

## **Breast Screening in City of London**

This report describes uptake and coverage of breast cancer screening in the City of London, including recent trends and significant local influencing factors. Due to its unique boundaries, data for the City of London is grouped with the borough of Hackney and will be referred to as City & Hackney in relation to statistical illustrations unless otherwise noted.

As of March 2016, the population of the City of London was recorded as 9, 401 and Hackney as 273, 526\*.

### **1. Background**

#### **1.1 Breast cancer**

During the five year period 2010-14, there were around 170 deaths among City of London residents. Almost a third of these were from cancers.

#### **1.2 Breast screening**

Studies have shown that screening reduces deaths from breast cancer by between 15 and 22%,<sup>i ii</sup> and the Advisory Committee on Breast Cancer Screening in the UK has estimated that around 1,400 lives are saved every year by breast screening.<sup>iii</sup>

Under the NHS Breast Screening Programme, all eligible women aged 50-70 are invited for screening every three years. Screening is intended to detect breast cancer at an early stage when there is a better chance of successful treatment. Because the programme is a rolling one which invites women in a three year cycle, not every woman will receive an invitation as soon as she turns 50. Every woman should however, receive her first invitation before her 53rd birthday.

Some women outside the 50-70 core age group are also screened as part of the NHS Breast Screening Programme. Women who are over the upper age limit for routine invitations for breast screening are encouraged to make their own appointments at three yearly intervals.

The NHS Breast Screening Programme is also currently piloting an extension programme for women aged 47-49 and 71-73 as part of a national randomised control trial. During the pilot,

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\* ONS, Population Mid-Year Estimates 2016

50% of eligible women 47-50 and 70-73 will be invited. The extension started at selected pilot sites in 2009, women who are registered to a GP in the boroughs of City & Hackney are not currently part of this trial. If proven to be successful, age extension will be fully implemented and all women should be invited for their first screening before the age of 50.

### **1.3 Central and East London Breast Screening Service**

The Central and East London Breast Screening Service (CELBSS) is currently based at Barts Hospital. The service provides breast screening to women in the six boroughs across Central and East London (CEL).

The City of London women, are invited to attend screening at either the Homerton (City & Hackney), Mile End (Tower Hamlets) and The Whittington (Islington) screening sites; women are able to choose any screening site if any alternative better suits their requirements. Women with protected characteristics are more often invited to attend at the Barts Hospital site if they have specifically notified the Administration Hub or have previously attended screening and require accessibility adjustments.

## **2. Coverage**

2.1 Coverage is defined as the percentage of women in the population who are eligible for screening at a particular point in time, who have had a test with a recorded result within the last three years.

There are a variety of population and service factors that affect coverage. The most significant being uptake and round length

- Uptake is defined the proportion of people invited for screening who are screened within six months. The national target is 70%.
- Round length is defined the proportion of women who are screened with thirty six (36) months of their previous screen. The national target is 90%.

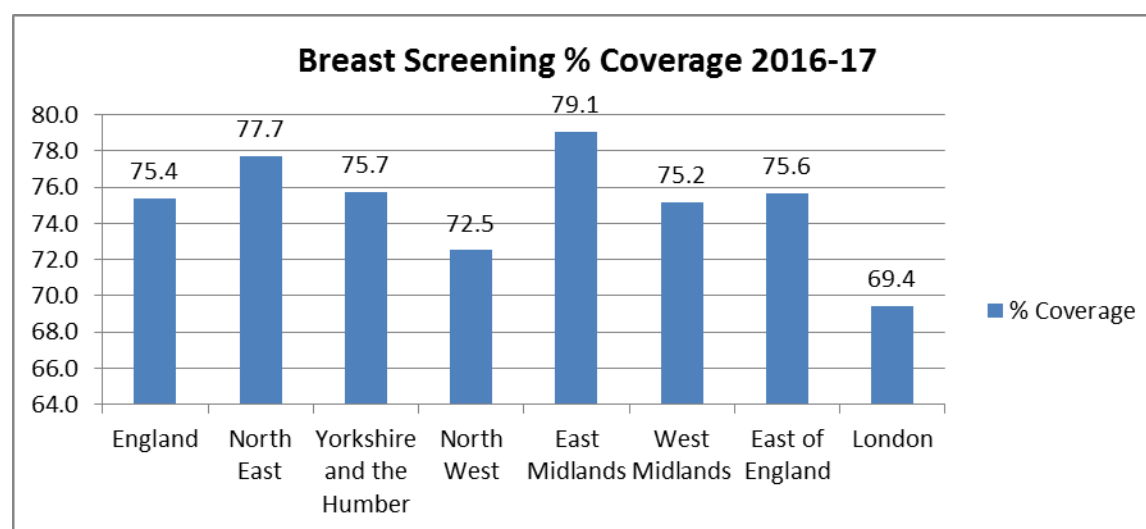
### **2.2 Trends in coverage**

Nationally, coverage of women aged 53-70 was 75.4 per cent at 31 March 2017, compared with 75.5 per cent at the same point in 2016. 2016 illustrated the first increase in coverage

in 5 years and as of 2017 remains above the NHS Breast Cancer Screening Programme's minimum standard of 70 per cent<sup>†</sup>.

