

# Analysis of One-Year Cancer Survival Rates

NHS Hillingdon CCG Profile



**Transforming Cancer Services Team for London**

*TCST is part of the Healthy London Partnership, a collaboration between all London CCGs and NHS England London region to support the delivery of better health in London*

Version: 3.7  
Ref No: P662  
Date: February 2016  
Author: PHAST Associates Paul Iggulden, Sarah Seager, Sue Atkinson  
Commissioner: Andy McMeeking, Team Manager – Transforming Cancer Services Team for London

[www.phast.org.uk](http://www.phast.org.uk)

PHAST   
HEALTHIER OUTCOMES FOR EVERYBODY

## Document Details

<b>Date of Issue</b>	February 2016	<b>Version</b>	3.7
----------------------	---------------	----------------	-----

The Public Health Action Support Team (PHAST) has undertaken this research.

Transforming Cancer Services Team for London, commissioned the work.

## Commissioner Lead Contact Details

**Name:** Andy McMeeking

**Role:** Team Manager – Transforming Cancer Services Team for London

**Email:** [andy.mcmeeking@nhs.net](mailto:andy.mcmeeking@nhs.net)

## Table of Contents

Executive Summary .....	1
1. Introduction .....	5
2. The one-year cancer net survival index.....	7
2.1 Overview of section.....	7
2.2 Background to the one-year cancer net survival index.....	7
2.3 Overall all ages net survival measure .....	10
2.4 Site specific levels of survival: lung, colorectal and breast .....	12
2.4.1 Lung cancer .....	12
2.4.2 Colorectal Cancer .....	13
2.4.3 Breast Cancer .....	14
2.5 Age group levels of survival: all adults, 55-64ys and 75-99ys .....	15
2.6 One-year survival index for all cancers, all adults aged 15-99.....	16
2.7 One-year survival index for all cancers, adults aged 55-64 .....	17
2.8 One-year survival index for all cancers, adults aged 75-99 years old.....	17
2.9 The one-year cancer net survival index: summary of section.....	18
3. The explanatory factors .....	20
3.1 An overview of the National Awareness and Early Diagnosis Initiative .....	20
3.2 Public awareness measures .....	21
3.2.1 Cancer Awareness Measures (CAM) survey .....	22
3.2.1.1 Barriers to seeking help .....	24

3.2.2	Healthy life expectancy at birth and 65 years .....	26
3.3	Early diagnosis measures .....	28
3.3.1	Screening measures; breast and bowel.....	29
3.3.1.1	Breast cancer screening .....	29
3.3.1.2	Bowel cancer screening.....	31
3.3.2	Use of the urgent referral pathway.....	32
3.3.3	Emergency presentations .....	36
3.3.3.1	Proxy measure for emergency presentations for cancer .....	37
3.3.3.2	Rate of emergency admissions with cancer.....	37
3.3.4	Routes to diagnosis.....	38
3.3.5	Stage at diagnosis.....	40
3.3.5.1	Prevalent cancer cases.....	40
3.3.5.2	Cancer Staging .....	41
3.4	Diagnostics and treatment .....	42
3.4.1	6 week waits for key diagnostics.....	42
3.4.2	Access to diagnostic procedures .....	44
3.4.3	Cancer waiting times.....	46
3.4.3.1	2 week wait, all cancer (patients waiting within 14 days).....	46
3.4.3.2	31-day (diagnosis to treatment) wait for first treatment, all cancers.....	47
3.4.3.3	62-day (urgent GP referral) wait for first treatment, all cancer.....	48
3.4.4	Key provider performance.....	49



3.5 Explanatory factors: summary of section .....	53
4. Next steps.....	56



## Executive Summary

This report considers cancer survival and other measures related to cancer from a variety of statistics, for all cancers and for three main cancers - breast, lung and colorectal, and for different age groups. The results give an indication of how well Hillingdon residents are being screened, diagnosed and treated for cancer in comparison with those in the rest of London and West Essex and in comparison with England averages. The findings indicate where the CCG may want to examine further or take action in their commissioning processes.

The index of one-year net survival from all cancers provides a convenient, single number that summarises the overall patterns of cancer survival, for a wide range of cancers with very disparate survival.

The methodology has been developed by the Cancer Survival Group (CSG) at London School of Hygiene and Tropical Medicine, this team being recognised as a centre of excellence within the UK and internationally, for the production of cancer survival statistics.

The all-cancers net survival index is adjusted for changes over time in the profile of cancer patients by age, sex and type of cancer. This is because survival varies widely with these three factors. The cancer net survival index is modelled to take into account likely mortality from non-cancer causes, using deprivation adjusted life tables.

The one-year survival index data is for the period 1997 to 2012, with site-specific figures for the period 2008 to 2012. The explanatory measures presented follow these periods as closely as possible using the latest and most appropriate data available.

The one-year net survival index for all cancers combined in Hillingdon has increased over the period to 69.2% in 2012 (latest data available from ONS),



## NHS Hillingdon CCG

and the published figures show this to be lower than the London average of 69.7% and the overall England figure of 69.3%. The 2012 measure shows Hillingdon as having a medium-low net survival amongst London CCGs (ranking 18<sup>th</sup>; 1 highest, 33 lowest).

The following explanatory measures will have positively impacted on the average level of one-year net survival from all cancers for Hillingdon:

- For both males and females, at birth and aged 65 years, healthy life expectancy in Hillingdon is higher than that for England
- The conversion rate is the percentage of the referrals that were found to have cancer and provides an indicator of the referral quality. The conversion rate for Hillingdon has been similar to the England rate during the period 2012 - 2014
- The rate of emergency admissions with cancer per 100,000 population was lower for Hillingdon than England as a whole for 2012 and 2013. In keeping with the rate for England overall, there was a drop in the rate in Hillingdon from 2012 to 2013.
- The proportion of Hillingdon residents waiting more than six weeks for colonoscopy, flexible sigmoidoscopy and gastroscopy procedures were consistently very low throughout 2014 / 2015
- There were higher rates of access in Hillingdon for colonoscopy procedures compared with the England average
- In 2013/14, 97.7% of patients in NHS Hillingdon CCG saw a specialist within two weeks. This is higher than the standard set and the English average (95.3%)
- In 2013/14, 86.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 62 days of an urgent GP referral. This is higher than the English average (85.8%)
- The percentage of patients having CT prior to bronchoscopy is considered a strong measure of provider performance and here Hillingdon NHS Foundation Trust performs well

## NHS Hillingdon CCG

- The adjusted 90-day post op mortality is strong measure of colorectal cancer provider performance. This is the only (1 of 6) measures that Hillingdon NHS Foundation Trust is green rated for, with a rate lower than the London and the audits average (2% compared with 4.6%).

