersmith & Fulham, and Great Yarmouth & Waveney have been excluded from this graph due to small numbers.

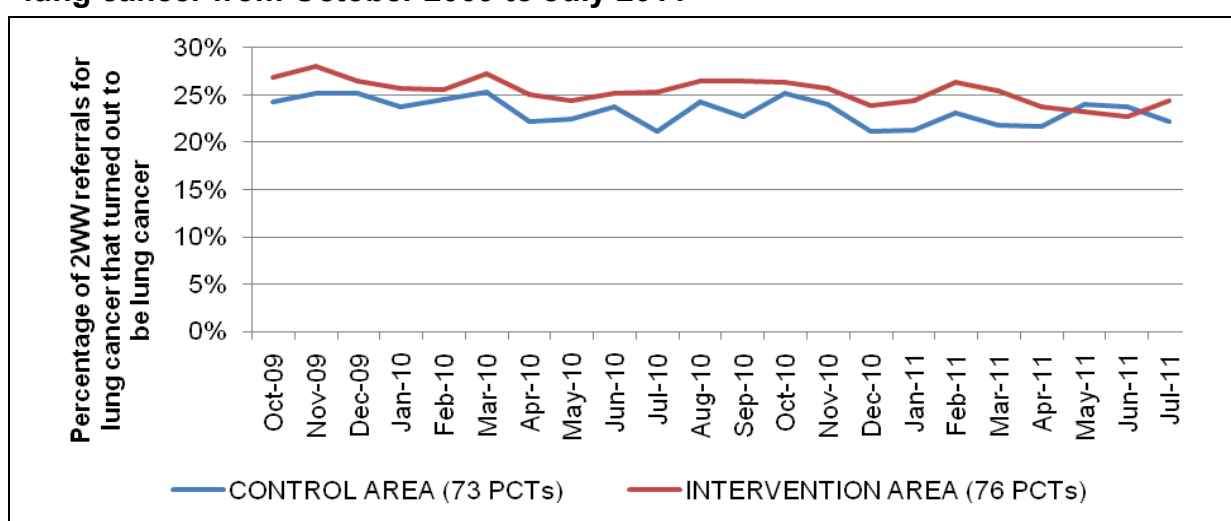
**Data removed due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

3.4.1.3 Percentage of 2WW referrals for lung cancer which turn out to be cancer

Part 1 – Intervention PCTs vs. control PCTs²⁸

Figure 14 shows the percentage of 2WW referrals for lung cancer that actually turned out to be lung cancer from October 2009 to July 2011 (the conversion rate). The intervention PCTs had a consistently higher percentage of cancers diagnosed. However, in May and June 2011, this percentage dropped and was lower than the control PCTs. This may just be random variation or it could possibly indicate a fall in conversions as a result of the local activity.

Figure 14: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer from October 2009 to July 2011



Source: National Cancer Waiting Times Monitoring Dataset

The average percentage of 2WW referrals for lung cancer which turned out to be lung cancer decreased slightly by 1.2% in intervention PCTs; a similar decrease was seen in the control PCTs (0.7%).

Table 13: Average percentage of 2WW referrals for lung cancer which turned out to be lung cancer from January to July 2010, and from January to July 2011

	January – July 2010	January – July 2011	% change
Control area (73 PCTs)	23.3	22.6	-0.7
Intervention area (76 PCTs)	25.5	24.3	-1.2

²⁸ Information for Northumberland Care Trust is currently being checked due to a discrepancy highlighted by the local project team. This is likely to have a small effect on both the results for the intervention and control PCTs.

Part 2 – Project level

Across the 22 lung cancer projects with public-facing activity finishing in or before July 2011, there was no evidence that, on average, the percentage of 2WW referrals for lung cancer which turned out to be lung cancer was any different during the months of public-facing activity than it was in the same period in the previous year (paired t-test $p=0.52$; Table 14; Figure 15).

Two projects (Peninsula collaborative and Hertfordshire) showed a statistically significant decrease in the percentage of 2WW referrals for lung cancer which turned out to be cancer of 8.6% ($p=0.03$) and 12.2% ($p=0.01$), respectively, and 10 other projects also showed a non-significant decrease.

Cumbria saw a significant increase in percentage of 2WW referrals for lung cancer which turned out to be cancer, increasing from 22.1% to 33.7% ($p<0.001$). The corresponding increase in the number of referrals was only 6% (from 339 to 359), but there was an increase of 61% (from 75 to 121) in the number of individuals diagnosed via 2WW.

Western Cheshire & Cheshire West showed borderline evidence of an increase ($p=0.08$). During their three months of public-facing activity, 30.2% of individuals who came through the 2WW pathway for suspected lung cancer were actually diagnosed with lung cancer, compared with 16.4% in the same three months of the previous year. Four other projects also showed non-significant increases.

Table 14: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Percentage of 2WW referrals for lung cancer which turned out to be lung cancer (at PCT(s) level)		% absolute change	p-value**
			PRE	POST		
Western Cheshire & Cheshire West*	May-Jul 2010	May-Jul 2011	16.4%	30.2%	13.8%	0.08
Cumbria*	Nov 2009-Jul 2010	Nov 2010-Jul 2011	22.1%	33.7%	11.6%	<0.001
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	23.9%	30.7%	6.8%	0.13
Barnsley	May-Jun 2010	May-Jun 2011	23.4%	26.2%	2.8%	0.76
Doncaster	Mar-Jul 2010	Mar-Jul 2011	23.8%	25.6%	1.8%	0.74
Northamptonshire	Oct 2009-Mar 2010	Oct 2010-Mar 2011	30.3%	31.9%	1.6%	0.71
Wolverhampton collaborative*	May-Jul 2010	May-Jul 2011	17.9%	17.9%	0.0%	1.00
Lancashire and South Cumbria collaborative*	Jun-Jul 2010	Jun-Jul 2011	27.5%	26.7%	-0.8%	0.84
Sunderland collaborative*	Mar-Jun 2010	Mar-Jun 2011	26.3%	24.3%	-2.0%	0.58
Thames Valley collaborative	Mar-Apr 2010	Mar-Apr 2011	27.2%	24.1%	-3.1%	0.44
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	41.7%	37.5%	-4.2%	0.77
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	32.2%	27.1%	-5.2%	0.46
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	19.8%	14.6%	-5.2%	0.32
Medway*	Feb-Jul 2010	Feb-Jul 2011	26.4%	20.7%	-5.7%	0.38
Gloucestershire*	Jan-Mar 2010	Jan-Mar 2011	26.1%	20.2%	-5.9%	0.28
North	Mar-Jun	Mar-Jun	31.3%	23.7%	-7.5%	0.35

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Percentage of 2WW referrals for lung cancer which turned out to be lung cancer (at PCT(s) level)		% absolute change	p-value**
			PRE	POST		
Staffordshire*	2010	2011				
Essex collaborative	Jun-Jul 2010	Jun-Jul 2011	33.1%	24.7%	-8.4%	0.10
Peninsula collaborative*	Jun-Jul 2010	Jun-Jul 2011	30.2%	21.6%	-8.6%	0.03
Hertfordshire*	Apr-May 2010	Apr-May 2011	26.0%	13.8%	-12.2%	0.01
Great Yarmouth & Waveney*	Jun-Jul 2010	Jun-Jul 2011	◇	◇	◇	◇
Hammersmith & Fulham*	May-Jul 2010	May-Jul 2011	◇	◇	◇	◇
Northumberland*²⁹	Jan-Jul 2010	Jan-Jul 2011	-	-	-	-

Source: National Cancer Waiting Times Monitoring Dataset

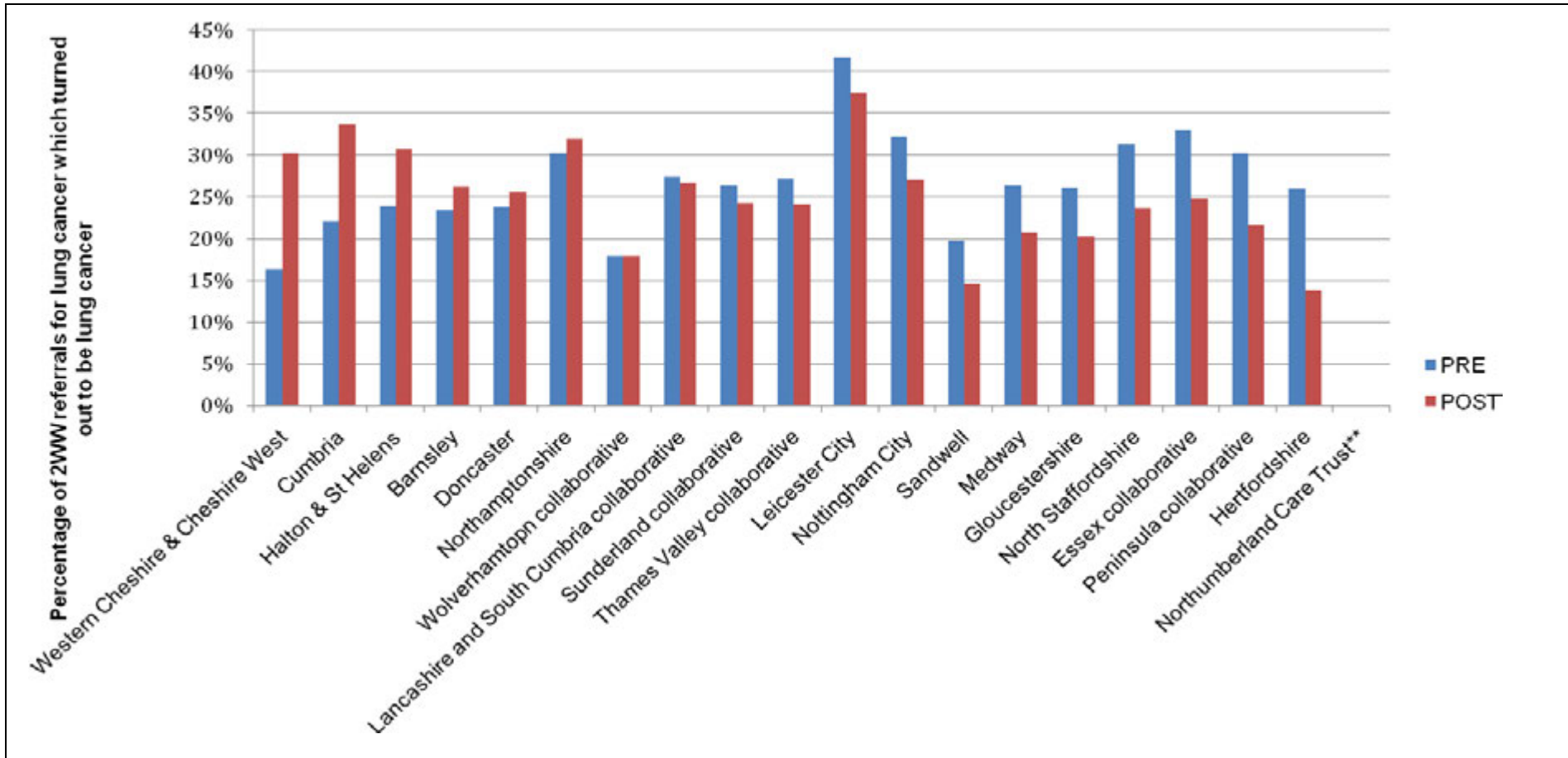
*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey).

◇ Suppressed due to small numbers.

**Two sample test of proportions.

²⁹ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 15: Percentage of 2WW referrals for lung cancer which turned out to be lung cancer in the ‘pre’ activity and ‘post’ activity periods



Source: National Cancer Waiting Times Monitoring Dataset

Note, the projects are ordered from left to right starting from the project with the highest percentage point change between these periods. Hammersmith & Fulham and Great Yarmouth & Waveney have been excluded due to small numbers.

**Data removed due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

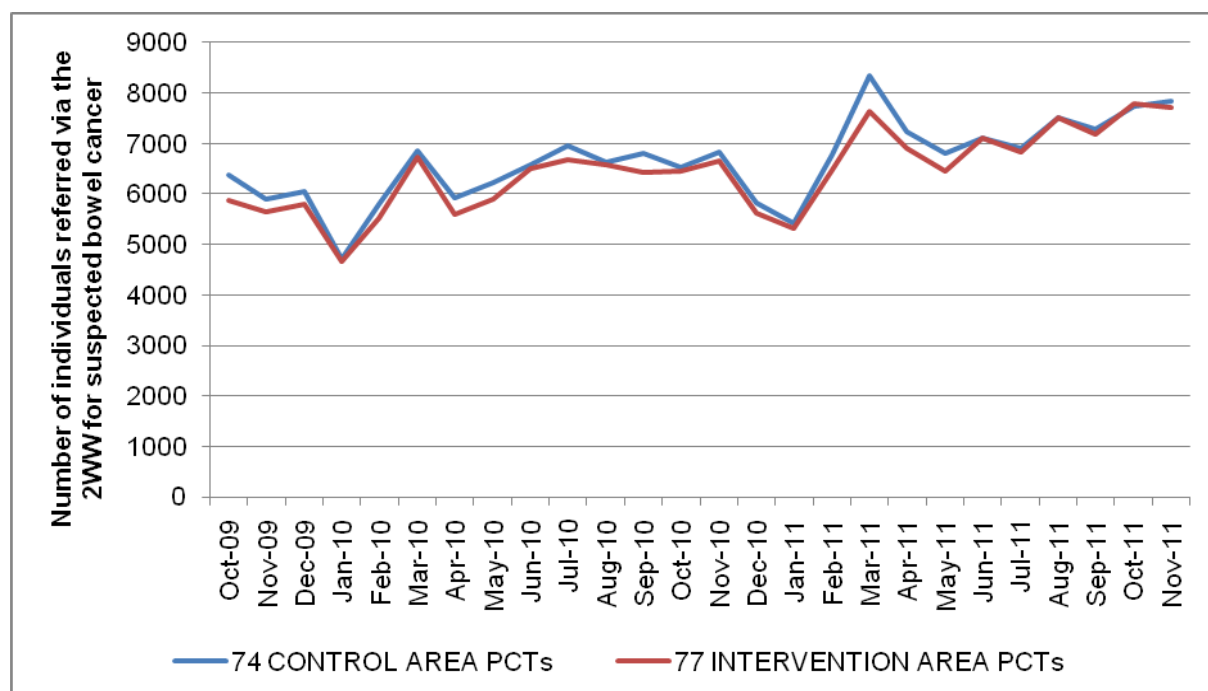
3.4.2 Bowel cancer

3.4.2.1 2WW referrals for suspected bowel cancer

Part 1 – Intervention PCTs vs. control PCTs³⁰

Figure 16 below shows the total number of individuals referred through the 2WW pathway for suspected bowel cancer from October 2009 to November 2011. There was a general increase in 2WW referrals for bowel cancer across this time period for both control and intervention PCTs.

Figure 16: Total number of 2WW referrals for suspected bowel cancer from October 2009 to November 2011



Source: National Cancer Waiting Times Monitoring Dataset

In the 77 PCTs involved in a local project for bowel cancer, there was a 16% increase in the number of individuals referred via the 2WW pathway for suspected bowel cancer from January–November 2010 to January–November 2011 (Table 15). The increase for the control area PCTs was slightly lower (13%) and there was no evidence (Fisher’s exact test, $p=0.51$) that the increase was higher in the intervention areas compared to control.

³⁰ Information for Northumberland Care Trust is currently being checked due to a discrepancy highlighted by the local project team. This is likely to have a small effect on both the results for the intervention and control PCTs.

Table 15: Total number of 2WW referrals for suspected bowel cancer from January to November 2010, and from January to November 2011

	January – November 2010	January – November 2011	% change
Control area (74 PCTs)	69,830	78,914	+13%
Intervention area (77 PCTs)	67,639	76,814	+16%

Part 2 – Project level

Across the 33 bowel cancer projects in Table 16³¹, there was strong evidence that, on average, there was an increase in 2WW referrals for bowel cancer during the project activity time compared to the same period a year previously (note, some PCTs are included in more than one project; paired t-test p=0.002). Twenty-five projects saw an increase in 2WW referrals for bowel cancer, ranging from a 1% to 49% increase. Only seven projects saw a decrease, ranging from a 1% to 33% decrease.

Table 16 shows the number of 2WW referrals by project during their activity time, and in the same months in the previous year. The percentage change between the two years are shown graphically in Figure 17.

³¹ Note, some PCTs are included in more than one project.

Table 16: Number of 2WW referrals for bowel cancer for each project that focussed some or all of their activity on bowel cancer

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected bowel cancer (at PCT(s) level)		% change
			PRE	POST	
Thames Valley collaborative (bowel pilot area)	Mar-Apr 2010	Mar-Apr 2011	991	1475	49
Bury ³²	Jun-Nov 2010	Jun-Nov 2011	223	317	42
Peterborough* (bowel pilot area)	Jul-Oct 2010	Jul-Oct 2011	119	163	37
Croydon*	Apr-Oct 2010	Apr-Oct 2011	416	546	31
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	88	109	24
Bolton*	May-Sept 2010	May-Sept 2011	265	323	22
North Central London collaborative	Jun-Oct 2010	Jun-Oct 2011	1,658	1,996	20
Bedfordshire (bowel pilot area)	May-Sept 2010	May-Sept 2011	442	532	20
Anglia collaborative (bowel pilot area)	May-Sept 2010	May-Sept 2011	3,701	4,433	20
Liverpool	May-Sept 2010	May-Sept 2011	661	788	19
Great Yarmouth & Waveney* (bowel pilot area)	Jun-Jul 2010	Jun-Jul 2011	145	172	19
South East London collaborative	May-Aug 2010	May-Aug 2011	1,309	1,531	17
Outer North East London collaborative	Apr-Jun 2010	Apr-Jun 2011	455	531	17
Sheffield* ³³	Jan-Nov	Jan-Nov	1,337	1,501	12

³² Public-facing activity runs until March 2012. Therefore, June-November 2011 (the most recent data available at the time of reporting) was compared to June-November 2010.

³³ NHS Sheffield did not have a finish date for public-facing activity. Therefore data was looked at until November 2011 (the most recent data available at the time of reporting).