Breast screening coverage in London remains the lowest in England (Figure 1). This is partly because of high population turnover and the ethnic diversity of the population.

**Figure 1 Breast screening coverage across England 2016-2017**

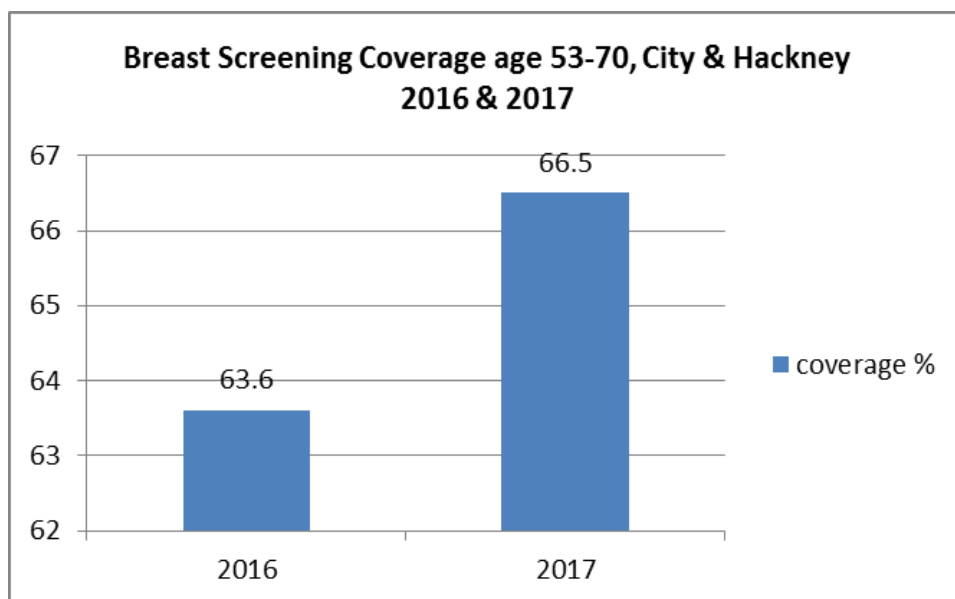


Source: [KC63](#), NHS Digital

As of March 2017, City and Hackney coverage had increased by 2.9 per cent and was the third highest for Central and East London at 66.5 per cent compared to the same point in 2016 (63.6 per cent) (Figure 2). Compared to England, London and CEL, City and Hackney coverage was lower on average for both 2016 and 2017 (Figure 3)

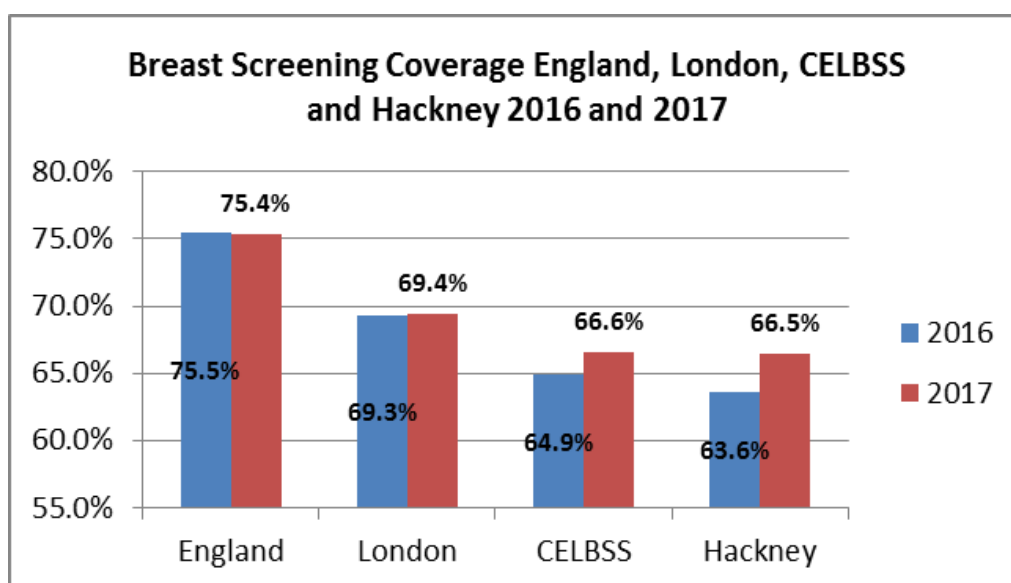
<sup>†</sup> <https://digital.nhs.uk/catalogue/PUB30195>