The following explanatory measures will have negatively impacted on the average level of one-year net survival from all cancers for Hillingdon and suggest areas for improvement:

- Breast cancer screening coverage and uptake in Hillingdon were consistently lower than the England average during the period 2012 - 2014
- Hillingdon residents in the 60-69 years target age group consistently have lower coverage and uptake for bowel cancer screening than for England as a whole
- Whilst the rate of urgent referrals per 100,000 population (referred using the two-week wait urgent referral pathway) increased in Hillingdon between 2012 and 2014 it was consistently lower than the England rate
- The detection rate tells us the percentage of all cancers that were identified through the two-week wait pathway. This was approximately 40% in Hillingdon, (in 2012, 2013 and 2014) being consistently below the percentage for England
- Approximately a quarter of Hillingdon cancer patients present as emergencies as measured by the NCIN proxy measure. The percentage has fluctuated around this level during 2008 - 2012 and tends to be higher than that for England as a whole
- The proportion of female breast cancer in Hillingdon diagnosed through the screen detected route is slightly lower than for England and the proportion detected through emergency presentations slightly higher



## NHS Hillingdon CCG

- The proportion of colorectal cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher
- The proportion of lung cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher
- The prevalent cancer cases (% of practice population on practice cancer registers) for Hillingdon residents in each of the three years 2012, 2013 and 2014, was lower than the England value
- The proportion of Hillingdon cancers diagnosed with an unknown stage is considerably higher than that across London
- There were lower rates of access for sigmoidoscopy and gastroscopy procedures compared with England averages
- In 2013/14, 97.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 31 days of a decision to treat. This is lower than the English average (98.2%)
- The percentage of non-small cell lung cancer (NSCLC) patients with cancer at stages 1a to 2b receiving surgery is considered a particular strong measure of provider performance and here the Hillingdon NHS Foundation Trust is lower than the London average (51.4% compared with 52% across London)
- The adjusted 18-month stoma rate is a key area in which Hillingdon NHS Foundation Trust performs poorly compared with London overall (61% compared with audit averages of 51%).

### 1. Introduction

Cancer is the cause group responsible for the majority of avoidable deaths in England and Wales<sup>2</sup>. As such it is unsurprising that cancer indicators feature prominently in the national set of outcome indicators for Clinical Commissioning Groups (CCGs)<sup>3</sup>. Section 1 of the 2015/16 CCG Outcomes Indicator Set focuses on preventing people from dying prematurely and 8 of the 24 indicators relate to cancer. The primary focus of this report is two of these measures - one-year survival from all cancers and one-year survival from breast, lung & colorectal (bowel) cancers.

Clinical Commissioning Groups (CCGs) have been requested by NHE England (London) as part of the Key Lines of Enquiry (KLoE) to CCG narratives for 2015/16 operational plans to explain how they will track one-year net cancer survival rates and to detail their plans for improving this key measure. This report has been produced to help the CCG Board to meet this request; it examines the one-year net survival index for adults in Hillingdon alongside a range of explanatory factors, and identifies areas and actions for improvement.

The Transforming Cancer Services Team (TCST) for London has commissioned PHAST to report on, for each of the 33 London and West Essex CCGs, an in-depth analysis of current positions and trends in one-year cancer survival. A range of explanatory factors has been considered to identify areas for improvement, and where relevant, recommendations are made to enable CCGs to target interventions to improve cancer awareness and screening, diagnosis and treatment.

The report is in two parts:

---

<sup>2</sup> <http://www.ons.gov.uk/ons/rel/subnational-health4/avoidable-mortality-in-england-and-wales/2013/stb.html> last accessed 29 October 2015

<sup>3</sup> <https://www.england.nhs.uk/wp-content/uploads/2012/12/ccg-ois-2015-glance.pdf> last accessed 29 October 2015

## NHS Hillingdon CCG

1. The one-year net survival index - here we provide an overview of the index and report on current positions and trends across the 33 London and West Essex CCGs
2. The explanatory factors - here we review how well Hillingdon has performed across a wide range of measures (thirty-three). These measures cover the National Awareness and Early Diagnosis Initiative (NAEDI) pathway and are grouped into three themes: public awareness, early diagnosis and treatment.

The report uses routinely available data sources such as the National Cancer Intelligence Network (NCIN) GP practice profiles. London data is provided as a comparator alongside trend data for the CCG; where London figures were not available we have used published national data. The data periods used in the report were selected on the basis of a combination of timeliness and relevance to the periods covered by the net survival index (1997 – 2012 for the one-year survival index and 2008 – 2012 for the site specific indices).

## 2. The one-year cancer net survival index

### 2.1 Overview of section

CCGs have been requested by NHS England to explain how they will track one-year cancer survival and to detail their plans for improving this key measure. This part of the report provides an overview of the index and presents findings for London and West Essex CCGs. In this section we report on:

- Background to the one-year net survival index for all cancers combined
- Overall (all-ages) net survival
- Site specific levels of survival: lung, colorectal and breast
- Survival by age group: all adults (15-99 years), 55-64 years, 75-99 years
- Summary

### 2.2 Background to the one-year cancer net survival index

The one-year cancer net survival index has been developed to provide a robust high-level summary measure. It is included in the CCG Outcomes Indicator Set<sup>4</sup> and the All Party Parliamentary Committee on Cancer<sup>5</sup> campaigned for it to be included in the Delivery Dashboard of the 2015/16 Clinical Commissioning Group (CCG) Assurance Framework<sup>6</sup>. Indeed, the NHS operating plan for CCGs (the Forward View into Action) includes the fundamental requirement for plans to improve early diagnosis for cancer and to track one-year cancer survival<sup>7</sup>.

The index of one-year survival from all cancers combined provides a convenient, single number that summarises the overall patterns of survival for

---

<sup>4</sup><http://www.england.nhs.uk/resources/resources-for-ccgs/ccg-out-tool/ccg-ois/> last accessed 22 October 2015

<sup>5</sup><http://www.macmillan.org.uk/GetInvolved/APPG/APPG.aspx> last accessed 22 October 2015

<sup>6</sup><http://www.england.nhs.uk/commissioning/ccg-auth/> last accessed 16 October 2015

<sup>7</sup><http://www.england.nhs.uk/wp-content/uploads/2014/12/forward-view-plning.pdf> last accessed 16 October 2015

## NHS Hillingdon CCG

cancers newly diagnosed each calendar year, for a wide range of cancers with very disparate survival. Survival for most cancers is either stable or rising steadily from year to year<sup>1</sup>. This trend is reflected in the values of the index in the tables produced by ONS. However, patterns of cancer occurrence by age, sex and type of cancer, can shift quite quickly over time, especially in small areas. The survival index is designed to reflect real progress (or otherwise) by providing a summary measure of cancer survival that adjusts for any such shifts. It is intended to change only if cancer survival itself actually changes and hence is a good measure. It is designed for long-term monitoring of progress in overall cancer survival.

Indicator values are published on the ONS website<sup>1</sup>. The Cancer Survival Group (CSG) at LSHTM has developed the methodology for the indicators. ONS commissions cancer survival figures from the CSG, since this team is recognised as a centre of excellence within the UK for the production of cancer survival statistics.

To make figures from the past comparable with those for today and in the future, the all-cancers survival index is adjusted for changes over time in the profile of cancer patients by age, sex and type of cancer. This is because survival varies widely with all three factors.