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected bowel cancer (at PCT(s) level)		% change
			PRE	POST	
	2010	2011			
Yorkshire collaborative ^{*34}	Sept-Nov 2010	Sept-Nov 2011	1,867	2,084	12
Northamptonshire (bowel pilot area)	Oct 2009-Mar 2010	Oct 2010-Mar 2011	970	1,046	8
Eastern and Coastal Kent ^{*35}	May-Nov 2010	May-Nov 2011	1,904	2,053	8
Doncaster	Mar-Jul 2010	Mar-Jul 2011	374	402	7
South West London collaborative *	May-Sept 2010	May-Sept 2011	1,242	1,316	6
Derby City ^{*36}	May-Nov 2010	May-Nov 2011	460	485	5
Greater Manchester and Cheshire collaborative *	May-Aug 2010	May-Aug 2011	2,810	2,959	5
Halton & St Helens *	Jan-Jul 2010	Jan-Jul 2011	612	626	2
Derbyshire County *	Jun-Aug 2010	Jun-Aug 2011	555	564	2
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	271	274	1
Trafford *	Feb-May 2010	Feb-May 2011	187	189	1
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	717	709	-1
East Sussex Downs & Weald and Hastings & Rother *	Apr-Aug 2010	Apr-Aug 2011	817	805	-1
SHIP collaborative *	Jun-Jul 2010	Jun-Jul 2011	903	881	-2

³⁴ Public-facing activity ran until December 2011. Therefore, September-November 2011 was compared with September-November 2010.

³⁵ Public-facing activity ran until December 2011. Therefore, May-November 2011 (the most recent data available at the time of reporting) was compared with May-November 2010.

³⁶ Public-facing activity is running from May 2011-March 2013. Therefore, May-November 2011 was compared with May-November 2010.

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of 2WW referrals for suspected bowel cancer (at PCT(s) level)		% change
			PRE	POST	
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	326	308	-6
Ealing*	May-Jul 2010	May-Jul 2011	204	166	-19
Hillingdon*	May-Aug 2010	May-Aug 2011	208	168	-19
Brighton and Hove	Jun-Oct 2010	Jun-Oct 2011	304	205	-33
Northumberland*³⁷	Jan-Jul 2010	Jan-Jul 2011	-	-	-
TOTAL (across 32 projects)	-	-	26,541	29,657	12
AVERAGE (across 32 projects)	-	-	829	927	12

Source: National Cancer Waiting Times Monitoring Dataset

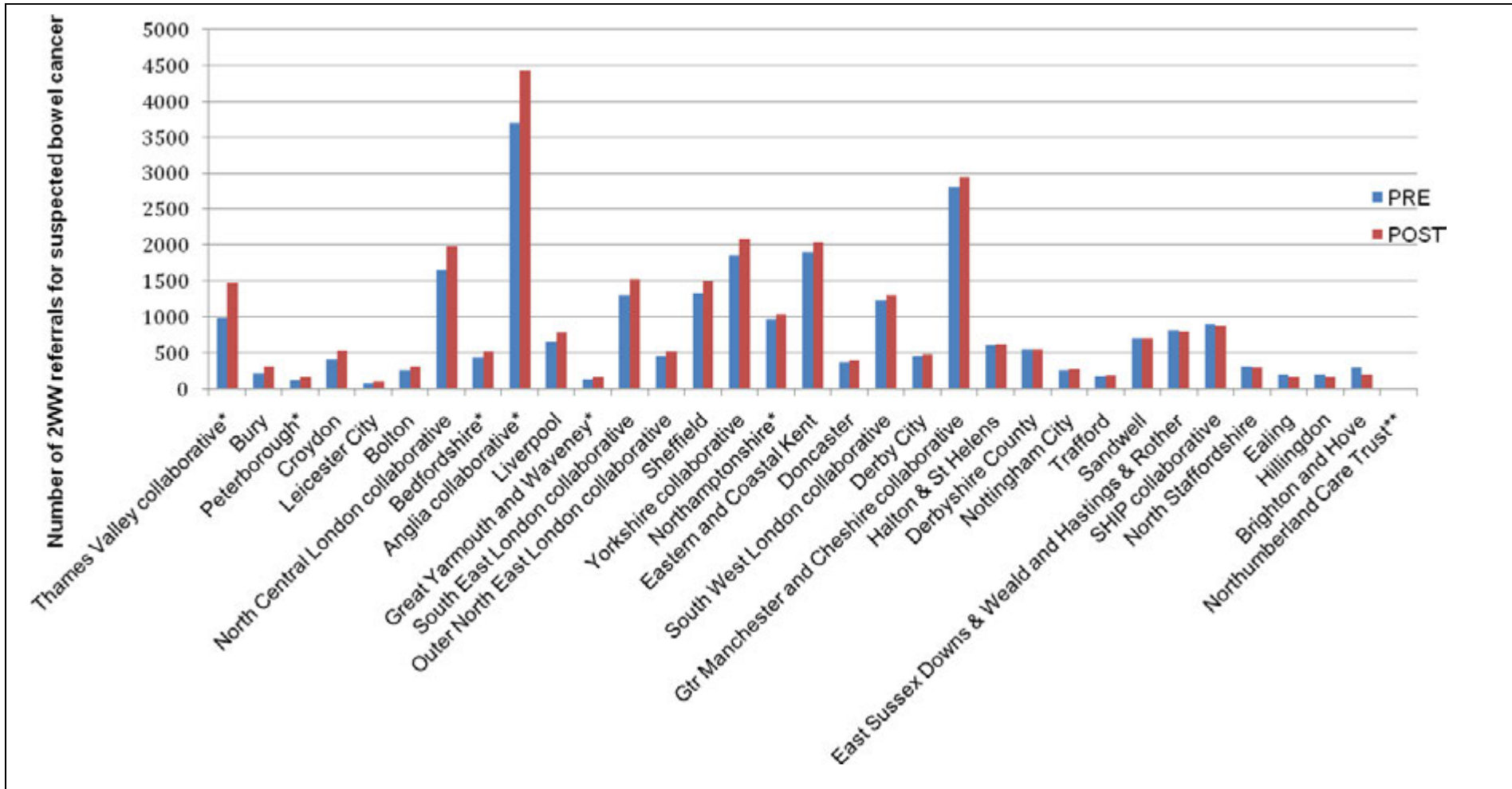
Note, the 'pre' and 'post' periods are not the same time for each project.

(bowel pilot area): These projects are within the geographic area covered by the 'Be Clear on Cancer' bowel pilot.

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey).

³⁷ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 17: Total number of 2WW referrals for suspected bowel cancer in the 'pre' activity and 'post' activity periods



Source: National Cancer Waiting Times Monitoring Dataset

Note, the projects are ordered from left to right starting from the project with the highest percentage change between these periods.

* Projects are within the geographic area covered by the 'Be Clear on Cancer' bowel pilot.

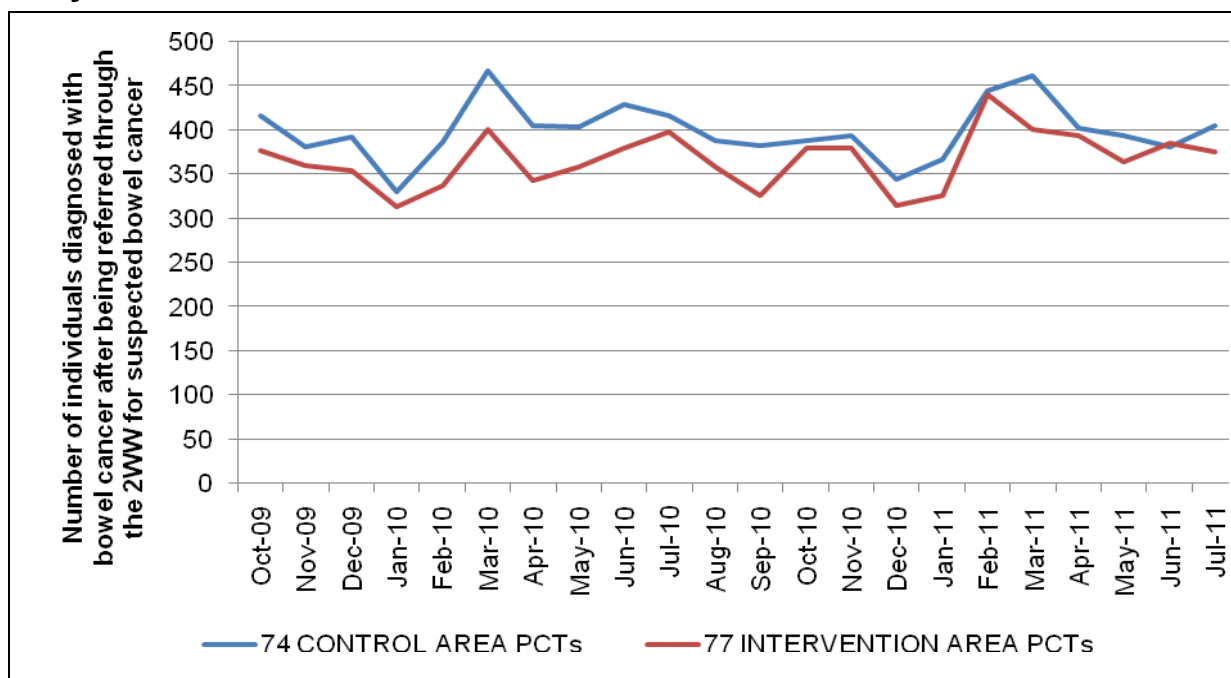
**Data removed due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

3.4.2.2 Number of diagnoses of bowel cancer after being referred via the 2WW for suspected bowel cancer

Part 1 – Intervention PCTs vs. control PCTs³⁸

Figure 18 shows the trend in number of diagnoses occurring from a 2WW referral from October 2009 to July 2011.

Figure 18: Total number of individuals diagnosed with bowel cancer after being referred through 2WW for suspected bowel cancer from October 2009 to July 2011



Source: National Cancer Waiting Times Monitoring Dataset

Table 17 shows that, between January–July 2010 and January–July 2011 there was an increase in the number of diagnoses of bowel cancer after a 2WW referral of 6% in the intervention PCTs compared with an increase of just 0.6% in control PCTs, although there was no evidence (Fisher’s exact test, $p=0.16$) that the intervention area saw a statistically significant larger increase than the control area.

³⁸ Information for Northumberland Care Trust is currently being checked due to a discrepancy highlighted by the local project team. This is likely to have a small effect on both the results for the intervention and control PCTs.

Table 17: Total number of individuals diagnosed with bowel cancer after being referred through the 2WW pathway for suspected bowel cancer from January to July 2010, and from January to July 2011

	January – July 2010	January – July 2011	% change
Control area (74 PCTs)	2,840	2,856	+0.6%
Intervention area (77 PCTs)	2,527	2,684	+6%

Part 2 – Project level (14 projects)

Table 18 shows, by project, the number of individuals diagnosed with bowel cancer that came through the 2WW pathway for suspected bowel cancer. There was no evidence of any change in the number of individuals diagnosed with bowel cancer after being referred through the 2WW pathway for suspected bowel cancer between the project-activity year and the year earlier (paired t-test p=0.93).

Six projects saw an increase in the number of individuals diagnosed with bowel cancer as a result of a 2WW referral, while another five projects saw a decrease. One project saw no change and the change for a further project has not been listed due to a small number of diagnoses.

Table 18: Number of cancers diagnosed for patients having a 2WW referral for suspected bowel cancer

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer (at PCT(s) level)		% change
			PRE	POST	
Great Yarmouth & Waveney* (bowel pilot area)	Jun-Jul 2010	Jun-Jul 2011	7	13	86 ³⁹
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	26	39	50
Thames Valley collaborative (bowel pilot area)	Mar-Apr 2010	Mar-Apr 2011	63	78	24
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	40	47	18
Doncaster	Mar-Jul	Mar-Jul	17	19	12

³⁹ This figure is being checked based on information provided by the local team.

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer (at PCT(s) level)		% change
			PRE	POST	
	2010	2011			
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	22	23	5
Outer North East London collaborative	Apr-Jun 2010	Apr-Jun 2011	25	25	0
Northamptonshire (bowel pilot area)	Oct 2009-Mar 2010	Oct 2010-Mar 2011	70	69	-1
SHIP collaborative*	Jun-Jul 2010	Jun-Jul 2011	68	55	-19
Trafford*	Feb-May 2010	Feb-May 2011	13	7	-46
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	22	11	-50
Ealing*	May-Jul 2010	May-Jul 2011	14	6	-57
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	◇	7	◇
Northumberland**⁴⁰	Jan-Jul 2010	Jan-Jul 2011	-	-	-
TOTAL (Across 12 projects)	-	-	387	392	1.3
AVERAGE (Across 12 projects)	-	-	32	33	1.3

Source: National Cancer Waiting Times Monitoring Dataset

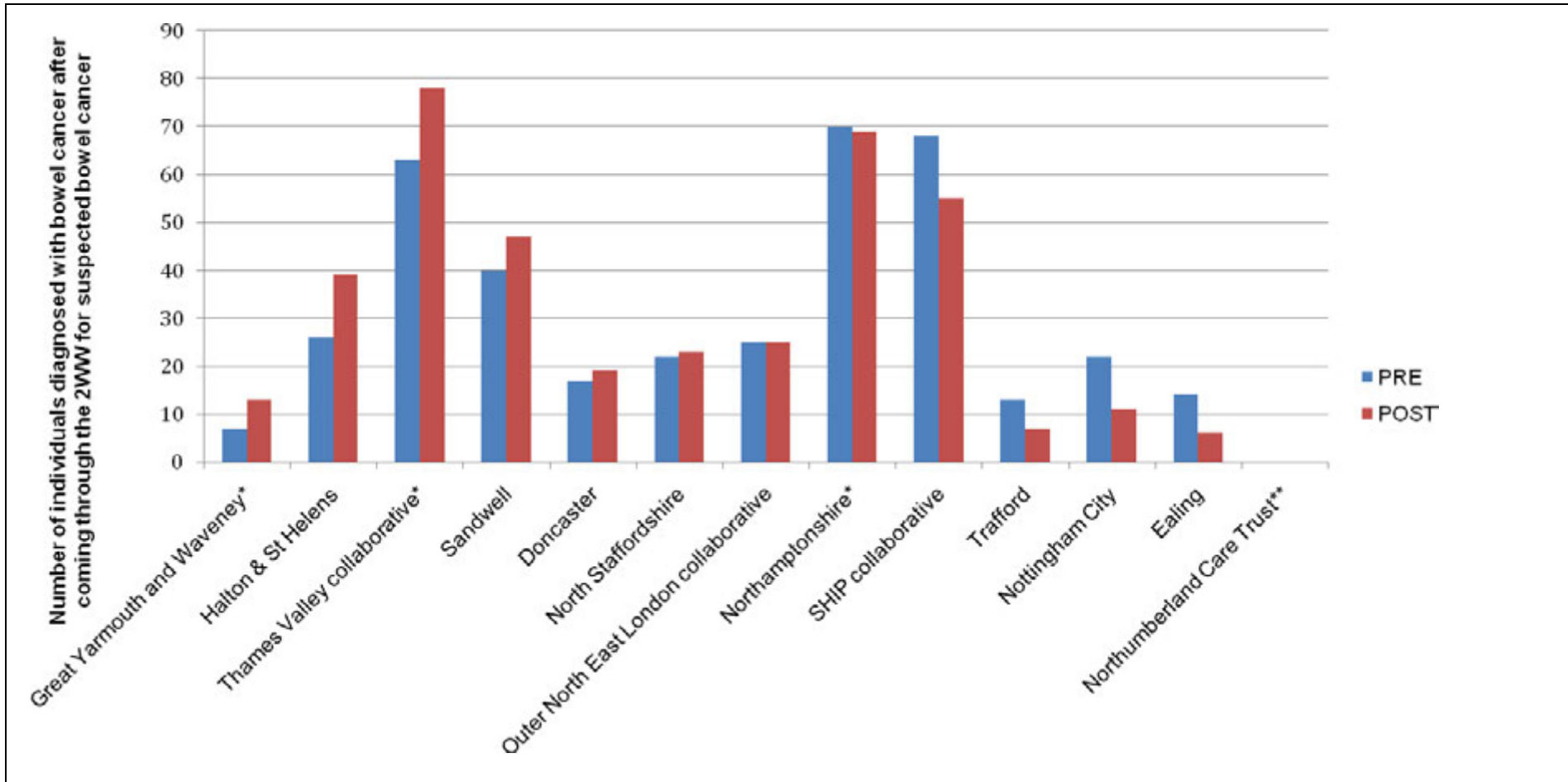
*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey)

(bowel pilot area): These projects are within the geographic area covered by the Be Clear on Cancer bowel pilot.

◇ Suppressed due to numbers being below 5.

⁴⁰ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 19: Number of individuals diagnosed with bowel cancer after coming through the 2WW pathway for suspected bowel cancer in the ‘pre’ activity and ‘post’ activity periods



Source: National Cancer Waiting Times Monitoring Dataset

Note, the projects are ordered from left to right starting from the project with the highest percentage change between these periods. Leicester City is not included in the graph due to small numbers.

* Projects are within the geographic area covered by the ‘Be Clear on Cancer’ bowel pilot.