**Figure 2 Coverage, 53- 70 yr olds, in City of London (And Hackney) 2016 and 2017.**



Source: KC63, NHS Digital

**Figure 3, Annual Coverage in England / London / CELBSS and City & Hackney for women aged 53-70 in 2016 and 2017**



Source: KC63, NHS Digital

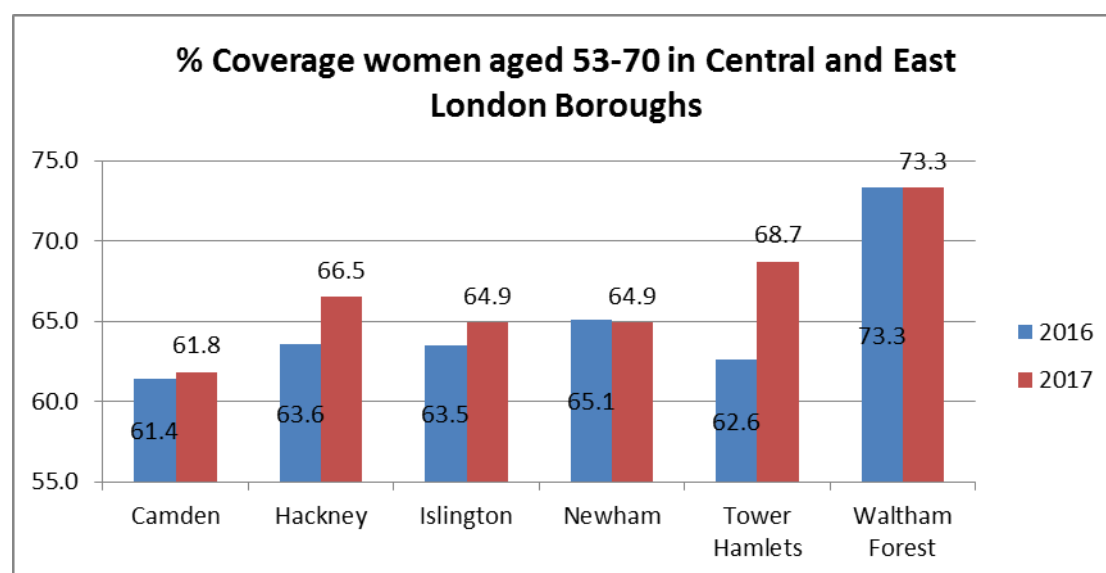
As with all but one Central and East London borough, City and Hackney has seen an increase in coverage since 2016. City and Hackney saw the second largest increase in coverage since 2016 at 2.9 per cent. The largest increase was in Tower Hamlets (6.1 per cent) with the only decline noted in Newham (-0.2 per cent) (Table 1, Figure 4).

**Table 1: % change in coverage for women aged 53-70 for all Central and East London boroughs between 2016 and 2017**

	Camden	Hackney	Islington	Newham	Tower Hamlets	Waltham Forest
2016	61.4	63.6	63.5	65.1	62.6	73.3
2017	61.8	66.5	64.9	64.9	68.7	73.3
%Change	0.4	2.9	1.4	-0.2	6.1	0.0

Source: KC63, NHS Digital

**Figure 4 % Coverage women aged 53-70 in Central and East London Boroughs, 2016 and 2017 comparison**



Source: KC63 NHS Digital

### 2.3 Variation in coverage by practice

City & Hackney practice coverage ranges from 33.9 per cent to 71 per cent (Table 2, Figure 5). There are a variety of reasons for this including list inflation, a transient cohort, ethnic diversity and deprivation of the practice population. Variances in practices can also be aligned to screening site and mobility, the influence of individual practices to proactively encourage women to take up their screening appointments and the availability of alternative clinic appointments within the CELBSS service to accommodate changes to appointment times and dates.