Overall cancer survival can change simply because the profile of cancer patients changes, even if survival at each age, for each cancer and in each sex has not changed. This adjustment is made by using a weighted average of all the cancer survival estimates for each age, sex and cancer, using the proportions of cancer patients diagnosed in England and Wales during 1996–99 in each age group, sex and type of cancer as the standard weights. All values of the cancer survival index, past and future, are adjusted using the same standard weights. This means that the cancer survival index is not affected by changes over time in the proportion of cancers of different lethality in either sex (for example, a reduction in lung cancer or an increase in breast cancer). Similarly, the index will be unaffected by a change in the age profile

## NHS Hillingdon CCG

of newly diagnosed cancer patients, or a shift in the proportion of a given type of cancer between men and women.

*The cancer net survival index is modelled to take into account likely mortality from non-cancer causes. Adjustment of life tables for area deprivation takes an account of differences between areas in levels of relative deprivation.*

The one-year survival index (%) for all cancers combined is available by calendar year of diagnosis, by CCG, Area Team and England. All adults (15 – 99 years) who were diagnosed with a first, primary, invasive malignancy were eligible for inclusion. Patients diagnosed with malignancy of the skin other than melanoma are excluded. Cancer of the prostate was also excluded from the index, because the widespread introduction of prostate-specific antigen (PSA) testing since the early 1990s has led to difficulty in the interpretation of survival trends ([Pashayan et al., 2006](#)).

Further details on the index methodology, published data and figures can be found on the [ONS website](#).

## NHS Hillingdon CCG

### 2.3 Overall all ages net survival measure

The one-year all ages (15-99 years) net cancer survival measure for London CCGs has been reviewed and we have summarised the available data (1997 to 2012) in the following at a glance 'RAG rating' table.

The 'RAG rating' was developed by categorising the index values on the basis of comparison with the England value as being either:

- Red (the CCG value is low compared with England)
- Amber (the CCG value is broadly comparable with England)
- Green (the CCG value is better than that for England).

The detailed data on which the RAG rating table is based is available on the [ONS website](#).

The table below gives a summary 'RAG rating' for the overall all adults one-year net survival measure (15-99 years) alongside similar for 55-64 years and 75-99 years age groups.

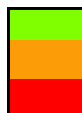
## NHS Hillingdon CCG

**Table 1: Summary of one-year net survival index by CCG**

<b>CCG</b>	<b>15-99ys</b>	<b>55-64ys</b>	<b>75-99ys</b>
Barking and Dagenham	Red	Red	Red
Barnet	Green	Green	Orange
Bexley	Green	Green	Orange
Brent	Green	Orange	Green
Bromley	Green	Green	Green
Camden	Green	Green	Green
Central London (Westminster)	Green	Green	Green
City and Hackney	Red	Red	Orange
Croydon	Green	Green	Green
Ealing	Orange	Orange	Orange
Enfield	Orange	Orange	Orange
Greenwich	Red	Orange	Red
Hammersmith and Fulham	Green	Green	Orange
Haringey	Red	Orange	Orange
Harrow	Green	Orange	Green
Havering	Orange	Orange	Red
<b>Hillingdon</b>	Red	Red	Orange
Hounslow	Orange	Orange	Orange
Islington	Red	Red	Orange
Kingston	Green	Green	Green
Lambeth	Red	Red	Red
Lewisham	Red	Red	Orange
Merton	Green	Green	Green
Newham	Red	Red	Red
Redbridge	Red	Orange	Red
Richmond	Green	Green	Green
Southwark	Red	Red	Red
Sutton	Green	Orange	Green
Tower Hamlets	Red	Red	Red
Waltham Forest	Red	Red	Red
Wandsworth	Orange	Green	Orange
West London	Green	Green	Green
West Essex	Orange	Green	Red

**Legend**

- CCG consistently above England values
- CCG trend line crossing England trend line
- CCG consistently below England values



Underlying data source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).



## NHS Hillingdon CCG

The one-year net survival index for all cancers combined in Hillingdon has increased over the period to 69.2% in 2012 (latest data available from ONS), and the published figures show this to be lower than the London average of 69.7% and similar to the overall England figure of 69.3%. The 2012 measure shows Hillingdon as having a medium-low net survival amongst London CCGs (ranking 18<sup>th</sup>; 1 highest, 33 lowest).

### 2.4 Site specific levels of survival: lung, colorectal and breast

The survival index will only change over time (or between areas) if the levels of survival for the particular cancer site or age group change over time (or between areas). In this section trends in the three main cancers are provided (lung, colorectal and breast).

These are chosen as between them they account for 39% of cancer mortality (based on 2012 [The 20 Most Common Causes of Cancer Death in 2012 Number of Deaths per Year, All Ages, UK](#)<sup>8</sup>). Lung cancer is by far the most common cause of cancer death in the UK. More than one in five (22%) cancer deaths are from lung cancer. Bowel cancer is the second most common cause of cancer death (10%) and, breast cancer is the third most common cause of cancer deaths overall (7%).

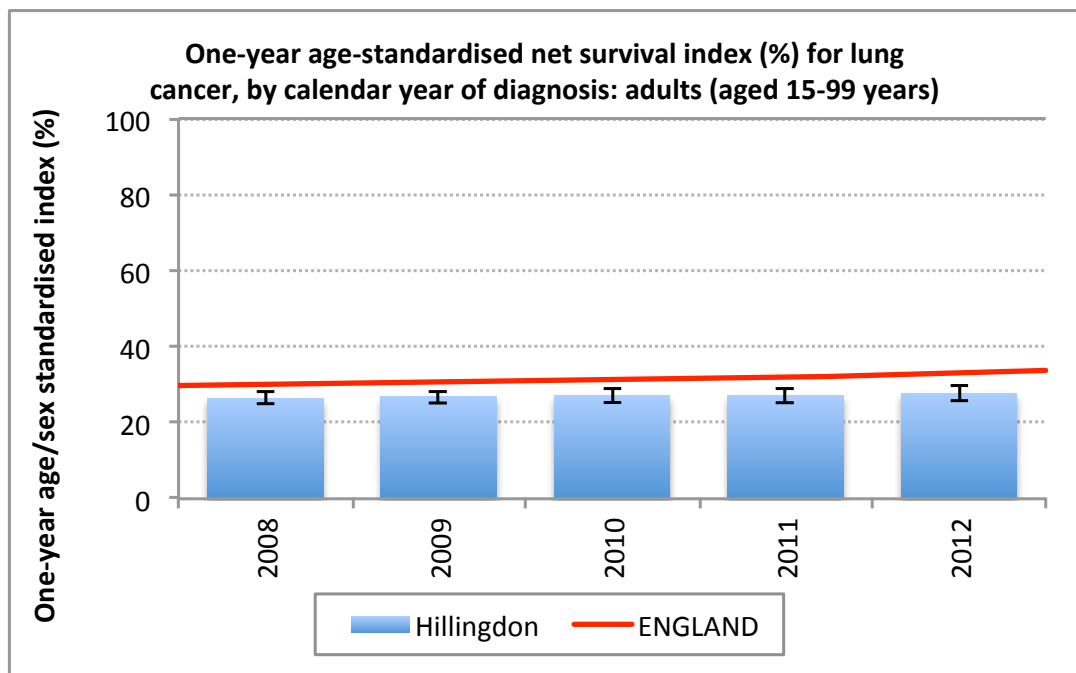
#### 2.4.1 Lung cancer

The one-year lung cancer net survival for Hillingdon increased from 26.4% in 2008 to 27.7% in 2012 (latest data available from ONS) significantly lower than the overall England figure of 33.4%. The 2012 measure shows Hillingdon as being in the bottom decile of net survival amongst London CCGs (ranking 32<sup>nd</sup>; 1 highest, 33 lowest).

