
The 'Small c' campaign

Increasing public awareness and
early diagnosis of breast and lung
cancer in East London

Evaluation report

The London Boroughs of City and Hackney, Newham, Tower
Hamlets and Waltham Forest

June 2014



1 Acknowledgments

East London NAEDI Steering Group 2011- 2013

Vicky Hobart	Consultant in Public Health	City and Hackney Primary Care Trust
Anna Garner	Public Health Strategist	City and Hackney Primary Care Trust
Tim Baker	Associate Director Public Health	Newham Primary Care Trust
Sarojini Ariyanayagam	Health Improvement Manager	Newham Primary Care Trust
Monica Hill	Public Health Strategist	Waltham Forest Primary Care Trust
Yaccub Emun	Head of Public Health Partnerships	Waltham Forest Primary Care Trust
Judith Shankleman	Senior Public Health Strategist	Tower Hamlets Primary Care Trust
Paul Collins	Senior Public Health Strategist	Tower Hamlets Primary Care Trust
Jennifer Layburn	Programme Director, Early Diagnosis	North East London Cancer Network
Frances Haste	Consultant in Public Health	North East London Cancer Network
Susan Cunnington-King	Head of Communications	Barts and the London NHS Trust
Amanda White	Communications Manager	Barts and the London NHS Trust
Emma West	General Practitioner	Statham Grove Surgery, N16

We are grateful for expert advice, data provision and support from:

Jason Petit	Cancer Intelligence Manager	North East London Cancer Network
Viv Mack	Information Team Leader	Thames Cancer Registry
Patricia Lopez-Gamio	Public Health Specialist (Analyst)	NHS North East London and the City
Sue Maughn	Clinical Advisor	Transforming Cancer Services Team
Cancer data managers		Barts and the London NHS Trust Homerton University Hospital Newham University Hospital Whipps Cross Hospital
Kay Eilbert	Director of Public Health	Waltham Forest Primary Care Trust
Esther Trenchard-Mabere	Associate Director of Public Health	Tower Hamlets Primary Care Trust

STRC Ethnic Focus was commissioned to carry out the Cancer Awareness and Breast Cancer Awareness Measures in 2009/10 and 2012/13

Audience was commissioned to undertake social marketing research on breast and lung cancer in 2011

Millbank Social Marketing Ltd was commissioned to review interventions to increase awareness of cancer

This report was written by: Anna Garner and Judith Shankleman with assistance from the East London NAEDI Steering Group

Date of this report: June 2014

Contents

1	Acknowledgments	2
2	Executive summary.....	5
3	Introduction.....	6
4	Background.....	6
4.1	Delays in the cancer diagnosis pathway	6
4.2	Low survival rates in East London.....	8
5	Objectives of the ‘Small c’ campaign.....	8
6	Assessing Local Need	9
7	Interventions	10
7.1.1	Target groups	10
7.1.2	Budget.....	11
7.1.3	Development of resources.....	11
7.1.4	Work with Primary care	12
8	Communication from GP practices to target population.....	14
8.1	Work with Community Pharmacies	14
8.2	Work with Community Groups	15
8.3	Advertising and media	17
8.4	Other interventions to increase early detection of cancer in 2011/12	18
9	Outcomes.....	19
9.1	Early evaluation: Department of Health data collection	19
9.2	Measuring symptom awareness and behavioural intentions: people targeted through community engagement.....	19
9.3	Measuring population level changes in symptom awareness and behavioural intentions .	20
9.3.1	Lung cancer awareness	21
9.3.2	Breast cancer awareness	22
9.4	Measuring the impact on the target population and Primary Care	27
9.4.1	GP referrals for suspected lung cancer	28
9.4.2	Lung cancers diagnosed	30
9.4.3	GP referrals for suspected breast cancer.....	34
9.4.4	Breast cancers diagnosed	36
10	Conclusions.....	41
11	Challenges and learning.....	42
11.1	Developing one campaign across different boroughs	42
11.2	Lack of evidence for early detection interventions	42

11.3	Data collection and analysis.....	42
11.4	Engaging GPs.....	42
11.5	Engaging Community Pharmacies.....	43
11.6	Measuring cancer awareness in local populations	43
11.7	Talking about cancer with communities.....	44
11.8	Sustainability.....	44
12	Next steps	45
12.1	Managing the project during the transition	45
12.2	Extending the campaign: 2013/14 and beyond.....	45
13	Recommendations.....	46
14	Appendix 1: Small c campaign media coverage report	47
15	Appendix 2: Examples of the small c campaign resources.....	52
16	Appendix 3: Data quality and limitations: acute trust metrics	53
16.1.1	Homerton Hospital and City and Hackney.....	53
16.1.2	Barts Hospital and Tower Hamlets.....	55
16.1.3	Newham Hospital and Newham	57
16.1.4	Whipps Cross and Waltham Forest.....	59
17	References	62

2 Executive summary

1. Background

- Survival rates from cancer in England are lower than in comparative countries and are likely to be linked to late diagnosis. Low public awareness of cancer is an important factor in late diagnosis. In East London, survival rates from cancer are particularly low with evidence of low public awareness and perceived barriers to presenting early to a doctor with cancer symptoms.
- The 'small c campaign' in 2011/2012 used a social marketing approach to increase public awareness of breast and lung cancer in local populations. It was a collaboration between the East London PCTs in City and Hackney, Newham, Tower Hamlets and Waltham Forest, funded by the Department of Health as part of the Cancer National Awareness and Early Diagnosis Initiative.

2. Findings

- The campaign was **effective in engaging communities at highest risk**. Around 10,000 people at increased risk of late diagnosis of lung and breast cancer were engaged in cancer awareness by community organisations and pharmacies between June 2011 and March 2012.
- While improvements in cancer awareness were not evident at wider population level, there were **increases in awareness** at local level measured by community organisations engaged with target groups through peer education. Regular breast checking increased from 37% to 46% in 192 female relatives engaged through a school-based programme in Newham. In a 20% follow-up sample of women engaged in Tower Hamlets, 73% (34) reported checking their breasts regularly compared with 38% in the general population.
- There were **increases in GP referrals for suspected breast cancer and lung cancer** in all four boroughs coinciding with the campaign. Breast cancer referrals increased by 22% from a monthly average of 261 in 2010/11 to 319 in 2011/12. Lung cancer referrals increased by 64% from a monthly average of 33 in 2010/11 to 54 in 2011/12.
- There was an **increase in the number and proportion of lung cancers diagnosed at an earlier stage** reported by Hospital Trusts which serve the four boroughs
 - 17% (70 of 403 lung cancers) were diagnosed at stage I or II in 2010
 - 18% (78 of 429 lung cancers) were diagnosed at stage I or II in 2011
 - 21% (83 of 398 cancers) were diagnosed at stage I or II in 2012
- In Tower Hamlets, where survival rates from breast cancer had been the lowest in England, Barts Health reported a **reduction in the proportion of late stage breast cancers**. 13% (9 of 70 breast cancers) diagnosed in 2010/11 had metastatic disease compared to 9% (7 of 77 breast cancers) diagnosed in 2011/12 with metastatic disease.

3. Recommendations

- The small c campaign was effective in increasing public awareness and early diagnosis of cancer and provides evidence of the need for continued investment in local areas.
- Partnership working between Public Health, CCGs, Hospital Trusts and the Integrated Cancer System, with alignment of strategic objectives would strengthen campaigns and improve access to more complete data against which interventions can be assessed.
- The quality of reported cancer data by acute trusts should be improved to enable more timely evaluation of interventions.

3 Introduction

Survival rates from cancer in England are lower than in comparative countries and are likely to be linked to late diagnosis. With the emergence of increasing data on particularly low survival rates from cancer in East London, Public Health cancer leads established a programme of work to encourage early diagnosis of cancer in their local areas. Following the launch of the National Awareness and Early Diagnosis Initiative (NAEDI), in April 2010 the Department of Health working with Cancer Research UK advertised grants for initiatives to improve early diagnosis of cancer. City and Hackney, Tower Hamlets, Newham and Waltham Forest, as four East London PCT areas with poor outcomes from cancer, formed a collaboration and were successful in obtaining £400,000. Improving early detection of cancer was made a PCT sector initiative, giving it corporate priority. A steering group was formed with Public Health leads from the four PCT areas, representatives from primary and secondary care, from Barts and the London communications team and the North East London Cancer Network (NELCN). The steering group was responsible for planning and overseeing the work carried out as part of the project, and reported to the NELCN Public Health Advisory Board.

4 Background

4.1 Delays in the cancer diagnosis pathway

Low relative survival rates from cancer in England are likely to be linked to late diagnosis, with a high proportion of the excess deaths occurring in the first 3 months after diagnosis^{1,2,3,4}. Late diagnosis of cancer leads to poorer prognosis, poorer survival and increased mortality. There are large variations in survival from cancer between socio-economic groups, with deprivation associated with later stage at presentation and lower survival^{5,6,7,8,9}. Delays in presentation to primary care can cause later stage at diagnosis and lower survival rates¹⁰. Survival from cancer in North East London is low, with late stage at presentation associated with this poor survival¹¹. The NAEDI pathway (figures 1a and 1b)¹² shows that there are various sources of potential delay along the diagnosis pathway, which can be divided into patient delay, doctor delay and system delay¹³.

Figure 1a. The NAEDI pathway

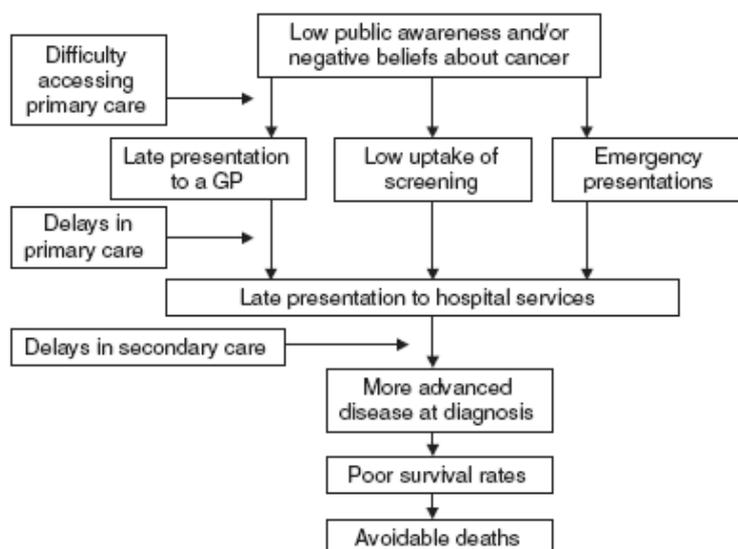
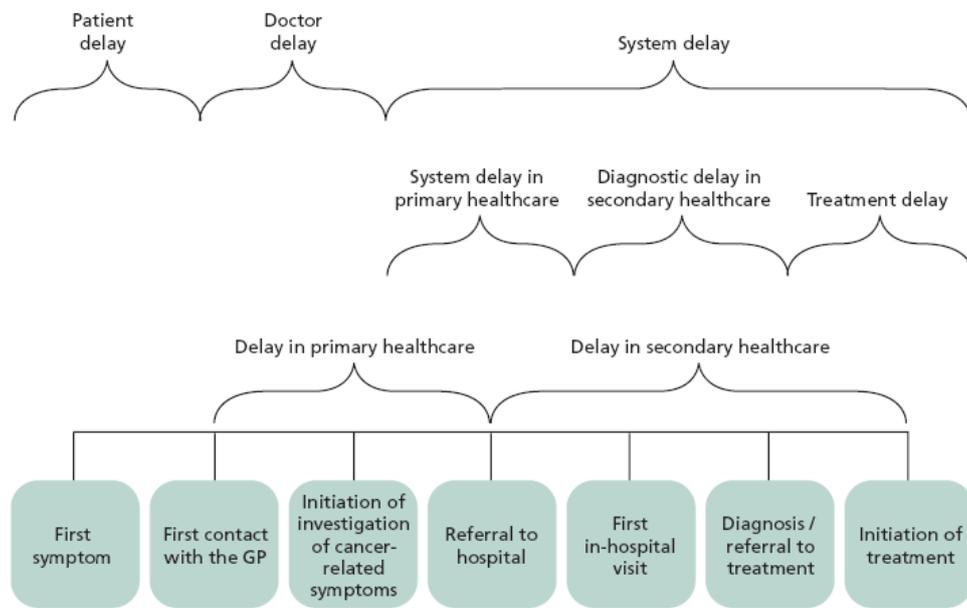


Figure 1b. The NAEDI pathway; potential delays in diagnosis and treatment

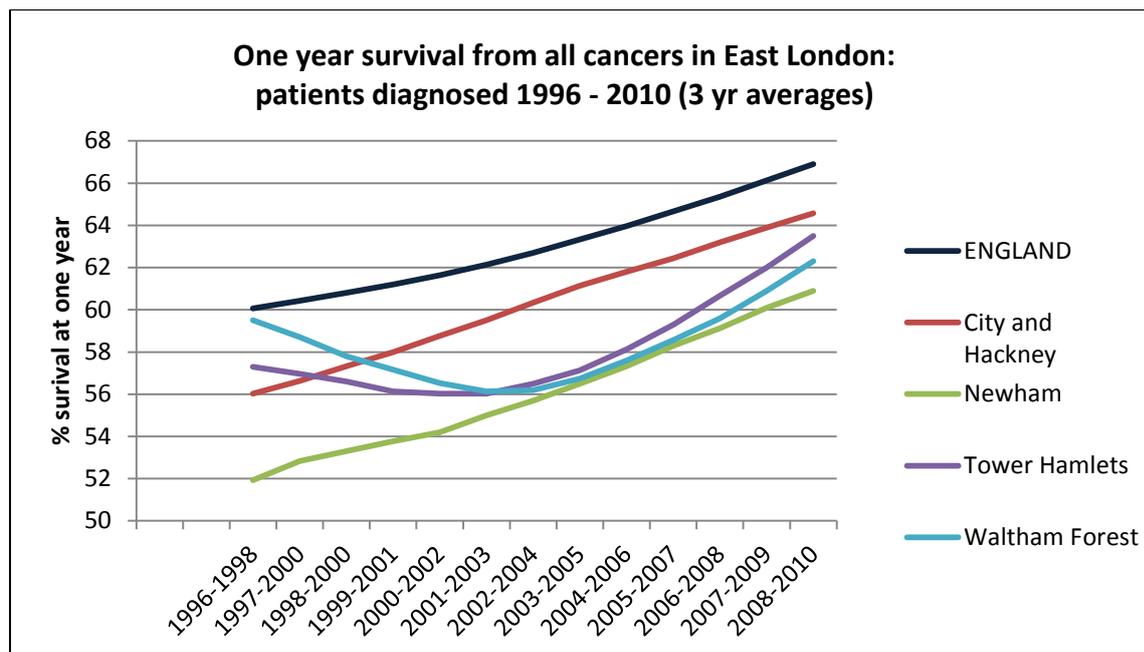


It has been suggested that lack of symptom recognition and awareness of symptom seriousness could account for the majority (60%) of patient delay¹⁴. Risk factors for delayed presentation include older age, being male, higher levels of deprivation, being from a BME group; having vague, non-specific, very common or very unusual symptoms; having had a previous normal test result; fear of cancer, embarrassment about symptoms; and lack of social support networks, partner support or anyone to speak to about the symptoms. Lack of awareness of the seriousness of symptoms is the most common factor identified across cancer sites^{15, 16, 17, 18}. Factors linked with reduced delays include having a serious or alarming symptom (e.g. pain or bleeding), having co-morbidity and having had a relative or friend with cancer¹⁹. Negative beliefs around cancer, such as fatalism, also contribute to delays in presentation²⁰.

4.2 Low survival rates in East London

Data from ONS on survival from all cancers shows that the percentage of people surviving for at least one year after a diagnosis of cancer is lower in all 4 East London boroughs than the England average²¹. Survival rates are improving over time but the gap between East London and England remains (figure 2). Data collection and reporting are likely to have improved since around 2000.

Figure 2. Percentage of people who survive for at least one year after diagnosis of all cancers across PCTs in East London and England



Source: ONS 2013 Index of cancer survival for Primary Care Trusts in England: patients diagnosed 1996 to 2010 and followed up to 2011

5 Objectives of the 'Small c' campaign

The small c campaign aimed to increase early diagnosis of cancer by increasing public awareness, with the following objectives

1. Develop and implement a social marketing campaign for cancer communication to ensure that population groups at greatest risk of late diagnosis are effectively targeted
2. Increase awareness of lung cancer symptoms in the target populations
3. Increase the number of women who regularly check their breasts and feel confident that they would notice changes
4. Reduce the proportion of people who would wait for more than 2 weeks to contact their doctor with lung or breast cancer symptoms
5. Show an increase in the number of urgent referrals for breast and lung cancer by GPs
6. Show an increase in the number of cancers diagnosed and in the proportion of new cancer cases with no spread at diagnosis.

6 Assessing Local Need

The original bid for Department of Health funding proposed a focus on breast, lung and bowel cancer. It was subsequently decided that because of the short timescale, there was insufficient capacity to target three cancer sites, leading to a risk of non-achievement of the project objectives. Therefore data on incidence, mortality, survival, potentially avoidable deaths and inequalities in each of the PCTs were analysed and criteria were identified for choosing which cancers to target.

Table 1 shows the criteria and assessment for the three most common cancers, from which it was decided to focus on breast and lung cancer for the first stage of the small c campaign. Public Health in Waltham Forest, recognising the particular problem of poor survival from bowel cancer in the borough, chose to use half their allocated NAEDI funding to work with the three outer NE London boroughs of Barking and Dagenham, Havering and Redbridge in a locally designed campaign to increase awareness of bowel cancer - as well as participating in the small c campaign.

Table 1. Needs assessment to determine cancers to be targeted by the campaign

	Breast cancer	Lung cancer	Bowel cancer
Which cancers could we make a difference to by early detection?	The earlier it is detected, the higher likelihood of survival	The earlier it is detected, the higher likelihood of survival Low awareness of symptoms	The earlier it is detected, the higher likelihood of survival Low awareness of bowel cancer and symptoms
Which cancers have the highest number of cases in the 4 PCTs?	Highest		Lowest
Which cancers cause the highest number of deaths in the 4 PCTs?		Highest (by over twice as many as the other 2)	
In which cancers are the highest numbers of avoidable deaths in the 4 PCTs?		Highest (by over twice as many as the other 2)	
For which cancers are there inequalities in survival between groups?	Low survival in Black women		

7 Interventions

7.1.1 Target groups

From analysis of risk factors and inequalities for lung and breast cancer the following target groups were identified (table 2):

Table 2. Data used in needs assessment for the East London NAEDI campaign

	Factors considered	Target Group	Target group
Lung Cancer	- main risk factor is smoking - 50% of lung cancers (80% in the over 60s)	Smokers and ex-smokers, any ethnicity, aged 50+	21,000 - 23,000 in each borough
Breast Cancer	- main risk factor is increasing age - incidence highest in White women compared to BME groups - African-Caribbean women have lower survival from breast cancer than other groups	Black and White women aged 40+	29,000 - 43,000 in each borough (highest in WF)

In each borough, data on these target populations by ward and GP practice was used to identify target practices and geographical areas for the campaign (table 3).