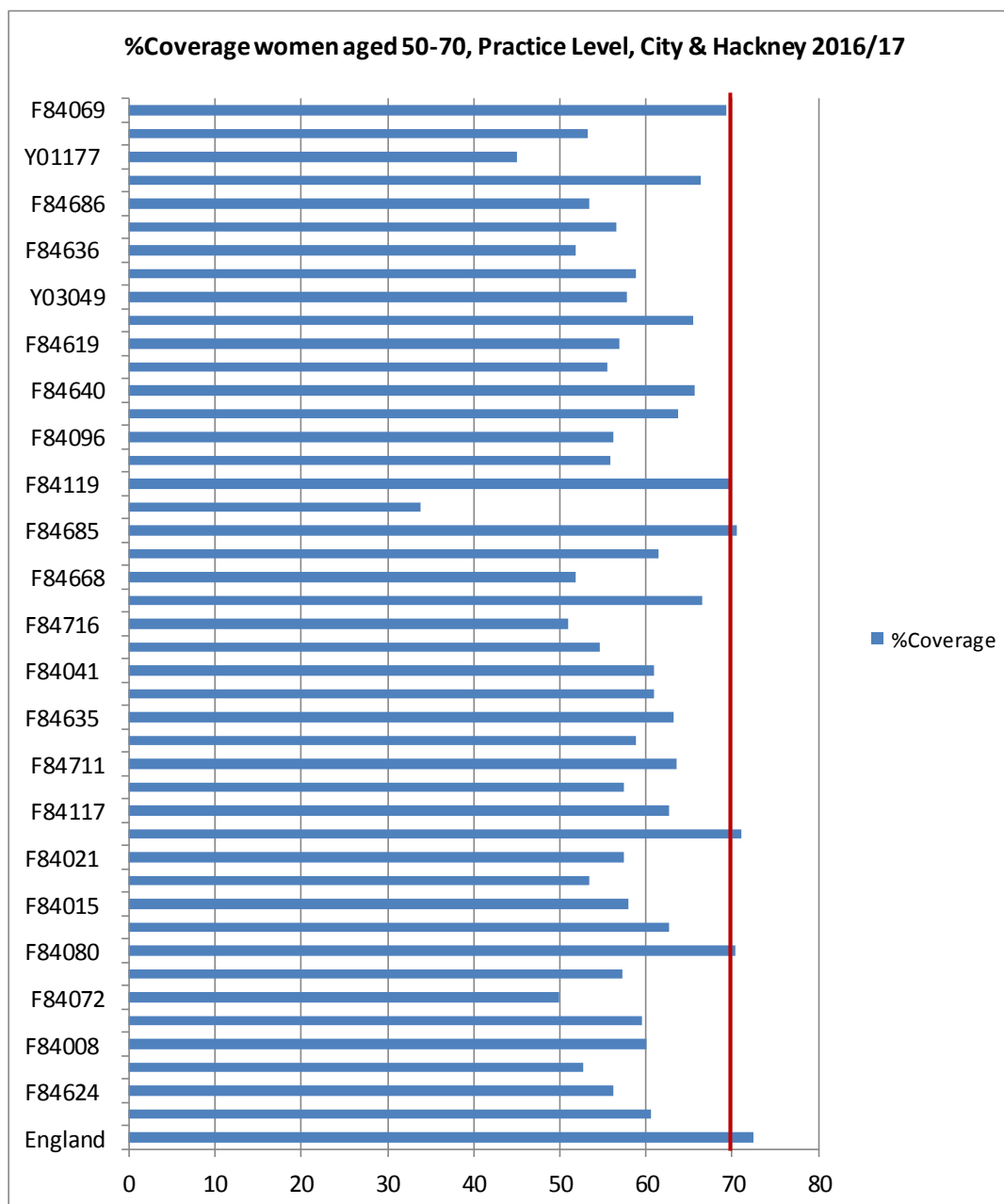
**Table 2, Breast screening coverage, Females, 50-70by general practice, City and Hackney 2016/17**

<b>Practice</b>	<b>%Coverage</b>
<b>England</b>	<b>72.5</b>
<b>NHS City And Hackney CCG</b>	<b>60.6</b>
F84624	56.2
F84060	52.8
F84008	60
F84038	59.5
F84072	50
F84601	57.3
F84080	70.4
F84720	62.6
F84015	58
F84719	53.4
F84021	57.5
F84003	71
F84117	62.7
F84035	57.5
F84711	63.6
F84621	58.9
F84635	63.2
F84033	60.9
F84041	60.9
F84013	54.6
F84716	51
F84036	66.6

F84668	51.9
F84063	61.5
F84685	70.6
F84632	33.9
F84119	69.7
F84692	55.8
F84096	56.3
F84105	63.8
F84640	65.6
F84018	55.6
F84619	56.9
F84043	65.5
Y03049	57.8
F84115	58.8
F84636	51.8
F84694	56.6
F84686	53.4
F84620	66.4
Y01177	45.1
Y00403	53.3
F84069	69.4

Source: Data was extracted from the NHAIS via the Open Exeter system. Data was collected by the NHS Cancer Screening Programme.

**Figure 5 Females, 50-70, screened for breast cancer in last 36 months (3 year coverage, %) 2016/17**



Source: <http://fingertips.phe.org.uk/profile/generalpractice>



### 3. Factors affecting coverage

#### 3.1 Round length

Round length is the interval between a woman's last screen and her next offered appointment. The NHS Breast Screening Programme minimum standard is that 90% of women should be re-invited within 36 months.

Between Q2/3 2016/17 and Q1/2 2017/18, the roundlength for CELBSS declined by 11% (based on provisional data).

The fluctuation and decline over the last year can be associated with a variety of issues:

□ : During 2015, NHSE London commenced the reconfiguration of breast screening provision across London, culminating in the re-procurement of all clinical provision (six footprints) and the procurement of a new single administration hub for London. The CEL clinical service footprint was not awarded during at this time though the service was mobilised as part of the reconfiguration process with Barts Hospital retaining management until a subsequent procurement exercise was undertaken during 2016/17 for this service specifically. The award for CEL clinical service for breast screening was made to Royal Free Hospital, who is currently mobilising for a service commencement date of 1 April 2018.