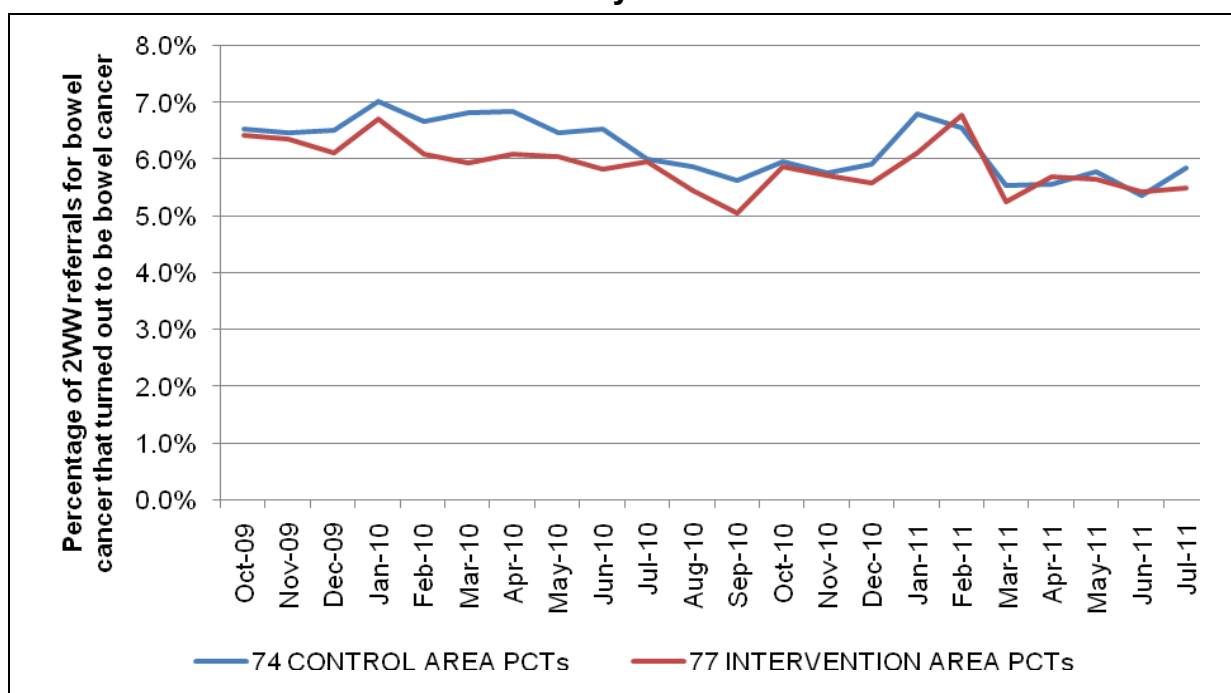
**Data removed due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

3.4.2.3 Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer

Part 1 – Intervention PCTs vs. control PCTs

Figure 20 shows the percentage of 2WW referrals for bowel cancer that actually turned out to be bowel cancer from October 2009 to July 2011.

Figure 20: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer from October 2009 to July 2011



Source: National Cancer Waiting Times Monitoring Dataset

Table 19 shows that the average percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer decreased by 0.3% (from January–July 2010 to January–July 2011). It also decreased by a similar percentage (0.7%) in the control PCTs. These low conversion rates may, however, merely reflect insufficient follow-up time and they may improve when more data are available.

Table 19: Average percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer from January to July 2010 and from January to July 2011

	January – July 2010	January – July 2011	% change
Control area (73 PCTs)	6.6	5.9	-0.7
Intervention area (76 PCTs)	6.1	5.8	-0.3

Part 2 – Project level

Across the 14 bowel cancer projects, five saw non-significant increases in the percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer. Seven projects saw decreases. Nottingham City showed the biggest percentage point decrease (-4.1%), dropping from 8.1% to 4.0%, which was statistically significant ($p=0.04$). For this project, the number of 2WW referrals increased by 1% but the number of diagnoses from 2WW referrals decreased by 50% (when comparing the five months in which their public-facing activity ran with the same five months in the previous year). Overall, however, there was no evidence of any change in the percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer across these 14 projects (paired t-test $p=0.59$; Table 20; Figure 21).

Table 20: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer (at PCT(s) level)		% absolute change	p-value**
			PRE	POST		
Great Yarmouth & Waveney* (bowel pilot area)	Jun-Jul 2010	Jun-Jul 2011	4.8%	7.6%	2.7%	0.31
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	4.2%	6.2%	2.0%	0.11
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	5.6%	6.6%	1.1%	0.43
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	6.7%	7.5%	0.7%	0.69
Doncaster	Mar-Jul 2010	Mar-July 2011	4.5%	4.7%	0.2%	0.89
Northamptonshire (bowel pilot area)	Oct 2009-Mar 2010	Oct 2010-Mar 2011	7.2%	6.6%	-0.6%	0.60
Outer North East London collaborative	Apr-Jun 2010	Apr-Jun 2011	5.5%	4.7%	-0.8%	0.57
Thames Valley collaborative (bowel pilot area)	Mar-Apr 2010	Mar-Apr 2011	6.4%	5.3%	-1.1%	0.25
SHIP collaborative*	Jun-Jul 2010	Jun-Jul 2011	7.5%	6.2%	-1.3%	0.28
Trafford*	Feb-May 2010	Feb-May 2011	7.0%	3.7%	-3.2%	0.15

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer (at PCT(s) level)		% absolute change	p-value**
Ealing*	May-Jul 2010	May-Jul 2011	6.9%	3.6%	-3.2%	0.16
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	8.1%	4.0%	-4.1%	0.04
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	◇	6.4%	◇	◇
Northumberland*⁴¹	Jan-Jul 2010	Jan-Jul 2011	-	-	-	-

Source: National Cancer Waiting Times Monitoring Dataset

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey)

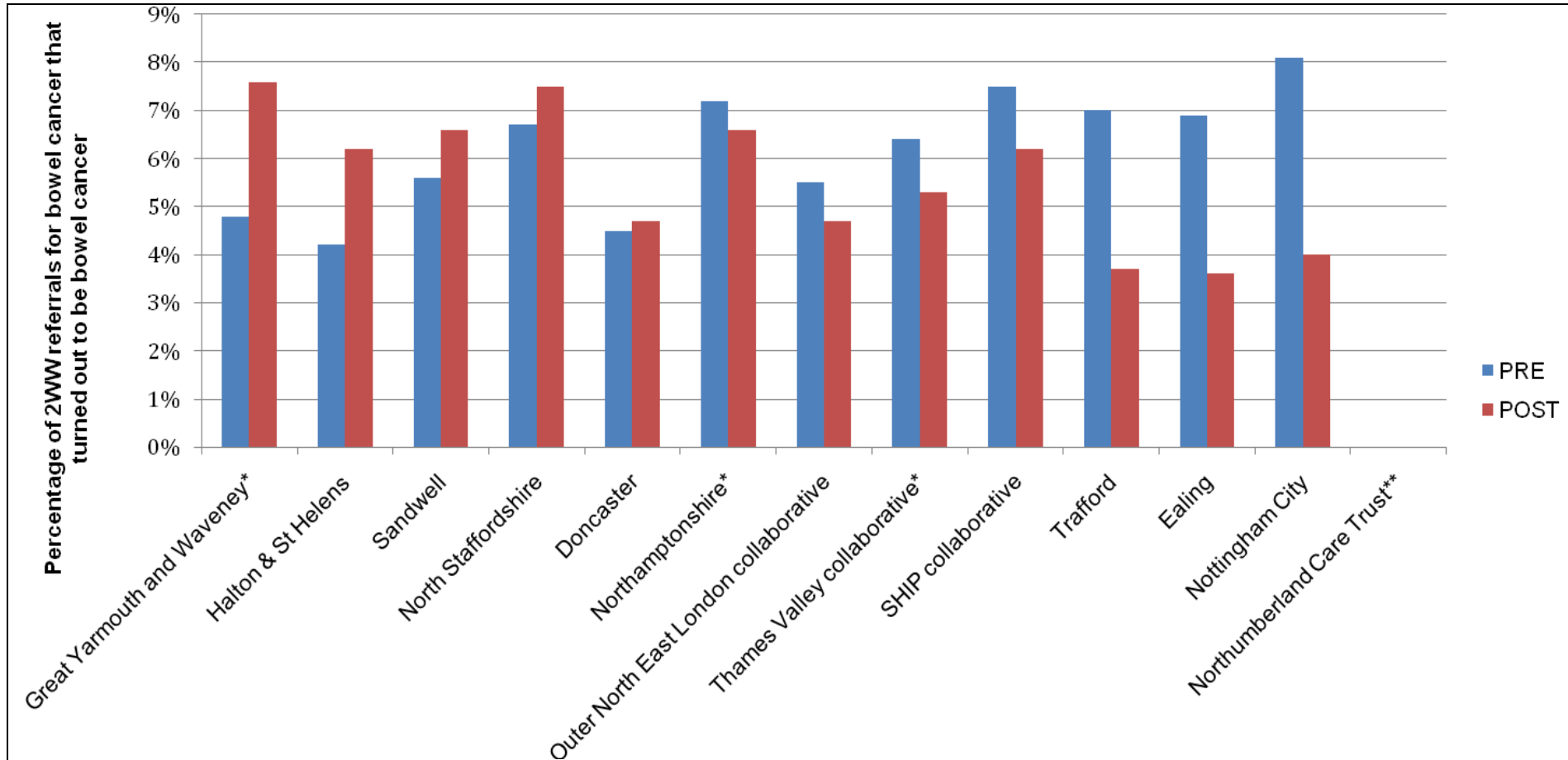
(bowel pilot area): These projects are within the geographic area covered by the Be Clear on Cancer bowel pilot.

◇ Suppressed. Omitted due to small numbers.

**Two-sample test of proportions.

⁴¹ Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Figure 21: Percentage of 2WW referrals for bowel cancer that turned out to be bowel cancer in the ‘pre’ activity and ‘post’ activity periods



Source: National Cancer Waiting Times Monitoring Dataset

Note, the projects are ordered from left to right starting from the project with the highest percentage point change between these periods. Leicester City has been excluded to the small number of individuals diagnosed.

* Projects are within the geographic area covered by the ‘Be Clear on Cancer’ bowel pilot.

**Data removed due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

3.5 Summary of results – lung cancer

Part 1 – Intervention PCTs vs. control PCTs⁴²

Comparing 76 PCTs in intervention areas with 73 PCTs in control areas:

- There was a 9% increase in the number of individuals referred via 2WW for suspected lung cancer from January-November 2010 to January-November 2011 across 76 intervention PCTs. This increase was 7% in the control PCTs. There was borderline evidence (Fisher's exact test, $p=0.08$) that the number of 2WW referrals increased more in intervention than control PCTs.
- There was a 4% increase in the number of individuals diagnosed with lung cancer after being referred through 2WW for suspected lung cancer in intervention PCTs (from January-July 2010 to January-July 2011). The corresponding increase was 1% in control PCTs. There was no evidence (Fisher's exact test, $p=0.43$) that the increase was higher in intervention than control PCTs.
- There was a 1.2% *decrease* in the conversion rate – the average percentage of 2WW referrals for lung cancer that actually turned out to be lung cancer. There was a 0.7% decrease in control areas.

Part 2 – Project level

Looking across each project and comparing the months in which public facing activity was running with the same months in the previous year:

- There is strong evidence that, on average, there was a greater increase in 2WW referrals for lung cancer during the project/activity time than in the same period a year previously (paired t-test $p=0.006$). The total number of 2WW referrals increased by 8% (or an increase of 530 from 6695 to 7225)⁴³.
- Only projects finishing in or before July 2011 were available for the analysis of the conversion data (Appendix 9).

⁴² Note, Part 1 is an overview, comparing all 76 PCTs involved in project activity with the remaining 73 PCTs (controls) that were not. A small positive effect was seen in both 2WW referrals and diagnoses when comparing the intervention PCTs with the control PCTs.

⁴³ Some PCTs were included more than once here since they were included in more than one project. Each project ran their public-facing activity for different lengths of time so comparisons could be made between April-May 2010 and April-May 2011 for one project, but between January-August 2010 to January-August 2011 for another, for example.

The main results were:

- There was no evidence that there was any change in the number of individuals diagnosed with lung cancer after a 2WW referral for lung cancer during the project/activity time than in the same period a year previously (paired t-test $p=0.56$).
- There was no evidence that the percentage of 2WW referrals for lung cancer that actually turned out to be lung cancer was either higher or lower in the activity period than in the same period of the previous year (paired t-test $p=0.52$).
 - Only 1 project (Cumbria) saw a statistically significant increase in conversions for lung cancer ($p<0.001$).
 - Two projects (Peninsula collaborative and Hertfordshire) saw a statistically significant decrease in conversions ($p=0.03$ and $p=0.01$ respectively).

Summary for lung

Whilst 2WW referral data at a project level (Part 2) are positive, showing a significant average increase of 8% in the number of 2WW referrals for lung cancer across 36 projects, this must be interpreted against a background of a general trend in increasing 2WW referrals for lung cancer. Grouped together, intervention PCTs saw a 9% increase in 2WW referrals from 2010 to 2011, whilst the control PCTs showed a 7% increase. This suggests that the increase seen at the project level could be simply due to a general trend of more people being referred through this pathway, rather than due to the project activity itself.

Although the change in the number of lung cancers diagnosed as a result of a 2WW referral was not statistically significant, there was a 4% increase (which equates to an extra 28 cancers diagnosed across 19 projects)⁴⁴. Across these same 19 projects, there were 227 extra referrals in the same time period. Therefore, for people coming through the 2WW, approximately one extra person was diagnosed with lung cancer for every seven people that were not. This meant the overall conversion rate fell slightly from 26.2% to 25.1% (Table 21). However, the true effect on referrals and conversions at a programme level cannot be known until the data from all projects has been looked at, taking into consideration the precise areas that each project targeted.

⁴⁴ There are only 19 projects here due to small numbers in two projects, data removed for one project and 15 further projects were excluded due to late finishing dates.

Table 21: Total number of 2WW referrals for suspected lung cancer across 36 projects and total number of 2WW referrals, diagnoses and conversion across 19 projects

	Total number in the 'Pre' period	Total number in the 'Post' period	Percentage change
ACROSS 36 projects			
Number of 2WW referrals for suspected lung cancer	6,695	7,225	+8%
ACROSS 19 projects			
Number of 2WW referrals for suspected lung cancer	2,875	3,102	+8%
Individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer	752	780	+4%
Percentage of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer	26.2%	25.1%	-1.1%

3.6 Summary of results – bowel cancer

Part 1 – Intervention PCTs vs. control PCTs⁴⁵

Comparing 77 PCTs in intervention areas with 74 PCTs in control areas:

- There was a 16% increase in the number of individuals referred via 2WW for suspected bowel cancer from January-November 2010 to January-November 2011 across 77 intervention PCTs. The corresponding increase was 13% in the control PCTs. There was no evidence (Fisher's exact test, $p=0.51$) that the number of 2WW referrals increased more in intervention than control PCTs.
- There was a 6% increase in the number of individuals diagnosed with bowel cancer after being referred through the 2WW for suspected bowel cancer in intervention PCTs (from January-July 2010 to January-July 2011). This increase was 0.6% in control PCTs. There was no evidence (Fisher's exact test, $p=0.16$) that the increase was higher in intervention than control PCTs.
- There was a 0.3% *decrease* in the average percentage of 2WW referrals for bowel cancer that actually turned out to be bowel cancer (January-July 2010 to January-July 2011). There was a 0.7% decrease in control areas.

Part 2 – Project level

Across each project and comparing the months in which public-facing activity was running with the same months in the previous year:

- There is strong evidence that, on average, there was a greater increase in 2WW referrals for bowel cancer during the project/activity time than in the same period a year previously (paired t-test $p=0.002$). The total number of 2WW referrals increased by 12% (or an increase of 3,116 from 26,541 to 29,657)⁴⁶.

⁴⁵ Note, Part 1 is an overview, comparing all 76 PCTs involved in project activity with the remaining 73 PCTs (controls) that were not. Small positive effects were seen for both 2WW referrals and diagnoses, when comparing the intervention PCTs with the control PCTs.

⁴⁶ Some PCTs were included more than once here since they were included in more than one project. Each project ran their public-facing activity for different lengths of time so comparisons could be made between April-May 2010 and April-May 2011 for one project, but between January-August 2010 to January-August 2011 for another, for example.

Promoting early diagnosis of breast, bowel and lung cancers

- Only projects finishing in or before July 2011 were available to be used in the conversion analysis (Appendix 10). For these projects:
 - There was no evidence that there was either an increase or decrease in the number of individuals diagnosed with bowel cancer after 2WW referral for bowel cancer during the project/activity time than in the same period a year previously (paired t-test $p=0.93$).
 - There was no evidence that the percentage of 2WW referrals for bowel cancer that actually turned out to be bowel cancer was either higher or lower in the activity period than in the same period of the previous year (paired t-test $p=0.59$):
 - No projects saw a statistically significant increase in conversions for bowel cancer.
 - One project (Nottingham City) saw a statistically significant decrease in conversions for bowel cancer ($p=0.04$).

Summary for bowel

Whilst 2WW referral data at a project level (Part 2) are positive, showing a significant average increase of 12% in the number of 2WW referrals for bowel cancer across 33 projects, this must be interpreted against a background of a general trend in increasing 2WW referrals for bowel cancer. Grouped together, intervention PCTs saw a 16% increase in 2WW referrals from 2010 to 2011 but even control PCTs showed a 13% increase. This suggests that the increase seen at the project level could be simply due to a general trend of more people being referred through this pathway, rather than due to the project activity itself.

Although there was a 1.3% increase in the number of bowel cancers diagnosed as a result of a 2WW referral, this was not statistically significant.⁴⁷ The 1.3% increase equates to five more cancers being diagnosed across 12 projects. Across these same 12 projects, there were 624 extra referrals in the same time period. Therefore, for people coming through the 2WW for bowel cancer, approximately one extra person was diagnosed with bowel cancer for every 124 people that were not (Table 22). This may, however, reflect insufficient follow-up time and conversion rates may improve with more data.

⁴⁷ There are only 12 projects here due to small numbers in one project, a problem with one project and 19 further projects were excluded due to late finishing dates.

Table 22: Total number of 2WW referrals for suspected bowel cancer across 32 projects and total number of 2WW referrals, diagnoses and conversion across 12 projects

	Total number in the 'Pre' period	Total number in the 'Post' period	Percentage change
ACROSS 32 projects			
Number of 2WW referrals for suspected bowel cancer	26,541	29,657	+12%
ACROSS 12 projects			
Number of 2WW referrals for suspected bowel cancer	6,155	6,779	+10%
Individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer	387	392	+1.3%
Percentage of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer	6.3%	5.8%	-0.5%

3.7 Summary

Analysis of two-week wait referral data for suspected lung and bowel cancers has shown statistically significant increases in the numbers of referrals during the periods when the projects were 'live' compared with the same period in 2010. This could indicate that the public-facing activity was a success, raising awareness of lung and bowel cancers and prompting those with potential symptoms to see their GP. It might also suggest that the activity prompted GPs to refer more of their patients through 2WW, either due to an increase in the number of patients presenting, or awareness of the campaign itself. However, this increase was similar in size to the increase seen in the control PCTs and follows the increasing background trend in the numbers of 2WW referrals from 2010 to 2011. Thus, the increase cannot necessarily be attributed to the local projects.

The data appear to show no significant impact on the number of cancers diagnosed via the 2WW or the percentage conversions. This suggests that some of the additional referrals observed during periods when projects were 'live' subsequently led to a cancer diagnosis but that others did not.