Table 3. Target GP practices and areas for the East London NAEDI campaign

	Targeted GP practices	Targeted geographical areas
City Hackney	12 target practices: Lawson, Queensbridge, Heron, Barton House, Statham Grove, Nightingale, Lower Clapton, Somerford Grove, Sorsby, Lea, Well St, London Fields	6 target wards (based on largest target populations): Queensbridge, Victoria, King's Park, Hackney Downs, Chatham, Hoxton
Newham	10 target GP practices: Custom House, Market Street, Tollgate, Star Lane, Dr Driver, Abbey Road, Greengate, St Bartholomew's, Claremont, Stratford Village	
Tower Hamlets	15 target practices in neighbourhoods with highest smoking and lung cancer rates: Globe Town, Mission, Albion, Spitalfields, XX Place, Harford, East One, Jubilee, St Stephens, St Pauls Way, Bromley by Bow, All Saints, Chrisp Street, Limehouse, Island Health	Neighbourhoods linked to these practices
Waltham Forest	12 practices in targeted wards: Kings Head, Phillips & Patel, Manor, Kiyani, Agarwal, Sharma, Microfaculty, Churchill, Hayat, Lime Tree, Old Church, Vicarage Road	4 target wards with the worst cancer mortality: Lea Bridge, Cathall, Larkwood, Chingford Green

7.1.2 Budget

The steering group agreed on how the pooled grant of £400,000 would be spent. Waltham Forest PCT split their allocation of £100,000 between the small c campaign and the outer NE London bowel cancer campaign (Barking and Dagenham, Havering and Redbridge). This was in response to particularly poor outcomes from bowel cancer in the borough. Table 4 shows the broad areas of spending on the campaign, described in more detail in the report.

Table 4. Small c budget allocation 2011/12

Shared costs	Activity	Total costs	Cost per PCT
Planning	Collation of evidence	£3,300	
	Project management support	£20,000	
	Evaluation support	£15,000	
	Social marketing research/focus groups	£20,000	
		£58,300	
Core campaign	Design/creative agency	£20,000	
	Online development work	£10,000	
	Print buying	£10,000	
	Communications project management	£10,000	
	Press office for core campaign	£30,000	
		£80,000	
Total shared costs		£138,300	
Cost for each PCT for shared activities			£34,575
Local campaigns	Media resources		
	Direct mail out costs		
	Commissioned community organisations: population engagement		
	Incentives (primary care, pharmacists)		
	Stakeholder training		
	Waltham Forest only: shared costs with outer NE London Bowel Cancer campaign		
Cost for each PCT for local campaigns		£261,700	£65,425
Total budget		£400,000	£100,000

7.1.3 Development of resources

A number of pieces of work fed into the campaign planning process:

1. Stakeholder engagement (GPs, practice nurses, pharmacists, breast screening radiographers)
2. A literature review to collate existing evidence on barriers and motivators to behaviour change around cancer and results of previous similar campaigns (carried out by Millbank Social Marketing Ltd)
3. Primary research with local target communities on barriers and motivators to early presentation with cancer symptoms and obtaining views on a variety of creatives for other campaigns, consisting of paired interviews and focus groups (carried out by Audience)

The steering group considered the outcomes of this work in developing initiatives within the campaign that were specific to each tumour site and the target communities. While behaviour change theories were considered, there was also some evidence arising from the community insight research that was not addressed in any detail in the literature review, most notably the impacts of fatalistic attitudes and stigma as they apply to cancer and to the population in East London, which is culturally and ethnically diverse with a diversity of faiths and beliefs.

A cautious approach was taken to agree the creative focus of materials produced for the campaign, aiming to avoid unintended consequences. As the programme developed the community based organisations we worked with provided valuable insight into the language, images and creatives used. Resources were developed to overcome barriers to early presentation including: posters and symptoms checker cards for lung cancer; posters, leaflets, nail files, Oyster card holders for breast cancer (appendix 2).

7.1.4 Work with Primary care

Work with primary care and GP practices varied between boroughs depending on the organisation of practices into clusters and network, and what forums or meetings existed.

In all boroughs, GP resource packs were distributed to all GP practices, which contained:

- information on the campaign, local statistics on cancer, role of primary care in early detection
- health promotion materials (posters for both breast and lung cancer, lung cancer symptom checkers, small and large breast leaflets and leaflet holders, breast cancer stickers)
- NICE guidance reminders
- Local guidelines for management of patients with persistent cough and following a chest x-ray

Training was also provided for practice staff, along with practice visits. Table 5 shows activities in each borough.

Table 5. Primary Health Care interventions on cancer awareness and early diagnosis

	Training for GPs	Training for other primary care staff	Practice visits	Meetings or visits	Other
City and Hackney	2 sessions by Homerton cancer clinicians and Public Health on lung and breast cancer, March 2011. Included early detection benefit, local cancer statistics, NICE guidance, case presentations and treatment pathway. 18-20 GPs at each session.	2 sessions (1 for 12 practice nurses, 1 for 18 receptionists) on breast and lung cancer, July 2011. Included early detection benefit, local cancer statistics, barriers to early presentation, interventions to improve cancer awareness.	Presentations at clinical meetings to 11 of the 12 target practices, March-July 2011.	Presentation at practice nurse forum, March 2011.	Information on the campaign included in the GP Cancer newsletter (sent to all practices), March and June 2011
Newham	GP education forum in April 2011 dedicated to early detection of breast and lung cancer provided by Public Health and Consultants from NUHT and covering topics mentioned above. Attended by 46 GPs	1 session for practice nurses training on breast awareness including early detection, statistics and interventions, May 2011. 26 nurses and 15 other staff (practice managers, health care Assistants, care staff, and GP administration staff).	Meeting with GP cancer and respiratory disease leads, Jan 2011 Presentations at clinical meetings to all 10 target practices, March-May 2011	Presentation at practice nurse and practice manager forum, Jan 2011 Meetings with district nurse and community matrons, March/ April 2011 Meeting with family planning staff, March 2011	Information on the campaign included in the GP Cancer newsletter (sent to all practices)
Tower Hamlets	2 sessions delivered by Barts cancer clinicians on lung and breast cancer in June/July 2011; 6 further sessions including breast cancer Sept to Dec 2011. Webcast of talks produced and disseminated	Presentations at practice and network meetings for multi-disciplinary teams; practice nurse meetings from July 2011 onwards.	Social Action for Health presented local insight research at 6 practice meetings	Team of 4 cancer locality facilitators visited all practices, set up displays and engaged practice staff	Local cancer practice profiles sent to all practices Practices incentivised to participate in audit. 62 cancers audited, report disseminated
Waltham Forest	GP education session held in late 2010	A session delivered as part of the practice nurse forum. Focused on lung, breast and bowel cancer symptoms, early detection and NAEDI resources.	Practice visits to all target practices to provide support for NAEDI resources. Social Action for Health visited 12 practices to deliver NAEDI resources	Presentations at the 3 CCG boards.	NAEDI resource packs were given to GPs in target practices and regular project updates were sent

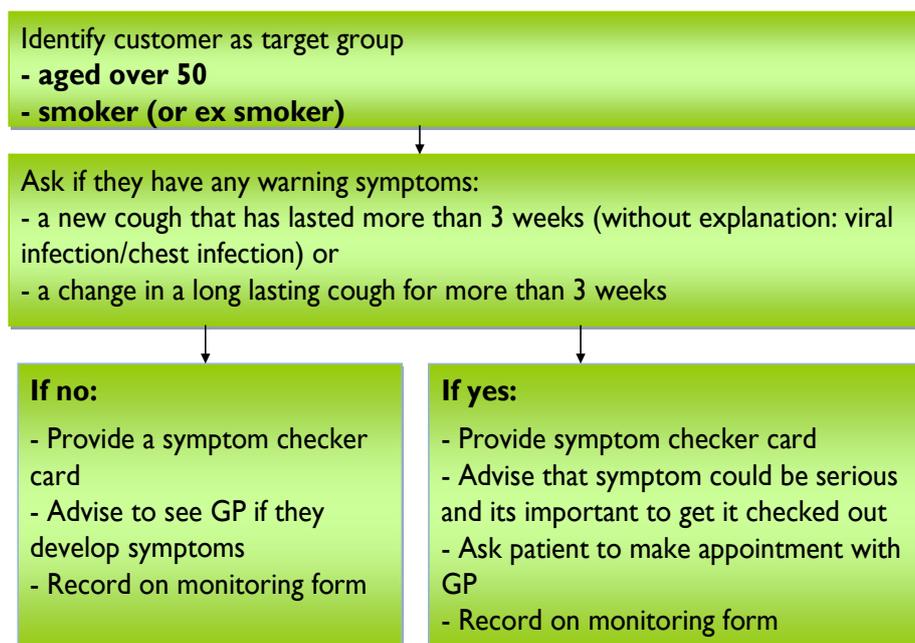
8 Communication from GP practices to target population

In Tower Hamlets and Newham, practices engaged in direct mailing, sending letters and information leaflets to people in the target groups for breast and lung cancer. In Newham, all ten target practices were involved in this intervention (23,000 people). In Tower Hamlets, three large practices sent letters and lung cancer symptom checkers to 3,500 people in 2011, and in 2012, four practices undertook the same exercise to 1,500 more people.

8.1 Work with Community Pharmacies

In Hackney, Newham and Tower Hamlets pharmacists were offered a small financial incentive to take part in a pilot project to identify and refer people with possible lung cancer symptoms, usually identified by a request for a cough remedy. Training was provided at the start of the project and printed resources (posters, symptom checker cards, stickers for cough medicine bottles) and monitoring forms were distributed. Follow up visits and phone calls to participating pharmacies from the Public Health leads continued throughout the project. Figure 3 shows the project pathway.

Figure 3. Pathway for the small c pharmacy campaign



Pharmacies were asked to complete monitoring forms recording each person to whom they spoke to about lung cancer symptoms. The results from these monitoring forms are shown in table 6. More than 900 people were referred to their GP with potential symptoms of lung cancer. Not all pharmacies completed monitoring forms each month, so there is likely to have been activity that is not reflected in this data.

Table 6. Small c pharmacy campaign activity 2011/12

	Pharmacies enrolled	Pharmacies completed	People spoken to	% people over 50	% smokers/ex-smokers	Symptom checkers given	Referred to GP
Hackney	21	7	246	56%	57%	203	116
Newham	21	20	1188	45%	57%	768	599
Tower Hamlets	21	13	330	53%	73%	197	219
Totals	63	40	1764	48%	60%	1168	934

Public Health leads also carried out a series of evaluation interviews with participating pharmacies to ask about their experience of the campaign. Feedback was positive, with almost all pharmacists saying the campaign had been useful to their customers and their staff and that they would participate in cancer awareness campaigns again.

8.2 Work with Community Groups

Social marketing research indicated the need for peer to peer communication as an essential element of the campaign. In each borough, Public Health was responsible for commissioning community organisations to work with target communities through outreach and engagement of community groups to raise awareness of breast and lung cancer symptoms. Eight community organisations across the four boroughs were commissioned. The models used by each organisation were slightly different, ranging from outreach in local shops, hairdressers, cafes and markets (leaving information and holding stalls), talks to established community groups, holding specific events with talks and information, mail-outs of leaflets to residents of Housing Associations and engaging with “key influencers” of people in target groups. A workshop to share learning on the successes and challenges was held in March 2012, during which all community providers presented their experience. Between June 2011 and March 2012, around 8,000 residents in target groups were engaged. Table 7 shows organisations commissioned in each borough and activities carried out.

Table 7. Small c community engagement activity 2011/12

Borough	Community Organisation	Target Group	No. of community sessions	No. of people participated in sessions	No. of people engaged through outreach	Total number of people engaged in target groups
City and Hackney	Social Action for Health	White women 40+	15	118	255	227
		Turkish/Kurdish women 40+				116
	Hackney African Forum	African & Caribbean women 40+	7 + 1 on radio	116	706	822
Tower Hamlets	Poplar HARCA In Local Area Partnerships (LAPs) 6 and 7	Bangladeshi men 50+	26	123	187	516
		White men and women 50+		123		
		White and black women 40+		123		
	Social Action for Health in LAPs 1 to 5	Bangladeshi men	24	315	114	572
		Black women 40+		143		
	Tower Hamlets Council of Mosques	Bangladeshi men 50+	54	161	46 congregations	161+
	Age UK	Men and women 50+	33	318	94	824
		White and Black women 40+	25	222	65	
		Not specified			126	
Newham	Community Links	Breast : White and Black women 40+ Lung: White men and women 50+ Bangladeshi men 50+		-	7073	3731
Waltham Forest	Social Action for Health	Breast: women 40+ Lung & bowel: men and women 50+	43 plus participation in 22 community events	840	874 + people given leaflets at events	874
Total						7843+

8.3 Advertising and media

The campaign was launched to the public in June 2011. For the launch event, local and regional newspapers and television channels were invited. The event was covered on ITV and BBC London news on the evening of the launch (15th June). Both ran a package including interviews with oncologists and cancer survivors who had their cancer diagnosed and treated at an early stage. Press releases were localised for each of the four boroughs with statistics and patient case studies from each area to generate local media interest. The local newspapers included:

- The Hackney Gazette (circulation 20,000)
- The East London Advertiser (circulation 24,000)
- The Newham Recorder (circulation 20,000)
- East End Life (circulation 87,000)
- Newham Mag (circulation 90,000)
- Hackney Today (circulation 90,000)

Details of the campaign were also covered on the following radio stations:

- BBC 94.9: Breakfast Programme - 500,000 audience reach
- BBC 94.9: Drivetime Programme - 500,000 audience reach
- LBC Radio 97.3 (syndicates to Heart and Classic FM national stations) - 950,000 audience reach
- Sunrise Radio (London) - audience reach 370,000

Ethnic media was also targeted to run the story about the campaign, to raise awareness of the main symptoms of breast and lung cancer and to encourage people to visit their GP if they are concerned. The following ethnic newspapers covered the story in July 2011:

- Muslim Post – 150,000 readers weekly
- Bangla Times – circulation 15,000
- Muslim Weekly – 50,000
- Bangla News – circulation 23,000

Throughout the campaign, new angles on the campaign were used to send out further press releases and gain further coverage in local newspapers, radio and television. This included a message over the festive season to encourage people to check for any unusual symptoms as a new year's resolution. The full media coverage report is contained in Appendix 1.

Public Health leads in City and Hackney and Waltham Forest also used advertising on bus stops and buses as part of the campaign. In Waltham Forest this was using the breast, bowel and lung posters on 6 bus routes (17 back of bus adverts), 6 bus stop/telephone kiosk sites and 2 shopping mall sites. In City and Hackney, this was part of the breast cancer campaign using 22 bus stops (2 weeks each) in 6 target wards between July 2011 and January 2012.

In Hackney, half page adverts were also placed in the Hackney Today and Hackney Gazette newspapers, monthly from July to December 2011. In Waltham Forest the following adverts were placed: 3 half-page adverts in the Waltham Forest news; 2 full page and 1 half-page adverts in Waltham Forest Guardian (June and September); 1 half-page advert in Yellow advertisers; 1 half-page advert in Waltham Forest and Chingford Guardian (September).

8.4 Other interventions to increase early detection of cancer in 2011/12

Other work on early detection of cancer was being carried out in East London during the period of the intervention included:

- In 2011 and 2012, national “Be Clear on Cancer” campaigns were run to raise awareness of the symptoms of bowel and lung cancer with materials sent to GP practices and adverts on TV, radio, newspapers and in the local press
- In 2011 Social Action for Health worked with communities and GPs in Hackney and Tower Hamlets to obtain insights into barriers to successful consultations between GPs and patients with suspected cancer symptoms
- Between April and October 2011, 11 GP practices in City and Hackney, Newham and Tower Hamlets participated in a national feasibility study of a cancer decision support tool (the Cancer Primary Care Risk Assessment Tool) to assist in the diagnosis of lung and colorectal cancer, co-ordinated by the NELCN
- Between January and March 2012, NELCN co-ordinated a Primary Care Improvement project with some practices in Newham, Tower Hamlets and Waltham Forest to improve early detection of cancer through system changes
- The mobile Cancer Research UK roadshow offered information to local communities on cancer prevention, early diagnosis and screening in East London on several occasions during the campaign. Small campaign resources were used on the roadshow.
- In late 2011, 6th form student members of “The Centre of the Cell” science club run by Queen Mary University of London, were consulted about how young people could support their families to recognise cancer symptoms and the importance of early diagnosis

9 Outcomes

Evaluation of the 'small c' campaign aimed to assess the effect of the campaign in the target populations on

- awareness of cancer symptoms
- intended behaviour (to present to a GP without delay if symptoms are noticed)
- actual behaviour (presentation of symptoms to GPs)

It also aimed to measure

- the impact on local GPs (referrals of suspected cancer symptoms)
- earlier detection of cancer in East London (number and stage at diagnosis of new cancers)

We could not measure presentation to GPs, so have used the number of GP referrals as a proxy measure of this

9.1 Early evaluation: Department of Health data collection

The Department of Health wanted to evaluate funded projects to add to the evidence base on how to improve early diagnosis of cancer. We were required to develop an evaluation framework for the campaign and submit quantitative and process data in July and October 2011. This data was collated for all 59 projects throughout England and analysed in a national report published in June 2012. This suggested that the 'small c' campaign led to a 44% increase in referrals for suspected lung cancer, the largest increase of the 59 projects.

9.2 Measuring symptom awareness and behavioural intentions: people targeted through community engagement

We assessed changes in knowledge and behaviour amongst people directly engaged in the campaign and across the wider population, specifically in women over the age of 40 for breast cancer awareness, and men and women over 50 for lung cancer awareness.

The community organisations commissioned to engage with local people in target groups in each borough undertook evaluation of their interventions to assess changes in symptom awareness, and confidence and intention to see a doctor without delay if symptoms were noticed. The following provide examples of changes in cancer awareness amongst people in target groups who were engaged through the small c campaign during 2011/12

- (i) In Newham, Community Links asked girls at Plashet School, their mothers and other female relatives about breast cancer symptoms and how soon they would see a doctor if they noticed changes. At the start of the project, only 1% of 613 girls and women recognised at least 5 possible symptoms; at the end, 58% of 432 girls and 29% of 192 women recognised 5 or more breast cancer symptoms. Regular breast checking increased from 37% to 46% in the women, and 85% of them said they would contact their doctor in less than 2 weeks if they noticed a change. Five percent of women had said they would never contact a doctor, but after the project only 1.6% still said this.
- (ii) In Tower Hamlets, Poplar HARCA telephoned 47 of 221 women (21% of those engaged) by telephone at the end of the year. The women named an average of 2.3

breast cancer symptoms each and 34 women (73%) said they checked their breasts regularly. 10 people (7.5%) of 103 engaged for lung cancer awareness were contacted and named an average of 1.9 lung cancer symptoms each.

- (iii) Social Action for Health asked 103 people engaged in Tower Hamlets, City and Hackney and Waltham Forest to complete a validated questionnaire after attending up to three group sessions. This showed statistically significant improvements in self-confidence to take action if cancer symptoms were noticed, and in feeling better about themselves.
- (iv) Tower Hamlets Council of Mosques reported that at the end of group sessions in Mosques, more than 90% of 142 men aged over 50 showed an increase in knowledge of lung cancer symptoms, said that they intended to see a doctor without delay if they noticed symptoms and planned to share information with their families and in their community.