During the first mobilisation phase there was a short period of downtime whilst the relevant IT systems were configured (though this was not found to have a significant impact on standards at the unit at the service retained a roundlength over the 90 per cent standard).

□ During 2015, Public Health England, implemented a *new call/recall system for breast screening (Breast Screening Select)*, as part of this exercise, all services nationally were required to revise their associated screening round plans to ensure alignment to a standard practice of selecting and inviting women by GP practice registration.

As the service at CEL was already selecting women via this method, there was limited impact on standards though the round plan had to be adjusted in view of boundary changes which resulted in a net loss of 192<sup>†</sup> women to the service.

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<sup>†</sup> Source: PHE BSS Update Edition 3, Population Boundary Updates

□ During 2016 Barts Hospital communicated a *serious incident in relation to its PACs system (Picture Archiving and Communication)*. This resulted in the loss of the majority of breast screening images including archive files. Due to the nature of the incident and the initial unknown impacts, the service ceased screening for four weeks in April 2017 whilst assurances were made for all subsequent screening image security. The investigation and subsequent recovery process is still ongoing and at the time of writing complete recovery of breast screening images is unknown. An agreed management process for women who are recalled to assessment has been agreed between NHSE and the Screening, Quality and Assurance Service for London and where possible, previous analogue images are being requested for any woman recalled. This has resulted in a slight increase to the number of women recalled for assessment.

□ *Workforce Capacity* challenges have been noted across all London breast screening providers of late and have declined significantly at CELBSS over the last three quarters which has further challenged the unit to recover and maintain standards in relation to round length, uptake and predictably on future coverage. The reliance on agency staff to complement the existing workforce (which has declined most notably since Autumn 2017 by 50%); has resulted in the service being unable to fully project future capacity and has necessitated the late cancellation of clinics resulting in women's appointments having to be rescheduled for a later date and on some occasions to a unit outside of their normal alignment for that particular borough.

At the time of writing NHSE and the London Screening Quality Assurance Service are working closely with Barts and the team at CELBSS to reach a resolution that ensures both the safety of women at CEL and the residing workforce.

### Actions to improve round length

In all cases women who breach roundlength are wherever possible brought forward and invited within three years of their last screening appointment. As part of service mobilisation, Barts are working with Royal Free to produce a recovery plan for roundlength including a due diligence exercise to risk assess workforce and clinic utilisation. The service uses a Smart clinic system to book all appointments, working on probabilities of attendance to ensure maximum capacity availability.

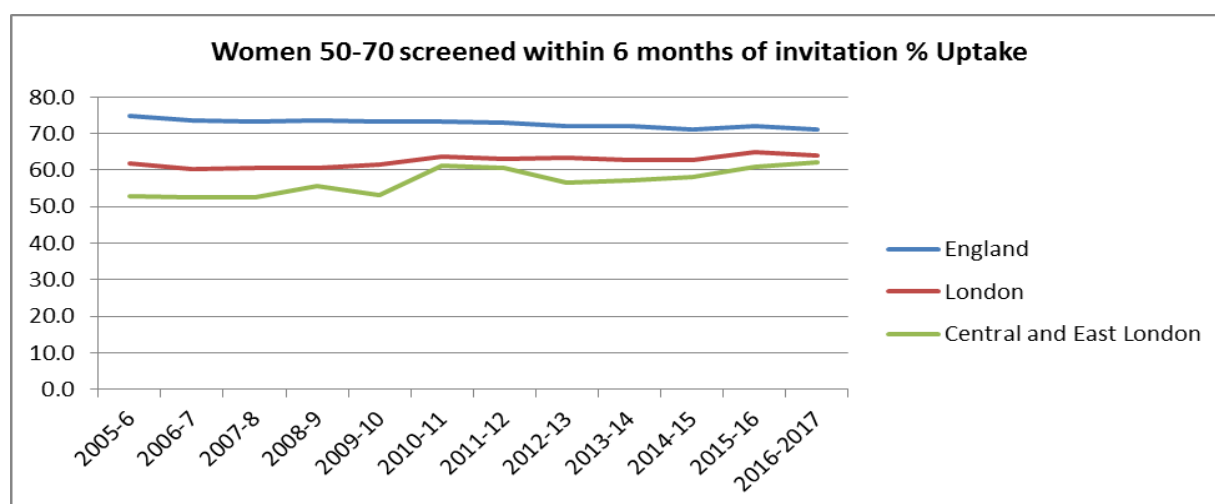
## 3.2 Uptake

Uptake is measure of individual behavior, i.e. a woman's response to an invitation to screening. There are varieties of factors that affect whether a woman responds to her invitation. These include:

- Social and demographic factors-age, ethnicity and deprivation, population turnover
- Individual factors- fear, embarrassment, previous attendance/non- attendance, poor awareness or knowledge of screening
- Organizational factors – inaccessible services, incorrect patient contact details, lost mail, quality of the service