Learning

Further analysis will be needed to truly understand the areas of success in this programme of work. However, there are some early indications from the online survey and anecdotal feedback that help us to group some of the learning from the 2010/11 activity. Five of the main themes are highlighted below.

Reflections on success

When asked to rate the success of their project, 38 respondents to the online survey rated their project as either 'successful' or 'very successful'. Only six stated that they felt their project was 'not very successful'. Reasons for success included working together and developing links with health professionals and working with neighbouring PCTs for the first time to maximise on economies of scale and reach a wider audience. These new working relationships were thought to provide strong foundations for future programmes of activity. For those who did not consider the programme a success, reasons stated included: *"full results not available yet"* and *"project too ambitious, decision on funding too late"* (2010/11 local projects).

Promoting early diagnosis

One of the common themes running throughout this programme of work is the substantial changes going on across all levels of the NHS. It is not only structural and resource changes: *"It felt like the wrong time to be celebrating that we'd got a large pot of money to do activity with when nobody else was getting funding released for things"* (2010/11 local project).

Through observing briefing sessions with health professionals at a local level and the number of queries to the central team about the existing evidence to support the case for early diagnosis, it is apparent that there is still a degree of cynicism about whether this work will translate into both cost efficiencies and improved survival.

GP engagement

This has been one of the key areas for local projects. They recognise the importance of getting the support of local GPs and working with them to improve the local picture for early diagnosis. Some projects stated in their feedback that GPs are finding it increasingly hard to commit their support.

"Feedback from GPs has indicated that time and energy to fully participate in the campaign was limited by other priorities including the changing nature of primary care. Mergers amongst GP practices over the course of the campaign and since the baseline have posed problems for data collection" (2010/11 local project).

In addition to structural changes, the pressure on budgets and referral rates has also had an impact: *"Many practices raised the issue of doing 'more' referrals when they*

Promoting early diagnosis of breast, bowel and lung cancers

felt they were being told to do 'less' activity. Whether perception, reality or misinterpretation it was a common theme" (2010/11 local project).

Timing

The timing parameters that projects were required to work within caused difficulties and most projects would have liked longer to plan, run, and evaluate their activities because they thought this would give them a better chance of being able to change behaviour and, importantly, to be able to track that change. *"The squeezing of time frames was not helpful to us in the delivery of the project. Ideally, we would have liked to operate over a full year, particularly with lung as a tumour site, as numbers are smaller and therefore any variation in numbers, even by a few, can give a false picture" (2010/11 local project).* Another project stated, *"This campaign has to be seen as a first step, which would need repeating to result in significant shifts. This was not a heavy-weight advertising campaign which is likely to have impacted on reach/opportunities to see. LCAM⁴⁸ results are mixed" (2010/11 local project).*

Sustainability

There is a commitment from local teams to ensure that early diagnosis remains on the agenda, however, this is often challenging given budget restrictions and changing structures. Based on current information, 12 of the projects funded in 2010/11 have secured further investment to continue their programmes of work. Some have incorporated new services and protocols into their day-to-day work, while others are extending their community outreach and marketing activity into 2012/13.

Further analyses

As highlighted previously in this report, more data will become available in the coming months which will help to increase our understanding of the impact of the 2010/11 programme of work. There is an agreement between DH, NCAT and CR-UK to do further analyses in 2012. Time and resource will impact on the depth of analysis that will be possible, but this section highlights the ambition.

The aim of the social marketing undertaken by these projects was to change behaviour; however, we know that this is a complex and often long-term process. Understanding what constructs (e.g., which thoughts or beliefs) and what processes are being targeted within an intervention, alongside information about its' likely impact, will help build a picture of what works, and what does not, across different contexts, populations and behaviours.

Further analyses will provide a more complete understanding of project characteristics associated with relative success or failure, for example, the importance of public-facing activity as compared with GP engagement activity or the creative designs associated with greater increases in awareness of key messages.

⁴⁸ Lung Cancer Awareness Measure

Promoting early diagnosis of breast, bowel and lung cancers

The projects had intended to collect data on several metrics (not included in this report – see Table 21 for detail), but a number of them have found this challenging and in the end have been unable to capture the data, or found that it is not feasible to gather the information in the time available. The central team would like to work with the local projects in the coming months to look at any extra data that they have collected.

There has been a lot of interest and investment in awareness and early diagnosis work over the last few years, and as a result, there are a number of previous or existing activities in this area (e.g., CAMs, primary care audits, risk assessment tools) that have been funded centrally or locally, or by charities. The online survey asked projects to state other activities they were aware of in their area and further analysis will attempt to document this and understand its impact.

Any further analyses will be carried out in consultation with the local projects and cancer networks, working in collaboration to understand their data better.

Possible areas for further analysis

Local project activity

Further description and analysis of the interventions may include:

- The types of roles and expertise involved in running these local projects.
- The types of organisations that projects worked with to develop and/or deliver their intervention (e.g., social marketing or research agencies, charities, academic institutions).
- Although a full cost–benefit analysis will not be possible, any further analysis will assess the relationship between project budget allocation and impact on awareness and behaviour to provide an indication of relative impact of different types and levels of activity.

Campaign and cancer awareness

As it stands, this report includes data from, at the most, 27 projects, and in some cases, only 10 projects, because not all of the projects had their data available at the time of writing. Furthermore, due to time constraints only data that was already provided in a comparable format was analysed. As a result, it is not possible to comment on whether the results reported here reflect the data from projects that were unable to provide the information.

Further analysis of awareness data will include, where possible:

- Further investigation of the impact of projects on awareness, attitudes or reported behaviour in 'pre' vs 'post' surveys.
- Sub-analysis of the impact of projects on awareness, attitudes or anticipated behaviour among projects with both 'pre' and 'post' data with adequately sized samples.
- Sub-analysis of the impact of projects on awareness, attitudes or anticipated behaviour differences among respondents who said they were aware of the project/campaign.
- Sub-analysis of the impact of projects on awareness, attitudes or anticipated behaviour among those respondents aged over 50 years.
- Sub-analysis of the impact of projects on awareness, attitudes or anticipated behaviour by tumour type.
- Sub-analysis of the impact of projects on awareness, attitudes or anticipated behaviour by type/extent of activity (e.g., public-facing, GP engagement, inclusion of other health professionals, service change/development).

Behaviour change

Further description and analysis of behaviour change may include:

- 2WW referrals for suspected breast cancers and the number of breast cancers diagnosed as a result.
- Analysis of 2WW referral data at a smaller, more local level, by aggregating data across only specified target areas (e.g., GP practice areas, wards).
- Re-analysis of 2WW referrals for suspected lung and bowel cancers and conversion data until December 2011.
- A description and analysis of any additional metrics (self-reported) such as GP requests for diagnostic tests.

Promoting early diagnosis of breast, bowel and lung cancers

Table 23: Local projects intended to collect data for the following metrics

Project name	Breast cancer metrics collected	Bowel cancer metrics collected	Lung cancer metrics collected	Other cancer metrics collected
Barnsley			<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Requests for investigations Diagnosis Stage of disease at diagnosis Resection rates 	
Brighton & Hove		<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Duration of time prior to presentation to primary care Stage of disease at diagnosis Screening uptake 		
Western Cheshire & Cheshire West			<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Stage of disease at diagnosis 	
Croydon	<ul style="list-style-type: none"> Locally collected 2WW Emergency admissions 	<ul style="list-style-type: none"> Locally collected 2WW 	<ul style="list-style-type: none"> Locally collected 2WW A&E admissions 2010 cf 2011 	

Promoting early diagnosis of breast, bowel and lung cancers

Cumbria			<ul style="list-style-type: none"> • Locally collected 2WW • Presentations to primary care • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Resection rates 	
Derbyshire County		<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Screening uptake 		
Doncaster	<ul style="list-style-type: none"> • Locally collected 2WW • Screening uptake 	<ul style="list-style-type: none"> • Locally collected 2WW • Presentations to primary care • Stage of disease at diagnosis • Resection rates • Screening uptake 	<ul style="list-style-type: none"> • Locally collected 2WW • Presentations to primary care • Diagnosis • Stage of disease at diagnosis • Resection rates 	
Ealing	<ul style="list-style-type: none"> • Locally collected 2WW 			
Essex collaborative			<ul style="list-style-type: none"> • Requests for investigations • Stage of disease at diagnosis • Resection rates 	

Promoting early diagnosis of breast, bowel and lung cancers

Gloucestershire (lung)			<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Presentations to primary care • Stage of disease at diagnosis 	
Halton & St Helens	<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Diagnosis • Screening uptake 	<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Diagnosis • Screening uptake 	<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Diagnosis 	
Hammersmith & Fulham			<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Stage of disease at diagnosis 	
Herefordshire			<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Diagnosis • Stage of disease at diagnosis 	<ul style="list-style-type: none"> • Locally collected 2WW • Diagnosis • Stage of disease at diagnosis
Hertfordshire			<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Bronchoscopies, x-rays 	

Promoting early diagnosis of breast, bowel and lung cancers

<p>Inner North East London collaborative</p>	<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Resection rates • Screening uptake 		<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Resection rates 	
<p>North Central London collaborative</p>		<ul style="list-style-type: none"> • Locally collected 2WW • Stage of disease at diagnosis 		
<p>Lancashire and South Cumbria collaborative</p>			<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Presentations to primary care • Requests for investigations • Diagnosis • Stage of disease at diagnosis • % of cancers diagnosed through emergency admission 	

Promoting early diagnosis of breast, bowel and lung cancers

Leeds			<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Conversion rates, number of patients diagnosed through A&E and admitted, number 	
Leicestershire County & Rutland		<ul style="list-style-type: none"> • Screening uptake 		
Liverpool	<ul style="list-style-type: none"> • Locally collected 2WW • Presentations to primary care 	<ul style="list-style-type: none"> • Locally collected 2WW • Presentations to primary care 	<ul style="list-style-type: none"> • Presentations to primary care 	
Greater Manchester and Cheshire collaborative	<ul style="list-style-type: none"> • Locally collected 2WW 	<ul style="list-style-type: none"> • Locally collected 2WW 	<ul style="list-style-type: none"> • Locally collected 2WW 	
North East Lincs			<ul style="list-style-type: none"> • Locally collected 2WW • Requests for investigations • Emergency hospitals admission data; Patient Audit of feedback on campaign materials 	

Promoting early diagnosis of breast, bowel and lung cancers

Northamptonshire	<ul style="list-style-type: none"> Locally collected 2WW Duration of time prior to presentation to primary care Requests for investigations Stage of disease at diagnosis Screening uptake 	<ul style="list-style-type: none"> Locally collected 2WW Duration of time prior to presentation to primary care Requests for investigations Stage of disease at diagnosis Screening uptake 	<ul style="list-style-type: none"> Number of referrals (not through 2WW) Duration of time prior to presentation to primary care Stage of disease at diagnosis 	<ul style="list-style-type: none"> Locally collected 2WW Duration of time prior to presentation to primary care Stage of disease at diagnosis
North Staffordshire	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Requests for investigations Diagnosis 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Diagnosis 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Diagnosis 	
Outer North East London collaborative		<ul style="list-style-type: none"> Locally collected 2WW Duration of time prior to presentation to primary care Stage of disease at diagnosis Screening uptake 		
Peninsula collaborative			<ul style="list-style-type: none"> Locally collected 2WW Presentations to primary care Requests for investigations 	<ul style="list-style-type: none"> Requests for investigations
SHIP collaborative		<ul style="list-style-type: none"> Locally collected 2WW Diagnosis Stage of disease at diagnosis Screening uptake 		

Promoting early diagnosis of breast, bowel and lung cancers

<p>South East London collaborative</p>		<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Screening uptake • Incidence and mortality numbers by PCT 		
<p>South West London collaborative</p>		<ul style="list-style-type: none"> • Locally collected 2WW • Number of referrals (not through 2WW) • Requests for investigations • Diagnosis • Stage of disease at diagnosis • Screening uptake 		
<p>Sunderland collaborative</p>			<ul style="list-style-type: none"> • Number of referrals (not through 2WW) • Presentations to primary care • Requests for investigations • Diagnosis • Stage of disease at diagnosis 	

Promoting early diagnosis of breast, bowel and lung cancers

Tees collaborative	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Presentations to primary care Requests for investigations Diagnosis Stage of disease at diagnosis 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Presentations to primary care Requests for investigations Diagnosis Stage of disease at diagnosis 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Presentations to primary care Requests for investigations Diagnosis Stage of disease at diagnosis Chest X Ray Data 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Presentations to primary care Requests for investigations Diagnosis Stage of disease at diagnosis
Thames Valley collaborative		<ul style="list-style-type: none"> Locally collected 2WW Requests for investigations Diagnosis Stage of disease at diagnosis Screening uptake 	<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Duration of time prior to presentation to primary care Requests for investigations Diagnosis Stage of disease at diagnosis 	
Trafford		<ul style="list-style-type: none"> Locally collected 2WW Number of referrals (not through 2WW) Diagnosis Stage of disease at diagnosis Screening uptake 		
Northumberland	<ul style="list-style-type: none"> Stage of disease at diagnosis 	<ul style="list-style-type: none"> Stage of disease at diagnosis 	<ul style="list-style-type: none"> Stage of disease at diagnosis 	

Promoting early diagnosis of breast, bowel and lung cancers

East Sussex Downs & Weald and Hastings & Rother		<ul style="list-style-type: none"> Locally collected 2WW 	<ul style="list-style-type: none"> Locally collected 2WW 	
Wolverhampton collaborative			<ul style="list-style-type: none"> Locally collected 2WW Stage of disease at diagnosis 	

Source: 2010/11 local projects online survey

Information for Table 21 has been taken from the online survey and is therefore self-reported. Not all projects completed this section.

Case studies

Three case studies are profiled in this section as an illustration of the range of activity that took place in 2010/11. There are many more case studies that will be collated in the coming months as more data and information become available.

Case study: Health MOTs pave the way for increases in cancer diagnosis in Great Yarmouth & Waveney

In 2010, a Cancer Awareness Measure survey conducted by Anglia Cancer Network showed that areas of Great Yarmouth & Waveney's population had low cancer awareness, so the team at Great Yarmouth & Waveney PCT were keen to do some very localised work, alongside an Anglia-wide 'Be Clear on Cancer' campaign. The aim was to educate people in some of their more deprived and rural wards about how to spot early warning signs of lung and bowel cancer.

The team identified 10 target wards that would enable them to reach the people most likely to have lower cancer awareness and, in March 2011, a series of eight two-hour workshops for the public were held. The sessions aimed to provide information and advice for anyone wishing to find out more about spotting bowel and lung cancer early. They were promoted by the local Health Trainers and on local community websites, but despite efforts to encourage local people to attend these sessions, response was low.

"We were really disappointed with the take up of the Cancer Information Workshops and were keen to understand what it was about this approach that hadn't worked," explains Dr Anne Swift, Public Health Specialty Registrar and project manager. "Our health trainers got some feedback from the local communities and found that a fear of cancer and 'not wanting to know' were stopping people from coming along. With that in mind, we went back to the drawing board and looked at a more general 'health check' approach. We hoped that by combining cancer messages with other health information it would make it less frightening. The other key learning was that we needed to take our messages and information out into the community, rather than trying to encourage people to come to us."

With this new insight in mind, the team developed a mobile 'Health MOT' service, providing information about detecting lung and bowel cancer symptoms early alongside BMI calculations and blood pressure measurements. Health Trainers took the 'Health MOT' service out to busy locations across the 10 target wards throughout May and June 2011, discussing any potential symptoms or concerns as part of a 15 minute health check. If the checks highlighted any issues, people were signposted to their GP, healthy lifestyle coaching provided by the Health Trainers or to further information. To make sure the key messages stayed top of mind, every participant was given a bag of 'Be Clear on Cancer' information to take home, including a GP appointment card.

Promoting early diagnosis of breast, bowel and lung cancers

For one week in June, the health trainers also accompanied the PCT's Mobile Food Store (a fruit and veg van), travelling around key wards in a special promotional vehicle. This gave them a way of getting into the heart of the target communities, doing mini Health MOTs and again providing information about cancer to take away. The team at Great Yarmouth & Waveney PCT knew that, together with this new plan for taking cancer information out to local communities, getting GP practices on board would be vital in making the Health MOTs a success:

“As a GP, I know what an important role that both we, and practice nurses, can play in encouraging patients to present early with possible symptoms, so it was essential that we made sure the practices in the target areas knew about the Health MOTs and were aware that more people might be coming into their practices,” said Dr Jane Scott, GP lead for the project. “One of us in the project team offered to visit each of the 12 practices and we held a session at a GP educational day, so that we could explain what we were doing and answer any questions.”

The result of all this activity has been extremely positive, especially for bowel cancer. Although small, the number of bowel cancers diagnosed almost tripled, going from 13 to 38, between 1 March and 31 July 2010 (the baseline period) and the same period in 2011. The control area also saw an increase, but this was a much smaller increase of just over 50%, from 22 to 34. The 2WW referral conversion rate for bowel cancer across the 12 practices in the target wards also saw a large increase, from 6% in 2010 to 21% in 2011. This is in comparison to 4% drop in the same conversion rate across 14 control GP practices. However, it should be noted that the number of diagnoses and referrals that the conversion rate is based on for each practice are very small.

“We were clearly right to think again about how best to reach our local communities, based on their feedback, as you can see from the increase in diagnoses; and the work to engage with our local GPs has clearly paid off too. A 15% increase in conversion rates for two-week wait referrals for bowel cancer is really encouraging!” said Maggie Parsons, Cancer and End Of Life Clinical Development Lead. “It's fantastic to see what a difference the project has made and really demonstrates how important it is to make sure that working with primary care always goes hand in hand with developing any public-facing work.”

Promoting early diagnosis of breast, bowel and lung cancers

Case Study: 'Be Clear on Cancer Cancer' campaign increased unprompted awareness of lung cancer symptoms in Western Cheshire

The team at NHS Western Cheshire used the National Awareness and Early Diagnosis Initiative (NAEDI) funding to implement a campaign for the early diagnosis of lung cancer in particular local 'hotspots.' Deaths from some cancers are significantly higher than the national average in the most deprived areas of Ellesmere Port, and lung cancer is the leading cause of all cancer deaths in the area. Work to determine the target communities for the project identified eight wards in Ellesmere Port that had low awareness and higher mortality for lung cancer. The focus of the public facing campaign was towards all men and women aged over 45 in these wards.