9.3 Measuring population level changes in symptom awareness and behavioural intentions

Measuring symptom awareness and behavioural intentions in the general population was carried out using the Cancer Awareness Measure (a validated survey developed by Kings College London). This measured awareness of cancer symptoms, time with symptoms before anticipated help-seeking, awareness of common cancers, breast checking and confidence in finding symptoms. The baseline general Cancer Awareness Measure (CAM) was carried out in late 2009 in the seven PCT areas covered by the North East London Cancer Network. At the same time, the breast cancer specific Cancer Awareness Measure (BCAM) was undertaken in the three inner NE London boroughs only (City and Hackney, Newham and Tower Hamlets).

The post-campaign CAM and BCAM for women over 40 were combined as one survey and carried out in the winter of 2012/3. The fieldwork of both baseline and post-campaign CAM and BCAM were carried out by STRC Ethnic Focus. The comparison of the baseline and post-campaign CAM surveys and the metrics were analysed by Health Intelligence and Informatics (NHS North East London and the City). Although BCAM questions were included in the Waltham Forest survey, it was not possible to assess any changes as a baseline measure for breast awareness had not been undertaken.

Almost 3,000 people were interviewed in the post-campaign survey. The sample was weighted to enable comparison with the 2009 survey for the target groups for the small c campaign (women over 40 for breast cancer awareness; men and women over 50 for lung cancer awareness). Although there were some increases in cancer awareness, very few changes were statistically significant. In some cases there were reductions in symptom awareness, and in confidence in noticing changes and intention to consult a doctor without delay.

9.3.1 Lung cancer awareness

Amongst people over 50 years interviewed after the campaign, lung cancer symptom awareness appeared to have increased in Tower Hamlets and Waltham Forest and to have reduced in City and Hackney, particularly in women. However confidence intervals were wide and overall findings were not significant (table 8).

Table 8. Lung cancer symptom recognition target groups before and after the small c campaign

Do you think cough or hoarseness could be a symptom of cancer?		2009	2013	Change
Men and women 50+	City and Hackney	60.4%	44.4%	Non-statistically significant reduction
	Newham	52.7%	52.3%	No change
	Tower Hamlets	45.2%	50.2%	Non-statistically significant increase
	Waltham Forest	57.1%	66.7%	Non-statistically significant increase
	All boroughs combined	53.8% (n= 258)	53.1% (n= 684)	No change

There were small increases in lung cancer symptom recognition before and after the campaign within the main ethnic groups at all ages in all four boroughs combined (table 9). The numbers of people interviewed from each ethnic group were too low to allow comparison between age groups or boroughs. The statistical significance of these findings was not tested.

Table 9. Lung cancer symptom recognition amongst people in main ethnic groups before and after the small c campaign

Do you think cough or hoarseness could be a symptom of cancer?		2009 Percentage (number)	2013 Percentage (number)
Men and women at all ages, all four boroughs combined	Asian	46.9% (233)	50.2% (301)
	Black	49.1% (159)	53.2% (216)
	White	55.0% (405)	56.4% (506)
	Other and mixed	40.2% (84)	42.5% (48)

When people were asked in 2013 whether they would see a doctor within a week if they had a symptoms of lung cancer (cough or hoarseness), there were significant reductions in the proportions of both men and women over the age of 50 who said they would make an appointment within 1 week (26%) compared to the proportion in 2009 who said they would do this (37.5%) (table 10).

The campaign message may have confounded the response to this question: i.e. “see your doctor if you have had a cough for more than 3 weeks.” We had decided not modify any questions in the post-campaign survey to take account of campaign messages (for example by changing this question to “if you had unexplained cough or hoarseness for more than 3 weeks, how soon would you make an appointment?) because this would have prevented comparison with the previous survey. Changes in individual borough responses to this question were not analysed.

Table 10. Intention to see a doctor if lung cancer symptoms are noticed

If you noticed unexplained cough or hoarseness would you contact your doctor to make an appointment to discuss it in within 1 week? *	2009	2013	Change
Men and women aged 50+ combined	37.5% (180)	26.0% (335)	Low statistically significant reduction
Men aged 50+	35.6%	23.6%	
Women aged 50+	39.6%	28.5%	

*All boroughs, single borough data is not available

9.3.2 Breast cancer awareness

Women were asked to recognise possible symptoms of breast cancer, how often they checked their breasts, how confident they were in recognising changes and how soon they would see a doctor if they noticed a change in their breasts.

In the three boroughs where comparison was possible, there was an increase in awareness of some of the less common symptoms (rash, discharge or bleeding from the nipple; change in breast or nipple shape) and a reduction in recognition of other symptoms (pulling in or position change of a nipple). Waltham Forest data is included for 2013 only (table 11). Data was analysed by main ethnic group and deprivation indices (not shown).

Table 11. Breast cancer symptom recognition by women over 40 years old

Women aged 40 years and above	City and Hackney, Newham and Tower Hamlets combined		Waltham Forest	Change in City and Hackney, Newham and Tower Hamlets between 2009 and 2013
Do you think that X could be a sign of breast cancer?	2009 (941)	2013 (767)	2013 (231)	
Change in the position nipple	35.5%	21.1%	26.0%	Low statistically significant reduction
Pulling in of nipple	24.2%	16%	18.6%	Low statistically significant reduction
Pain in one breast or armpit	58.9%	56.5%	68.8%	No change
Puckering or dimpling of breast skin	22.1%	22.2%	23.8%	No change
Discharge or bleeding from your nipple	26%	34.4%	31.2%	High statistically significant increase
A lump or thickening in breast	74.8%	80.3%	87.9%	Non-statistically significant increase
Nipple rash	8.5%	14.6%	13.4%	High statistically significant

				increase
Redness of breast skin	12.4%	14%	13.0%	No change
Lump or thickening under armpit	49.7%	49.7%	50.2%	No change
Changes in the size of your breast or nipple	18.6%	18.87%	23.4%	No change
Changes in the shape of breast or nipple	10.2%	15.4%	14.7%	High statistically significant increase

There was a non-statistically significant reduction in the proportion of women over the age of 40 who checked their breasts at any time (table 12). Analysis of data by borough is not available. There was however a highly significant increase in women *under 40* who checked their breasts at least monthly from 7.6% in 2009 (n=39) to 14.4% in 2013 (n=73) (data not shown).

Table 12. Breast checking in women aged 40 and above

How often do you check your breasts? (combined score for at least once every 6 months, once a month, weekly)	2009	2013	Change
City and Hackney	45.7%	35.3%	Non-statistically significant reduction
Newham	-	-	Data not available
Tower Hamlets	35.1%	38.2%	Non-statistically significant increase
3 boroughs combined	36.6%	31.4%	Non-statistically significant reduction
Waltham Forest	-	25.5%	-

Breast checking was analysed by deprivation for women of all ages. For all three boroughs combined, there was little change in the proportion of women who reported breast checking within groups when defined by level of deprivation. Changes in breast checking amongst women from different deprivation levels between boroughs were inconsistent. Statistical significance was not checked in these analyses (data not shown).

Analysis by main ethnic group suggested that there were increases in reported breast checking in Asian and Black women and a reduction in breast checking by White women (table 13). Small numbers meant that analysis by age group and borough could not be undertaken. Statistical significance was not checked in these analyses.

Table 13. Breast checking in women of all ages by main ethnic group in City and Hackney, Newham and Tower Hamlets

How often do you check your breasts? (combined score for at least once every 6 months, once a month, weekly)	2009	2013
Asian	21.8%	27.1%
Black	26.2%	34.7%
White	37.9%	31.9%
Other and mixed	34.7%	35.2%
Total	31.9%	31.4%

There were non-statistically significant reductions in all three boroughs in the proportion of women both under and over 40 who said that they were confident that they would notice a change in their breasts (table 14). The proportion of women over 40 who said they were very confident fell from 16.9% to 8.2%. There were significant increases in the proportions of women at all ages who answered “don’t know” to this question; for women over 40 this increased from 7.8% in 2009 (n= 73) to 13.8% in 2013 (n=106).

Table 14. Confidence to notice changes in women aged 40+

How confident are you that you would notice a change in your breasts?	City and Hackney, Newham and Tower Hamlets		Waltham Forest	Change in City and Hackney, Newham and Tower Hamlets between 2009 and 2013
	2009 (n=941)	2013 (n=767)	2013 (n=231)	
Slightly/ fairly/very confident combined	74.7%	67%	71%	Non-statistically significant reduction
Not at all confident	16.7%	19%	19%	Non-statistically significant increase
Don’t know	7.8%	13.8%	10%	Highly statistically significant increase

There was no change in the overall proportion of women over the age of 40 who reported that they would see a doctor within a week if they noticed any changes in their breasts. Within boroughs there was an increase in Hackney and reductions in Newham and Tower Hamlets; these were not statistically significant (table 15).

Table 15. Intention to see a doctor without delay if changes are noticed in women aged 40+

If you found a change in your breast, would you contact your doctor to make an appointment to discuss it in less than 1 week?	2009	2013	Change
City and Hackney	47.4%	61.6%	Non-statistically significant increase
Newham	62.0 %	59.1%	Non-statistically significant reduction
Tower Hamlets	56.0%	44.5%	Non-statistically significant reduction
3 boroughs combined	55.6%	55.4%	No change
Waltham Forest	-	55.4%	-

Data were analysed by main ethnic groups. There were reductions in the proportion of women who would make an appointment within a week if changes were noticed for all groups except for Black women (table 16). Results were not tested for statistical significance.

Table 16. Intention to see a doctor without delay if changes are noticed by main ethnic group, women of all ages

If you found a change in your breast, would you contact your doctor to make an appointment to discuss it in less than 1 week?	2009	2013
Asian	53.1%	46.9%
Black	49.3%	51.5%
White	55.7%	54.2%
Other and mixed	59.7%	39.4%
Total	54.2%	51.1%

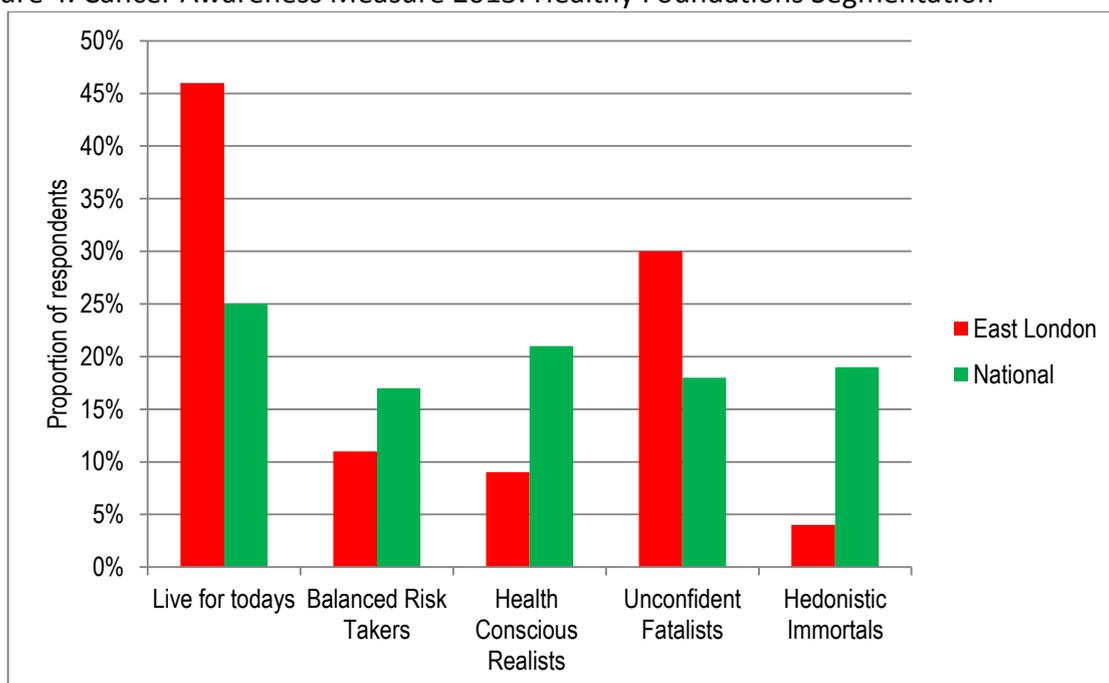
In addition to comparing differences in awareness between groups by age, gender, ethnicity and deprivation level, the second survey included additional questions using the Healthy Foundations Segmentation Tool²². This tool aims to provide understanding of the behavioural drivers that influence health beliefs and behaviour in local populations.

The survey showed that much higher proportions of the East London population compared to the national population could be classified as “live for today’s” - 46% compared to 25% nationally, with more than half the population surveyed (55%) in this category in Waltham Forest; and “unconfident fatalists” - 30% were in this category compared to 18% nationally, ranging from 20% in Hackney to 41% in Tower Hamlets. This is not an unexpected finding in areas of higher social deprivation. These groups can be particularly difficult to reach and influence using traditional health promotion routes, compared to people who are “health conscious realists.” Only 9% of the East London population surveyed were in this group, compared to 21% of the national population (table 17 and figure 4).

Table 17. Cancer Awareness Measure 2013: Healthy Foundations Segmentation

	City and Hackney		Newham		Waltham Forest		Tower Hamlets		Total	Four boroughs combined	National proportions
Live for today’s	366	49%	304	41%	391	55%	294	41%	1355	46%	25%
Balanced Risk Takers	81	11%	110	15%	67	9%	60	8%	318	11%	17%
Health Conscious Realists	89	12%	74	10%	45	6%	50	7%	258	9%	21%
Unconfident Fatalists	154	20%	253	34%	182	26%	297	41%	886	30%	18%
Hedonistic Immortals	63	8%	7	1%	28	4%	18	3%	116	4%	19%
	753	100%	748	100%	713	100%	719	100%	2933	100%	100%

Figure 4. Cancer Awareness Measure 2013: Healthy Foundations Segmentation



General cancer symptom awareness, breast cancer symptom awareness, confidence to notice symptoms and intention to see a doctor without delay were measured using the Healthy Foundations segmentation categories. Limited analysis is available and statistical significance was not checked (table 18). The findings suggest that women who are classified as “live for todays,” “unconfident fatalists” and “balanced risk takers” (87% of the East London population surveyed) are less likely to present promptly to a doctor if they noticed a change in their breasts, compared to the small proportion of women who are “health conscious realists” and represent less than 10% of the local population.

Table 18 Intention to report symptoms to a doctor by Healthy Foundations segment

Healthy Foundations segment (4 boroughs)	Balanced risk takers	Health conscious realists	Hedonistic Immortals	Live for todays	Unconfident fatalists
If you noticed unexplained cough or hoarseness would you contact your doctor to make an appointment to discuss it in within 1 week? (Men and women of all ages)	54.3%	55.1%	47.4%	52.1%	54.8%
If you found a change in your breast, would you contact your doctor to make an appointment to discuss it in less than 1 week? (Women all ages)	50.9%	62.9%	63.0%	47.4%	50.7%

9.4 Measuring the impact on the target population and Primary Care

Assessment of the impact on the behaviour of the target population and GPs was achieved by measuring GP referrals for suspected cancer and new cancer diagnoses. Public Health leads engaged the local acute trusts to provide this data for January 2010 to March 2011 (used as the baseline period) and monthly from April 2011 to September 2012 (during and after the campaign period).

High quality and timely cancer intelligence, including stage at diagnosis, is essential to assess population needs and to evaluate interventions. Rigorous and consistent systems to obtain this data in a timely manner from acute trusts should be a priority. This is recognised at national and local level by cancer commissioners, and the quality and completeness of cancer data is now monitored and publicly reported.

The following metrics were subsequently used for analysis:

Lung cancer

- Number of GP 2 week wait (2ww) referrals for suspected lung cancer
- Number of lung cancers diagnosed with no spread at diagnosis (early stage)
- Number of lung cancers diagnosed with metastasis (late stage)

Breast cancer

- Number of GP 2ww referrals for breast cancer
- Number of breast cancers detected with no spread at diagnosis
- Number of breast cancers diagnosed with metastasis

These data were available from a number of sources:

- Thames Cancer Registry (TCR) provided validated data on cancer cases by PCT area. Individual patients may be diagnosed with more than one primary tumour within the same data collection period, each counting as a new *case*; cancer registry data may therefore be higher than other sources where the numbers of *patients* are counted
- North East London Cancer Network (NELCN) provided data on GP 2ww referrals (from the Cancer Waiting Times database)
- The local acute trusts provided referral and diagnosis data for patients treated at their Trust. Some patients attend a Trust outside their area of residence (cross border flow) so these measures may differ from measures using borough of residence. For example, screen detected cases will be recorded by the Trust hosting the screening service, relevant for breast cancer because the screening service (CELBSS) is hosted by Barts. Trusts' capacity to provide this data was variable, dependent on data collection, management and analysis resources. Not all data was available from all Trusts and data quality varied, meaning that some data was not deemed reliable for this evaluation. Data from different sources was used for different areas, dependent on quality. (Appendix 2 describes data sources and limitations)

- iv. The National Lung Cancer Audit (LUCADA) publishes annual data provided by acute Trusts which includes the number of cases, stage and treatment. There is a time-lag in obtaining this data; 2012 data was published in December 2013.

9.4.1 GP referrals for suspected lung cancer

The average number of referrals made each month for suspected lung cancer increased across the 4 PCT areas by 64% during the intervention period compared to the baseline period (table 19). Statistical significance was not tested. Single borough data is shown below.

Table 19. Average monthly referrals for suspected lung cancer by GPs in East London

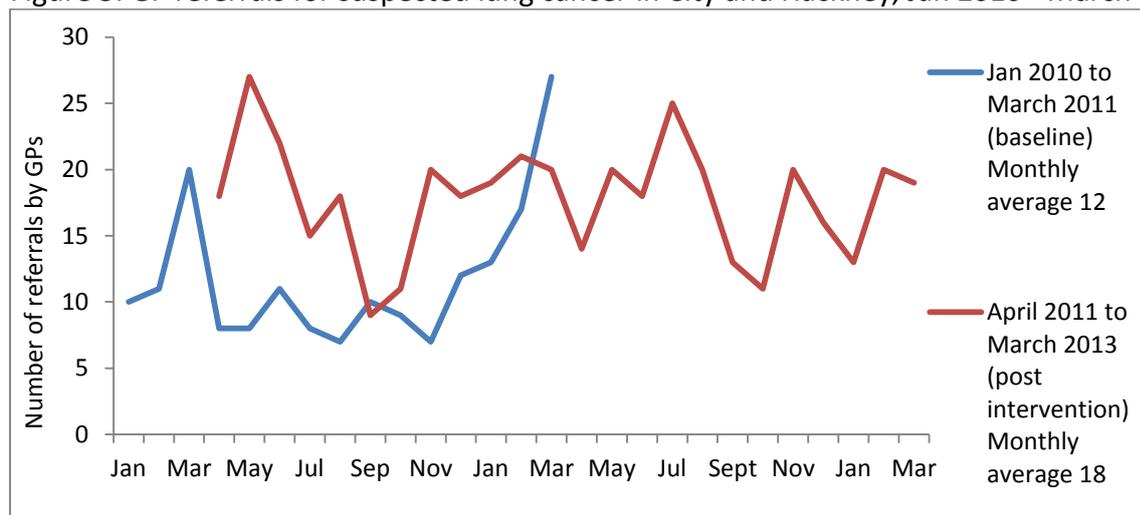
Borough	Monthly average		% increase
	Jan 2010 – March 2011	April 2011 – March 2012	
City and Hackney	12	18	50%
Newham	4	8	100%
Tower Hamlets	9	17	89%
Waltham Forest	8	11	38%
Total	33	54	64%

Source: North East London Cancer Network

9.4.1.1 City and Hackney

Comparison of the number of referrals for suspected lung cancer in the baseline period with the post-campaign period suggests an increase during and after the campaign from an average of 12 referrals per month to 18 per month (figure 5).