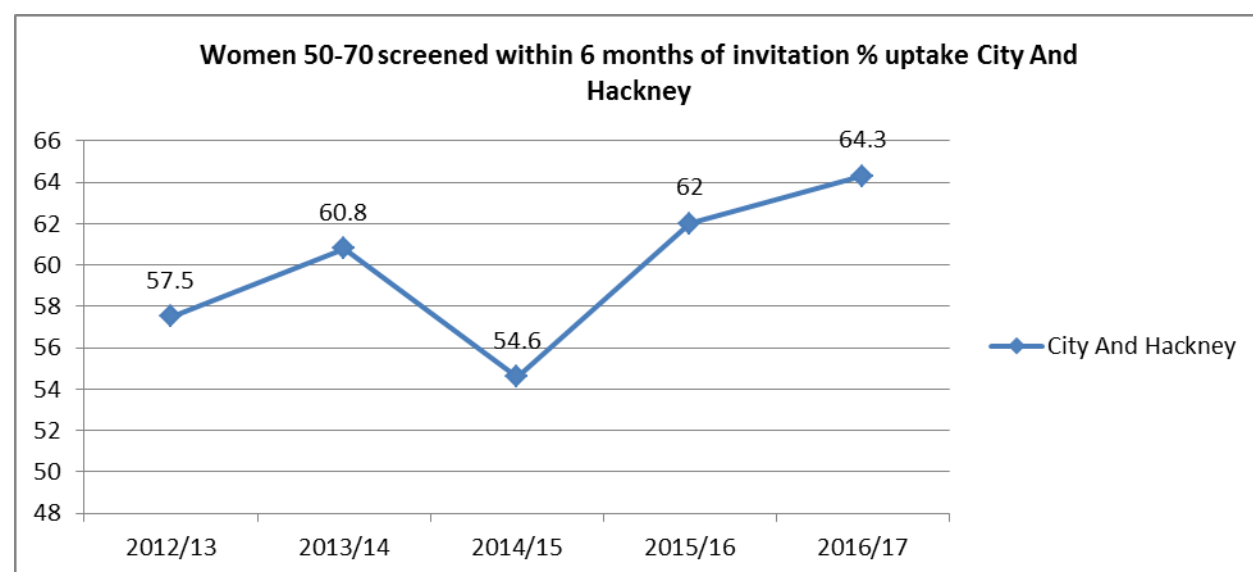
Prior to the challenges described above, overall uptake figures for CELBSS were showing an upward trend (Figure 6), this trend was mirrored in City and Hackney for a similar timeline (Figure 7)

**Figure 6 %uptake of women 50-70 screened within 6 months of receiving an invitation in England / London / CEL 2012 – 2017**



Source: KC63 NHS Digital

**Figure 7 %uptake women 50-70 screening with 6 months of Invitation City and Hackney 2012 - 2017**



Source: <http://fingertips.phe.org.uk/profile/generalpractice>

The most significant factors affecting uptake in City of London are summarized below

### 3.2.1 Deprivation

Breast screening uptake rates are lower in practices serving deprived communities (data not shown). This inverse relationship between socio-economic status and uptake is more evident when reviewed across the whole of London (Table 3)

**Table 3: Breast screening uptake (routine recall) by quintile of deprivation, London, 50-69 years, 2006-2009**

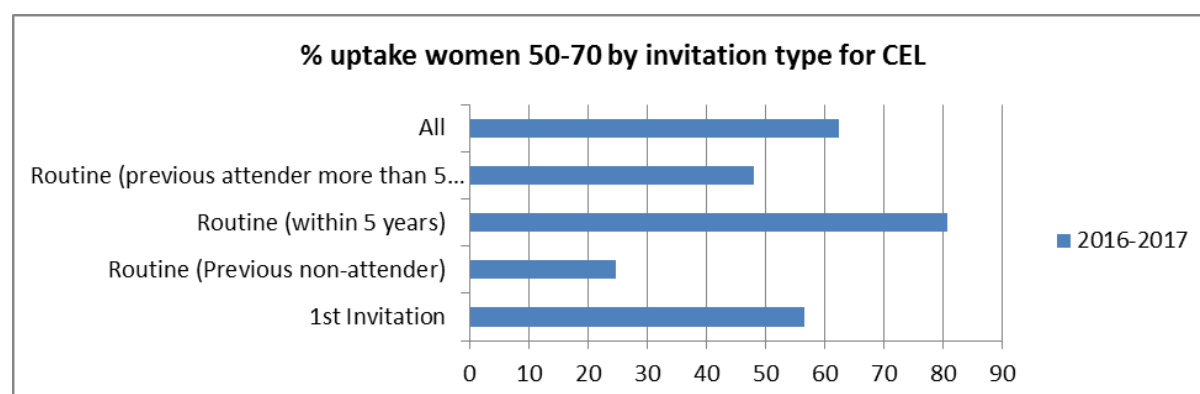
Deprivation group	Invited	Screened	%
1 (most affluent)	76,355	60,651	79%
2	74,639	58,751	79%
3	92,749	70,960	77%
4	123,628	91,339	74%
5 (most deprived)	129,067	90,147	70%