---

<sup>8</sup><http://www.cancerresearchuk.org/health-professional/cancer-statistics/mortality/common-cancers-compared#heading-Zero> last accessed 16 October 2015

Figure 1: One-year net survival index for lung cancer

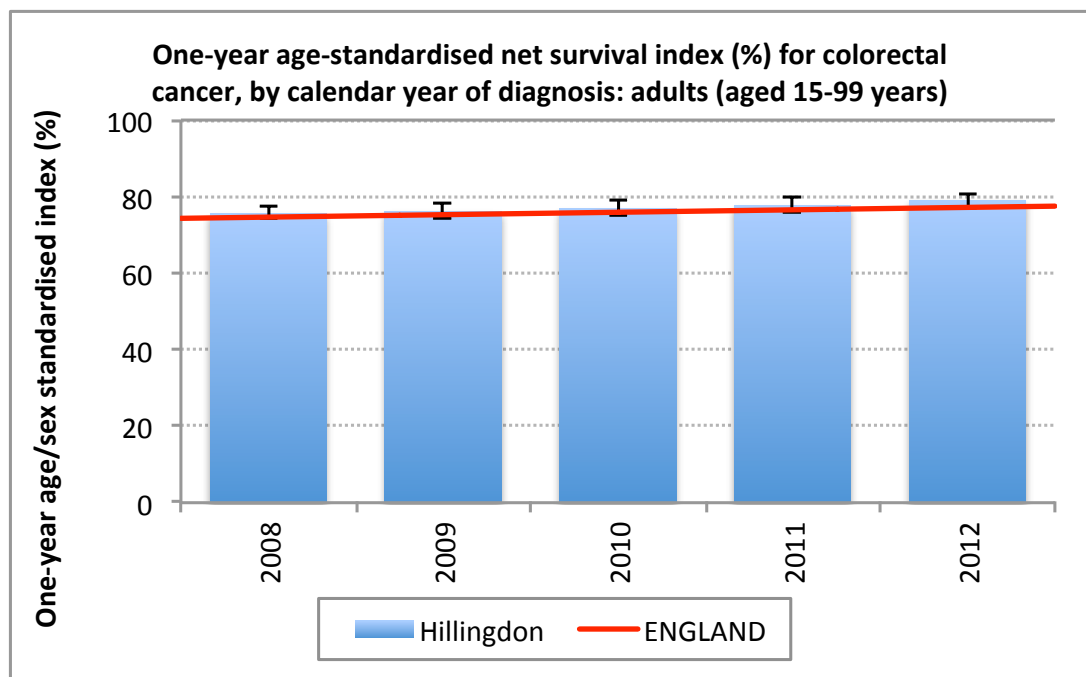


Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

### 2.4.2 Colorectal Cancer

One-year survival from colorectal cancer in Hillingdon was, over the 2008 - 2012 period considered, lower than that for England as a whole. The one-year colorectal cancer net survival for Hillingdon increased, in line with the upward trend for England as a whole, to 79.1% in 2012 (latest data available from ONS) where it remained higher than the overall England figure of 77.3%. The 2012 measure shows Hillingdon as being a mid-range net survival amongst London CCGs (ranking 13<sup>th</sup>; 1 highest, 33 lowest).

Figure 2: One-year net survival index for colorectal cancer, aged 15-99 years

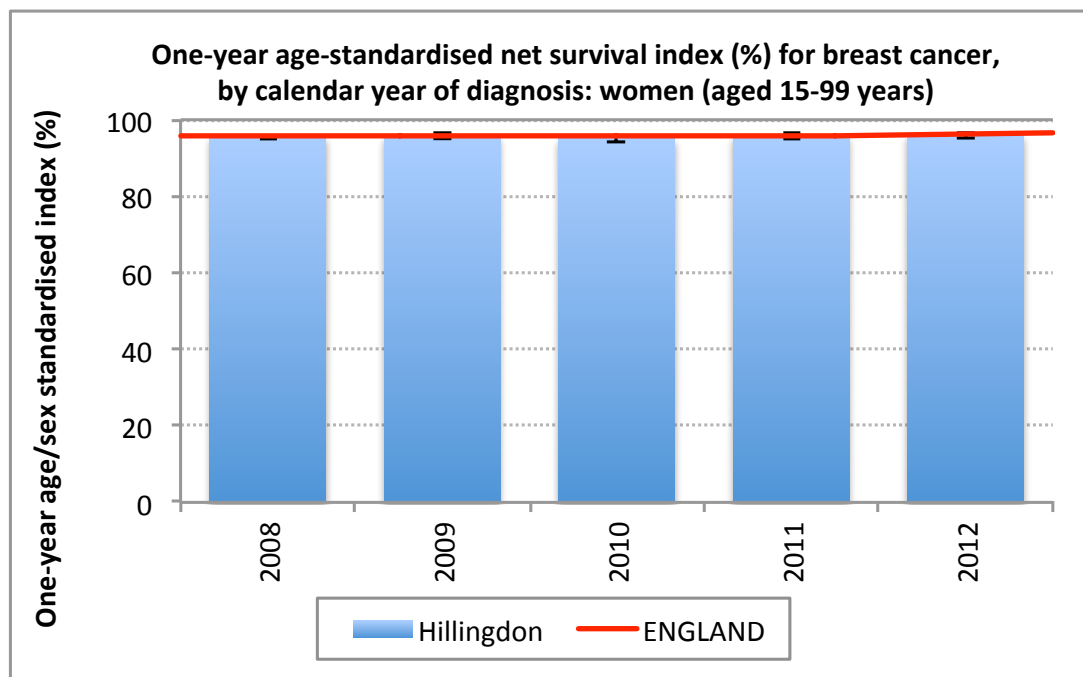


Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

### 2.4.3 Breast Cancer

One-year survival from breast cancer in Hillingdon was, over the 2008 - 2012 period considered, similar to England as a whole. Net survival for Hillingdon, in line with the trend for England as a whole, increased over the period from 95.5% in 2008 to 96% in 2012 (latest data available from ONS) lower than the overall England figure of 96.4%. The 2012 measure shows Hillingdon as having a low net survival amongst London CCGs (ranking 20<sup>th</sup> in London; 1 highest, 33 lowest).

Figure 3: One-year net survival index for breast cancer, aged 15-99 years



Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

For all three cancers there is room for survival improvement; however this is particularly the case for lung cancer.

### 2.5 Age group levels of survival: all adults, 55-64ys and 75-99ys

As stated previously, the survival index will only change over time (or between areas) if the levels of survival for a particular cancer or age group change over time (or between areas). In this section trends in all adults, in the 55-64 years age group and in the 75-99 years age groups are detailed.