Initial insight work showed that a combination of more community-based activities and direct marketing would be most effective in reaching the communities in the target areas. The work with the public was then complemented by engaging with a variety of stakeholders including GPs, pharmacies, local charities and voluntary organisations.

As part of the initiative, local cancer champions were identified and specially trained to play a key role in face-to-face activities with the public. These volunteers were empowered to strike up conversations with local people, hand out leaflets, promote the campaign in relevant community locations, and take part in public-facing events. In addition to the 1,187 conversations cancer champions had with local people throughout May, June and July 2011; street teams also went out to key locations to hold three community events, resulting in an extra 1,000 face-to-face conversations.

Alongside the work of these volunteers, the project team also used a variety of direct marketing activities to get the 'early diagnosis' messages into the eight communities. This included inserts in local newspapers, letters and leaflets in NHS envelopes; beer mats in 30 local venues in the Ellesmere Port area; branded pharmacy bags in 11 pharmacies in the target wards; and the distribution of posters and leaflets to primary care venues such as a pharmacies and Healthy Living Centres. Midway through the campaign a press release highlighted the experiences of a lung cancer survivor promoting positive key messages to a wider audience.

The team received high-level support and engagement from the GP clinical lead for cancer who helped with engagement with the six GP practices in the targeted wards. Sarah Johnson Griffiths, Consultant in Public Health, explained: "Ideally we would have liked to have undertaken face to face training and meetings with all GPs to provide them with background and information about the campaigns and explain how pivotal the GP role in the campaign was. However, we needed to be realistic about the amount of time we could take from the busy GP clinics; the solution we developed was a short video for GPs.

The video was five minutes long and showed interviews with local people in Ellesmere Port talking about their awareness and views about lung cancer, and their concerns about, or triggers for, seeing their GP if they were worried about lung

Promoting early diagnosis of breast, bowel and lung cancers

cancer. It also gave the GPs the key information about the campaign and asked them to be aware that they may have more patients coming in to see them about potential lung cancer symptoms.”

The team ran a survey before and after the campaign, so that they could track any change in the public’s awareness of lung cancer. The follow up survey showed that people had not only seen the campaign but taken the key messages on board. Unprompted knowledge of a number of signs and symptoms of lung cancer increased significantly – people who mentioned coughing up blood as a symptom of lung cancer went up from 19% to 41%; and people that mentioned a cough that doesn’t go away for two to three weeks rose by 8%. Alongside this, the team were encouraged by the 11% fall in the number of people who were unable to spontaneously mention a symptom of lung cancer.

Sarah commented, “We are happy with the results of this campaign. They show that people remembered seeing the campaign and it clearly had an impact on increasing awareness of lung cancer for people in the Ellesmere Port area. We are hopeful that this will translate into an increase in the number of people who seek earlier help if they are concerned about any of the signs or symptoms of lung cancer.”

Promoting early diagnosis of breast, bowel and lung cancers

Case study: Self-referral chest x-ray service provides unique solution for detecting lung cancer in Leeds

Leeds has some of the highest rates of lung cancer in the UK and sadly, many of those diagnosed don't survive beyond a year. Reducing this high mortality rate was seen as a priority for the city and so the local primary care trust, NHS Leeds, worked in partnership with Leeds Teaching Hospitals NHS Trust to find solutions.

The highest proportion of cancer deaths in Leeds each year is from lung cancer, and local audit data shows that the majority of patients have advanced and incurable disease by the time the diagnosis is made. Diagnosing lung cancer at an earlier curable stage is therefore vital to improving outcomes from this disease.

Combining international research with local insight, the organisations were able to understand the underlying causes for late diagnosis of lung cancer. A range of interventions would be needed to address the barriers identified by local people - improving awareness and access, and empowering local people to present earlier for diagnosis.

Alongside a public-focused marketing and education plan and primary care engagement programme, the team set up unique walk-in chest x-ray services for the over 50s in two of the city's more deprived areas. Some key criteria make sure the right people are seen: the person has to be aged 50 or over, have a persistent cough or other respiratory symptoms for three or more weeks, and not have had a chest x-ray within the last three months.

"Many people who'd had persistent respiratory symptoms for over three weeks weren't getting referred for a chest x-ray, either because they weren't consulting their doctor or because their GP wasn't referring them," explains Dr Matthew Callister, Consultant Respiratory Physician. "We knew it was vital to address both of these issues if we were going to improve the situation in Leeds. Working closely with primary care would help improve referrals, but piloting a new service that allowed people to get a chest x-ray without a GP referral or appointment offered a quick and easy alternative."

To drive people with a three-week cough to the self-referral x-ray service, the project team in Leeds co-produced a new creative for the public-facing activities with a focus group of people aged over 50 from the target areas. They were tasked with deciding on the kind of phrases, colours and imagery which they thought would appeal to them and their peers. This was then used as the basis for the 'Got a cough? Get a check' artwork. A range of channels, combining advertising and community-based work, were then used to get the key messages out to the different audiences in the target areas.

The advertising included a 12 month campaign on the back of buses travelling through inner east and inner south Leeds; a targeted leaflet drop to 80,000 households; plasma screens in local hospitals; branded beer mats in 40 pubs and working men's clubs directing people to the walk-in service; and real life stories in the local media. Meanwhile, community health educators were commissioned to go

Promoting early diagnosis of breast, bowel and lung cancers

out into the communities in the two target areas, engaging with local people face-to-face and training health champions. Pharmacists played a key role in promotion during a two month dedicated campaign when over 16 percent of walk-in patients said they were referred by their local pharmacy.

“Although we set up this service to provide easier access for the public, it was vital to get local GPs and primary healthcare professionals on board with the campaign too”, Dr Callister added. “By giving presentations at meetings and education events, it allowed us to address concerns that were stopping some GPs from referring patients for chest x-rays, such as cost or exposure to radiation. It also meant we could reaffirm the three-week timescale in the NICE guidelines.”

Whilst the public-facing activities were targeted at inner south and inner east Leeds, the primary care education programme was delivered city-wide. This has allowed the project team to compare the impact of this element of the intervention on referrals to that of the self-referral services.

Since the initiative began in January 2011, over 2,500 people have used innovative walk-in chest x-ray services. Referrals from primary care have increased by around 50 percent with nearly 2,500 x-rays carried out per month compared to 1,600 previously.

Over 200 patients have been referred for a further CT scan and 32 cases of cancer have been found, of which 25 were lung cancer. In addition another 94 illnesses have been picked up, ranging from pneumonia and TB to heart failure.

“It’s been really interesting to monitor the result of all the chest x-rays. We obviously set up the campaign and self-referral service to encourage earlier diagnosis of lung cancer, but we’ve also been able to pick up other kinds of cancer, plus a wide range other illnesses,” Dr Callister commented. “We’re really pleased with the results and with the response from both GPs and the public, it’s clear that the project is working. Our original plan was to run the campaign and the self-referral services for a year, but we have now agreed to extend the project until March 2013.”

Bibliography

1. Cancer Research UK 2012: CancerStats
<http://info.cancerresearchuk.org/cancerstats/>. Accessed January 2012.
2. Cancer Research UK 2010: News
<http://info.cancerresearchuk.org/news/archive/pressrelease/2010-12-08-cancer-is-biggest-fear-but-some-think-it-is-fate>. Accessed January 2012.
3. Richards MA (2009). The size of the prize for earlier diagnosis of cancer in England. *British Journal of Cancer*, **101**: S125-S129.
4. Abdel-Rahman MA, Stockton DL, Rachet B, Hakulinen T & Coleman MP (2009). What if cancer survival in Britain were the same as in Europe: how many deaths are avoidable? *British Journal of Cancer*, **101**:115-124.
5. Thomson CS, Forman D (2009). Cancer survival in England and the influence of early diagnosis: What can we learn from recent EURO CARE results? *British Journal of Cancer 2009*; **101**:S102–9.
6. Coleman MP, Forman D, Bryant H, Butler J, Rachet B, Maringe C, Nur U, Tracey E, Coory M, Hatcher J, McGahan CE, Turner D, Marrett L, Gjerstorff ML, Johannesen TB, Adolfsen J, Lambe M, Lawrence G, Meechan D, Morris EJ, Middleton R, Steward J, Richards MA & the ICBP Module 1 Working Group (2011). Cancer survival in Australia, Canada, Denmark, Norway, Sweden, and the UK, 1995–2007 (the International Cancer Benchmarking Partnership): An analysis of population-based cancer registry data. *The Lancet*; **377**: 127–38.
7. Cancer reform strategy: achieving local implementation – second annual report. Department of Health 2009.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_109338 Accessed January 2012.
8. Olesen F, Hansen RP & Vedsted P (2009). Delay in diagnosis: the experience in Denmark. *British Journal of Cancer* **101**: S5-S8.
9. Nichols S, Waters WE, Fraser JD, Wheeler MJ, Ingham SK (1981). Delay in the presentation of breast symptoms for consultant investigation. *Community Medicine*; **3**: 217-225.
10. Improving Outcomes: A strategy for cancer.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123371. Accessed January 2012.
11. Robb K, Stubbings S, Ramirez A, Macleod U, Austoker J, Waller J, Hiom S & Wardle J. (2009). Public awareness of cancer in Britain: a population-based survey of adults. *British Journal of Cancer*, **101**:S18–23.
12. Austoker J, Bankhead C, Forbes L, Atkins L, Martin F, Robb K, Wardle J and Ramirez AJ (2009). Interventions to promote cancer awareness and early presentation: systematic review. *British Journal of Cancer*, **101**: S31-S39.

Promoting early diagnosis of breast, bowel and lung cancers

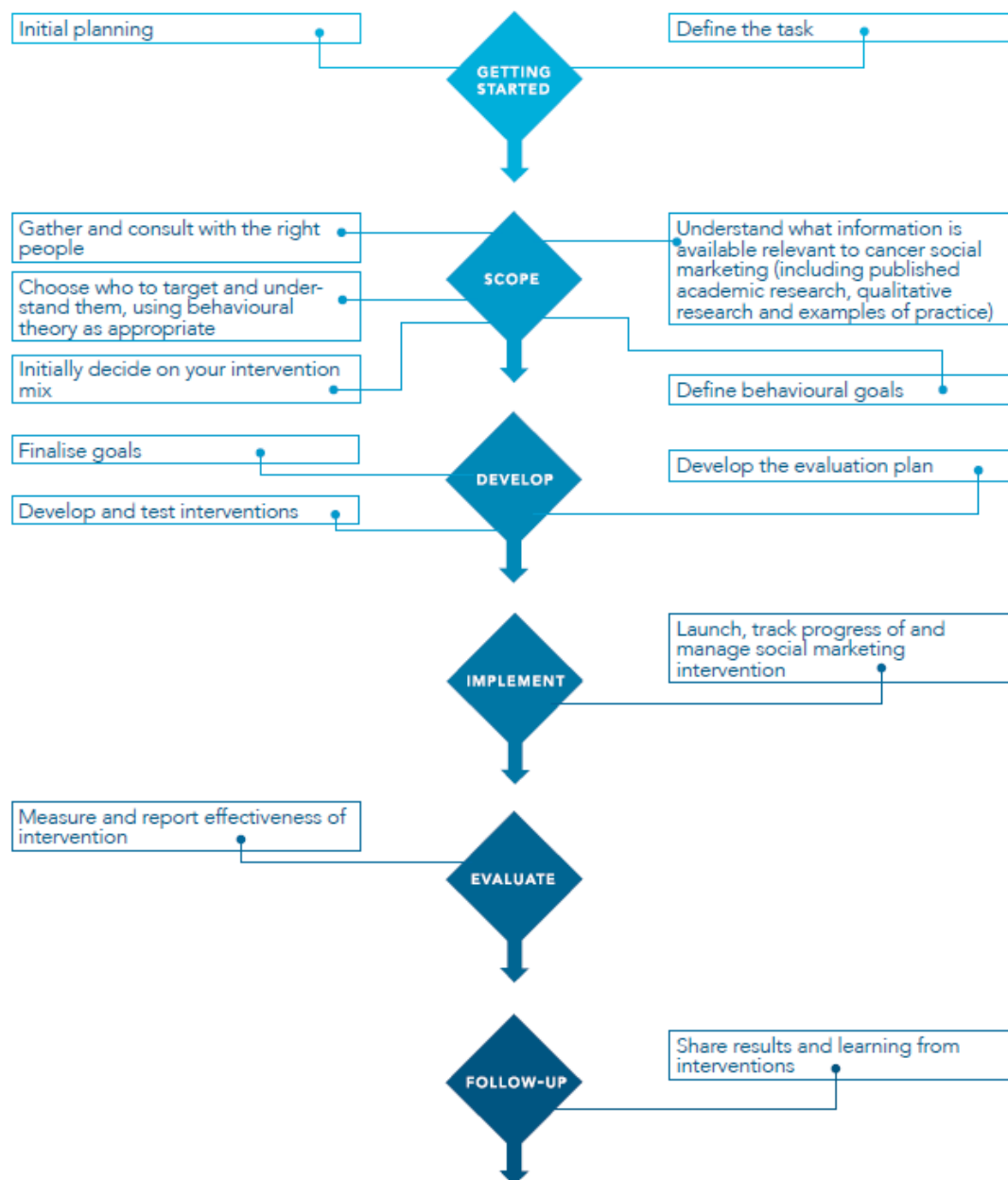
13. Macleod U, Mitchell ED, Burgess C, Macdonald S, Ramirez AJ (2009). Risk factors for delayed presentation and referral of symptomatic cancer: evidence for common cancers. *British Journal of Cancer*, **101**:S92–101.
14. Abraham, C, & Michie, S. (2008). A taxonomy of behaviour change techniques used in interventions. *Health Psychology*, **27**, 379-387.

Appendices

Appendix 1:



Overview of the social marketing planning guide



Source: NSMC cancer toolkit

Appendix 2: Proposal scoring criteria

The criteria set out for scoring proposals in the letter to PCT chief executives are below in black, with further guidance on interpretation in blue.

Enter your scores against these criteria into the excel file 'Proposal Score Sheet'. If you have a vested interest in a project (you were involved in the creation or sign off of the proposal) please do not score and note your interest in the comments box.

Scoring as follows: **0** = Fails to meet criteria, **1** = Partially meets criteria, **2** = Meets Criteria

Criteria	Details
1	The primary aim is the achievement of earlier diagnosis of Cancer. <i>Covering raising awareness of symptoms / barriers to presentation AND early presentation to GPs. Projects only covering screening services / uptake do not meet this criterion.</i>
2	Central funds required do not exceed £100k
3	The proposed interventions are aimed at breast, colorectal and/or lung cancer.
4	Involve community-based initiatives <i>Public facing interaction to drive early presentation (involving interaction with the community beyond passive communications).</i>
5	Demonstrate how GPs and the acute sector will be engaged to respond appropriately to increased attendances and referrals
6	Have clear objectives and outputs
7	The PCT should either have a clear baseline against which to measure impact or should develop such a baseline as part of the proposal
8	Are deliverable within 2010/11, with a clear commitment to report on outputs by the end of the financial year <i>Project delivery and data collection should be complete by March 2011, writing up can be completed in April.</i>
9	Identify options for ongoing delivery in 2011/12, for example inclusion in 2011/12 PCT commissioner plans
10	Demonstrate senior support from the PCT and the relevant cancer network
11	Have clear governance and performance management arrangements
12	Demonstrate how you will identify and address the needs of vulnerable and socially excluded groups/communities who may experience poorer access <i>Demonstrating the reduction of local health inequalities, to ensure the project includes diverse representation.</i>
13	Demonstrate how you will engage patients, carers, the public and other stakeholders in the development of the initiatives

Promoting early diagnosis of breast, bowel and lung cancers

14	<p>Should include reference to data collection mechanisms which should as a minimum be set up to measure, against a baseline:</p> <ul style="list-style-type: none">- Increase in number of patients presenting relevant symptoms to GPs- Increase in number of patients being referred appropriately to secondary care <p>Collection of referral statistics and other appropriate measures. Further guidance to successful bidders will be issued on the exact nature of the measures.</p>
----	--

Promoting early diagnosis of breast, bowel and lung cancers

Appendix 3: 2010/11 local projects and their allocated funds

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Raising public awareness of early signs of Breast and Lung Cancer and encouraging early presentation.	Gloucestershire PCT	Three Counties Cancer Network	£97,500
Outsmarting Cancer – Together	Great Yarmouth & Waveney PCT	Anglia Cancer Network	£30,000
Communities against Cancer	Bury PCT	Greater Manchester & Cheshire Cancer Network	£50,000
Improving awareness and early diagnosis of lung cancer in Hammersmith and Fulham	Hammersmith & Fulham PCT	North West London Cancer Network	£100,000
Outsmarting Cancer – Together	Anglia collaborative: Cambridgeshire PCT; Peterborough PCT; Norfolk PCT; Suffolk PCT; Bedfordshire PCT; Great Yarmouth and Waveney PCT	Anglia Cancer Network	£450,000
Colorectal Cancer Awareness Building Project for Outer North East London	Outer North East London collaborative (ONEL): Redbridge PCT Havering PCT; Barking & Dagenham PCT	North East London Cancer Network	£300,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
A Trafford Against Cancer Campaign (ATACC)	Trafford PCT	Greater Manchester & Cheshire Cancer Network	£50,000
Early Diagnosis Project	Ealing PCT	North West London Cancer Network	£98,000
Community Pharmacy Advocates to promote the earlier Presentation of lung cancer.	Sunderland collaborative: Sunderland PCT; South Tyneside PCT; Gateshead PCT	North of England Cancer Network	£99,200
Get Checked – The early detection of cancer programme	Halton & St Helens PCT	Merseyside and Cheshire Cancer Network	£100,000
North of Tyne Healthy Communities Collaborative Expansion into Rural Northumberland	Northumberland Care Trust	North of England Cancer Network	£56,750
Medway Lung Cancer Awareness and Early Diagnosis Programme	Medway PCT	Kent and Medway Cancer Network	£100,000
Mainstreaming DECREASED 2010 programme	Derby City PCT	East Midlands Cancer Network	£100,000
Change Makers Improving Cancer Awareness and Early Detection	Nottingham City PCT	East Midlands Cancer Network	£25,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Raising awareness of cancer symptoms in North East London	Inner North East London collaborative (INEL): Tower Hamlets PCT; City & Hackney PCT; Newham PCT Waltham Forest PCT	North East London Cancer Network	£400,000
Hillingdon Cancer Awareness and Early Detection Project	Hillingdon PCT	North West London Cancer Network	£79,000
Barnsley Lung Cancer Awareness and Early Diagnosis	Barnsley PCT	North Trent Cancer Network	£100,000
'Let's Talk' Cancer Awareness and Early Diagnosis project	Leicester City PCT	East Midlands Cancer Network	£95,000
Sheffield Cancer Awareness Programme	Sheffield PCT	North Trent Cancer Network	£98,000
"It's not the coughin' that carries you off; It's the coffin they carry you off in!"- Ellesmere Port Lung Cancer Social Marketing Programme	Western Cheshire & Cheshire West PCT	Merseyside and Cheshire Cancer Network	£94,000
CoLuCa	Thames Valley collaborative: Milton Keynes PCT; Oxfordshire PCT; Buckinghamshire PCT; Berkshire West PCT; Berkshire East PCT; Swindon PCT	Thames Valley Cancer Network	£584,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Cancer Prevention, Early Detection and Inequalities in Leeds	Leeds PCT	Yorkshire Cancer Network	£100,000
Early Presentation of Lung Cancer	North East Lincolnshire Care Trust Plus	Humber and Yorkshire Coast Cancer Network	£97,500
Joint PCT Colorectal Cancer Improvement Programme – Increasing Survival Rates within a Population	North Central London collaborative: Islington PCT; Camden PCT; Barnet PCT; Enfield PCT; West Essex PCT; Haringey PCT	North London Cancer Network	£589,050
Developing Community Cancer Champions	Bedfordshire PCT	Anglia Cancer Network	£100,000
Check not Chance	Warwickshire PCT	Arden Cancer Network	£22,750
Early Presentation of Lung Cancer	Lancashire and South Cumbria collaborative (LSCCN): Central Lancashire PCT; Blackburn & Darwen PCT; East Lancashire PCT; Blackpool PCT; North Lancashire PCT	Lancashire and South Cumbria Cancer Network	£99,900
Mount Vernon Cancer Network Lung Cancer Awareness & Early Diagnosis project	Hertfordshire PCT ⁴⁹	Mount Vernon Cancer Network	£100,000

⁴⁹ Hertfordshire extended their project to cover Luton PCT.