Figure 5. GP referrals for suspected lung cancer in City and Hackney, Jan 2010 - March 2013

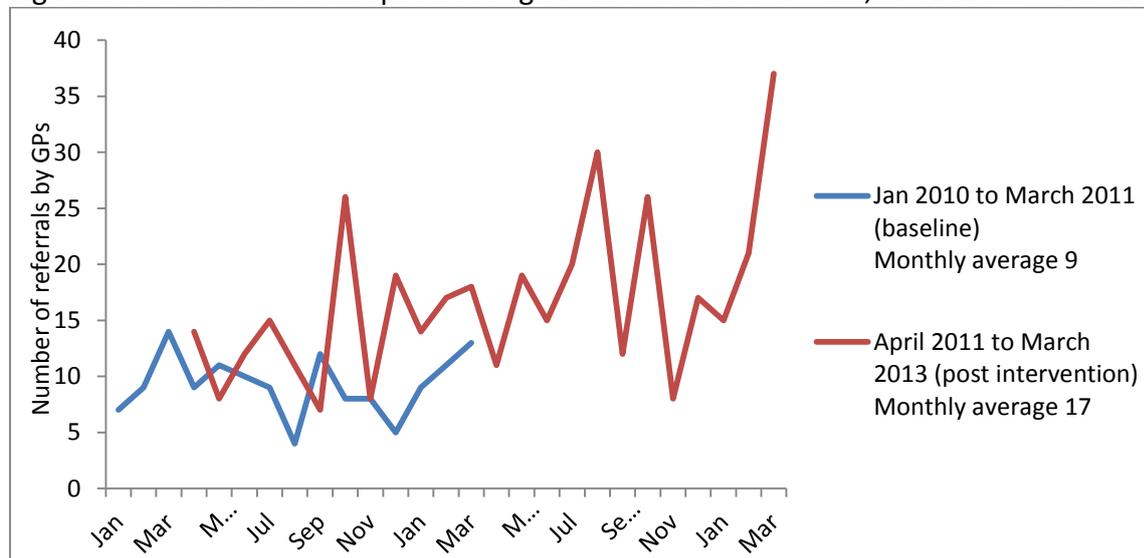


Source: North East London Cancer Network

9.4.1.2 Tower Hamlets

Comparison of referrals for suspected lung cancer by GPs in the baseline period with the post-campaign period suggests an increase during and after the campaign from an average of 9 per month to 17 per month (figure 6).

Figure 6. GP referrals for suspected lung cancer in Tower Hamlets, Jan 2010 – March 2013

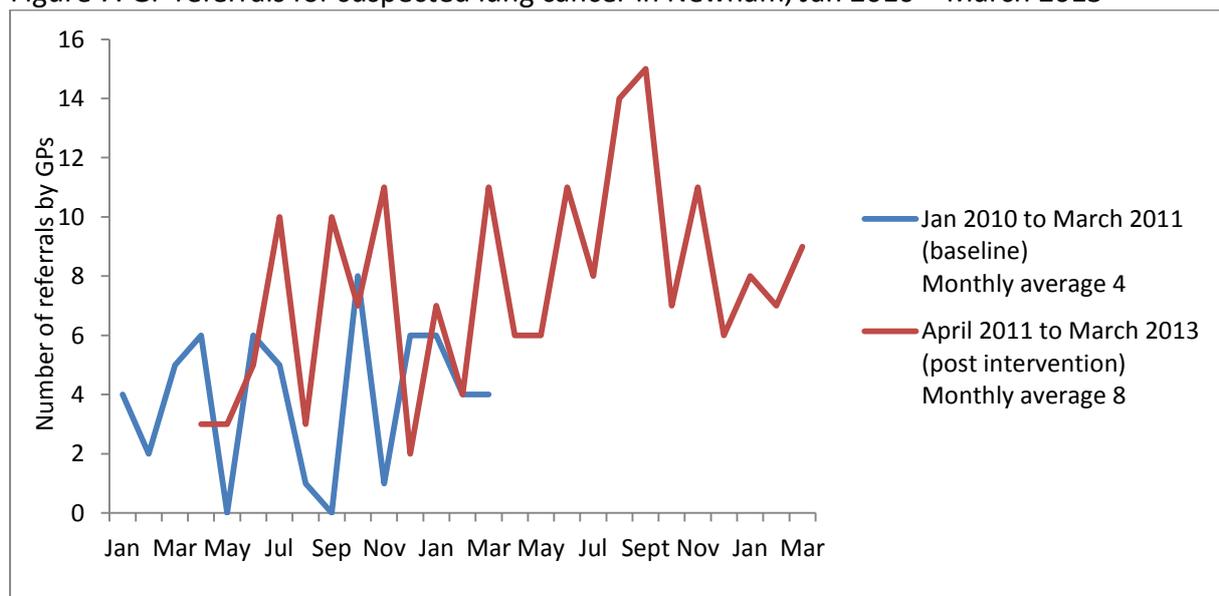


Source: North East London Cancer Network

9.4.1.3 Newham

Comparison of referrals for suspected lung cancer in the baseline period to the post campaign period suggests an increase during and after the campaign from an average of 4 referrals per month to 8 per month (figure 7).

Figure 7. GP referrals for suspected lung cancer in Newham, Jan 2010 – March 2013

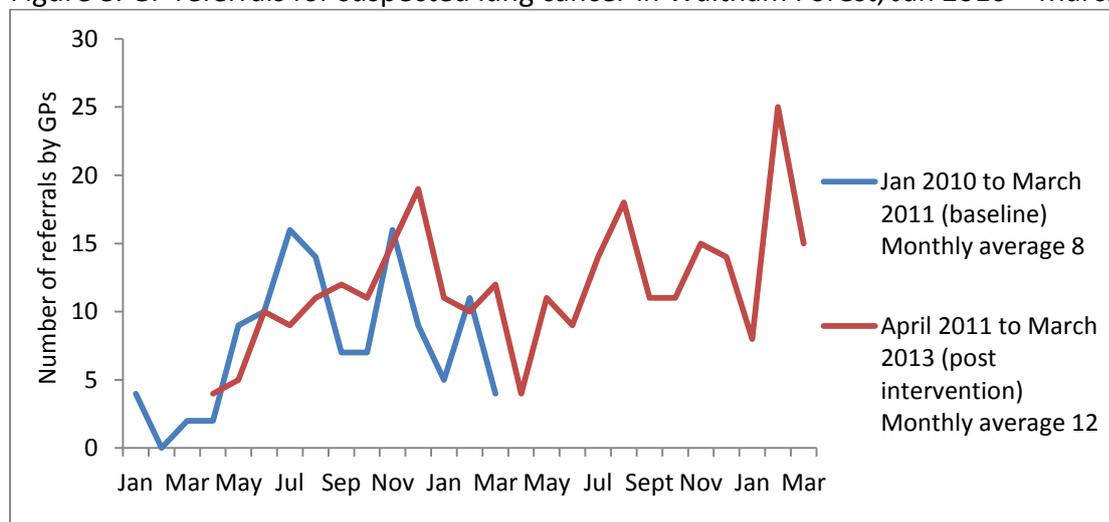


Source: North East London Cancer Network

9.4.1.4 Waltham Forest

Comparison of the number of referrals for suspected lung cancer by GPs in the baseline period with the post campaign period suggests an increase during and after the campaign from an average of 8 per month to 11 per month (figure 8).

Figure 8. GP referrals for suspected lung cancer in Waltham Forest, Jan 2010 – March 2013



Source: North East London Cancer Network

9.4.2 Lung cancers diagnosed

Analysis of data from the national lung cancer audit (LUCADA) provided by the four acute hospital trusts serving the population of East London showed an increase in the number of new diagnoses of lung cancer from the 2010 baseline of 403 to 429 cases in 2011. In 2012 the number of new cases was similar to the 2010 baseline of 398 (table 20). Data presented in LUCADA relates to patients treated by acute trusts and does not exactly reflect the number of cases diagnosed in each borough served by Trusts, as reported by the Office of National Statistics (ONS). The increase in 2011 appears to be in patients from outside the four boroughs treated at these East London Trusts.

Table 20. Lung cancers diagnosed in East London 2010 to 2012

Year	2010		2011		2012	
	Trust	ONS borough data	Trust	ONS borough data	Trust	ONS borough data
Royal London Hospital/ Tower Hamlets	108	106	115	94	112	Not yet published
Homerton University Hospital/Hackney	99	93	95	91	98	
Newham University Hospital /Newham	87	87	100	117	86	
Whipps Cross Hospital/ Waltham Forest	109	103	119	91	102	
Total East London	403	389	429	393	398	

Sources: LUCADA National Lung Cancer Audits 2011, 2012 and 2013
Health and Social Care Information Centre

Survival from lung cancer is better for patients who receive surgery and this is most effective for non-small cell lung cancer (NSCLC) at stage I or II. NSCLC accounts for around 90% of all lung cancers. Although not statistically significant, the number and proportion of cases of NSCLC at stage I and II increased in all four Trusts from a total of 70 in 2010 (17% of all new cases) to 83 in 2012 (21% of all new cases) (table 21). It is not possible to assess whether this trend had begun before the campaign as data on stage at diagnosis was not published in previous years.

Table 21. Lung cancers diagnosed at stage I and II in East London 2010 to 2012

Year	2010		2011		2012	
	Number	% all lung cancers	Number	% all lung cancers	Number	% all lung cancers
NSCLC* stage I & II						
Royal London Hospital	21	19%	23	20%	25	22%
Homerton University Hospital	20	20%	22	23%	25	26%
Newham University Hospital	13	15%	10	10%	14	16%
Whipps Cross Hospital	16	15%	23	19%	19	19%
Total East London	70	17%	78	18%	83	21%

*NSCLC: non-small cell lung cancer.

Source: LUCADA National Lung Cancer Audits 2011, 2012 and 2013

The number and proportion of patients with NSCLC at stage I and II who had surgery is reported by Trusts and is an indication of the proportion of patients with the best chance of survival. The quality measure is that 52% of patients in this category should receive surgery, recognising that variation between Trusts occurs because of case mix and patient choice. Although the number of patients with early stage lung cancer increased in East London, the number of patients having surgery did not increase consistently at all Trusts - so that the total number of patients who received surgery was similar in the 3 years reported (table 22), with only the Royal London Hospital and Newham University Hospital showing overall increases. Changes are not statistically significant.

Table 22. Lung cancers at stage I and II having surgery in East London 2010 to 2012

Patients with NSCLC stage I & stage II	2010			2011			2012		
	No. of patients	No. having surgery	% having surgery	No. of patients	No. having surgery	% having surgery	No. of patients	No. having surgery	% having surgery
Royal London H	21	11	52%	23	13	57%	25	17	68%
Homerton UHT	20	10	50%	22	8	36%	25	8	32%
Newham UHT	13	4	31%	10	3	30%	14	6	43%
Whipps Cross H	16	11	69%	23	9	39%	19	7	37%
Total E. London	70	36	51%	78	33	42%	83	38	46%

*NSCLC: non-small cell lung cancer.

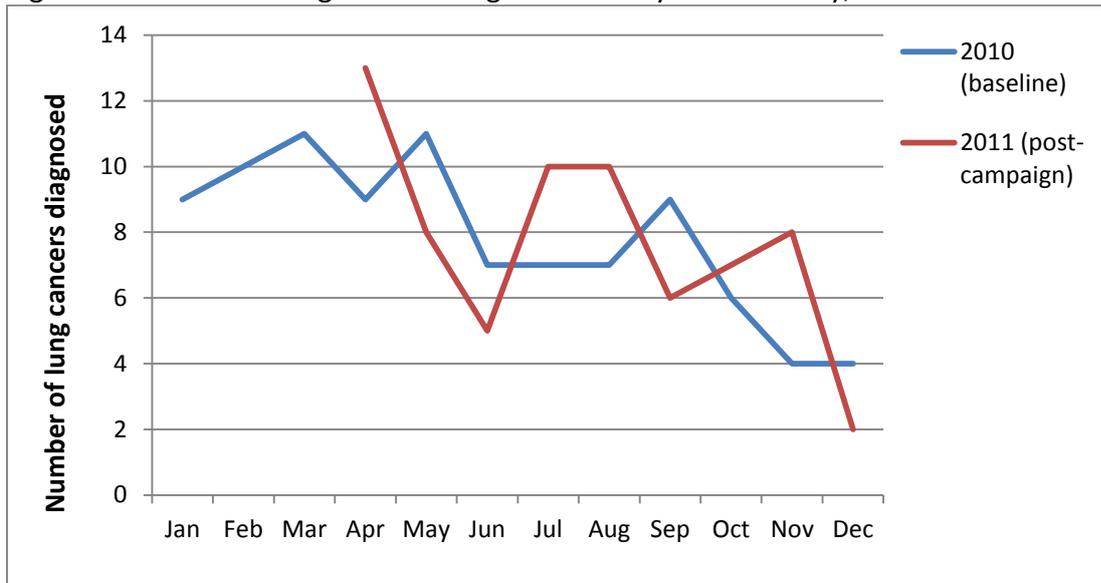
Source: LUCADA National Lung Cancer Audits 2011, 2012 and 2013

Diagnosis of lung cancers by month was analysed for each borough using data provided by Thames Cancer Registry, to identify changes coinciding with small c campaign activity. Statistical significance of changes was not tested.

9.4.2.1 City and Hackney

There was no change in the number of lung cancers diagnosed in the baseline period compared with the post-campaign period (average 8 per month) (figure 9).

Figure 9. Number of lung cancers diagnosed in City and Hackney, Jan 2010-Dec 2011.

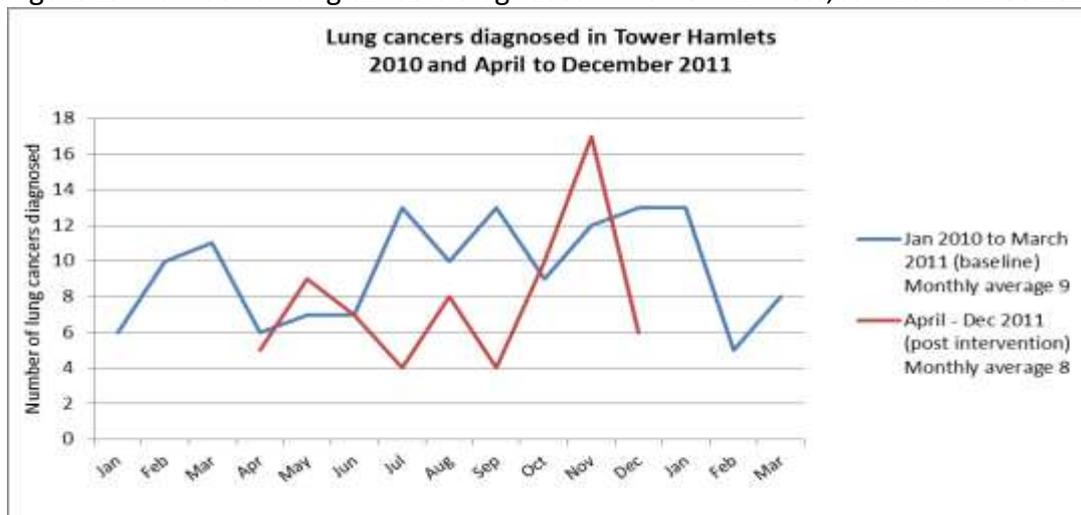


Source: Thames Cancer Registry

9.4.2.2 Tower Hamlets

Comparison of lung cancers diagnosed in the baseline period with the post-campaign period shows a slight reduction in the numbers diagnosed from an average 10 to 8 per month (figure 10).

Figure 10. Number of lung cancers diagnosed in Tower Hamlets, Jan 2010 - Dec 2011

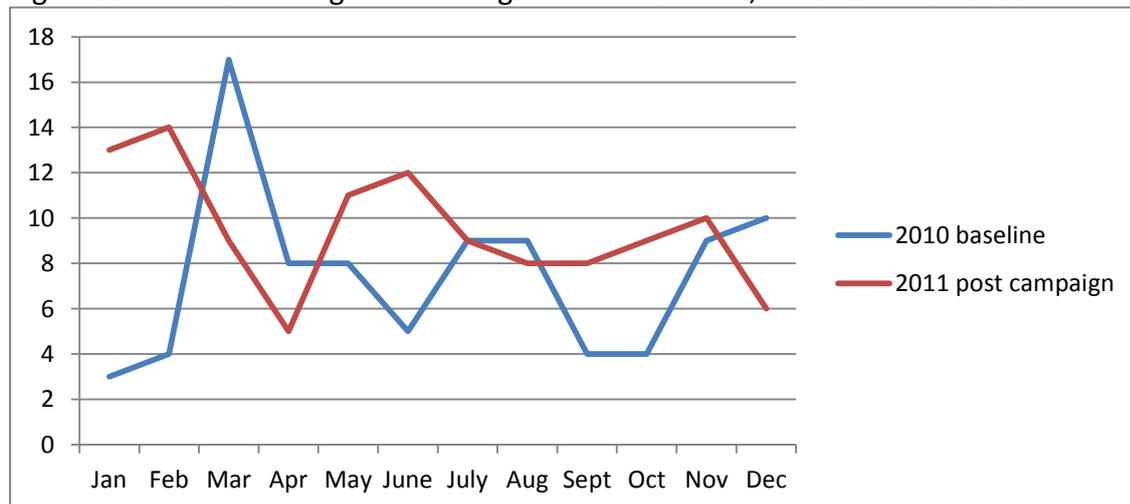


Source: Thames Cancer Registry

9.4.2.3 Newham

Comparison of the number of lung cancers diagnosed in the baseline period with the post-campaign period suggests a small increase (from an average from 7 to 9 per month) (figure 11).