The [cancer one-year net survival publications](#) include data on the specific age groups 55-64 years old and 75-99 years old alongside all adults (15-99 years). The 55-64 years age group is of particular interest as this is a key age group in terms of opportunities for maximising survival. More than a third of

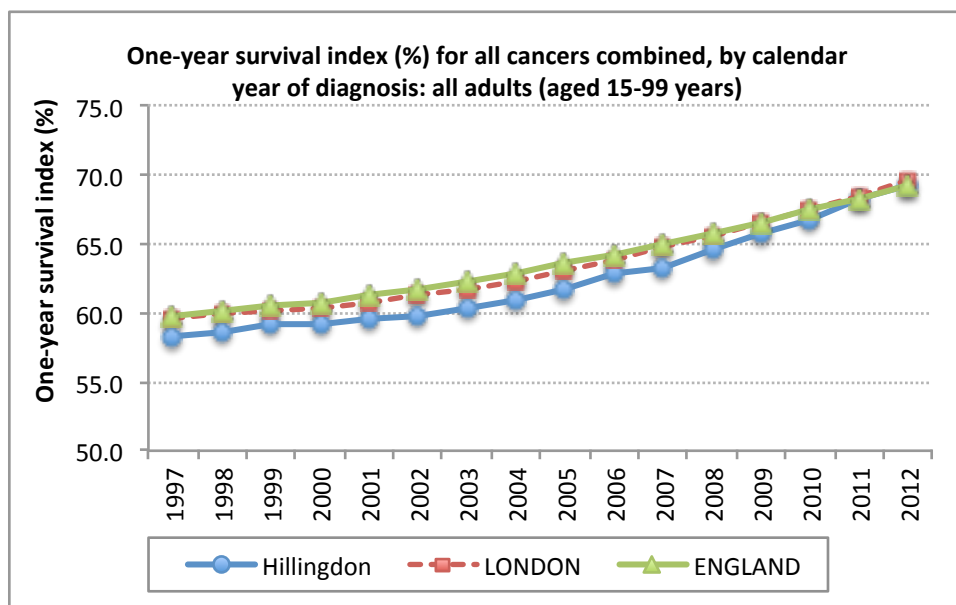
## NHS Hillingdon CCG

cancers are diagnosed in people aged 75 and over<sup>9</sup> making this also a key age group for consideration.

### 2.6 One-year survival index for all cancers, all adults aged 15-99

The adult (15-99 years old) one-year net survival index for all cancers has risen steadily at England, regional (London) and local (Hillingdon) levels. Nationally, one-year cancer net survival increased from 59.7% in 1997 to 69.3% in 2012, an increase of just under 10%. The improvement in Hillingdon has been similar to that for England as a whole (and London overall), increasing from 58.3% in 1997 to 68.2% in 2012, an increase of 9.9%. *We can see from the following chart the percentage one-year net survival increasing steadily in Hillingdon with England and London and the gap between Hillingdon and regional and national comparators narrowing.*

**Figure 4: One-year survival index for all cancers combined, aged 15-99 years**



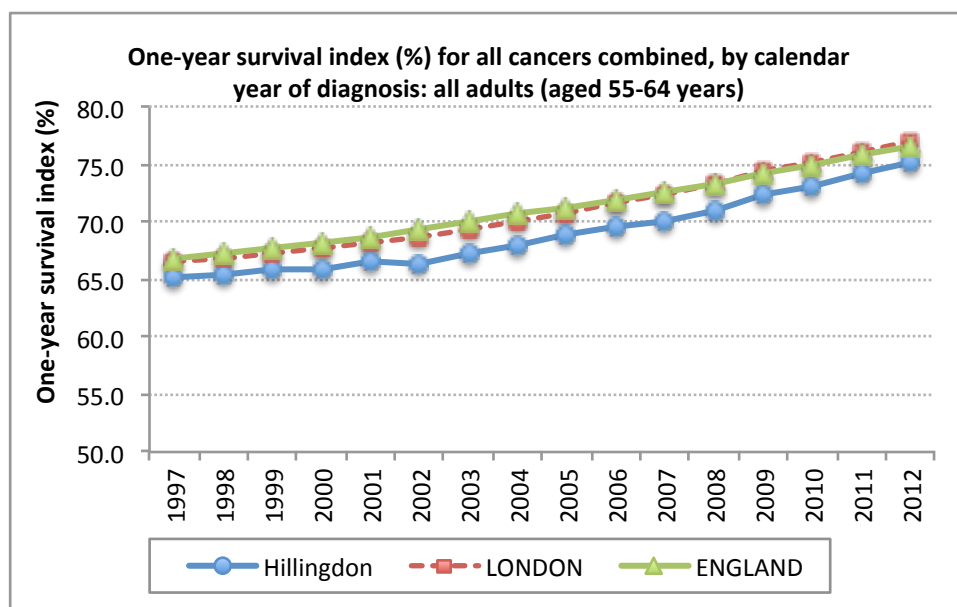
Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

<sup>9</sup><http://www.cancerresearchuk.org/health-professional/cancer-statistics/incidence#heading-Two>

### 2.7 One-year survival index for all cancers, adults aged 55-64

The one-year net survival index for all cancers has increased in the 55-64 years age group at England, regional (London) and local (Hillingdon) levels. *The index for 55-64 year olds in Hillingdon has gradually increased but remains below the value for England as a whole.* At England level, the index in the 55-64 years age group increased from 66.8% in 1997 to 76.7% in 2012 (up 9.9%). In Hillingdon the index increased from 65.2% in 1997 to 75.1% in 2012 (up 9.9%).

**Figure 5: One-year survival index for all cancers combined, aged 55-64 years**



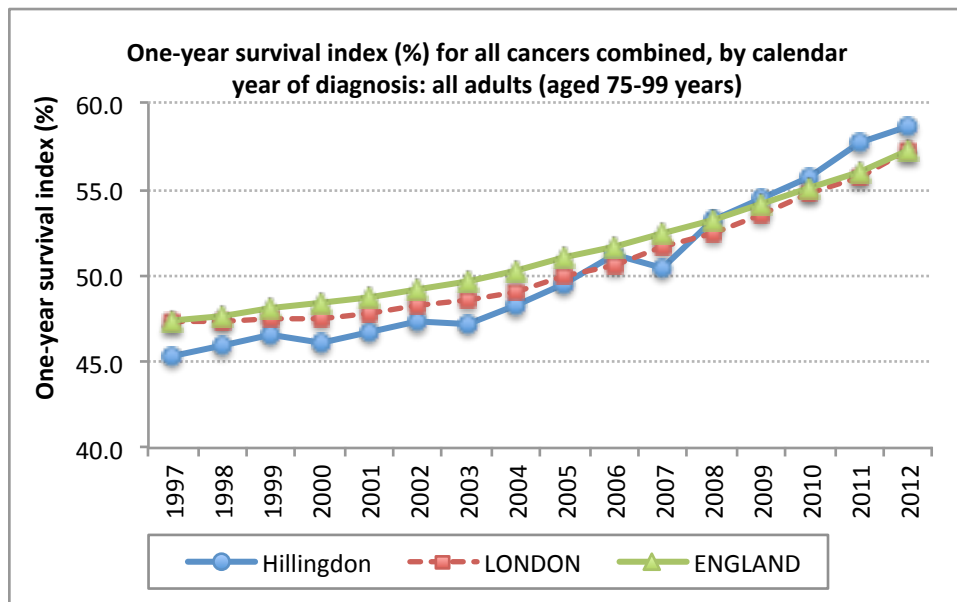
Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

### 2.8 One-year survival index for all cancers, adults aged 75-99 years old

In older people (75 -99 years old) one-year net survival index has risen at England, regional (London) and local (Hillingdon) levels. Nationally, one-year cancer net survival increased from 47.4% in 1997 to 57.2% in 2012, an increase of just under 10%. *The 75-99 years old index has increased more in Hillingdon than that for England as a whole (and London overall), from 45.3%*

in 1997 to 58.7% in 2012, an increase of 13.4%.