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Outsmarting Cancer – Together	Peterborough PCT	Anglia Cancer Network	£100,000
Early Detection of Lung Cancer	Wolverhampton collaborative: Wolverhampton PCT; Shropshire PCT; Telford PCT	Greater Midlands Cancer Network	£306,137
Raising cancer awareness and early diagnosis in communities within Bolton	Bolton PCT	Greater Manchester & Cheshire Cancer Network	£45,000
Doncaster Early Cancer Initiative	Doncaster PCT	North Trent Cancer Network	£98,000
Reducing the Burden of Bowel Cancer in Derbyshire	Derbyshire County PCT	North Trent Cancer Network	£100,000
Yorkshire Cancer Network Cancer Awareness and Early diagnosis	Yorkshire collaborative: Bradford and Airedale PCT; Calderdale PCT; Kirklees PCT; North Yorkshire & York PCT; Wakefield District PCT	Yorkshire Cancer Network	£500,000
Colorectal Cancer Early Awareness and Early Diagnosis	SHIP collaborative: Southampton PCT; Hampshire PCT; Isle of Wight PCT; Portsmouth PCT	Central South Coast Cancer Network	£390,000
“The Big C – Can we talk about it?”	Eastern and Coastal Kent PCT	Kent and Medway Cancer Network	£95,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Greater Manchester and Cheshire 'Don't be a Cancer Chancer' Programme	Greater Manchester and Cheshire collaborative: Ashton, Leigh & Wigan PCT; Bolton PCT; Bury PCT; Central & East Cheshire PCT; Heywood Middleton & Rochdale PCT; Manchester PCT; Oldham PCT; Salford PCT; Stockport PCT; Tameside & Glossop PCT; Trafford PCT	Greater Manchester & Cheshire Cancer Network	£495,000
Raising bowel cancer awareness and promoting early diagnosis	South East London collaborative: Lewisham PCT; Greenwich PCT; Lambeth PCT; Southwark PCT; Bromley PCT; Bexley PCT	South East London Cancer Network	£284,000
North Staffordshire Cancer Awareness and Early Detection	North Staffordshire PCT	Greater Midlands Cancer Network	£96,000
Early awareness and early detection of lung cancer programme	Essex collaborative: Mid Essex PCT; South East Essex PCT; South West Essex PCT; North East Essex PCT	Essex Cancer Network	£400,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Social Marketing, GP Education and Health Champions in Croydon: Early Diagnosis of Lung, Breast and Bowel Cancer.	Croydon PCT	South West London Cancer Network	£130,000
Bowel Cancer Awareness, Early Diagnosis and Direct Access	South West London collaborative: Richmond PCT; Kingston PCT; Wandsworth PCT; Croydon PCT; Sutton & Merton PCT	South West London Cancer Network	£135,000
Improving cancer awareness and early diagnosis of lung cancer in Cumbria	Cumbria PCT	Lancashire and South Cumbria Cancer Network	£99,000
Tackling Lung Cancer through Awareness & early Diagnosis in the South West Peninsula – a collaborative approach	Peninsula collaborative: Cornwall and Isles of Scilly PCT; Plymouth PCT; Devon PCT; Torbay Care Trust	Peninsula Cancer Network	£320,000
Focus on Bowel Cancer	Leicestershire County and Rutland PCT	East Midlands Cancer Network	£97,000
Liverpool Cancer Awareness Project	Liverpool PCT	Merseyside and Cheshire Cancer Network	£100,000
Tees wide Cancer Project Linked to NHS Health Check Programme	Tees collaborative: Hartlepool PCT; Middlesbrough PCT; Redcar & Cleveland PCT; Stockton on Tees PCT	North of England Cancer Network	£100,000

Promoting early diagnosis of breast, bowel and lung cancers

Title of project	PCTs that received DH/NCAT funding for 2010/11	Name of cancer network	Funding received
Sandwell community cancer awareness initiative (SCCAI)	Sandwell PCT	Pan Birmingham Cancer Network	£99,000
Outreach cancer awareness sessions to improve 1 year cancer survival rates in East Sussex, particularly focusing on lung and bowel cancer	East Sussex Downs & Weald PCT; Hastings & Rother PCT	Sussex Cancer Network	£99,000
Accelerating Progress in early intervention work in Brighton and Hove: Community initiative to raise awareness and earlier diagnosis of colorectal cancer	Brighton and Hove PCT	Sussex Cancer Network	£99,500
Northamptonshire Cancer Awareness and Early Presentation	Northamptonshire PCT	East Midlands Cancer Network	£99,000
Herefordshire Lung Cancer Awareness Project	Herefordshire PCT	Three Counties Cancer Network	£100,000

Source: 2010/11 local project bids and memorandums of understanding

Appendix 4: Project name and overall project aim

Project	Overall aim of the project/activity (as stated by the local project lead)
Anglia collaborative	To increase awareness of breast, bowel and lung cancer leading to a behaviour change leading to earlier diagnosis
Barnsley	To improve life expectancy and reduce health inequalities in Barnsley by raising awareness of the signs and symptoms of lung cancer and promoting earlier presentation, leading to earlier identification and diagnosis of lung cancer within disadvantaged communities.
Bedfordshire	To raise awareness of the signs and symptoms of colorectal, lung and breast cancer in 'hard to reach groups' in Bedfordshire through the development of 'community cancer champions', with the overall aim of improving cancer outcomes.
Bolton	To promote cancer awareness and early diagnosis within communities within Bolton which have poor cancer outcomes due to late presentation. This project focuses on breast, bowel and lung, and will include raising awareness of screening where relevant
Brighton and Hove	To build community and primary care capacity to facilitate population awareness and earlier diagnosis of colorectal cancer
Bury	To increase the early diagnosis and awareness of the signs and symptoms of breast, bowel and lung cancer (BBLC) through community and workplace engagement, public education and the promotion of screening.
Western Cheshire & Cheshire West	The purpose of the project is to reduce health inequalities by improving awareness, diagnosis and treatment of lung cancer among adults in the most deprived areas of Ellesmere Port
Croydon	To facilitate earlier diagnosis of bowel, breast and lung cancer in Croydon by increasing awareness of the signs and symptoms of those most at risk of developing these forms of cancer and also to educate health professionals responsible for diagnosis and referral to secondary care.
Cumbria	To reduce mortality from lung cancer especially premature deaths, and reduce variation between deprived and affluent communities with a lung cancer awareness programme in Cumbria
Derby City	To promote awareness of the signs and symptoms of bowel and other cancers to high risk populations within Derby City
Derbyshire County	To examine and address the barriers that may prevent individuals presenting earlier for investigation and treatment in Derbyshire County

Promoting early diagnosis of breast, bowel and lung cancers

Project	Overall aim of the project/activity (as stated by the local project lead)
Doncaster	This project aims to improve the 1 year survival rates of breast, bowel and lung cancer and increase the number of people diagnosed with an early and therefore treatable cancer in Doncaster.
Ealing	To encourage earlier presentation in cancer of the bowel and breast and improve the effectiveness of the urgent 2wk referral process in Ealing
East Sussex Downs & Weald and Hastings & Rother	To increase awareness of early cancer symptoms of lung and bowel cancer by delivering outreach cancer awareness sessions in target areas of East Sussex.
Essex collaborative	To raise awareness of the signs and symptoms of Lung Cancer in Essex and encourage earlier presentation in Primary Care. To raise awareness which changes behaviour and therefore significantly increases the number of people with potential symptoms of lung cancer presenting to primary care(measured by number of chest x rays and subsequently stage of diagnosis at presentation)
Gloucestershire (breast)	To increase breast awareness among women in the Stroud district of Gloucestershire.
Gloucestershire (lung)	To increase awareness of lung cancer symptoms, encourage early presentation, early diagnosis and contribute towards reduction in lung cancer mortality in Gloucestershire with particular focus on the Gloucester District.
Great Yarmouth & Waveney	To raise awareness of the signs and symptoms of colorectal and lung cancer in rural and deprived wards within Great Yarmouth & Waveney, in order to prompt earlier presentation to primary care and earlier diagnosis of these cancers.
Halton & St Helens	Develop a locally resonant campaign that promotes awareness of symptoms to men and women across Halton & St Helens, identifying and targeting people at risk of breast, bowel and lung cancer. Increase public awareness of the signs and symptoms and encourage people to present to the GP therefore increasing number of people being referred to secondary care with suspicious symptoms. Ensure campaign is locally driven and utilise lay community health champions to raise awareness in targeted areas.
Hammersmith & Fulham	Improve public awareness of signs and symptoms of lung cancer and encourage earlier presentation through the combination of social marketing and community engagement work with the local public as well as focussed education sessions with GPs.
Herefordshire	To promote awareness of early signs and symptoms of lung and bowel cancer in Herefordshire and to reduce evident barriers that currently prevent presentation, more importantly

Promoting early diagnosis of breast, bowel and lung cancers

Project	Overall aim of the project/activity (as stated by the local project lead)
	early presentation to primary care.
Hertfordshire	To detect lung cancer at an earlier treatable stage through encouraging earlier presentation by patients in Hertfordshire with possible early symptoms such as a cough.
Hillingdon	To raise public awareness of early signs and symptoms of bowel cancer and promote early presentation to a GP with the hope of earlier diagnosis and subsequent better outcomes.
North Central London collaborative	To improve colorectal survival rates by encouraging people to recognise the signs and symptoms of colorectal cancer and to present at an early stage to their primary care practitioner, to enable GP's to refer patients into secondary care more efficiently and effectively within North London and West Essex. Our specific aims were to improve 1 and 5 year survival, reduce emergency admissions, increase referrals by the 2WW route, and conversion rates through this pathway, increase the proportion of early stage diagnosis, and decrease late stage diagnosis.
Inner North East London collaborative	To improve breast and lung cancer survival in City and Hackney, Newham, Tower Hamlets and Waltham Forest through increased awareness of signs and symptoms, leading to earlier presentation and diagnosis.
Eastern and Coastal Kent	To improve the one and five year survival rates of individuals with breast, bowel and lung cancer by encouraging earlier presentation and greater awareness of signs and symptoms in Eastern and Coastal Kent.
Lancashire and South Cumbria collaborative	To increase awareness of the early warning signs and symptoms of lung cancer in over 45s, smokers and family and friends of smokers aged 45+ in an attempt to encourage more people to present earlier at primary care and therefore diagnose lung cancer at an earlier stage.
Leeds	To reduce mortality from lung cancer in people aged 50 and over in inner south and inner east Leeds by identifying and addressing barriers to accessing case finding facilities. The focus will be on people who smoke and report a history of persistent cough lasting 3 weeks or more.
Leicester City	To increase the proportion of breast, colorectal and lung cancer cases in the Leicester population that are diagnosed at an earlier stage. To increase the uptake of breast, bowel and cervical screening.
North East Lincs Care Trust Plus	To contribute to a reduction in cancer mortality by specifically raising awareness of the signs and symptoms of lung cancer and to encourage earlier presentation at primary care.
Liverpool	To increase earlier presentation of the signs and symptoms of lung, colorectal and breast cancers among prioritised groups through the application of social marketing principles.

Promoting early diagnosis of breast, bowel and lung cancers

Project	Overall aim of the project/activity (as stated by the local project lead)
Greater Manchester and Cheshire collaborative	To promote cancer awareness and early diagnosis, focusing on breast, bowel and lung cancers, across the 11 PCTs in Greater Manchester and Cheshire targeting those people at highest risk through tailored social marketing campaigns, community-based training and engagement with primary care.
Medway	To improve lung cancer survival and reduce health inequalities in Medway through increased public awareness, encouraging earlier presentation and identification of lung cancer especially in the most deprived wards.
Northamptonshire	To improve the awareness of signs and symptoms of Breast, Lung, Prostate and Bowel Cancer in Northampton.
North Staffordshire	To increase the early detection and management of Cancer in North Staffordshire.
Northumberland Care Trust	To raise awareness and encourage early diagnosis of breast, bowel and lung cancer symptoms in rural Northumberland.
Outer North East London collaborative	Increase bowel cancer 1 year survival by encouraging early presentation.
Peninsula collaborative	Through collaboration across the Peninsula this project aims to change population behaviour to act on symptoms associated with lung cancer, facilitate prompt, appropriate investigation in primary care so that earlier diagnosis of lung cancer occurs in the South West, with a reduction in health inequalities.
Peterborough	To raise awareness of signs and symptoms of colorectal, lung and breast cancer in Peterborough, using social marketing to improve the stage of diagnosis and overall morbidity and mortality in these cancers.
Sandwell	To promote awareness of signs and symptoms of cancer and early diagnosis and understand the barriers to early presentation in Sandwell.
South East London collaborative	To improve colorectal cancer survival and reduce mortality by raising public awareness of the signs and symptoms of bowel cancer in areas of South East London Cluster.
SHIP collaborative	To increase the early awareness and diagnosis of colorectal cancer targeting the 50+ age group in areas of urban and rural deprivation.
Sunderland collaborative	To raise awareness of signs and symptoms and increase early presentation of lung cancer in individuals who have co-morbidities (COPD) associated with lung cancer, and/or fit the identified demographic profile.
South West London	To increase public and professional awareness of the signs and symptoms of bowel cancer. To improve access to earlier

Promoting early diagnosis of breast, bowel and lung cancers

Project	Overall aim of the project/activity (as stated by the local project lead)
collaborative	diagnostics and facilitate earlier diagnosis of bowel cancer across the South West London sector.
Tees collaborative	To raise awareness and promote earlier diagnosis of cancer with patients that have been identified as having at least a 20% risk of developing CVD via NHS Health Check Programme across NHS Tees - Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton on Tees.
Thames Valley collaborative	Increase the awareness of the general public, Health Activists, Professionals and Volunteers in the awareness and early detection of Lung and Colorectal Cancer with the intention of encouraging early diagnosis of colo-rectal and lung cancer within the Thames Valley Cancer Network area.
Trafford	To increase staff awareness of the risk factors and signs and symptoms of bowel cancer, the bowel cancer screening programme and to gain confidence and knowledge to advise others on taking appropriate action.
Warwickshire	To increase awareness of the signs and symptoms of cancer in disadvantaged areas of Nuneaton and Bedworth and reduce the number of people who do not recognise that their symptoms could be due to cancer, or deny or ignore such symptoms.
Wolverhampton collaborative	To improve life expectancy and reduce health inequalities by focusing on the early identification of lung cancer within the most disadvantaged and high risk areas of Wolverhampton, Shropshire and Telford.
Yorkshire collaborative	To raise awareness of signs and symptoms of cancer and promote the benefits of presentation to primary care and earlier diagnosis.

Source: 2010/11 local projects online survey

Appendix 5: Target population (estimate)

Project	Target population estimated by projects
Anglia collaborative	2,787,500
Barnsley	88,438
Bedfordshire	433,000
Bolton	5,000
Brighton and Hove	73,500
Bury	52,600
Western Cheshire & Cheshire West	10,601
Croydon	300,000
Cumbria	200,000
Derby City	30,000
Derbyshire County	49,942
Doncaster	81,208
Ealing	11,000
Essex collaborative	400,000
Gloucestershire (breast)	7,888
Gloucestershire (lung)	17,734
Halton & St Helens	90,000
Hammersmith & Fulham	32,887
Herefordshire	115,700
Hertfordshire	1,400,000
Hillingdon	15,000
North Central London collaborative	1,500,000
Inner North East London collaborative	50,000
Eastern and Coastal Kent	710,000
Lancashire and South Cumbria collaborative	26,000
Leeds	40,000
Leicester City	13,000
North East Lincs	8,519
Liverpool	50,001
Gtr Manchester and Cheshire collaborative	275,000
Medway	21,776
Northamptonshire	314,246
Northumberland	31,000

Promoting early diagnosis of breast, bowel and lung cancers

Project	Target population estimated by projects
Nottingham City	300,000
North Staffordshire	38,277
Outer North East London collaborative	200,000
Peninsula collaborative	350,113
Peterborough	24,258
Leicestershire County and Rutland	20,001
Sandwell	100,000
South East London collaborative	49,514
Sheffield	50,001
SHIP collaborative	44,391
Sunderland collaborative	10,000
South West London collaborative	800,000
Tees collaborative	14,325
Thames Valley collaborative	1,540,000
Trafford	19,054
Warwickshire	8,778
East Sussex Downs & Weald and Hastings & Rother	34,456
Wolverhampton collaborative	215,683
Great Yarmouth & Waveney	21,767
Yorkshire collaborative	519,000

Source: 2010/11 local projects online survey

Appendix 6: Flexible/Early Diagnosis of Cancer survey

EDC pilot campaign questionnaire: POST STAGE FINAL VERSION FOR SCRIPTING–04/03/2011

INTRO TO ALL: This is a survey about health issues, carried out on behalf of the Department of Health. It is important for us to speak to people of a certain age about the subjects within this survey...