Figure 11. Number of lung cancers diagnosed in Newham, Jan 2010 - Dec 2011

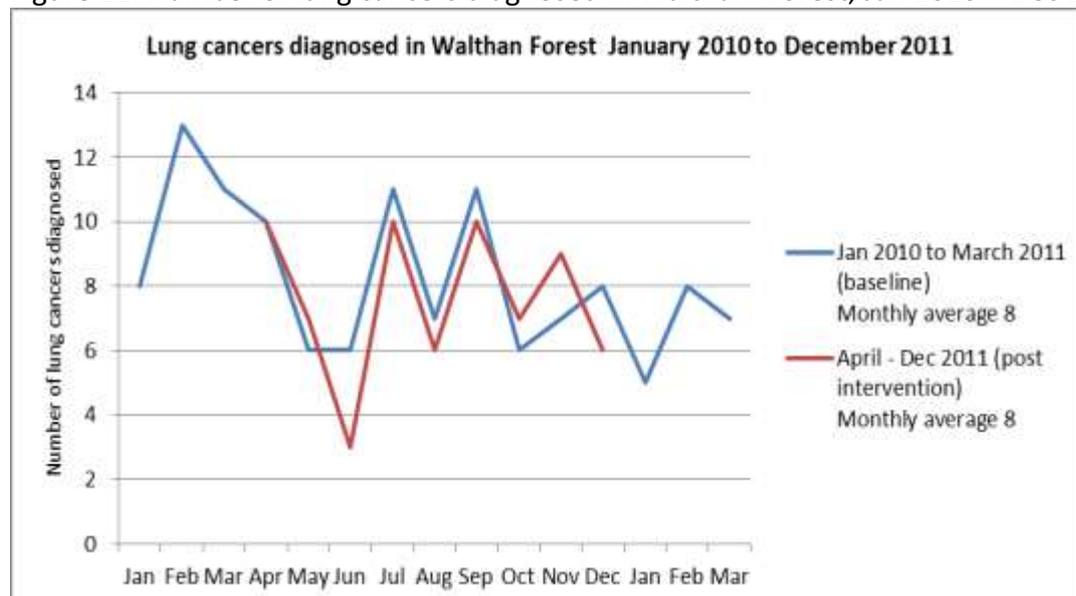


Source: Thames Cancer Registry

9.4.2.4 Waltham Forest

There was no change in the number of lung cancers diagnosed in the baseline period compared to the intervention period, with an average of 8 cases per month (figure 12).

Figure 12. Number of lung cancers diagnosed in Waltham Forest, Jan 2010 – Dec 2011



Source: Thames Cancer Registry

9.4.3 GP referrals for suspected breast cancer

The average number of referrals made each month for suspected breast cancer increased across the four boroughs by 22% during the intervention period compared to the baseline period (table 23). Statistical significance was not tested. Single borough data is shown below.

Table 23. Average monthly referrals for suspected breast cancer by GPs in East London

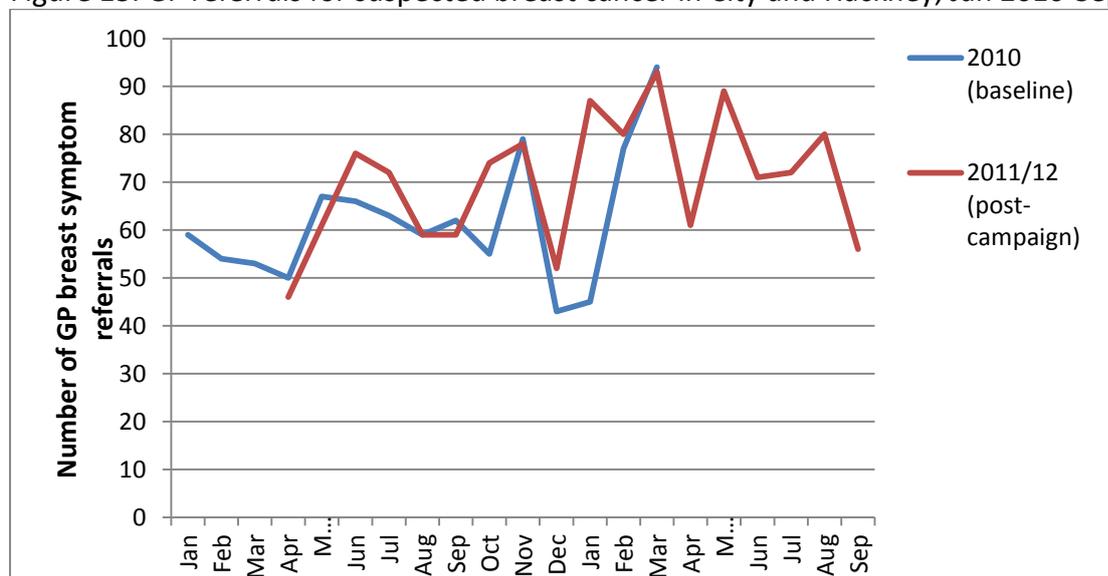
Borough	Monthly average		% increase
	Jan 2010 – March 2011	April 2011 – Sept 2012	
City and Hackney	61	70	15%
Newham	42	61	45%
Tower Hamlets	100	118	18%
Waltham Forest	58	70	21%
Total	261	319	22%

Sources: North East London Cancer Network, Barts Health

9.4.3.1 City and Hackney

Comparison of the number of referrals for suspected breast cancer in the baseline period with the post-campaign period suggests an increase in referrals during and after the campaign with an average of 70 referrals per month compared to 61 pre-campaign (figure 13).

Figure 13. GP referrals for suspected breast cancer in City and Hackney, Jan 2010-Sep 2012

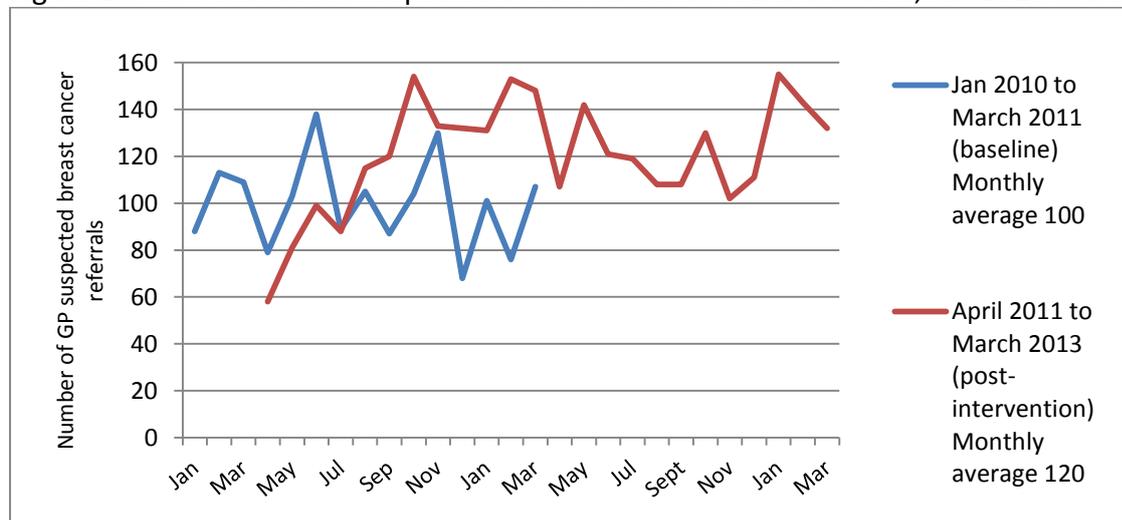


Source: North East London Cancer Network

9.4.3.2 Tower Hamlets

Comparison of the number of referrals for suspected breast cancer in the baseline period with the post-campaign period (up to March 2013) suggests an increase in referrals during and after the campaign from an average of 100 to 120 referrals per month (figure 14).

Figure 14. GP referrals for suspected breast cancer in Tower Hamlets, Jan 2010-March 2013

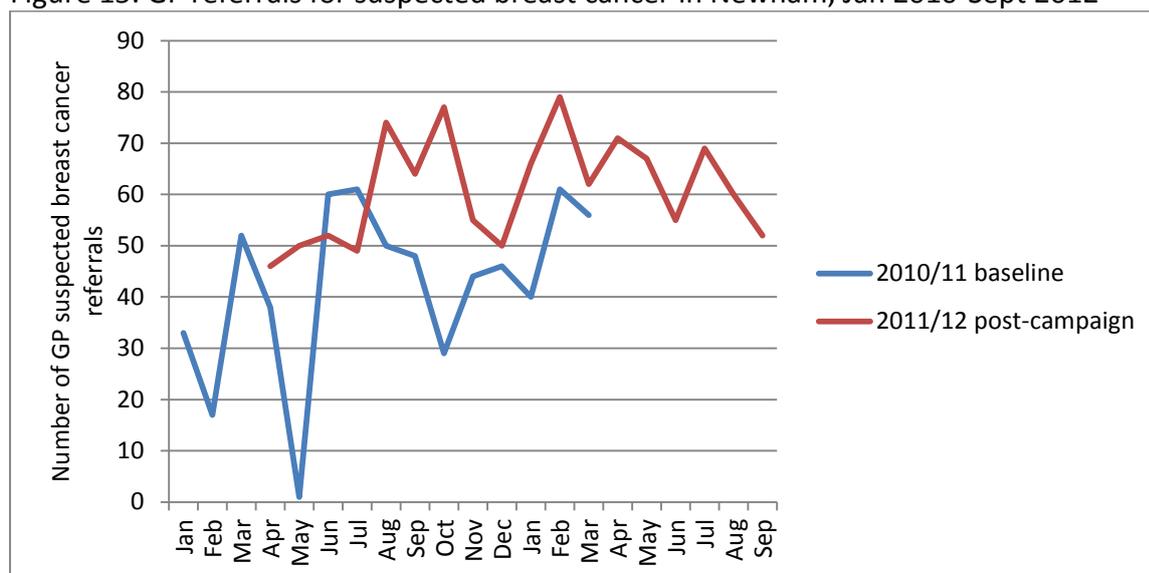


Source: Barts Health

9.4.3.3 Newham

Comparison of the number of referrals for suspected breast cancer in the baseline period with the post campaign period suggests an increase in referrals during and after the campaign with an average of 61 referrals per month compared to 42 pre-campaign (figure 15).

Figure 15. GP referrals for suspected breast cancer in Newham, Jan 2010-Sept 2012

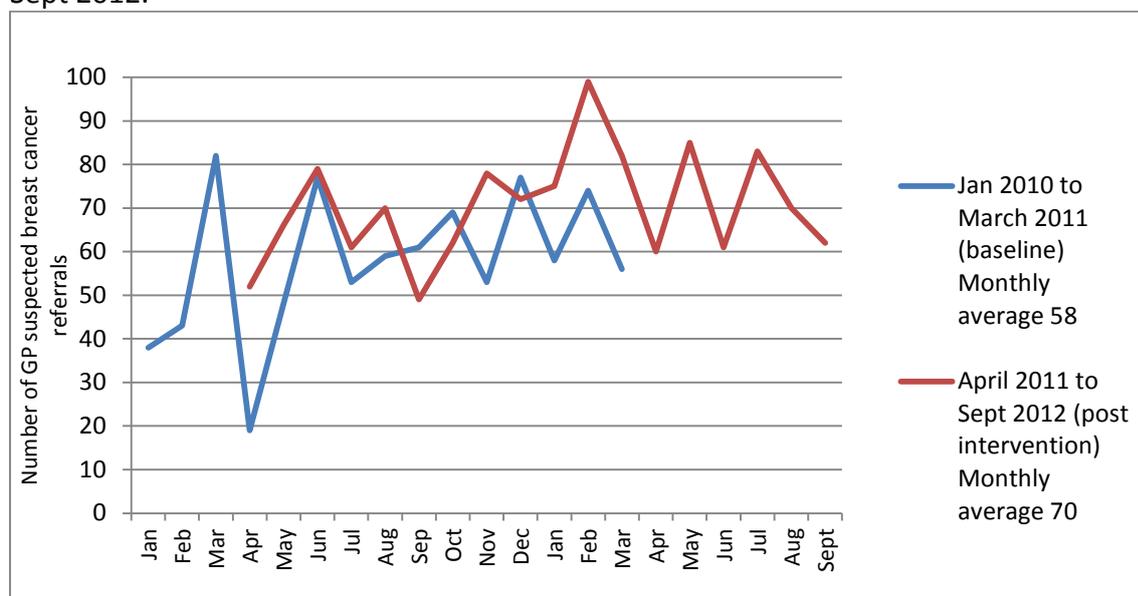


Source: North East London Cancer Network

9.4.3.4 Waltham Forest

Comparison of the number of referrals for suspected breast cancer in the baseline period with the post campaign period suggests an increase in referrals during and after the campaign to an average of 70 referrals per month compared to 58 in the baseline period (figure 16).

Figure 16. Number of GP referrals for suspected breast cancer in Waltham Forest, Jan 2010-Sept 2012.



Source: North East London Cancer Network

9.4.4 Breast cancers diagnosed

Data on the number of breast cancers diagnosed in the four boroughs was only available from ONS until 2011. The total number of breast cancers diagnosed in 2009, 2010 and 2011 was unchanged, with small increases in Tower Hamlets and Newham in 2011 compared to previous years and reductions in City and Hackney and Waltham Forest (table 24). These changes may be due to normal variation.

Table 24. Number of breast cancers diagnosed in East London

	2009	2010	2011	3 year average
City and Hackney	118	91	106	105
Newham	113	125	126	121
Tower Hamlets	62	63	78	68
Waltham Forest	118	138	105	120
Total	411	417	415	414

Source: Health and Social Care Information Centre

Where data on stage at diagnosis was available, there appeared to be a reduction in the proportion of breast cancers diagnosed at a late stage in Tower Hamlets (table 25). Statistical significance was not tested. Single borough data and analysis is shown below.

Table 25. Average monthly number of breast cancers diagnosed in East London

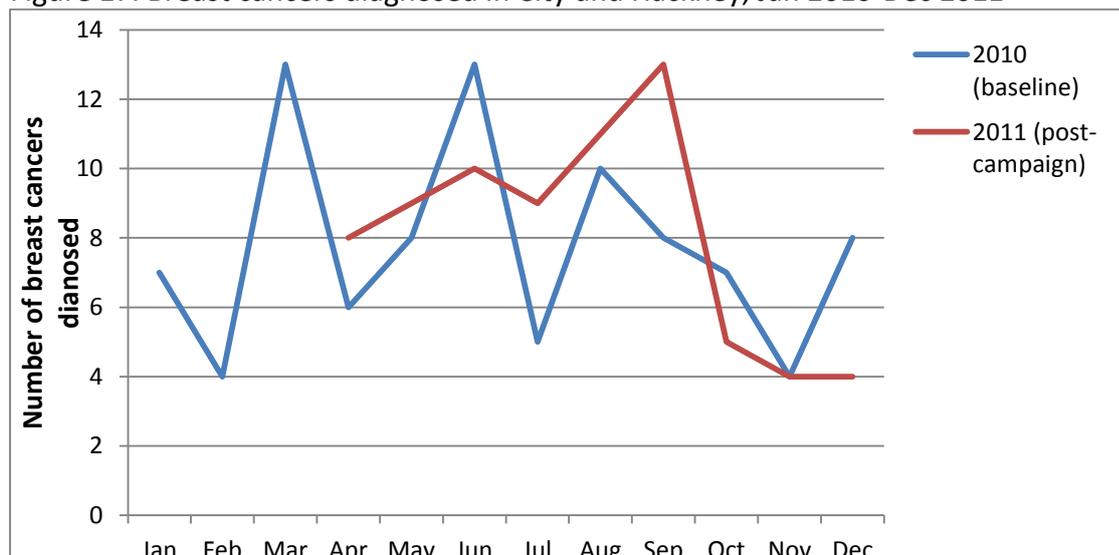
Time period	Jan 2010 to March 2011 (baseline)	April 2011 to March 2012 (baseline)	Jan 2010 to March 2011 (baseline)	April 2011 to March 2012 (baseline)
	Average per month	Average per month	% at stage 4	% at stage 4
City and Hackney	8	8	7%	7%
Newham	11	11	3%	3%
Tower Hamlets	6	7	13%	9%
Waltham Forest	11	8	-	-
Total	36	34		

Sources: Thames Cancer Registry, Homerton University Hospital, Barts Hospital, Newham University Hospital

9.4.4.1 City and Hackney

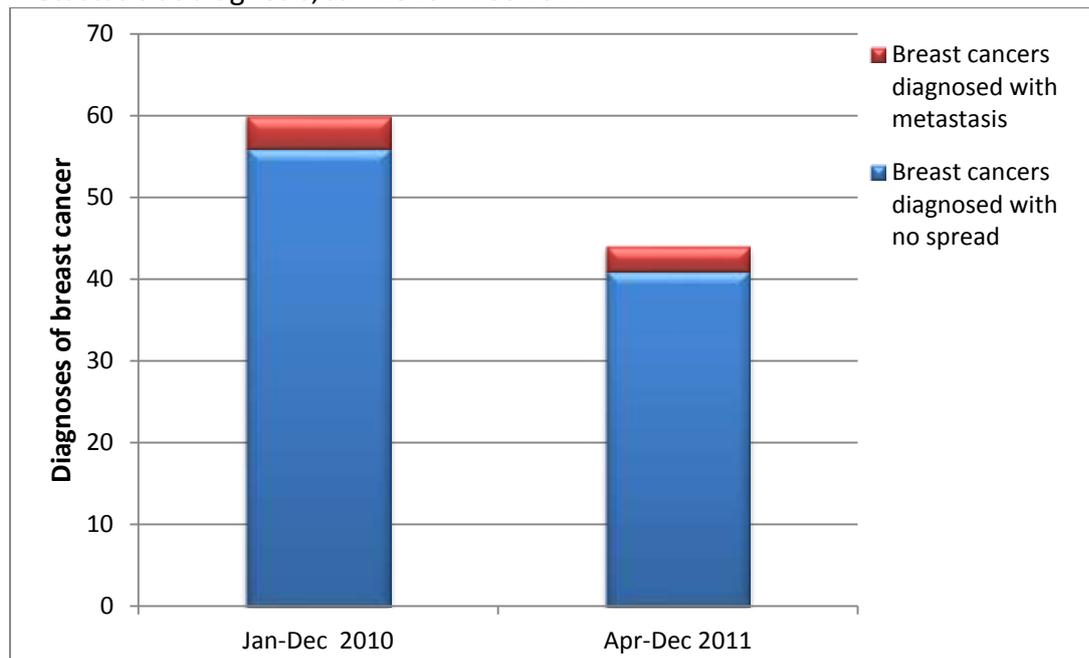
There was no difference in the number of breast cancers diagnosed in the baseline period compared to the post-campaign period (average 8 per month) (figure 17). There appears to be no difference in the proportion of cancers diagnosed when metastasis had occurred (around 7% of the total diagnoses both pre- and post-campaign) (figure 18).