**Figure 6: One-year survival index for all cancers combined, aged 75-99**



Source: London School of Hygiene and Tropical Medicine, published on [ONS website](#).

The index for the 75-99 years age group in Hillingdon has risen considerably faster than for England and London as a whole between 2005 and 2012. There may be learning here for other CCGs. Is this the result of particular improvements / initiatives which Hillingdon could share?

The above charts suggest that the increase in the index for the 75-99 years age group in Hillingdon has contributed to the increase seen in the index for all ages. This leads us to question whether similar improvements could be made in the 55-64 years age group.

## 2.9 The one-year cancer net survival index: summary of section

The index of one-year survival from all newly diagnosed cancers provides a convenient, single number that summarises the overall patterns of cancer survival in each calendar year, for a wide range of cancers with very disparate survival.

## NHS Hillingdon CCG

The all-cancers survival index is adjusted for changes over time in the profile of cancer patients by age, sex and type of cancer. This is because survival varies widely with all three factors. The cancer survival index is not affected by changes over time in the proportion of cancers of different lethality in either sex (for example, a reduction in lung cancer or an increase in breast cancer). Similarly, the index will be unaffected by a change in the age profile of newly diagnosed cancer patients, or a shift in the proportion of a given type of cancer between men and women.

The one-year net survival index for all cancers combined in Hillingdon has increased over the period to 69.2% in 2012 (latest data available from ONS), and the published figures show this to be lower than the London average of 69.7% and similar to the overall England figure of 69.3%. The 2012 measure shows Hillingdon as having a medium-low net survival amongst London CCGs (ranking 18<sup>th</sup>; 1 highest, 33 lowest).

One year survival rates for the 'big' cancers have improved (2008-2012), are favourable compared with the overall England figure though are not consistent in terms of London ranking (lung 32<sup>nd</sup>, colorectal 13<sup>th</sup>, breast 20<sup>th</sup> across 33 London and West Essex CCGs).

The index for the 75-99 years age group in Hillingdon has risen considerably faster than for England and London as a whole between 2005 and 2012. There may be learning here for other CCGs. Is this the result of particular improvements / initiatives which Hillingdon could share?



### 3. The explanatory factors

In this section we review how well Hillingdon has performed across a wide range of measures (thirty-three); these were chosen by the project team (PHAST and TCST) as they cover the 'NAEDI pathway' and are routinely available, making updating of the charts possible at a local level. This sections presents:

- An overview of NAEDI and the NAEDI pathway
- Public awareness measures
- Early diagnosis measures
- Diagnostics and treatment measures.

#### 3.1 An overview of the National Awareness and Early Diagnosis Initiative

The National Awareness and Early Diagnosis Initiative (NAEDI) is a public sector/third sector partnership led by Cancer Research UK, the Department of Health, NHS England and Public Health England. NAEDI formally launched in 2008 and continues as a partnership between public and third sector organisations. Its role is to provide leadership and support to activities and research that promote earlier diagnosis of cancer.

When cancer is diagnosed at an early stage, treatment options, survival and chances of a full recovery are greater. Over 93% of bowel cancer patients diagnosed with the earliest stage of disease survive at least five years compared with less than 7% of those diagnosed with the most advanced stage disease<sup>10</sup>. The same pattern is true for lung cancer, breast cancer, and for many cancers, common or rare. We know that inequalities exist, with some groups of patients more likely to be diagnosed with later stage disease.

---

<sup>10</sup>[http://www.cancerresearchuk.org/sites/default/files/health\\_professional\\_naedi\\_briefing\\_sheet.pdf](http://www.cancerresearchuk.org/sites/default/files/health_professional_naedi_briefing_sheet.pdf) last accessed 16th October 2015

The National Awareness and Early Diagnosis Initiative (NAEDI) was set out as a priority in the national strategy [Improving Outcomes: A Strategy for Cancer \(January 2011\)](#)<sup>11</sup>. The initiative promotes an evidence based pathway approach comprising of three key themes:

- Public awareness;
- Early diagnosis; and
- Diagnostics and treatment.

These three themes are used in the subsequent sections to structure our presentation of a wide range of measures that have been investigated to explain variation in the overall net survival measure.

### 3.2 Public awareness measures

When members of the public raise concerns and present possible symptoms to clinicians, the opportunities for early detection and treatment of less advanced cancers are increased. The National Awareness and Early Diagnosis Initiative (NAEDI) pathway starts with people knowing the signs of cancer and presenting to health services to have these investigated.

In this section we consider two important areas that will impact on early presentation of possible symptoms:

- Cancer awareness - recall of a symptom of cancer (this provides a measure of knowledge of cancer symptoms) – and barriers to seeking help; and
- Healthy life expectancy (HLE).

---

<sup>11</sup><https://www.gov.uk/government/publications/the-national-cancer-strategy> last accessed 16th October 2015

### 3.2.1 Cancer Awareness Measures (CAM) survey

Low cancer awareness may contribute to delayed presentation, delayed diagnosis and poor cancer survival. The Cancer Awareness Measure (CAM) is a validated survey that helps to assess people's knowledge of common cancer symptoms, and their intention to seek help if they notice a warning sign of cancer. In order to develop a baseline measure for the Cancer National Awareness and Early Diagnosis Initiative (NAEDI), the CAM was used in 23 of the 31 former PCT areas (London boroughs) between 2009 and 2011. Around 18,500 people were surveyed. We can see from the table below that survey results are known for two thirds of the 33 CCGs in London and West Essex.

There are no results for Hillingdon. Richmond achieved the highest percentage of respondents being able to recall a symptom of cancer (67%) and Enfield the lowest (30%).

## NHS Hillingdon CCG

**Table 2: National and local Cancer Awareness Measures Survey results**

	Unprompted recall of lump or swelling+	Year
<b>England</b>	<b>68%</b>	<b>2008</b>
Barking and Dagenham	31%	2009/10
Barnet	41%	2009/10
Bexley	-	-
Brent	-	-
Bromley	-	-
Camden	32%	2009/10
Westminster	49%	2009/10
City & Hackney	57%	2009/10
Croydon	60%	2009/10
Ealing	-	-
Enfield	30%	2009/10
Greenwich	55%	2012
Hammersmith and Fulham	-	2009/10
Haringey	35%	2009/10
Harrow	-	-
Havering	57%	2009/10
Hillingdon	*	2011
Hounslow	-	-
Islington	44%	2009/10
Kingston	64%	2009/10
Lambeth	57%	2009/10
Lewisham	-	-
Merton	54%	2009/10
Newham	48%	2009/10
Redbridge	50%	2009/10
Richmond	67%	2009/10
Southwark	-	-
Sutton	61%	2009/10
Tower Hamlets	42%	2009/10
Waltham Forest	48%	2009/10
Wandsworth	52%	2009/10
West Essex	41%	2009/10

+ in response to the question: "There are many warning signs and symptoms of cancer. Please name as many as you can think of"

\*Hillingdon, Bowel CAM only undertaken in 2011

Source: Materials collated by TCST London, September 2015.