AGE SCREENER QUESTION

(REQUIRED ON OMNIBUS SURVEY / FOR ADHOC SURVEY WILL HAVE ALREADY WORKED THIS OUT ON THE DOORSTEP):

...please can I just check, what is your age?

16-34

35-54

55+

Refused

IF 55 YEARS OR MORE, START SURVEY

Thank you.

We are interested in hearing your thoughts and beliefs, so please answer the questions as honestly as you can. Please be assured that these questions are strictly confidential and you will not be identified by your answers in any way.

If at any time in this survey you feel uncomfortable about a particular question and do not wish to answer, please just say so and we will be happy to move on.

Promoting early diagnosis of breast, bowel and lung cancers

Question number (regional pilot question name in brackets)	Question	Base	Health Belief Model stage / comments
SECTION 1: HEALTHY FOUNDATIONS SEGMENTATION QUESTIONS			
Q1 – statements. 1 -6 (HF1-6)	<p>I am going to tell you a number of things which people have said about their health. Please can you tell me for each one whether you agree or disagree?</p> <p>RANDOMISED</p> <ul style="list-style-type: none"> • Disagree strongly • Disagree • Disagree slightly • Neither agree nor disagree • Agree slightly • Agree • Agree strongly <ol style="list-style-type: none"> 1. I learn from my mistakes 2. If you don't have your health you don't have anything 3. There is nothing more important than good health 4. If a person is meant to get ill, it doesn't matter what a doctor tells them to do, they will get ill anyway 5. I intend to lead a healthy lifestyle over the next 12 months 6. I would describe my current lifestyle as healthy 	ALL	Statement 4 links with 6 - self efficacy (opposite to?)

Promoting early diagnosis of breast, bowel and lung cancers

Q2 (HF7)	<p>Compared with other people of your age, how likely do you think it is that you will get seriously ill at some point over the next few years?</p> <p>SINGLE CODE</p> <ul style="list-style-type: none"> • I am much LESS likely • I am a little less likely • No more or less likely • I am a little more likely • I am much MORE likely • Don't know • Refused 	ALL	1 – Susceptibility
Q3 (HF8)	<p>If you don't lead a healthy lifestyle, your health could be at risk</p> <p>SINGLE CODE</p> <ul style="list-style-type: none"> • In the next 12 months • In the next few years • In the next 10-20 years • Much later in my life • Not at all • Don't know • Refused 	ALL	1 – Susceptibility
Q4 (D9)	<p>Can I just check, are you registered with a GP surgery or practice in your local area?</p> <ul style="list-style-type: none"> • Yes • No • Don't Know • Refused 	ALL	
SECTION 2: PRE-STAGE CAMPAIGN MEASURES / ASCERTAINING NOISE			
Q5 (CM1)	<p>Have you seen, heard or read any adverts, publicity or other types of information in the last couple of months which focused on the subject of cancer?</p> <ul style="list-style-type: none"> • Yes 	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • No • Don't know 		
Q6 (CM4)	<p>Can I just check, <i>where</i> did you see or hear something about the subject of cancer?</p> <p>SHOW SCREEN - CODE ALL THAT APPLY</p> <p>INTERVIEWER: PLEASE ASK FOR MORE DETAIL IF RESPONSE IS GENERAL EG. IF SAY 'TV' PLEASE ASK - IS THAT A PROGRAMME, NEWS OR ADVERTISING?</p> <ul style="list-style-type: none"> • TV programme or news • TV advertising • TV (non specific) • Radio programme or news • Radio advertising • Radio (non specific) • National newspaper article • National newspaper advertising • National newspaper (non specific) • Local newspaper article • Local newspaper advertising • Local newspaper (non specific) • Magazine article • Magazine advertising • Poster/billboard/bus shelter • On buses/other transport • NHS Choices website • Advertising on the internet • Website other than NHS Choices • Something sent to me through the door • Leaflet/booklet (not through the door) • GP surgery 	IF YES AT Q5	

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • Hospital • Pharmacy/chemist • Social networking sites • word of mouth • Leisure centres / health clubs • anything else (other specify) • Don't know • Refused 		
Q7 (CM2)	<p>Which type of cancer was the focus of what you saw or heard? UNPROMPTED – MULTICODE PROBE FULLY: ONLY CODE 1 IF RESPONDENT CANNOT CLEARLY REMEMBER CANCER TYPE</p> <ol style="list-style-type: none"> 1. Cancer (general) 2. Lung 3. Breast 4. Skin 5. Prostate 6. Ovarian 7. Bowel/colon/colorectal 8. Testicular 9. Other 10. Don't know 11. Refused 	IF YES AT Q5	

Promoting early diagnosis of breast, bowel and lung cancers

Q8 (CM3)	<p>Which of the following were the main messages of what you recently saw, heard or read about bowel cancer/lung cancer/breast cancer? Please select up to three.</p> <p>SHOW SCREEN – MULTICODE</p> <ul style="list-style-type: none"> • To encourage people to go and see their GP/doctor • To encourage people to take up the offer of a bowel/breast cancer screening programme (NOT SHOWN IF LUNG SELECTED AT CM2) • To encourage people to carry out fundraising activity such as a run or attend a fundraising event • To encourage people to donate money to a bowel /breast/lung cancer related cause or charity • To raise awareness of the signs and symptoms of bowel /breast/lung cancer • To raise awareness of the link between lifestyle (eg. diet) and bowel /breast/lung cancer • Other (specify) • Don't know / can't remember 	ALL CODING 2 / 3 /7 AT Q7 – depending on campaign focus	
Q9 (WOMNEW)	<p>Have you talked about the subject of bowel/breast/lung cancer recently with friends or family?</p> <ul style="list-style-type: none"> • Yes, I introduced it into the conversation • Yes, they talked to me about it first • No • Don't know • Refused 	ALL	
SECTION 3: CAM QUESTIONS			
Q10 (Q24)	<p>How confident are you that you would notice a bowel/breast/lung cancer sign or symptom?</p> <ul style="list-style-type: none"> • I am very confident • I am fairly confident • I am not very confident 	ALL	6 – Self efficacy

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • I am not at all confident • Don't know • Refused 		
Q11 (Q17)	<p>If you found a symptom that you thought might be a sign of bowel/breast/lung cancer how soon would you contact your GP/doctor to make an appointment to discuss it, if at all?</p> <p>DO NOT PROMPT – CODE AS BELOW</p> <p>IF SAY IMMEDIATELY/STRAIGHTAWAY ETC PROBE FOR TIME SCALE</p> <ul style="list-style-type: none"> • The same day • One to three days later • Four to six days • One week • Two weeks • One month • Six weeks • Three months • Six months • Twelve months • More than twelve months • Never/would not contact GP/doctor • I am not registered with a GP/doctor • Don't know • Refused 	ALL	5 – Cues to action
SECTION 4: BENEFITS OF EARLY PRESENTATION			
Q12 – statements 1 -4 (EP2)	<p>I'm going to read you some statements that are sometimes made about bowel/breast/lung cancer, can you tell me how much you agree or disagree with each statement:</p> <ul style="list-style-type: none"> • Strongly disagree • Disagree • Agree 	ALL	3 – perceived benefits

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • Strongly agree • Don't know • Refused • Not applicable (eg. if not registered with a GP) HIDE THIS CODE OFF SCREEN <ol style="list-style-type: none"> 1. If bowel/breast/lung cancer is diagnosed early it can be treated much more successfully 2. Going to my GP/doctor early with a symptom of bowel/breast/lung cancer makes no difference to my chances of surviving cancer 3. Going to my GP/doctor early with a symptom of bowel/breast/lung cancer provides reassurance that the issue is now being addressed 4. Most cancer treatment is terrible, it is even worse than death 		
SECTION 5: SELF COMPLETION SECTION			
A section is coming up which includes questions that we would like you to fill in yourself, as we feel it is more appropriate for you to do so. We'll just go through a couple of practice questions so you can learn how to complete the survey yourself.			
Q13 (SCP1)	<p>Example of single coded question where only one response is allowed.</p> <p>Is yellow your favourite colour?</p> <ul style="list-style-type: none"> • Yes • No • Don't know 	ALL	
Q14 (SCP2)	<p>Example of MULTI-coded question where more than one response is allowed AND you can write in a response that isn't on the list. To write in a response, you first select "other" and then a screen appears where you use the screen pen to print your response in capital letters. Click ok after you have chosen\written your response.</p> <p>Which colours don't you like?</p> <ul style="list-style-type: none"> • Brown • Grey 	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • Black • Purple • Pink • Other • Don't Know 		
Q15 (SCP3)	<p>Example of an 'open ended' question where you record your response in your own words. In the area below the question, is where you use the screen pen to print in your responses. Please print and use capital letters.</p> <p>Why do you say that?</p> <p>OPEN ENDED</p> <p>Don't know</p> <p>Refused</p>	ALL	
<p>Now it's over to you. Please read the questions as they appear and remember to press OK when you have finished each question.'</p> <p>INTERVIEWER: Please hand the machine over to the respondent for them to complete the remainder of this link themselves</p>			
Q16 (Q15)	<p>There are many signs and symptoms of bowel/breast/lung cancer. Please write in as many as you are aware of (do not be concerned about the exact spelling).</p> <p>OPEN ENDED</p> <p>Don't know</p> <p>Refused</p>	ALL	6 - self efficacy (and knowledge)
Q17 (Q15b)	<p>How confident are you that you know the signs and symptoms of bowel / breast / lung cancer?</p> <p>Very confident</p> <p>Fairly confident</p> <p>Not very confident</p> <p>Not at all confident, I have just guessed</p> <p>Don't know</p> <p>Refused</p>	ALL GIVING AN ANSWER AT Q16 (NOT DK OR REF)	

Promoting early diagnosis of breast, bowel and lung cancers

<p>Q18 – statements 1-8 (Q16)</p>	<p>I'm going to list some symptoms that may or may not be warning signs for bowel/breast/lung cancer.</p> <p>Please be reassured that having one of these signs or symptoms does not necessarily mean that you have bowel/breast/lung cancer but simply that it should be investigated further.</p> <p>For each one can you tell me the extent to which you think it is a warning sign for bowel/breast/lung cancer.</p> <p>RANDOMISE</p> <ul style="list-style-type: none"> • Is definitely not a warning sign • Is probably not a warning sign • Is probably a warning sign • Is definitely a warning sign • Don't know • Refused <ol style="list-style-type: none"> 1. Bleeding from your back passage for three weeks or longer 2. Persistent pain (lasting three weeks or longer) in your abdomen (tummy) 3. Poo that is looser than usual, for three weeks or longer 4. A feeling that your bowel does not completely empty after using the toilet 5. Blood in your poo for three weeks or longer 6. Pain in your back passage for three weeks or longer 7. Unexplained weight loss 8. Going to the toilet for a poo more frequently, for three weeks or longer' 	<p>ALL</p>	<p>6 - self efficacy</p>
<p>Q19 – statements 1-5 (Q18)</p>	<p>Sometimes people put off going to see the GP/doctor, even when they have a symptom that they think might be serious.</p> <p>How much would you agree or disagree that the following reasons may put you off going to see the GP/doctor even if you had a symptom that you thought might be a sign of bowel/breast/lung cancer?</p> <ul style="list-style-type: none"> • Strongly disagree 	<p>ASK ALL WHO ARE REGISTERED WITH A GP (CODE 1 AT Q4)</p>	<p>4 – barriers (and cue to action)</p>

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • Disagree • Agree • Strongly agree • Don't know • Refused <ol style="list-style-type: none"> 1. I would be too embarrassed to talk about my bowel/breast issues with the GP/doctor 2. I would be worried about wasting the GP/doctors time 3. My GP/doctor would be difficult to talk to about signs and symptoms of bowel / breast / lung cancer 4. I would be worried about what the GP/doctor might find 5. I would not want to know if I have bowel/breast/lung cancer 		
Q20 (NOTCAM1)	<p>Have you, your family or close friends had bowel / breast / lung cancer?</p> <ul style="list-style-type: none"> • You • Partner • Close family member • Other family member • Close friend • Other friend • None • Don't know • Refused 	ALL	
Q21 (AWA1)	<p>The NHS in England offers a free bowel screening programme for those aged 60-69 (and up to 75 in some areas). Before today were you aware of the NHS Bowel breast) cancer screening programme?</p> <ul style="list-style-type: none"> • Yes • No • Don't Know 	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

	<ul style="list-style-type: none"> • Refused 		
Q22 (NEW)	<p>As far as you aware, have you ever been screened for bowel/breast cancer?</p> <ul style="list-style-type: none"> • Yes • No • Don't Know • Refused 	ALL	
Q23 (NEW2)	<p>If you were to be offered the opportunity to take part (again) in the NHS Bowel Cancer Screening Programme, would you take up the offer?</p> <p>Very likely Likely Unlikely Very unlikely Don't know Refused</p>	ALL	
Thank you for completing those questions for me. I have a few more simple ones left to answer now and then we'll be done.			

Promoting early diagnosis of breast, bowel and lung cancers

Question name	Question	Base	Health Belief Model stage/comments
SECTION 6: POST-STAGE CAMPAIGN RECOGNITION			
Q24a (CMLOGO)	Have you seen this logo before today? SHOW 'BE CLEAR ON CANCER' LOGO <ul style="list-style-type: none"> • Yes • No • Don't know • Refused 	ALL	Prompted logo awareness for Be Clear on Cancer
Q24b	Have you seen this ad on TV in the last couple of months? SHOW 30 SEC 'BE CLEAR ON CANCER' TV AD <ul style="list-style-type: none"> • Yes • No • Don't know • Refused 	ALL	NEW – POST STAGE ONLY
Q24c	Have you heard this ad on the radio, or anything similar, in the last couple of months? PLAY 3 x 30 SEC RADIO AD (on rotation so each is shown to a third of the sample – Heart radio ad set of 3 to be played) <ul style="list-style-type: none"> • Yes, heard this ad • Yes, heard something similar to this ad • No • Don't know • Refused 	ALL	NEW – POST STAGE ONLY

Promoting early diagnosis of breast, bowel and lung cancers

<p>Q24d</p>	<p>Have you seen any of these ads in the last couple of months? SHOW THREE PRESS AD(S) – TWO PORTRAYING A MALE DOCTOR, AND ONE A FEMALE DOCTOR – SHOW ON SAME SCREEN - SCROLL DOWN</p> <ul style="list-style-type: none"> • Yes, see at least one of these ads • No, seen none of these ads • Don't know • Refused 	<p>ALL</p>	<p>NEW – POST STAGE ONLY</p> <p>Clear on Cancer press ad(s)</p>
<p>Q24e</p>	<p>Have you seen this leaflet in the last couple of months? SHOW A PHOTO OF THE LEAFLET (OPEN)</p> <ul style="list-style-type: none"> • Yes • No • Don't know • Refused 	<p>ALL</p>	<p>NEW – POST STAGE ONLY</p>
<p>Q24f</p>	<p>What do you think was the main message of all the adverts which I have just played or shown to you? OPEN ENDED</p> <ul style="list-style-type: none"> • Nothing • Don't know • Refused 	<p>ALL</p>	<p>NEW – POST STAGE ONLY</p>
<p>Q24g</p>	<p>What thoughts or feelings, if any, if any did you have when you saw these adverts?</p>	<p>ALL</p>	<p>NEW – POST STAGE ONLY</p>

Promoting early diagnosis of breast, bowel and lung cancers

	<p>OPEN ENDED</p> <ul style="list-style-type: none"> • Nothing • Don't know • Refused 		
Q24h	<p>I am now going to read out some statements about the advertising you have seen and heard. Thinking about all of this advertising, please tell me to what extent you agree or disagree with each statement.</p> <p>ONE STATEMENT PER SCREEN; RANDOMISE ORDER</p> <ul style="list-style-type: none"> • Agree strongly • Agree slightly • Neither agree nor disagree • Disagree slightly • Disagree strongly • Don't know <ol style="list-style-type: none"> 1. The advertising is relevant to you 2. The advertising told you something new 3. This advertising stands out from other advertising 4. This advertising is clear and easy to understand 5. It is important that adverts like this are shown 6. This advertising would make you more likely to go to your GP or doctor if you had any of these symptoms and felt concerned about them 	ALL	NEW – POST STAGE ONLY
Q24j	Q40. As a result of seeing or hearing any of the ads I have just shown you, did you do any of the following:	ALL WHO RECOGNISE AN AD	NEW – POST STAGE ONLY

Promoting early diagnosis of breast, bowel and lung cancers

	<p>Please choose all that apply (SHOW LIST – randomise) PROBE FULLY</p> <ul style="list-style-type: none"> • Thought about making an appointment to talk to my GP or doctor • Made an appointment to talk to my GP or doctor • Talked to another healthcare professional • Talked to a practice nurse • Talked to friends or family members about symptoms of my own • Talked to friends or family members to advise them about the information in these ads • Visited an NHS website for further advice or information • Visited a website other than the NHS for further advice or information • Called NHS Direct for further advice or information • NOTHING • Something else (specify) • Don't know 	<p>FROM THE CAMPAIGN (Code 1 at Q24b or Q24e Q24f OR code 1/2 at Q24d)</p>	
SECTION 7: DEMOGRAPHICS			
Q25 (D2)	<p>Sex of respondent (interviewer to enter)</p> <ul style="list-style-type: none"> • Male • Female 	ALL	
Q26 (D1)	<p>What is your age?</p> <p>NUMERIC</p> <p>Refused</p>	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

<p>Q27 (D3)</p>	<p>Which of these best describes your ethnic group?</p> <p>WHITE</p> <ul style="list-style-type: none"> • White British • White Irish • Any other White background <p>MIXED</p> <ul style="list-style-type: none"> • White & black Caribbean • White & black African • White & Asian • Any other mixed background <p>ASIAN OR ASIAN BRITISH</p> <ul style="list-style-type: none"> • Indian • Pakistani • Bangladeshi <p>BLACK OR BLACK BRITISH</p> <ul style="list-style-type: none"> • Black Caribbean • Black African • Any other Black background <p>Chinese/other</p> <ul style="list-style-type: none"> • Chinese • Other <p>Prefer not to say</p>	<p>ALL</p>	
<p>Q28 (D4)</p>	<p>Marital status of the respondent:</p> <ul style="list-style-type: none"> • Married / living as married • Single • Widowed / divorced / separated 	<p>ALL</p>	