Source: Thames Cancer Registry

### 3.2.2 Type of invitation and previous attendance

Uptake of screening is lowest in women who have not previously attending a screening appointment (24.7 per cent), women who have previously attended a screening appointment but not in the last 5 years (48.1 per cent) or those who are invited for screening for the first time (56.5 per cent) (Figure 8) which are currently higher than London averages (excluding routine within 5 years) and generally lower than England averages (Table 4)

**Figure 8 %uptake women 50-70 by invitation/attendance type for CEL 2016-2017**



**Table 4 England / London / CEL % uptake by invitation type and attendance 2016-2017**

Invitation Type	CEL	London	England
1st Invitation	56.5	54.5	60.3
Routine (Previous non-attender)	24.7	21.4	20.8
Routine (within 5 years)	80.7	82.5	86.6
Routine (previous attender more than 5 years)	48.1	45.2	46.3
All	62.3	64	71.1

Source: KC63, NHS Digital

### **Actions to improve uptake in first time invitees and non-attenders**

1. Second timed appointments

Women who did not attend their screening appointment are offered a second appointment with a specific date and time (timed appointment). When compared to an open invitation (i.e. women contact the service to arrange a date and time), second timed appointments have been found to increase uptake by 4%. CELBSS has currently suspended the practice of sending second timed appointments whilst it recovers from its serious PACs incident (as detailed previously)

2. Contacting DNA's- phone calls

NHSE currently commissions a third party provider (Community Links) to contact women who DNA their screening appointment in the boroughs of Camden, Islington and most recently Hackney. Data in relation to this initiative for City &

Hackney will be available July 2018, comparatively the borough of Islington has noted a 1% increase in uptake overall from 2016 to 2017 (figures to be validated for Annual Report April 2018)

3. Pre-appointment reminder texts

Evidence shows that this improves uptake by 5%, the London administration hub sends text reminders for all women in CEL.

### **3.2.3 Population Turnover**

City of London has the second highest population turnover rate (both internationally and internally) for boroughs in central and east London, with Camden having the highest in both cases also. International turnover (international migration to and from the City of London) in City of London is lower than London overall but higher than London in relation to Internal turnover (migration within the City of London).

This could be explained by the higher than average ratio of business to home in City of London where there is only one General Practice listed, so population turnovers may be more greatly affected by the number of people resident on a shorter term basis

**Table 5 International Population Turnover per 1000 population, London, Central and East London Boroughs, 2012 – 2016**

INTERNATIONAL	London	City of London	Camden	Hackney	Islington	Newham	Tower Hamlets	Waltham Forest
2012	34.2	20.6	94.9	12	5.5	4.2	7.8	3.8
2013	31	16.4	86.2	10.9	3.5	3.8	6.4	3.3
2014	34.5	17	85.9	10.5	5.5	4.1	6.4	3.2
2015	35.5	17.5	87.7	12.5	3.9	4	8.2	2.6
2016	35.9	18.4	80.9	8.7	4.9	3.8	5.8	3
Rank		2	1	3	5	7	4	6

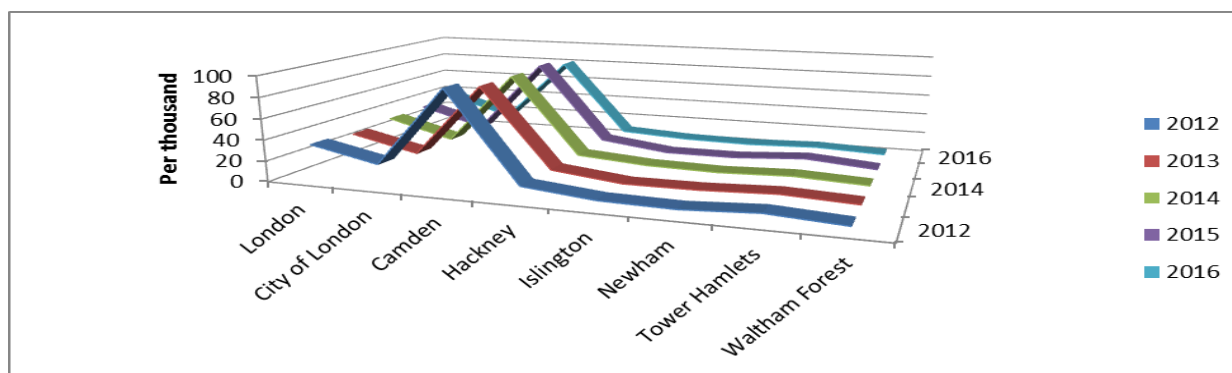
Migration Indicator Tool, ONS, August 2017