The [2008 national survey of public awareness of cancer reported<sup>12</sup>](#) that “awareness of cancer warning signs was low when open-ended (recall) questions were used and higher with closed (recognition) questions; but on either measure, awareness was lower in those who were male, younger, and from lower socioeconomic status (SES) groups or ethnic minorities”.

### 3.2.1.1 Barriers to seeking help

The report identified the most common barriers to seeking help were difficulty in making an appointment, worry about wasting the doctor’s time and worry about what would be found. “Emotional barriers were more prominent in lower SES groups and practical barriers (e.g. too busy) more prominent in higher SES groups. Anticipated delay was lower in ethnic minority and lower SES groups”.

Barriers to seeking help have been surveyed in national and local CAM surveys, with the following question posed:

*“Sometimes people put off going to see the doctor, even when they have a symptom that they think might be serious.*

*These are some of the reasons people give for delaying. Could you say if any of these might put you off going to the doctor?”*

Findings from this area of the survey are presented in the following table:

---

<sup>12</sup>[http://www.cancerresearchuk.org/sites/default/files/bjc\\_awareness\\_in\\_britain\\_0.pdf](http://www.cancerresearchuk.org/sites/default/files/bjc_awareness_in_britain_0.pdf) last accessed 16 October 2015

# NHS Hillingdon CCG

## Table 3: National and local Cancer Awareness Measures Survey results

	Year	It would be difficult to make an appointment with my doctor	I would be worried about what the doctor might find	I would be too embarrassed	I would be worried about wasting the doctor's time	I would be too scared	I would be too busy to make time to go to the doctor	My doctor would be difficult to talk to	I have too many other things to worry about	I wouldn't feel confident talking about my symptom with the doctor	It would be difficult for me to arrange transport to the doctor's surgery	Number surveyed
England	2008	42%	37%	12%	38%	23%	32%	14%	24%	26%	4%	
All local CAM surveys*		28%	30%	17%	24%	22%	20%	13%	18%	11%	6%	49270
Barking & Dagenham	09/10	41%	30%	27%	22%	14%	19%	15%	18%	19%	7%	316
Barnet	09/10	21%	15%	16%	10%	24%	13%	5%	11%	5%	2%	737
Bexley	-	-	-	-	-	-	-	-	-	-	-	-
Brent	-	-	-	-	-	-	-	-	-	-	-	-
Bromley	-	-	-	-	-	-	-	-	-	-	-	-
Camden	09/10	15%	13%	11%	9%	9%	10%	5%	10%	7%	4%	555
Westminster	09/10	21%	11%	4%	10%	4%	22%	8%	17%	5%	4%	3053
City & Hackney	09/10	36%	33%	26%	33%	26%	36%	27%	29%	24%	12%	435
Croydon	09/10	30%	30%	13%	24%	22%	29%	14%	28%	14%	4%	835
Ealing	-	-	-	-	-	-	-	-	-	-	-	-
Enfield	09/10	20%	19%	10%	10%	16%	10%	10%	10%	6%	3%	644
Greenwich	2012	32%	30%	15%	12%	24%	24%	18%	20%	10%	6%	1230
Hammersmith & Fulham	09/10	-	-	-	-	-	-	-	-	-	-	-
Haringey	09/10	30%	34%	20%	20%	26%	22%	14%	21%	16%	11%	556
Harrow	-	-	-	-	-	-	-	-	-	-	-	-
Havering	09/10	33%	29%	18%	27%	14%	25%	21%	21%	17%	11%	513
Hillingdon**	2011	22%	23%	9%	10%	13%	7%	10%	7%	11%	9%	338
Hounslow	-	-	-	-	-	-	-	-	-	-	-	-
Islington	09/10	23%	9%	2%	9%	11%	13%	6%	9%	4%	2%	449
Kingston	09/10	28%	27%	15%	25%	19%	29%	13%	26%	13%	6%	837
Lambeth	09/10	20%	29%	11%	15%	18%	17%	9%	14%	7%	5%	2224
Lewisham	-	-	-	-	-	-	-	-	-	-	-	-
Merton	09/10	33%	33%	15%	23%	23%	31%	17%	21%	17%	13%	834
Newham	09/10	38%	36%	31%	24%	21%	33%	21%	29%	20%	11%	359
Redbridge	09/10	38%	29%	24%	23%	18%	23%	27%	21%	21%	10%	542
Richmond	09/10	30%	25%	14%	27%	17%	33%	13%	21%	15%	6%	847
Southwark	-	-	-	-	-	-	-	-	-	-	-	-
Sutton	09/10	29%	36%	16%	24%	23%	30%	17%	29%	15%	4%	834
Tower Hamlets	09/10	43%	37%	26%	25%	20%	45%	29%	37%	24%	17%	368
Waltham Forest	09/10	22%	25%	18%	22%	17%	19%	14%	17%	16%	10%	463
Wandsworth	09/10	38%	34%	19%	28%	21%	44%	15%	39%	16%	9%	851
West Essex	09/10	15%	14%	18%	13%	20%	10%	8%	15%	10%	7%	630

Source: Materials collated by TCST London, September 2015. National and local Cancer Awareness Measures Survey results

\*Total refers to all local CAM surveys conducted in London.