Promoting early diagnosis of breast, bowel and lung cancers

SOCIAL GRADE QUESTIONS			
Q29 (Q31)	Which member of your household is the Chief Income Earner, that is the person with the largest income whether from employment, pensions, state benefits, investments or any other sources ? Respondent Respondent's spouse/partner Other	ALL	
Q30 (Q32)	Working status of Chief Income Earner (CIE) 1. Employed 2. Not employed 3. Not working, dependent on state benefit 4. Not working, other income	ALL	
COLLECT OCCUPATION OR PREVIOUS OCCUPATION DETAILS OF CIE			
Q31 (Q80)	What type is the type of firm where the CIE works? OPEN ENDED	ALL	
Q32 (Q81)	What is the type of job actually done by the CIE? OPEN ENDED	ALL	
Q33 (Q82)	What is the title, rank, grade, etc. of the CIE? OPEN ENDED	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

Q34 (Q83)	How many is CIE responsible for? OPEN ENDED	ALL	
Q35 (Q34)	DOES THE CIE HAVE ANY QUALIFICATIONS (SUCH AS APPRENTICESHIPS, PROFESSIONAL QUALIFICATIONS, UNIVERSITY DEGREES, DIPLOMAS ETC.) Does the CIE have any qualifications? <ul style="list-style-type: none"> • Yes • No 	ALL	
Q36 (Q35)	ENTER QUALIFICATIONS	ALL	
Q37 (Q36)	ENTER ANY OTHER RELEVANT DETAILS TO ASSIST CLASSIFICATION OF OCCUPATION AND INDUSTRY. IF NO FURTHER DETAILS PRESS "OK"	ALL	
Q38 (Q9258)	Is this the correct address? <ul style="list-style-type: none"> • Yes • No 	ALL	
Q39 (Q9281_2)	If [Q9258 , 2] otherwise continue at question Q37 DO NOT USE PEN TO WRITE ANSWERS ENTER YOUR RESPONSE USING THE PAD ON SCREEN Please give me your full postcode: INTERVIEWER INSTRUCTION: "TW16" is not a full post code: however "TW16 6HB" is a full post code. When entering the postcode please ensure you insert a space (blank) between the two halves of the code.	IF NO AT Q38	

Promoting early diagnosis of breast, bowel and lung cancers

	Also, please take care to distinguish between the numbers '0' and '1' and the letters 'O' and 'I'.		
Q40 (Q9230_2)	DO NOT USE PEN TO WRITE ANSWERS ENTER YOUR RESPONSE USING THE PAD ON SCREEN Please ensure that you insert a space (blank) between the house number and the street name.	IF NO AT Q38	
Thank you very much for your time today			
Q41 (Q42)	Social Grade AB C1 C2 D E	ALL	
Q42 (Q46)	RECONTACT: There may be sometime in the future where the Kantar Group would like to contact you again for market research. Would you be happy to be re-contacted? <ul style="list-style-type: none"> • Yes • No 	ALL	
Q43	RECONTACT: DH may be conducting some further research on this topic in the future. Would you be happy for someone from TNS-BMRB to re-contact you and invite you to participate in this research?	ALL	

Promoting early diagnosis of breast, bowel and lung cancers

	1. Yes 2. No		
END			

Appendix 7: Survey methods and data from projects providing information on campaign awareness and cancer awareness

Project	Barnsley	Doncaster	Essex collaborative	Gtr Mchr & Chesh collab	Hammersmith & Fulham	Lancashire & South Cumbria collaborative	Medway	North Central London collaborative	South East London collaborative	Sunderland collaborative	Thames Valley collaborative
Tumour type	Lung	Breast, cervical, bowel, lung	Lung	Breast, bowel, lung	Lung	Lung	Breast, cervical, bowel, lung	Bowel	Bowel	Lung	Bowel, breast, lung
Sample size	316	514	832	1,456	218	541	516	650	718	218	1,323
Sample	Aged 50+	Aged 55+	Aged 45+ C2DE	Aged 50+ C2DE BC1 South Asian boost	Aged 50+ C2DE	Aged 45+ C2DE	Aged 45+ C2DE	Aged 50+ C2DE	Aged 55+ C2DE	Aged 45+ C2DE	Aged 40-69.
Survey mode	Face-to-face, in street	Face-to-face, in street	Face-to-face, in home	Face-to-face, in home	Face-to-face, in street	Face-to-face, in home	Face-to-face, in street	Face-to-face, in home	Face-to-face, in street	Face-to-face, in home	Face-to-face, in home

Q. Have you seen, heard or read any adverts, publicity, or other types of information in the last couple of months which focused on the subject of cancer? %

	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Campaign awareness	61	61	51	71	68			47	47	54	56	67	61	56	61	61	76	68	46	55

Q. There are many warning signs and symptoms of cancer. Please name as many as you can think of (unprompted). % mentioned

	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Bleeding	3	3	26	0	0	26	26	11	10	2	5	23	41	54	57	46	15	9	28	27
Cough/hoarseness	46	49	6	0	0	8	11	1	9	35	44	12	5	*	9	5	51	57	5	7
Lump/swelling	4	3	57	0	0	64	61	7	4	4	4	53	42	1	57	52	6	4	62	67
Pain	11	6	27	0	0	27	21	15	5	9	16	17	26	33	42	43	14	21	16	29

Promoting early diagnosis of breast, bowel and lung cancers

Q. I'm going to list some symptoms that may or may not be warning signs for xxx cancer. Please be assured that having one of these symptoms does not necessarily mean that you have cancer, but simply that it should be investigated further. For each one can you tell me the extent to which you think it is a warning sign for xxx cancer? % Agree

	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post	1 wave	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Unexplained bleeding			90			84	81					89							86	86	
Unexplained lump/swelling			95			90	94					93							95	97	
Unexplained weight loss			95			83	83			71	66	88	72	66	82	87	68	66	87	89	
Persistent unexplained pain			80			71	73					72							79	77	
Persistent change in bowel/ bladder habits			93			85	86					90							84	88	
Persistent cough for 3 weeks or more	71	72		71	91			51	61									78	84		
Persistent cough/hoarseness			80			70	72					73							62	67	
Coughing up blood	94	95						59	67	85	86							88	91		
Painful cough	80	82						51	65	76	78							81	85		
Worsening or a change in an existing cough	80	82						48	65	75	81							82	87		
Persistent shortness of breath	85	87						57	64	76	79							73	82		
Persistent chest/ shoulder pain		69						41	51	63	64							29	31		
Changes in the shape of your fingers or nails	15	14						22	21	15	19							18	23		

Source: ICM Research

Appendix 8: Survey methods of projects providing data on confidence in detecting symptoms, anticipated help-seeking, attitudes towards cancer, and barriers to presentation

Project	Pre	Post	Cancer type	Respondent group	Comments
Anglia collaborative	3779	2470	Breast, bowel , lung	Aged 50+	Some questions were asked separately for each cancer type. The 'Pre' results refer to an Anglia CAM carried out in 2010.
Barnsley	316	323	Lung	Aged 50+	
Brighton & Hove	232	213	Bowel	Aged 50+	
Croydon		200	Lung	Aged 40+	A pre survey focussed on a different target group
Cumbria	207	208	Lung	Aged 50+	
Derbyshire	531	527	Bowel		
Doncaster		514	Breast, cervical, bowel, lung	Aged 55+	Post was completed during intervention activities
Ealing (all)		612	Breast, bowel	Aged 50+	Some questions separated out breast and bowel, others did not
Ealing (bowel)	297	315	Bowel	Aged 50+	Control vs. Intervention. Intervention refers to respondents who could recall the leaflet
Ealing (breast)	171	153	Breast	Aged 50+	Questions about breast cancer asked only to the women
East Sussex Downs & Weald and Hastings & Rother	280	647	Lung, bowel		
Eastern & Coastal Kent	403	597	Breast, lung, bowel	Lung/bowel: aged 45-70 Breast: women age 25+	Two pre surveys (1: lung/bowel, 2:breast) and 3 post surveys. Post did not include the questions for this analysis.
Essex collaborative	834	832	Lung	C2DE aged 45+	
Gloucestershire (breast)	300	301	Breast	Women aged 30+	
Gloucestershire (lung)	308	302	Lung	Aged 20+	Sampled from targeted deprived wards.
Great Yarmouth & Waveney	595		Bowel, lung	All ages	No post survey
Greater Manchester and Cheshire collaborative	1490	1456	Breast, bowel, lung	C2DE-BC1, aged 50+	South Asian booster.
Halton & St Helens	200	400	Breast, bowel, lung	Aged 40-70	
Hammersmith &	209	218	Lung	C2DE, aged	

Promoting early diagnosis of breast, bowel and lung cancers

Project	Pre	Post	Cancer type	Respondent group	Comments
Fulham				50+	
Hillingdon	338	642		Aged 50+	Results are weighted to reflect recent population data
Lancashire & South Cumbria collaborative		541	Lung	C2DE, aged 45+	
Medway		516	Breast, cervical, bowel, lung	C2DE aged 45+	One wave, following intervention
Mount Vernon	1251				Reporting combines results for main and control areas. Intervention figures not available.
NE Lincs	314	306	Lung	All ages	
North Central London collaborative	650	650	Bowel	C2DE, aged 45+	
North Staffordshire	240	248	Breast, bowel, lung		Several questions asked separately for each cancer type to the same respondents.
Northumberland Care Trust	1445		Bowel, breast, lung		Only have pre data available
Northampton	2216	1006	Breast, bowel, lung		Used 2008 national CAM as a baseline 'pre' comparator.
Peninsula			Lung		
Outer North East London	900	900	Bowel		Focused on three areas: Barking/Dagenham, Havering, Redbridge
SHIP collaborative	531	686	Bowel	Aged 50+	IMD was used to target most deprived wards
South East London	723	718	Bowel	C2DE aged 55+.	
Sunderland collaborative	218	218	Lung	C2DE, aged 45+.	
South West London		865	Bowel	Aged 40+	A pre survey focussed on a different area and target group.
Tees collaborative	585	612	Breast, bowel and lung		NB: the CAMs were completed with the general public but the project has focussed on a much smaller target group of high risk individuals
Thames Valley	641	1323	Bowel, breast, lung	Aged 40-69.	Used quotas to ensure ward and gender representation
Trafford	19	18	Bowel	Health care professionals	Given the difference of surveying health care professionals these results have not been included in this analysis
Warwickshire	141	109	Bowel, breast, lung		

Promoting early diagnosis of breast, bowel and lung cancers

Project	Pre	Post	Cancer type	Respondent group	Comments
Western Cheshire and Cheshire West	252	256	Lung	C2DE aged 55+	

Source: 2010/11 local projects online survey and local reports

Appendix 9: Behaviour change

Number of 2WW referrals for lung cancer, number of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer, and percentage of individuals diagnosed with lung cancer after coming through the 2WW for suspected lung cancer across projects whose public facing activity finished in or before July 2011 (alphabetical order)

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals referred through the 2WW for suspected lung cancer			Number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer			Percentage of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer		
			PRE	POST	% change	PRE	POST	% change	PRE	POST	% change
Cumbria*	Nov 2009-Jul 2010	Nov 2010-Jul 2011	339	359	6	75	121	61	22.1%	33.7%	11.6%
Doncaster	Mar-Jul 2010	Mar-Jul 2011	130	125	-4	31	32	3	23.8%	25.6%	1.8%
Essex collaborative	Jun-Jul 2010	Jun-Jul 2011	133	182	37	44	45	2	33.1%	24.7%	-8.4%
Gloucestershire*	Jan-Mar 2010	Jan-Mar 2011	115	124	8	30	25	-17	26.1%	20.2%	-5.9%
Great Yarmouth and Waveney*	Jun-Jul 2010	Jun-Jul 2011	10	13	30	◇	◇	◇	◇	◇	◇
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	188	205	9	45	63	40	23.9%	30.7%	6.8%
Hammersmith & Fulham*	May-Jul 2010	May-Jul 2011	14	12	-14	◇	◇	◇	◇	◇	◇

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals referred through the 2WW for suspected lung cancer			Number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer			Percentage of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer		
			PRE	POST	% change	PRE	POST	% change	PRE	POST	% change
Hertfordshire ^{*50}	Apr-May 2010	Apr-May 2011	123	159	29	32	22	-31	26.0%	13.8%	-12.2%
Lancashire and South Cumbria Collaborative*	Jun-Jul 2010	Jun-Jul 2011	240	258	8	66	69	5	27.5%	26.7%	-0.8%
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	24	24	0	10	9	-10	41.7%	37.5%	-4.2%
Barnsley	May-June 2010	May-June 2011	47	42	-11	11	11	0	23.4%	26.2%	2.8%
Medway*	February-July 2010	February-July 2011	87	87	0	23	18	-22	26.4%	20.7%	-5.7%
Northamptonshire	Oct 2009-Mar 2010	Oct 2010-Mar 2011	241	213	-12	73	68	-7	30.3%	31.9%	1.6%
Western Cheshire & Cheshire West*	May-Jul 2010	May-Jul 2011	55	63	15	9	19	111	16.4%	30.2%	13.8%
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	64	59	-8	20	14	-30	31.3%	23.7%	-7.5%

⁵⁰ Hertfordshire extended their project to cover Luton PCT and so 2WW referral data for Luton PCT will be included in the further analyses.

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'PRE' period	Months included in the 'POST' period	Number of individuals referred through the 2WW for suspected lung cancer			Number of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer			Percentage of individuals diagnosed with lung cancer after being referred through the 2WW for suspected lung cancer		
			PRE	POST	% change	PRE	POST	% change	PRE	POST	% change
Northumberland Care Trust ⁵¹	Jan-Jul 2010	Jan-Jul 2011	-	-	-	-	-	-	-	-	-
Nottingham City	Mar-July 2010	Mar-Jul 2011	90	85	-6	29	23	-21	32.2%	27.1%	-5.2%
Peninsula Collaborative*	Jun-Jul 2010	Jun-Jul 2011	242	264	9	73	57	-22	30.2%	21.6%	-8.6%
Sandwell	Oct 2009-Jul 2010	Oct 2010-Mar 2011	101	103	2	20	15	-25	19.8%	14.6%	-5.2%
Sunderland collaborative*	Mar-Jun 2010	Mar-Jun 2011	266	300	13	70	73	4	26.3%	24.3%	-2.0%
Thames Valley Collaborative	Mar-Apr 2010	March-Apr 2011	228	249	9	62	60	-3	27.2%	24.1%	-3.1%
Wolverhampton collaborative*	May-Jul 2010	May-Jul 2011	162	201	24	29	36	24	17.9%	17.9%	0.0%

Source: National Cancer Waiting Times Monitoring Dataset

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey)

◇ Suppressed. Omitted due to small numbers.

⁵¹Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.

Appendix 10: Behaviour change

Number of 2WW referrals for bowel cancer, number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer, and percentage of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer across projects whose public facing activity finished in or before July 2011 (alphabetical order)

Project name	Months included in the 'Pre' period	Months included in the 'Post' period	Number of individuals referred through the 2WW for suspected bowel cancer			Number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer			Percentage of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer		
			PRE	POST	% change	PRE	POST	% change	PRE	POST	% change
Doncaster	Mar-Jul 2010	Mar-Jul 2011	374	402	7	17	19	12	4.5%	4.7%	0.2%
Ealing*	May-Jul 2010	May-Jul 2011	204	166	-19	14	6	-57	6.9%	3.6%	-3.2%
Great Yarmouth and Waveney* (bowel pilot area)	Jun-Jul 2010	Jun-Jul 2011	145	172	19	7	13	86	4.8%	7.6%	2.7%
Halton & St Helens*	Jan-Jul 2010	Jan-Jul 2011	612	626	2	26	39	50	4.2%	6.2%	2.0%
Leicester City*	Mar-Apr 2010	Mar-Apr 2011	88	109	24	◇	7	◇	◇	6.4%	◇
Northamptonshire (bowel pilot area)	Oct 2009-Mar 2010	Oct 2010-Mar 2011	970	1046	8	70	69	-1	7.2%	6.6%	-0.6%
Nottingham City	Mar-Jul 2010	Mar-Jul 2011	271	274	1	22	11	-50	8.1%	4.0%	-4.1%

Promoting early diagnosis of breast, bowel and lung cancers

Project name	Months included in the 'Pre' period	Months included in the 'Post' period	Number of individuals referred through the 2WW for suspected bowel cancer			Number of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer			Percentage of individuals diagnosed with bowel cancer after coming through the 2WW for suspected bowel cancer		
North Staffordshire*	Mar-Jun 2010	Mar-Jun 2011	326	308	-6	22	23	5	6.7%	7.5%	0.7%
Northumberland Care Trust**⁵²	Jan-Jul 2010	Jan-Jul 2011	-	-	-	-	-	-	-	-	-
Outer North East London collaborative	Apr-Jun 2010	Apr-Jun 2011	455	531	17	25	25	0	5.5%	4.7%	-0.8%
Sandwell	Oct 2009-Jul 2010	Oct 2010-Jul 2011	717	709	-1	40	47	18	5.6%	6.6%	1.1%
SHIP collaborative*	Jun-Jul 2010	Jun-Jul 2011	903	881	-2	68	55	-19	7.5%	6.2%	-1.3%
Thames Valley collaborative (bowel pilot area)	Mar-Apr 2010	Mar-Apr 2011	991	1475	49	63	78	24	6.4%	5.3%	-1.1%
Trafford*	Feb-May 2010	Feb-May 2011	187	189	1	13	7	-46	7.0%	3.7%	-3.2%

Source: National Cancer Waiting Times Monitoring Dataset

*The project focused on areas smaller than PCT level, such as identified wards, MSOAs or GP practice populations (self-reported based on the online survey)

◇ Suppressed. Omitted due to small numbers

(bowel pilot area) these projects are within the geographic area covered by the Be Clear on Cancer bowel pilot

⁵² Data for Northumberland Care Trust was removed on 16/02/2012 due to a discrepancy highlighted by the local project team. This issue will be investigated during further analyses.