Figure 17. Breast cancers diagnosed in City and Hackney, Jan 2010-Dec 2011



Source: Thames Cancer Registry

Figure 18. Proportion of breast cancers diagnosed in City and Hackney with and without metastasis at diagnosis, Jan 2010 - Dec 2011

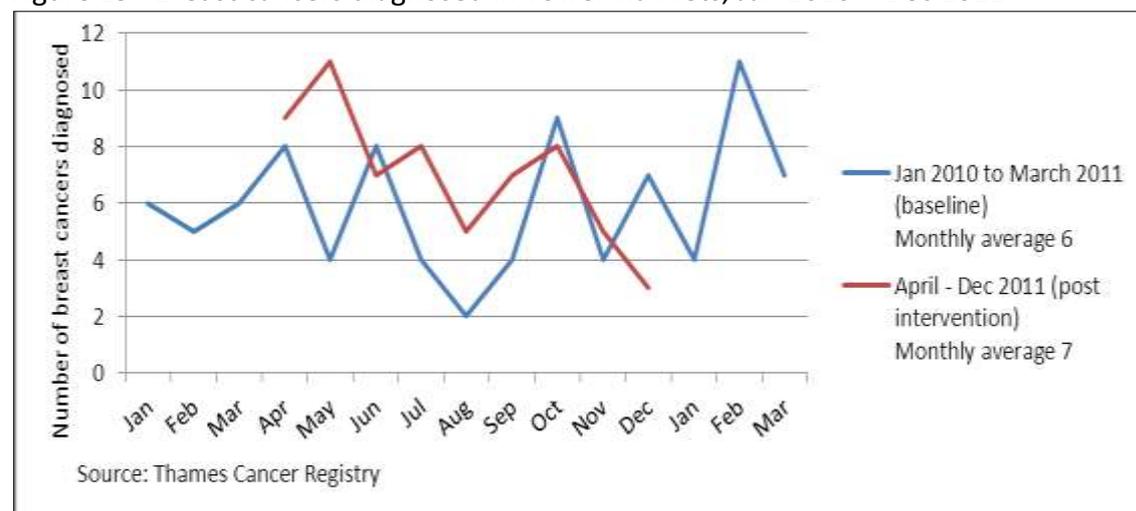


Source: Homerton University Hospital

9.4.4.2 Tower Hamlets

Comparison of breast cancers diagnosed in the baseline period with the post-campaign period suggests very little difference in the number of breast cancers diagnosed each month from an average of 6 (baseline) to 7 in the post campaign period (figure 19).

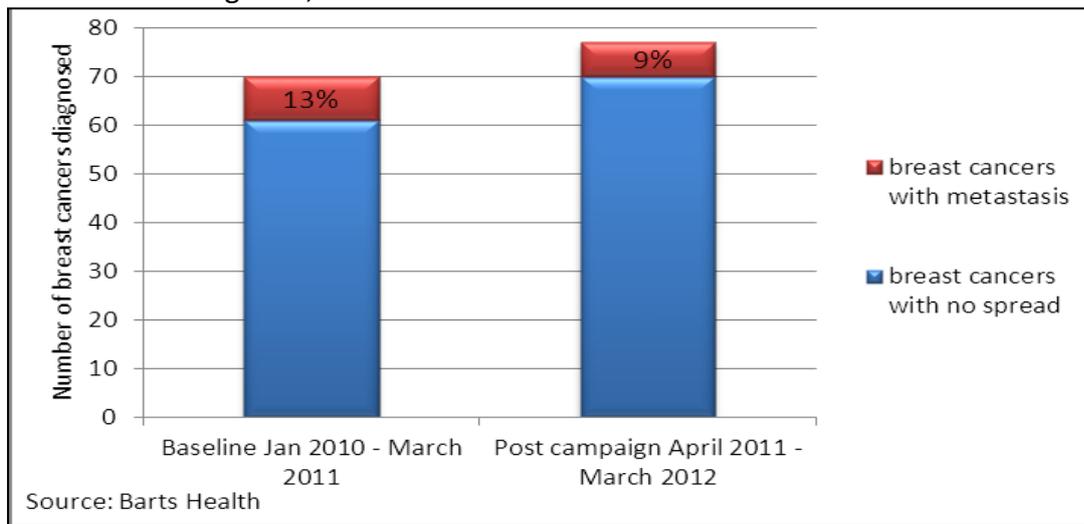
Figure 19. Breast cancers diagnosed in Tower Hamlets, Jan 2010 – Dec 2011



Source: Thames Cancer Registry

Based on the number and stage at diagnosis reported by Barts Hospital, there appears to be a reduction in the proportion of breast cancers diagnosed when metastasis has occurred from 13% of the total diagnosed in the baseline period (9 of 70 cases) to 9% of those in the post-campaign period (6 of 77 cases) (figure 20). Statistical significance was not tested.

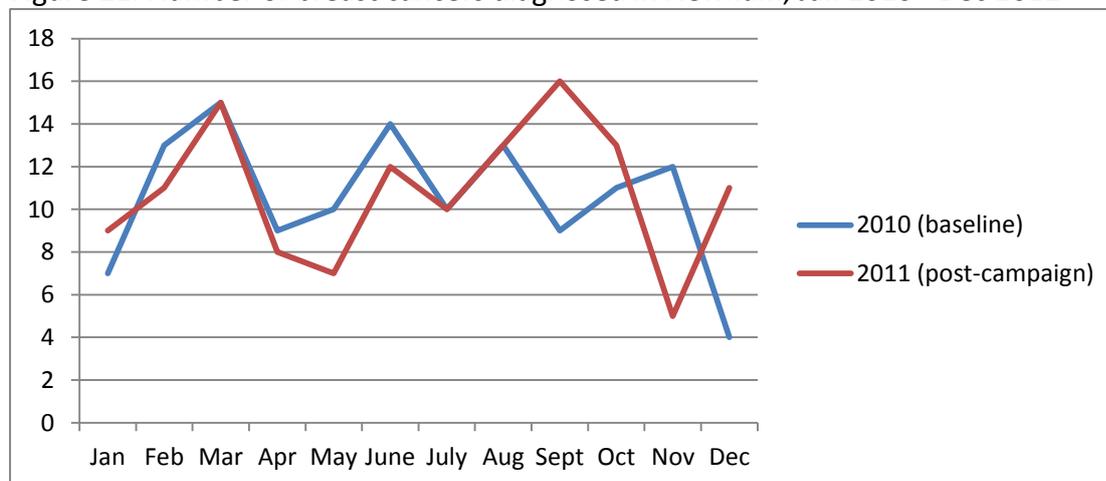
Figure 20. Proportion of breast cancers diagnosed in Tower Hamlets with and without metastasis at diagnosis, Jan 2010 - March 2012. Source: Barts Health



9.4.4.3 Newham

Comparison of the number of breast cancers diagnosed in the baseline period with the post-campaign period shows no change the number of breast cancers diagnosed in the post-campaign period (130 compared to 127) (figure 21).

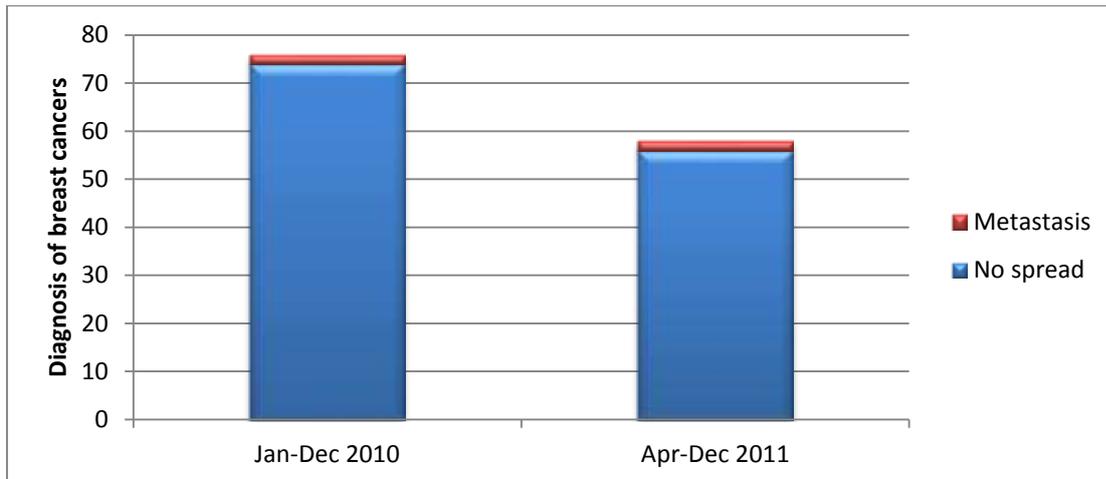
Figure 21. Number of breast cancers diagnosed in Newham, Jan 2010 - Dec 2011



Source: Thames Cancer Registry

Data on breast cancers diagnosed with and without metastasis at diagnosis obtained from NUHT showed no change in the proportion with metastasis before and after the campaign (figure 22). This data does not reflect all breast cancers in Newham, since at least a third of breast cancers in Newham residents are diagnosed and treated at Barts Hospital (not included in data reported for Tower Hamlets).

Figure 22. Proportion of breast cancers diagnosed with and without metastasis at diagnosis, Jan 2010 -Dec 2011

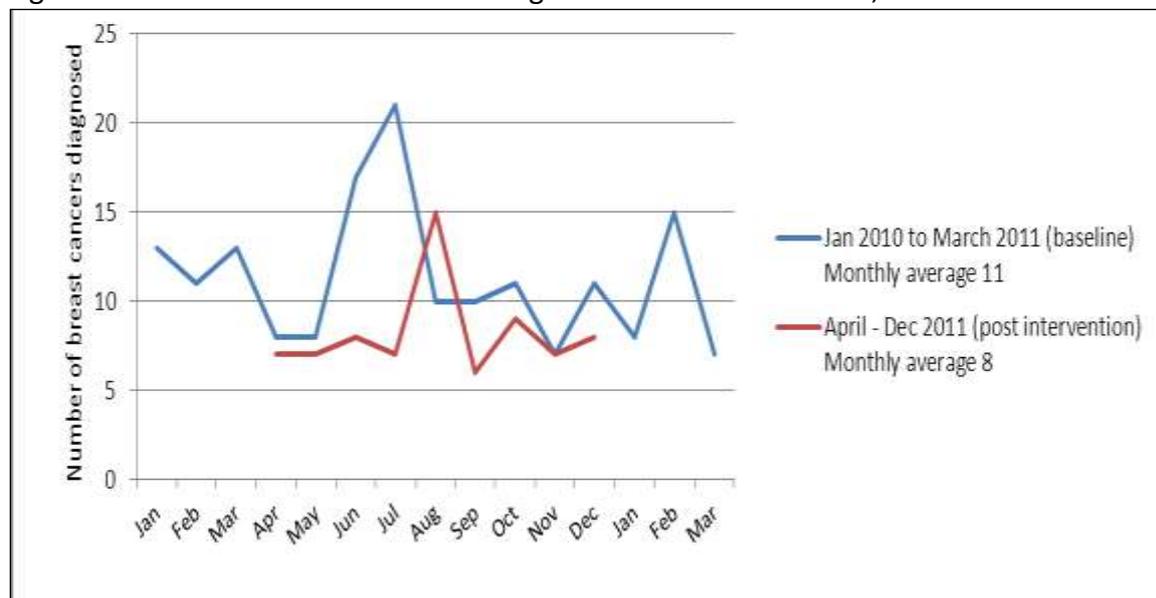


Source: Newham University Hospital Trust

9.4.4.4 Waltham Forest

Comparison of the number of breast cancers diagnosed in the baseline period with the post-campaign period suggests a small reduction in breast cancers diagnosed each month from an average of 11 (baseline) to 8 in the post campaign period (figure 23). Data on stage at diagnosis was not available.

Figure 23. Number of breast cancers diagnosed in Waltham Forest, Jan 2010-Dec 2011



Source: Thames Cancer Registry

10 Conclusions

- The campaign used a social marketing approach to increase public awareness of cancer in local populations and was **effective in engaging the communities at highest risk**.

Around 10,000 people at increased risk of late diagnosis of lung and breast cancer were engaged in cancer awareness by community organisations and pharmacies between June 2011 and March 2012.

- While improvements in cancer awareness were not evident at wider population level, there were **increases in awareness** at local level measured by community organisations engaged with target groups through peer education.

Regular breast checking increased from 37% to 46% in 192 female relatives engaged through a school-based programme in Newham

In a 20% follow-up sample of women engaged in Tower Hamlets, 73% (34) women reported that they checked their breasts regularly, compared with 38% in the general population in 2013.

- There were **increases in GP referrals for suspected breast cancer and lung cancer** in all four boroughs coinciding with the campaign. It is not clear whether this is a result of more people presenting to their doctor or to GPs referring more people - or to both.

Breast cancer referrals increased by 22% from a monthly average of 261 in 2010/11 to 319 in 2011/12.

Lung cancer referrals increased by 64% from a monthly average of 33 in 2010/11 to 54 in 2011/12.

- There was an **increase in the number and proportion of lung cancers diagnosed at an earlier stage** reported by Hospital Trusts which serve the four boroughs.

17% (70 of 403 lung cancers) were diagnosed at stage I or II in 2010

18% (78 of 429 lung cancers) were diagnosed at stage I or II in 2011

21% (83 of 398 cancers) were diagnosed at stage I or II in 2012

- In Tower Hamlets, where survival rates from breast cancer had been the lowest in England, Barts Health reported a **reduction in the proportion of late stage breast cancers**

13% (9 of 70 breast cancers) diagnosed in 2010/11 had metastatic disease

9% (7 of 77 breast cancers) diagnosed in 2011/12 had metastatic disease

11 Challenges and learning

We encountered many challenges along the life of the project, but feel that we overcame the majority and have noted some that will need ongoing work.

11.1 Developing one campaign across different boroughs

The Public Health leads from each borough already worked in partnership to commission and promote cancer screening through several North East London groups. Therefore forming an alliance to bid for the Department of Health money was not difficult. Strong engagement from stakeholders (the four Public Health teams, Communications and social marketing teams, North East London Cancer Network and primary and secondary care providers) in the steering group and throughout the project was key to the success of the campaign. Balancing differing needs in relation to cancer outcomes and local populations in each borough was a challenge. We used the needs assessment process to decide on priorities and target groups, and where focus groups and other research suggested it was appropriate, we produced tailored resources for different groups. For example, Bangladeshi men in focus groups said they would be interested in looking at a poster depicting a medicine bottle with advice written on it; White men found this image “patronising” and preferred one using a line drawing of a coughing head (appendix 2).

11.2 Lack of evidence for early detection interventions

The lack of a robust evidence base for interventions to improve awareness of cancer symptoms, reduce barriers to early presentation and improve early diagnosis meant that planning which interventions to carry out was not straightforward. We worked with the National Support team to identify best practice and interventions to reduce mortality from cancer carried out elsewhere. We piloted several different interventions, using an evaluation framework to assess effectiveness, obtained feedback from participants and collected monitoring data to identify interventions with the most effective reach.

11.3 Data collection and analysis

The difficulty in obtaining high quality referral and diagnosis data is presented above and in appendix 3. Local Health Intelligence capacity to support analysis of the post-campaign CAM and acute trust metrics was limited. Although we built successful links with the NELCSU Health Intelligence team, following the 2013 NHS transition this support was no longer available.

11.4 Engaging GPs

The role of GPs in identifying and referring people who present with suspicious symptoms was key to the project. Ensuring that GPs referred people appropriately when they presented as a result of the population-targeted campaign was as important as raising the awareness of the population. If GPs were not engaged in the campaign’s aims and objectives, we could have increased barriers to early detection rather than reducing them. Although most GPs only see around 5 new cancer cases each year, they see hundreds more with symptoms that may or may not be cancer, and missing a case can be a high cause of anxiety. We worked through CCGs, practice networks and GP forums, offering training and practice visits to raise awareness of the need to reduce cancer mortality locally. This included highlighting the high incidence of some cancers, low survival rates and inequalities in survival, the benefits of early detection, aims of the campaign in improving early

detection, and identifying and overcoming barriers to early detection in primary care. This was time-intensive and sometimes met with initial resistance from GPs regarding the effectiveness of early detection in improving mortality and the evidence for interventions to increase early detection. However, the large increase in GP referrals for suspected cancer following these efforts suggests that some of the barriers to early detection of cancer were reduced.

Key learning points are the importance of engaging primary and secondary care colleagues early in the development of the campaign, so that through collaboration barriers can be identified and overcome and clear guidelines for referral developed with input from clinicians. Face-to-face opportunities afforded by practice visits, clinical networks (clusters) and GP forums were all useful. Small groups at individual GP practice or cluster clinical meetings were the most successful medium enabling useful discussion and updating on campaign progress and outcomes, while fostering and maintaining engagement in the project.

11.5 Engaging Community Pharmacies

Community pharmacies were successfully engaged in the campaign and feedback indicated willingness to continue to deliver cancer awareness interventions, with benefits for staff and customers. As part of their contractual obligation, pharmacies deliver six public health campaigns each year. There is scope to include increasing public awareness of cancer within these campaigns, to ensure sustainability.

11.6 Measuring cancer awareness in local populations

The post-campaign CAM was administered 18 months after the launch and although the sample was sufficiently powered to measure change from the 2009 survey, it is likely that a longer period and larger survey may be required to measure any significant increases in awareness of cancer at population level. The CAM was not nuanced enough to identify changes in target groups for the campaign – for example, we could not identify White and Black women over 40 by borough, nor smokers and ex-smokers over 50 years old. The CAM requires considerable resources to administer at population level and analysis remains incomplete following the closure of the PCTs and the reduction in health intelligence capacity. The campaign showed that it is possible to assess changes at a local level amongst people engaged through community and peer education and that there were improvements in cancer awareness in this group. Commissioned community engagement should include the requirement to follow up people engaged using a consistent format (e.g. the questions from the validated CAM) at an agreed period (at least a month and up to 6 months) after engagement. Experience suggests that at least 20% of people engaged can be followed up in this way.

Although the CAM did not demonstrate significant changes, there are themes that may need further exploration. For example, does increasing exposure to information about breast cancer at least initially make some women feel *less* confident about their ability to recognise symptoms? Although people report barriers to recognising symptoms and seeing a doctor without delay, is this actually what they will do if they notice a change? The increase in urgent referrals for suspected cancer suggests that GPs saw and referred more people in the post-campaign period (and there is evidence that this trend has continued.) It

is not clear how much effort needs to be directed towards population awareness (the 'push' factor) or primary care engagement (the 'pull' factor) – or whether both are equally important.

11.7 Talking about cancer with communities

Outreach into the target communities working with local champions and volunteers through community organisations, was deemed to be one of the most successful ways to spread the campaign message widely in the target groups. For many of the community organisations, this was the first project of this kind that they had been involved with. Commissioning organisations, project set-up and training, supporting delivery throughout 2011/12 and enabling partnership working across organisations was time and labour-intensive for Public Health leads. However, we accepted that it takes time to build skills and capacity within community organisations to deliver messages around cancer and several organisations were re-commissioned for 2012/13 and beyond to build on the learning from 2011/12. Organisations used different delivery models; to share the learning, a community partnership workshop was organised in March 2012.

The Cancer Awareness Measure and continual feedback from communities suggests that for many people the thought of cancer is still synonymous with death, debilitating treatment and low chances of survival. This leads to lots of fear and anxiety about cancer, which creates barriers to presenting early with symptoms. The focus groups carried out as part of the scoping research for the project also highlighted high levels of fatalism around cancer (“I don’t differentiate. Cancer is cancer. It kills”, “You can’t treat lung cancer successfully”). See the ‘Future work’ section for a discussion of the need for further research around this. These negative beliefs around cancer meant that the community organisations carrying out outreach as part of the project and pharmacies involved both experienced difficulties starting conversations about cancer with local people. We provided training for community organisations, volunteers and community champions, including input from clinical psychologists from the cancer services teams, to enable people to feel comfortable talking about cancer. Additionally, we commissioned “Talk Cancer,” a training programme provided by Cancer Research UK in 2012/13 to deliver bespoke sessions for pharmacy teams and community organisations.