**Table 6 Internal Population Turnover per 1000 population, London, Central and East London Boroughs, 2012 – 2016**

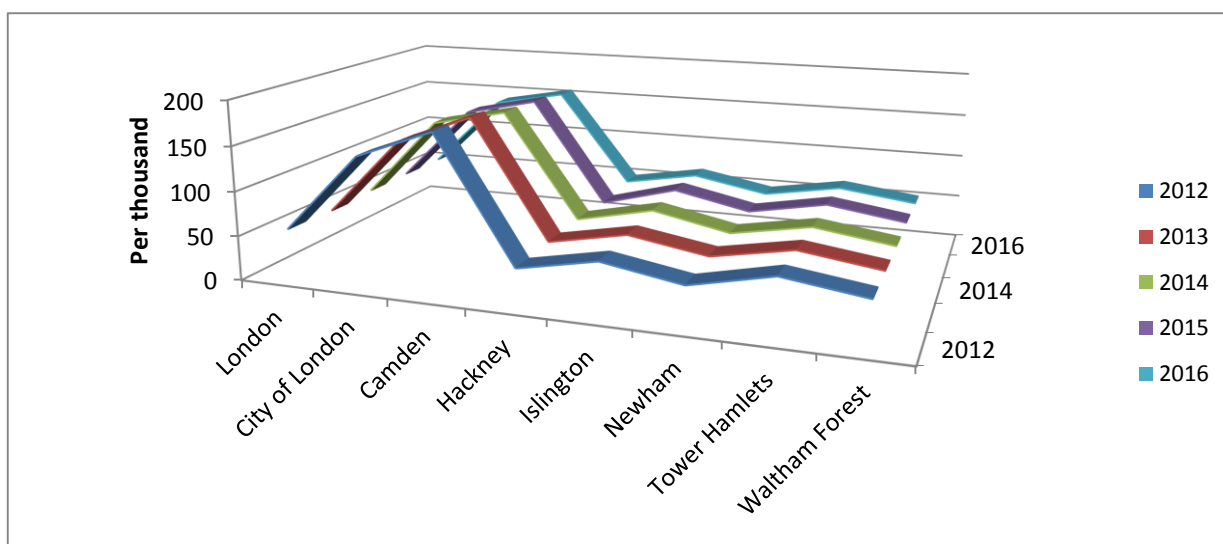
INTERNAL	London	City of London	Camden	Hackney	Islington	Newham	Tower Hamlets	Waltham Forest
2012	55.2	143.7	176.3	40	57.3	42.6	62.1	49.9
2013	53.2	141.4	174.7	43	60.1	45.7	62.1	49.9
2014	55.9	145.8	164	44.9	63.8	46.2	62.1	49.8
2015	56.3	142.6	161.4	42.3	65.8	47.9	64.5	51.7
2016	55.8	139.3	155.5	47.8	63.3	47.4	62.6	51.6
Rank		2	1	7	4	6	3	5

Migration Indicator Tool, ONS, August 2017

**Figure 9 International Population Turnover for Central and East London Boroughs compared to London overall 2012 – 2016**



**Figure 10 Internal Population Turnover for Central and East London Boroughs compared to London overall 2012-2016**



While in most cases, practices endeavour to maintain their registered lists in a current and accurate state, patients often fail to notify their registered practice when leaving the area and/or country resulting in potential duplicate registrations, ghost and 'gone away' patients remaining registered on the national patient registration systems (National Health Application and Infrastructure Service, NHAIS Exeter systems).

This makes the achievement of uptake and coverage targets challenging as the population size (based on GP registers) is inflated and incorrect.

#### 4. Conclusions

NHS England London will continue to work with a variety of partners to implement and roll out interventions that have been shown to improve uptake and coverage including:

- CEL Breast Screening Service will continue with implementation of second-timed appointments, sending of text reminders and improvement in the round length target
- General practices to support women attend screening through implementation of the NHSE/Healthy London Partnership guidance '*Good Practice in Cancer Screening for General Practice*'
- Clinical Commissioning Groups (CCGs) as commissioners of post-screening treatment services to ensure that pathways are integrated and services meet national



performance and quality standards. CCGs are lead commissioners of most screening programme hospital providers. NHSE will also work with CCGs, Clinical Support Units and Clinical Quality Review Groups, in tackling screening-related provider performance issues.

- Voluntary organisations to design and implement health promotion and awareness raising campaigns, particularly targeting ethnic minorities and deprived communities
- Services users to understand and improve their experience of services and address the barriers to attendance that they identify
- Undertake research into interventions to improve uptake and coverage

## References

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<sup>i</sup> Gøtzsche PC, Nielsen M. Screening for breast cancer with mammography. Cochrane Database of Systematic Reviews 2006; Issue 4.

<sup>ii</sup> Humphrey LL et al. Breast cancer screening: a summary of the evidence for the U.S. preventive services task force. Annals of Internal Medicine 2002; 137(5): 347-367.

<sup>iii</sup> Advisory Committee on Breast Cancer Screening. Screening for breast cancer in England: past and future. J Med Screen. 2006;13(2):59-61.

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