11.8 Sustainability

This project required a significant time commitment from the members of the steering group. The Public Health leads from the local areas, the project manager from North East London Cancer Network and the Communications team from Barts all gave a large proportion of their time to this project. Some of this was part of development and setting up of the project, including needs assessment, social marketing research, stakeholder engagement, training community and pharmacy providers and establishing interventions. We expected time commitment to be reduced as the project continued. However maintaining, supporting and evaluating several different interventions by different providers suggests that sustained input will be required to maintain the project for a longer period. There is therefore a need to establish long term sustainable, affordable and effective interventions, integrating these into both clinical and population level work to improve health and reduce mortality from cancer.

12 Next steps

12.1 Managing the project during the transition

To build on the momentum we have gained with this programme of work, it is essential that the work is continued beyond the transition of Public Health into local authorities.

12.2 Extending the campaign: 2013/14 and beyond

To extend and improve the project into 2012/13, the NAEDI steering group applied learning from the first year of the project and from other local NAEDI research and initiatives. This includes expanding work with community groups and pharmacies; building on the lung and breast cancer campaigns to include bowel cancer symptoms in City and Hackney, Newham and Tower Hamlets; and collecting feedback on successes and barriers and how these were overcome. Public Health continued to work with Clinical Commissioning Groups and GP clusters by disseminating resources, providing practice visits, training and support for GPs on identifying suspected cancer symptoms. This work is yet to be evaluated.

Having identified negative beliefs and attitudes around cancer in the local population throughout the project, there is a need to further explore the role of fatalism and stigma around cancer in East London and how this might affect late presentation and diagnosis.

Early in 2012, the steering group examined data for other cancers including colorectal (bowel), ovarian, stomach, oesophageal, head and neck, prostate and urinary tract to assess the greatest need in the local populations. Bowel cancer was a clear priority, with large numbers of cases and a gap in survival rates between East London and England, leading to large numbers of avoidable deaths. There was also a need to improve survival for stomach and oesophageal cancers (with high incidence in some East London boroughs), head and neck and ovarian cancers.

In 2013/14, London Cancer (the Integrated Cancer System) published guidance to improve early diagnosis of lung, colorectal and ovarian cancers (Early Diagnosis Pathways) which includes access to diagnostics and streamlined secondary care pathways to diagnosis and treatment.

Local authorities and CCGs need to work together to plan how to take forward and resource work to improve local cancer mortality and survival rates by: ensuring that early diagnosis of cancer is included in local priorities, assigning budgets, setting up frameworks for joint working and collaboration (across local areas and with neighbouring boroughs), developing governance frameworks, identifying and engaging stakeholders including NHS England screening teams and Public Health England.

13 Recommendations

Local areas should ensure continued investment to promote public awareness and early detection of cancer, including utilisation of Local Authority Public Health resources. There are wide health inequalities within the UK, with particularly poor outcomes from cancer in East London. The findings of this evaluation indicate that extra resources in areas with low survival could help to reduce inequalities.

Robust plans should be in place to ensure that early detection of cancer remains a priority within East London. Roles and responsibilities around early detection are changing and it is important to maintain a local focus. Early detection of cancer is a key factor in several measurable health outcomes:

Public Health Outcomes Framework

- 0.1: Healthy life expectancy
- 2.19: Proportion of breast, lung and colorectal cancers diagnosed at stage 1 & 2
- 4.5: Under 75 mortality from cancer

NHS Outcomes Framework

- Under 75 mortality from cancer ^ *
- One year survival from all cancers^
- One year survival from breast, lung & colorectal cancers ^
- Cancer: diagnosis via emergency routes
- Cancer: record of stage at diagnosis
- Cancer: early detection
- Lung cancer; record of stage at diagnosis
- Breast cancer: mortality

^ NHS OF indicator that is also measurable at local authority level

* NHS OF indicator shared with Public Health Outcomes Framework

The quality of cancer data reported by acute trusts needs to be improved. Under-recording and lack of validated data on stage at diagnosis make it difficult to target and evaluate interventions and to make changes to systems increase the number of cancers diagnosed and treated earlier. Extensive work by the Cancer Registries to bring together multiple sources of cancer data into co-ordinated reporting will ensure consistency and improve quality, enabling local areas to assess changes in the numbers of cancers and the proportions diagnosed at an early stage²³.

Partnership working between Public Health, CCGs, acute Trusts and the Integrated Cancer System, with alignment of strategic objectives to increase early diagnosis of cancer would strengthen campaigns and improve access to appropriate and more complete cancer outcome data against which interventions can be assessed.

14 Appendix 1: Small c campaign media coverage report

JUNE 2011 – launch

Television coverage

BBC London – audience 400,000 - 15 June 2011

A substantial package ran in their evening programme including an interview with Barts Cancer Centre Clinical Oncologist Dr Tom Powles and interviews with two of the many cancer survivor case-studies set up ahead of launch day.

ITV London Tonight – audience 350,000 – 15 June 11

They also ran a package in their teatime programme. It included a lengthy interview with Barts Cancer Centre Director, Professor Nick Lemoine and two case-studies, who had their cancer diagnosed in time for it to be successfully treated.

Local newspapers

The Hackney Gazette – circulation c20,000, including online – Wednesday 15 June 2011

Small c cancer campaign launches today in Hackney

‘Hackney cancer survivors are backing the NHS ‘small c’ campaign that launched today, hoping to improve cancer survival in the borough by helping people spot the early warning signs.’ The newspaper carried an interview with a lung cancer survivor and stressed the importance of spotting cancer symptoms early enough for the disease to be successfully treated.

The East London Advertiser – circulation 24,000 including online - Thursday 23 June 2011

Early diagnosis that can prevent deaths

‘Doctors have launched a campaign to make more people aware of the symptoms for lung and breast cancer in a bid to improve survival rates.’ The newspaper listed the five warning symptoms for both lung and breast cancer and lung cancer survivor Jane Malone’s account of how a ten minute trip to her GP for advice about a lingering cough saved her life <http://edition.pagesuite-professional.co.uk/launch.aspx?referral=other&pnum=&refresh=Cp9014HfL0n5&EID=c009ab3e-4a95-42d5-b8a2-6d4ea5c331c5&skip=>

The Newham Recorder – circulation c20,000 including online – Thursday 23 June 2011

Cancer does not have to be a death sentence

‘Health experts have joined forces with a charity to raise awareness about cancer and reduce deaths from the disease. The Small C campaign was launched by Barts and The London NHS Trust to improve cancer survival rates in north east London.’

Council free sheets

East End Life – circulation 87,000 free copies a week – Monday 20 June 2011

Don’t delay if you think you might have cancer

‘A woman who survived lung cancer because doctors caught it early is encouraging people to visit their GPs if they have any hint that something might be wrong.’ Case-study interview and the 5 warning signs that could indicate lung or breast cancer.

Newham Mag - circulation c90,000 free copies a week - Monday 20 June 11

Breast and Lung Cancer: The early WARNING SIGNS

‘A unique health campaign is underway in Newham alerting people to the five warning signs of breast and lung cancer which require immediate GP attention. ‘The article carried a full list of potential symptoms for both lung and breast cancer.

Hackney Today – circulation 90,000 free copies a week – Monday 20 June 2011

Don’t ignore the ‘small c’

‘Local NHS services have launched a campaign to alert residents to the warning signs of breast and lung cancer. The ‘small c’ campaign hopes to help people recognised cancer indicators early, when treatment has the best chance of success.’

Radio

BBC 94.9: Breakfast Programme - 500,000 audience reach – Tuesday 14 June 2011

Trust Lead Cancer Nurse Nuala Close and case-study Frances Clarke were interviewed during a four minute slot which discussed the campaign's aims and Frances' experience following her early diagnosis and treatment for breast cancer.

BBC 94.9: Drivetime Programme - 500,000 audience reach - Wednesday 15 June 2011

Consultant Clinical Oncologist, Dr Tom Powles, was interviewed at 1820 about the campaign and explained the importance of people taking responsibility for spotting the early warning signs of cancer.

LBC Radio 97.3 (syndicates to Heart and Classic FM national stations) -950,000 audience reach

Wednesday 15 June 2011 Lead Cancer Nurse, Nuala Close, was interviewed at length about the aims of the campaign and the programme also interviewed our case study.

Sunrise Radio (London) - audience reach 370,000 - Wednesday 15 June 11

Case-study Frances Clarke and Medical Oncologist Jeremy Steele were interviewed about the campaign on Sunrise, which is the UK's most-listened-to Asian radio station.

Online

BBC News London – 11m users in May - 15 June 2011

Early warning breast and lung cancer campaign started

'A campaign is being started in four London boroughs to alert people to signs of breast cancer and lung cancer. The 'small c' campaign is being launched in Waltham Forest, Hackney, Tower Hamlets and Newham.' The article listed the 5 early warning signs for both lung and breast cancer and carried links to breast and lung cancer sections of the small c campaign's website.

<http://www.bbc.co.uk/news/uk-england-london-13775749>

My Village.com - Hackney

<http://hackney.london.mywanstead.co.uk/news/small-c-cancer-campaign-launches-today-in-hackney>

JULY 2011

Muslim Post – 150,000 readers weekly - full page 15 July 2011

Major campaign to alert the public to the warning signs of cancer

'An NHS campaign is launching to alert people to the FIVE warning signs of breast cancer and lung cancer, which require immediate GP attention. The 'small c' campaign aims to show that most cancers can be successfully treated if caught when they are small and vulnerable to treatment.' A full page article illustrated with the 'small c' campaign posters which included both sets of symptoms and two case-studies provided.

Bangla Times – circulation 15,000 – 15 July 2011

Early cancer diagnosis could save 10,000 lives a year

'An NHS campaign is launching to alert people to the FIVE warning signs of breast cancer and lung cancer, which require immediate GP attention. The 'small c' campaign aims to show that most cancers can be successfully treated if caught when they are small and vulnerable to treatment.' The piece included the full sets of symptoms for both lung and breast cancer, as well as our two case-studies.

Muslim Weekly – 50,000 – 15 July 2011

The small c – spotting cancer early saves lives

'An NHS campaign is launching to alert people to the FIVE warning signs of breast cancer and lung cancer, which require immediate GP attention. The 'small c' campaign aims to show that most cancers can be successfully treated if caught when they are small and vulnerable to treatment.'

Bangla News – circulation 23,000 – 15 July 2011

The small c – spotting cancer early saves lives

SEPTEMBER 2011

Potrika – circulation 50,000 - September 2011

Leading Bengali newspaper Potrika ran a story about the small c campaign. It was featured on the front page and inside. The article (translated into English) had the title 'New small c campaign for preventing breast and lung cancer'. It gave a short introduction, explaining briefly what small c is and which PCT is involved in running the campaign. It was more appropriate for professionals than public – not mentioning any of the case studies, what to do if there are any early symptoms of cancer or what to do if someone has a cough for three weeks. (Translation provided by Sakiya Ahmed).

Beta Bangla radio – 100,000 listeners – 27 September 2011

Consultant Oncologist Tom Powles spoke at length about the small c campaign during a two hour radio slot. Beta Bangla radio is broadcast across the UK and the world with 100,000 listeners tuning in every day. In addition to fielding calls from listeners about their various ailments, Tom highlighted key messages of the campaign including the symptoms people should look out for regarding breast and lung cancer and directed listeners to www.smallc.org.uk.

Visit to Barts Cancer Centre by Newham schoolgirls – 30 September 2011

On Friday 30 September Barts Cancer Centre hosted a visit for 50 schoolgirls who it hopes will become ambassadors for the NHS's 'small c' cancer awareness campaign. Our press office issued a media release plus interviewed and photographed students at the event to secure coverage in local media. Stories are due to run in:

- **East London Advertiser** w/c 3 October (weekly reach of 24,000)
- **Newham Recorder** (Wednesday 12 October, weekly circulation 20,000)
- **Newham Mag** (circulation 44,000). This is particularly positive as the magazine is distributed to every single household in Newham.
- **East End Life** (weekly distribution of 80,000).

Also covered by: **East London News** – 28 September 2011

<http://content.yudu.com/Library/A1u4c7/ELN0117/resources/index.htm?referrerUrl=http://www.yudu.com/item/details/412728/ELN01-17>

OCTOBER 2011

Newham Recorder – 12,000 readers – Wednesday 12 October 2011

Girls learning about cancer in order to advise their families

"The schoolgirls were taking part in the NHS 'Small c' project which aims to save thousands of lives annually through early detection".

Newham Recorder – 12,000 users – Saturday 15 October 2011

East Ham cancer project schoolgirls find out about early detection

"A group of schoolgirls spent a day at Barts Hospital learning how to spot cancer early. The 50 girls from Plashet School in East Ham were taking part in the NHS's Small c project which aims to raise awareness about breast cancer among women by teaching schoolgirls, who then pass on vital information to their mothers"

http://www.newhamrecorder.co.uk/news/east_ham_cancer_project_schoolgirls_find_out_about_early_detection_1_1090612

Newham Mag – 44,000

East Ham's Plashet School students learned how to detect the early stages of breast cancer at St Bart's Hospital. Fifty students visited the hospital in the City as part of the 'small c' campaign which helps raise awareness of the illness and how to spot cancer at its earliest stages. Plashet student Rutba said: "Usually we just hear about checking yourself but it was the first time I actually learned how to do that and found out what other signs besides lumps I should be looking for."

<http://www.newham.gov.uk/NR/rdonlyres/BE1109F1-B560-4EAC-8A5B-A66F37950B76/0/NM231.pdf>

Newham Recorder – 26 October 11 – 12,000 readers

MP backs vital campaign raising importance of breast self-examination

“West Ham MP Lyn Brown has visited Barts Hospital to support an NHS campaign that aims to save thousands of lives annually through early detection of cancer. She is backing the small c campaign which aims to raise awareness about the benefits of early detection of breast cancer through regular self-examination”.

NOVEMBER 2011

Small c campaign - how early diagnosis saves lives

Channel 5 TV panel discussion – 500,000 viewers – most viewed Bengali TV station in UK -
Wednesday 9 Nov

Guests were arranged for the above discussion which covered all the key messages of the small c campaign. Barts and The London Clinical Nurse Specialist, Nahar Khalisadar and Tower Hamlets GP Dr Liliana Risi both reinforced the need for people to be aware of possible cancer symptoms and consult their GP promptly. This was an hour long show that attracted telephone calls from members of the public who wanted to speak to experts on the panel.

Small c television reports

Channel 5 TV – Tuesday 8 and Thursday 10 Nov

We set up elements for a three minute-long pre-recorded news package about the small c campaign and its importance. Consultant Surgeon Shafi Ahmed outlined the campaign messages in full, while a former patient from Newham spoke about his successful treatment for lung cancer thanks to his own vigilance and early diagnosis.

Newham Recorder – 16 November

Girls stage a night of entertainment to raise awareness of breast cancer

An article covered an evening of music and theatre for students and their mothers held at Plashet School to raise awareness of breast cancer.

DECEMBER 2011

Students teach younger peers cancer awareness

Newham Recorder – 14 December '11

Sixth formers at St Bonaventure's school have been teaching younger pupils how to save lives as part of the small c campaign. The students have been running workshops on how to spot the signs and symptoms of lung cancer to encourage local families to visit their GPs at the first sign of the illness. Seventeen-year-old Taariq Miah said “lung cancer is often thought of as being very scary and some people put off going to their GP if they suspect they have it.”

Small C New Year's Resolution story

We proactively issued a New Year press release to media about the importance of making health a priority in the coming 12 months. Trust Clinical Oncologist, Dr Tom Powles, suggested people make it a New Year resolution to make an appointment to see their GP in 2012 if they spot any possible cancer symptoms. The 'small c' cancer campaign aims to boost cancer survival rates by telling people what the key cancer symptoms are so they can get checked out.

We organised interviews with Dr Powles on the following outlets:

LBC Radio – 373,000 listeners – 24 December '11

BBC London Television – 500,000 viewers – 29 December '11

BBC Radio London 94.9 – 474,000 listeners – 29 December '11

The following print articles also appeared:

Make visit to GP your resolution

East End Life – 80,000 readers – 16 December 11

Dr Powles and campaign supporter Frances Clarke were both quoted in this half page column encouraging people to visit their GP in the new year as part of the 'small c' campaign.

Doctor steps up the East End's campaign to improve cancer survival rates

The Docklands and East London Advertiser – 24,000 readers – 30 December 11

Dr Powles said if people are trying to stick to one New Year's resolution it should be to visit their GP in 2012. "The earlier the cancer is spotted, the better the survival rate".

2012

Heed early warnings of breast and lung cancers

The Docklands and East London Advertiser – 24,000 readers – 5 January 12

In ongoing coverage of our 'small c' campaign, the article highlighted the importance of people visiting their GP in the new year to boost cancer survival rates. Trust Clinical Oncologist Dr Tom Powles encouraged people to visit their doctor in 2012 and a full list of symptoms for lung and breast cancer – two focus areas of the campaign – was also included in the article.

Newham Recorder – 12,000 readers – 11 January 12

In ongoing coverage of our 'small c' campaign, leading Trust oncologist Dr Tom Powles urged people to make a New Year's resolution they could keep and visit their GP in 2012 as part of the campaign to boost cancer survival rates.

Newham Recorder – 12,000 readers – 22 February 12

A couple who fell in love after surviving cancer are encouraging people to check the health of their partners this Valentine's Day in a bid to boost cancer survival rates. This follows a press release featuring Rita Middleditch who found love after surviving cancer and encouraged other couples to check their health of their partners on Valentine's Day.

Newham Recorder – 12,000 readers – 23 May 12

Ongoing coverage about the Plashet School project and details of IT network manager, Edythe Labinjo, who was diagnosed and successfully treated for breast cancer after spotting the symptoms early.

East London News – 8 August 2012

Olympic borough schoolgirls lead cancer fight - a year-long project led by school girls in east London has produced life-saving results

<http://www.eastlondonnews.com/olympic-borough-schoolgirls-lead-cancer-fight/>

This story was also covered in the **Newham Recorder** on 8 August 2012.

15 Appendix 2: Examples of the small c campaign resources

NHS

Be your own bosom buddy

Get to know your breasts and what's normal for you.

Touch – Feel for a lump or other changes
Look – for changes in shape and texture
Check – with your GP if you find any changes

www.smallc.org.uk/breast

small THE small c Spottting cancer early saves lives

পরিচিত চলাশেখা

হঠাৎ আপনার ট্রিনে পরিষ্কার থেকে অন্যরকম হলে বা অন্যরকম পরিষ্কার একটি থেকে আরো, তা হলে এখনই ডাক্তারের চিকিৎসা নেওয়ার হলে, এমনকি যদি আপনি মনে করেন যে এটি মূসকাতিক কাশি।

এটা মূসকাতিক কাশিয়ারের মত চিহ্নকর্তৃক হতে পারে। তবে স্বাস্থ্যকর্মী বা যারা পরামর্শ দেওয়ার টীবন হয়ে যেতে পারে।

small THE small c Spottting cancer early saves lives

It's nothing serious...
 It's fine...

cough! cough! cough!
 cough! cough! cough!

Sound familiar?
 If you've had a cough for more than three weeks, you need to see your GP now (even if you think it's just a smoker's cough).
 It could be something serious such as lung cancer. Spottting it early could save your life.

small THE small c Spottting cancer early saves lives

 Any one of these symptoms could be a warning sign of lung cancer. Please make an appointment with the GP if you have any one of them. Tick the box(es) and show this card to the GP.

- A cough for more than three weeks, or if your cough has changed or got worse
- Shortness of breath
- Coughing up phlegm with blood in it
- Hoarse voice
- Unexplained weight loss

Chances are they're something less serious, but it's better to know now. These days the majority of people with lung cancer survive if it is caught at an early stage.

Make sure you're around for the people you love.

www.smallc.org.uk/lung



16 Appendix 3: Data quality and limitations: acute trust metrics

This section describes how each borough public health team used data from multiple sources to analyse outcomes from the campaign.

16.1.1 Homerton Hospital and City and Hackney

(i) Lung cancer referrals

Data on GP referrals from the Homerton and NELCN were similar and used for analysis (table 26).

Table 26. Comparison of sources for urgent referrals for suspected lung cancer in City and Hackney

	Homerton Hospital	NE London Cancer Network
GP suspected lung cancer referrals 2010	122	121
GP suspected lung cancer referrals 2011	216	218

(ii) Lung cancers diagnosed

Comparisons of data from the Homerton University Hospital Trust, NELCN and Thames Cancer Registry (TCR) suggest that the Homerton's recording of lung cancer diagnoses is similar, varying from TCR data by 7% in 2010. ONS published data (December 2013) confirms similar numbers to TCR. TCR reports cancer cases rather than patients, so registry data is likely to be slightly higher than Trust data (table 27).

NELCN data is lower as it only records cases which progressed to treatment. For a number of reasons not all patients are included in CWT data – for example patients whose disease was very advanced at the time of diagnosis and who die very soon afterwards, and patients whose cancer is diagnosed during post-mortem examination will be outside the scope of this data. Numbers are likely to be greater for lung cancer than most other cancers, reflected by the high proportion of patients diagnosed following emergency presentation, consistent with advanced disease.

Table 27. Comparison of sources for lung cancers diagnosed in City and Hackney

	Homerton Hospital	NEL Cancer Network	Thames Cancer Registry	ONS**	LUCADA (Homerton hospital)
Lung cancer diagnoses 2010	101	81	94	93	99
Lung cancer diagnoses 2011	90	89	91	91	95
Total	191	170	185	184	194

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

(iii) Breast cancer referrals

Recorded referrals for breast cancer are approximately 50% lower in NELCN data than reported by the Homerton. A review of routine and urgent breast cancer referrals (815 and 685 respectively in 2011) suggests that NELCN only reported one of these types of GP referral (table 28).

Table 28. Comparison of sources for urgent referrals for suspected breast cancer in City and Hackney

	Homerton Hospital	North East London Cancer Network
GP suspected breast cancer referrals 2010	1484	710
GP suspected breast cancer referrals 2011	1500	837

(iv) Breast cancers diagnosed

The Homerton appears not to have recorded 35 - 45% of the breast cancers diagnosed in City and Hackney residents when compared to ONS published data (December 2013). Breast cancers detected through screening account for around 20% of those diagnosed each year, and for City and Hackney residents these will be counted in Barts data. Even accounting for this, the Homerton appears not to be recording a proportion of breast cancers, possibly due to women attending other Trusts outside the area (table 29).

Table 29. Comparison of sources for breast cancers diagnosed in City and Hackney

	Homerton Hospital	North East London Cancer Network	Thames Cancer Registry	ONS**
Breast cancer diagnoses 2010	60	93	93	91
Breast cancer diagnoses 2011	56	107	104	106

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

16.1.2 Barts Hospital and Tower Hamlets

(i) Lung cancer referrals

Comparisons of data from Barts Health, NELCN and Thames Cancer Registry suggest that Barts and the NELCN recorded similar numbers of referrals for suspected lung cancer by GPs. (4% fewer recorded by NELCN). Referral data from NELCN was available until September 2012 and was therefore used in this analysis (table 30).

Table 30. Comparison of sources for urgent referrals for suspected lung cancer in Tower Hamlets

	Barts Hospital	North East London Cancer Network
GP suspected lung cancer referrals 2010	107	106
GP suspected lung cancer referrals 2011	164	153

(ii) Lung cancers diagnosed

There appears to have been under-recording by Barts and NELCN in Tower Hamlets patients during 2010 and 2011. ONS published data (December 2013) confirms similar numbers to TCR, allowing for the difference between 'cases' and 'patients' (table 31).

Table 31. Comparison of sources for lung cancers diagnosed in Tower Hamlets

	Barts Hospital	North East London Cancer Network	Thames Cancer Registry	ONS**	LUCADA (Royal London Hospital)
Lung cancer diagnoses 2010	73	59	117	106	108
Lung cancer diagnoses 2011	56	52	96	94	115
Total	129	111	213	200	223

**Health and Social Care Information Centre

<http://nww.indicators.ic.nhs.uk/webview/>

The number of cases recorded by Barts was 39% lower than TCR data (213 cases recorded by TCR; 129 cases recorded by Barts). NELCN recorded less than half the TCR validated number of cases in Tower Hamlets patients (111 cases). NELCN data is based on the Cancer Waiting Times (CWT) data, which includes only patients who received treatment for their cancer (see comment in City and Hackney section above).

Although Barts Hospital provided stage at diagnosis (with or without metastasis) for all reported cases, in view of data quality issues related to under-reporting, only TCR data for cases diagnosed was used for this analysis and stage at diagnosis was not analysed.

(iii) Breast cancer referrals

NELCN referrals for breast cancer reflect only 33% of those recorded by Barts. Since January 2010, all women with breast symptoms have been offered appointments within the two week wait (2ww) urgent referral guidelines at a breast symptoms clinic at Barts Hospital, regardless of whether breast cancer is suspected. It is possible that only patients for whom the GP has indicated “suspicion of cancer” on the referral form have been included in the NELCN data, while all referrals to the breast symptoms clinic have been included in the Barts data. The numbers recorded by Barts appear to reflect the actual number of referrals to the breast symptoms clinic and have been used in this analysis (table 32).

Table 32. Comparison of sources for urgent referrals for suspected breast cancer in Tower Hamlets

	Barts Hospital	NE London Cancer Network
GP suspected breast cancer referrals 2010	1213	197
GP suspected breast cancer referrals 2011	1264	619

(iv) Breast cancers diagnosed

The number of breast cancers recorded by Barts in Tower Hamlets residents in 2010 and 2011 is closer to TCR validated data than for lung cancers, with an 11% shortfall over the two years (132 cases recorded by Barts; 152 recorded by TCR). ONS published data (December 2013) confirms similar numbers to TCR, allowing for the difference between ‘cases’ and ‘patients’ (table 33).

In view of the similarity between Barts and TCR validated data for the number of cases of breast cancer diagnosed, Barts data was used in this analysis as it was available by month and for a longer time period (until March 2012) and stage at diagnosis had been recorded (with or without metastasis).

Table 33. Comparison of sources for urgent referrals for suspected breast cancers in Tower Hamlets

	Barts Hospital	North East London Cancer Network	Thames Cancer Registry	ONS**
Breast cancer diagnoses 2010	60	57	67	63
Breast cancer diagnoses 2011	72	86	85	78
Total	132	143	152	141

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

16.1.3 Newham Hospital and Newham

(i) Lung cancer referrals

Data from Newham University Hospital (NUHT) on referrals is generally consistent with NELCN data but is incomplete for 2010 (table 34).

Table 34. Comparison of sources for urgent referrals for suspected lung cancer in Newham

	Newham University Hospital	NEL Cancer Network
GP suspected lung cancer referrals 2010	39 (Jan/Feb data not provided)	44
GP suspected lung cancer referrals 2011	65	68

(ii) Lung cancers diagnosed

Comparison of data from NUHT, NUHT/Barts (diagnoses in Newham residents), TCR and NEL Cancer Network shows wide variation in number of people diagnosed with both lung and breast cancers from each source. ONS published data (December 2013) confirms similar numbers to TCR, allowing for the difference between ‘cases’ and ‘patients.’

When additional lung cancers diagnosed in Newham residents at Barts Hospital are accounted for, there is a closer match between data from NUHT/Barts and TCR across the 2 years, especially for lung cancer (table 35).

As explained above, data obtained from the NEL Cancer Network is based on Cancer Waiting Times reports and numbers are likely to be lower than the actual number of cases.

Table 35. Comparison of sources for lung cancers diagnosed in Newham

	Newham University Hospital (NUHT)	All Newham residents recorded by NUHT/Barts	NEL Cancer Network	Thames Cancer Registry	ONS**	LUCADA (NUHT)
Lung cancer diagnoses 2010	85	99	61	90	87	87
Lung cancer diagnoses 2011	106	113	50	114	117	87
Total	191	212	111	204	204	174

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

(iii) Breast cancer referrals

Data from NUHT on referrals is generally consistent with NELCN data but is incomplete for 2010 (table 36).

Table 36. Comparison of sources for urgent referrals for suspected breast cancer in Newham

	Newham University Hospital	NE London Cancer Network
GP referrals for suspected breast cancer 2010	450 (March – Dec only)	479
GP referrals for suspected breast cancer 2011	585	674

(iv) Breast cancers diagnosed

Newham residents with breast cancer diagnosed through routine mammography screening are seen and treated at Barts and make up about 30% of all breast cancer cases. When these numbers are added to those from NUHT, there appears to be a closer match between data from the three sources (table 37).

Table 37. Comparison of sources for breast cancers diagnosed in Newham

	Newham University Hospital	Newham residents (NUHT/Barts)	NE London Cancer Network	Thames Cancer Registry	ONS**
Breast cancer diagnoses 2010	76	119	122	127	125
Breast cancer diagnoses 2011	65	112	110	130	126
Total	141	231	232	257	251

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

16.1.4 Whipps Cross and Waltham Forest

Data from Whipps Cross for lung and breast cancer referrals and diagnoses was provided as a total for 2010 rather than monthly, and for 2011 it did not include January to March (this was not included in the initial data request for the DH funded NAEDI project). Patient level data was available and comparison with similar data from Barts Hospital identified a number of additional lung and breast cancer cases diagnosed in Waltham Forest patients at Barts Hospital. These are included in tables 39 and 41.

(i) Lung cancer referrals

Comparison of data showed lower numbers of referrals in both years recorded by NELCN compared to Whipps Cross. However referral data from NELCN was available for a longer time period (January 2010 to September 2012) and was provided by month throughout so for consistency, was used in this analysis (table 38). Overall numbers are likely to be higher.

Table 38. Comparison of sources for urgent referrals for suspected lung cancer in Waltham Forest

	Whipps Cross Hospital	North East London Cancer Network
GP suspected lung cancer referrals 2010	197	96
GP suspected lung cancer referrals April 2011 – March 2012	184	129

(ii) Lung cancers diagnosed

For lung cancers diagnosed in Waltham Forest residents, there appears to have been under-recording by Whipps Cross, Barts and NELCN during 2010. ONS published data (December 2013) confirms similar numbers to TCR (table 39). LUCADA data is higher, suggesting that patients from other boroughs were also treated at Whipps Cross Hospital.

Table 39. Comparison of sources for lung cancers diagnosed in Waltham Forest

	Whipps Cross	Barts (Waltham Forest residents)	Total acute trust	Thames Cancer Registry	NE London Cancer Network	ONS **	LUCADA (Whipps Cross)
Lung cancer diagnoses 2010	57	29	86	104	69	103	109
Lung cancer diagnoses April - Dec 2011	48	16	64	68	43	-	-
Lung cancer diagnoses 2011	-	-	-	91	57	91	119

**Health and Social Care Information Centre

<http://www.indicators.ic.nhs.uk/webview/>

For 2010, the total number of cases recorded by Whipps Cross and Barts for Waltham Forest residents combined was 17% lower than TCR and ONS data (104 cases recorded by TCR; 86 cases recorded by Whipps Cross and Barts; these were cross checked and are not duplicate recording. NELCN recorded 66% of the TCR validated number of cases in Waltham Forest residents (69 cases). For the 9 months in 2011 when data was available from all sources (April to December), the combined acute trust number (64) was similar to TCR number (68) although there was under-reporting by NELCN (43 cases).

As explained in the section above on lung cancer diagnoses in City and Hackney, numbers obtained from the NEL Cancer Network are based on Cancer Waiting Times reports and are likely to be lower than the actual number of cases.

Whipps Cross Hospital did not provide stage at diagnosis (with or without metastasis) for lung cancer and in view of data quality issues related to under-reporting, only TCR data for cases diagnosed was used for this analysis.

(iii) Breast cancer referrals

As with referrals for suspected lung cancer, comparison of breast cancer data identified lower numbers of referrals recorded in both years by NELCN compared to Whipps Cross (27% fewer referrals recorded). However referral data from NELCN was available for a longer time period (January 2010 to September 2012) and was provided by month throughout so for consistency, was used in this analysis (table 40). Overall numbers are likely to be higher.

Table 40. Comparison of sources for urgent referrals for suspected breast cancer in Waltham Forest

	Whipps Cross Hospital	North East London Cancer Network
GP suspected breast cancer referrals 2010	883	679
GP suspected breast cancer referrals April 2011 – March 2012	856	589

(iv) Breast cancers diagnosed

The number of breast cancers recorded by acute trusts in Waltham Forest residents in 2010 and during the 9 months in 2011 in which there was comparative data, was noticeably higher than TCR validated data for Waltham Forest residents (281 Whipps Cross and Barts combined, compared to 214 TCR). NELCN data was closer to TCR data (227 cases). ONS published data (December 2013) confirms similar numbers to TCR (table 41).

Patients' borough of residence was not requested from Whipps Cross, so some patients are likely to have been residents of other boroughs. In view of discrepancies with validated data for Waltham Forest residents, TCR data was used in this analysis.

Table 41. Comparison of sources for breast cancers diagnosed in Waltham Forest

	Whipps Cross	Barts (not duplicated)	Total acute trust	North East London Cancer Network	Thames Cancer Registry	ONS**
Breast cancer diagnoses 2010	160	8	168	134	140	138
Breast cancer diagnoses April - Dec 2011	110	3	113	93	74	-
Breast cancer diagnosed Jan – Dec 2011	-	-	-	116	104	105
Total 2010 and 2011				250	244	243

**Health and Social Care Information Centre

<http://nww.indicators.ic.nhs.uk/webview/>

17 References

- 1 Department of Health 2011 Improving Outcomes: A Strategy for Cancer
- ² Sant M, Allemani C, Capocaccia R et al., (2003). Stage at diagnosis is a key explanation of differences in breast cancer survival across Europe. *Int J Cancer* 106: 416-422
- ³ Coleman M, Forman D, Bryant H, Butler J, Rachet B et al., (2010). Cancer survival in Australia, Canada, Denmark, Norway, Sweden and the UK, 1995-1997 (the international cancer benchmarking partnership): an analysis of population-based cancer registry data. *Lancet* 10: 62231-62233
- ⁴ Holmberg L, Sandin F, Bray F et al., (2010). National comparisons of lung cancer survival in England, Norway and Sweden 2001-2004: differences occur early in follow-up. *Thorax* 65: 436-441
- ⁵ Pokhrel A, Martikainen P, Pukkala E, Rautalahti M, Seppa K and Hakulinen T (2010). Education, survival and avoidable deaths in cancer patients in Finland. *Br J Cancer*. 103: 1109-1114
- ⁶ Downing A, Prakash K, Gilthorpe M, Mikeljevic J and Forman D (2007). Socioeconomic background in relation to stage at diagnosis, treatment and survival in women with breast cancer. *Br J Cancer*. 96: 836-840
- ⁷ Downing A, Harrison W, West R, Forman D and Gilthorpe M (2010). Latent class modelling of the association between socioeconomic background and breast cancer survival status at 5 years incorporating stage of disease. *Journal Epidemiology and Community Health*
- ⁸ Sant M, Allemani C, Capocaccia R, Hakulinen T, Aareleid T, Ceobergh J, Coleman M, Grosclaude P, Martinez C, Bell J, Youngson J, Berrino F and EUROCORE working group (2003). Stage at diagnosis is a key explanation of differences in breast cancer survival across Europe. *Int J Cancer* 106: 416-422
- ⁹ Lyratzopoulos G, Abel G, Brown C, Rous B, Vernon S, Roland M, Greenberg D (2012). Socio-demographic inequalities in stage of cancer diagnosis: evidence from patients with female breast, lung, colon, rectal, prostate, renal, bladder, melanoma, ovarian and endometrial cancer. *Annals of Oncology* 0: 1-8
- 10 Richards M, Westcombe A, Love S, Littlejohns P and Ramirez A (1999). Influence of delay on survival in patients with breast cancer: a systematic review. *The Lancet* 353: 1119-1126
- 11 Davies EA, Linklater KM, Coupland VH, Renshaw C, Toy J, Park R, Petit J, Housden C, Møller H (2010). Investigation of low 5-year relative survival for breast cancer in a London cancer network. *Br J Cancer*. 103:1076-80
- ¹² Richards M (2009). The National Awareness and Early Detection Initiative in England: assembling the evidence. *Br J Cancer*. 101: S1-S4
- ¹³ Hansen R et al., (2008). Socioeconomic patient characteristics predict delay in cancer diagnoses: A Danish cohort study. *BMC Health Sci Research* 8: 49
- ¹⁴ Anderson B et al., (1995). Delay in seeking a cancer diagnosis: delay stages and psychological comparison process. *Br J Soc Psychol* 34: 33-52
- ¹⁵ Delayed diagnosis of cancer: a thematic review. National Patient Safety Agency. 2010.
- ¹⁶ Macleod U, Mitchell E, Burgess C, Macdonald S and Ramirez A (2009). Risk factors for delayed presentation and referral of symptomatic cancer: evidence for common cancers. *Br J Cancer*. 101: S92-S101
- ¹⁷ Pederson A, Oleson F, Hansen R, Zacheriae R and Vedsted P (2011). Social support, gender and patient delay. *British J Cancer* 104: 1249-1255
- ¹⁸ Smith et al., Patient's help-seeking experiences and delay in cancer presentation: a qualitative synthesis. *Lancet* 366: 825-831
- ¹⁹ Macleod U, Mitchell E, Burgess C, Macdonald S and Ramirez A (2009). Risk factors for delayed presentation and referral of symptomatic cancer: evidence for common cancers. *Br J Cancer*. 101: S92-S101
- ²⁰ Beeken R, Simon A, von Wagner C, Whitaker K and Wardle J (2011). Cancer fatalism: deterring early presentation and increasing social inequalities? *Cancer Epidemiology Biomarkers and Prevention* 20: 2127-2131
- ²¹ ONS 2013 Index of cancer survival for Primary Care Trusts in England: patients diagnosed 1996 to 2010 and followed up to 2011
- ²² Healthy Foundations segmentation tool
http://www.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@hea/documents/generalcontent/cr_045215.pdf
- ²³ Department of Health 2013 Improving Outcomes: A Strategy for Cancer: Third Annual Report