\*\* Hillingdon Bowel CAM only conducted in 2011

### 3.2.2 Healthy life expectancy at birth and 65 years

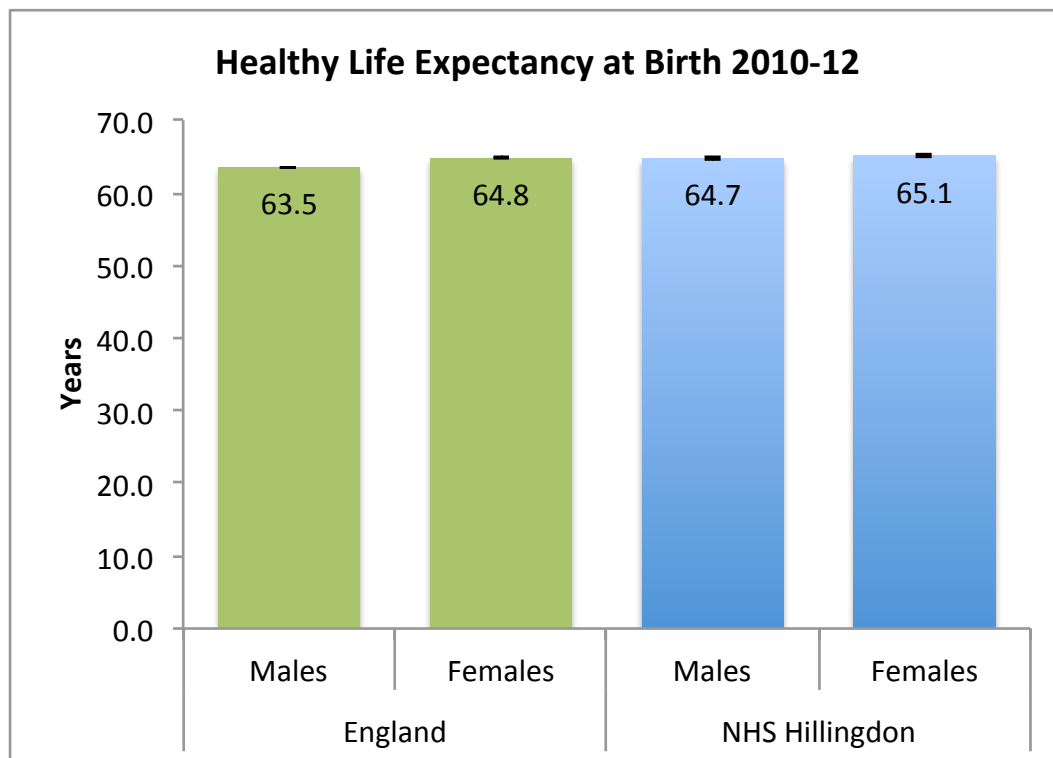
Healthy Life Expectancy (HLE) was selected because wellbeing in general and the absence of other medical conditions in particular, will tend to impact positively on the likelihood of people presenting with possible cancer symptoms; the hypothesis being that the presence of other conditions will mask cancer symptoms making it less likely for someone to recognise possible cancer symptoms and so delaying presentation of possible symptoms<sup>13</sup>. As such we might anticipate residents with better overall healthy life expectancy to present with possible cancer symptoms earlier and hence have a higher probability of surviving following cancer diagnosis.

Healthy life expectancy (HLE) is based on subjective self-assessed health and adds value to life expectancy by estimating the average lifetime spent in a favourable state of health. The following charts show healthy life expectancy (2010 - 2012) at birth and at 65 years old.

---

<sup>13</sup><http://www.nature.com/bjc/journal/v113/n3/full/bjc2015164a.html> last accessed 16 October 2015

Figure 7: Healthy life expectancy at birth, 2010-12



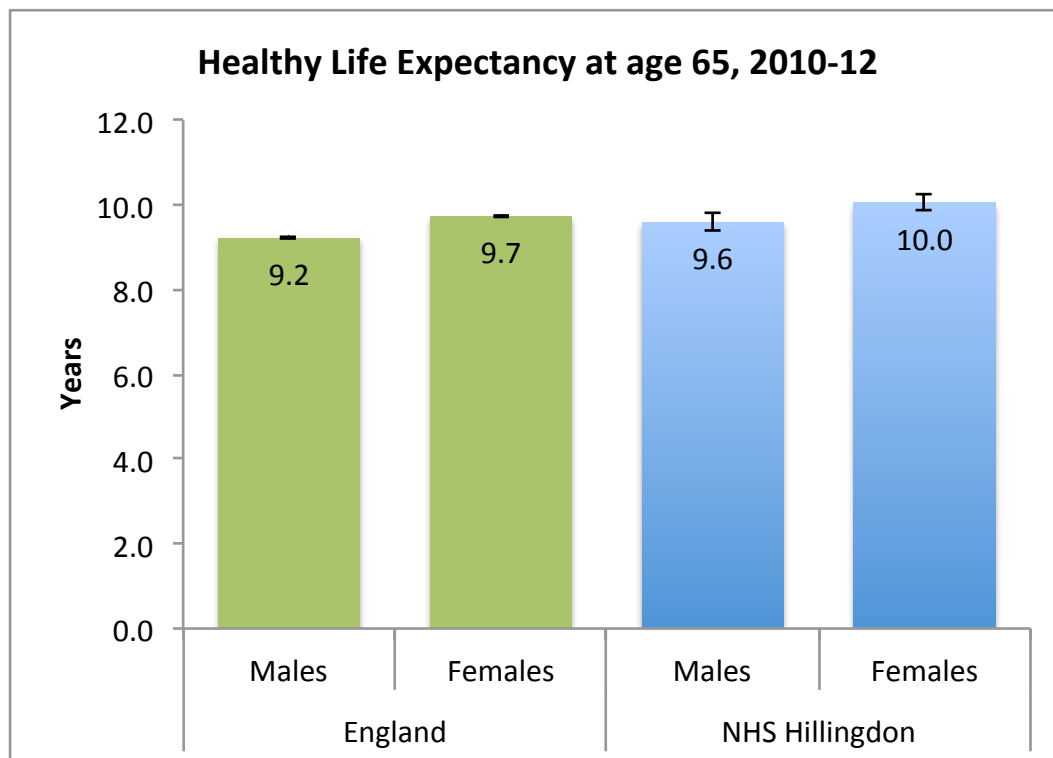
Source: Office for National Statistics

### Healthy life expectancy at age 65

At age 65 years old, men in England could expect to live another 9.2 years in “Good” health compared with 9.6 years for men in Hillingdon. Women aged 65 years in England could expect to live 9.7 years in “good” health compared with 10 years for women in Hillingdon.



Figure 8: Healthy life expectancy at age 65, 2010-12



Source: Office for National Statistics

For both males and females, at birth and aged 65 years, healthy life expectancy in Hillingdon is higher than that for England.

### 3.3 Early diagnosis measures

NAEDI highlights that various studies comparing cancer survival across countries show that England does worse than comparable countries<sup>10</sup>. With the exception of breast cancer, the gap in survival between England and other countries was not narrowing (when considering patients diagnosed up to 2007). Stage of the disease at diagnosis is a major factor in survival and, for some cancers there is evidence that more patients in England are diagnosed at a later stage compared with other countries<sup>10</sup>.

In this section we consider:

1. Screening measures; breast and bowel
2. Use of the urgent referral pathway
3. Emergency presentations

4. Routes to diagnosis
5. Stage at diagnosis.

### *3.3.1 Screening measures; breast and bowel*

Figures compiled by Cancer Research UK show that approximately one third (34%) of cancer cases diagnosed in females aged 50-74 are breast cancers, many of which are diagnosed through screening<sup>14</sup>.

National screening programmes exist for specific age groups for breast cancer (women) and bowel cancer (men and women). In England, bowel screening has been shown to reduce the risk of dying from bowel cancer by a quarter in people who are screened<sup>15</sup>.

The national screening programmes are subject to on-going quality assurance to maximise effectiveness. Where there is variation in the impacts of these programmes this will likely reflect both how the service is delivered and patient/ population characteristics.

The measures included here detail:

- Coverage (percentage of target group screened in the recommended screening period e.g. 3 years for breast screening) and
- Uptake (percentage of target population screened within 6 months of invitation) for both breast and bowel cancer screening programmes.

#### *3.3.1.1 Breast cancer screening*

The one-year net breast cancer survival measure for Hillingdon is lower than England and London as a whole (2012). This level of survival was amongst the lowest of London CCGs. Breast cancer screening coverage and uptake in

---

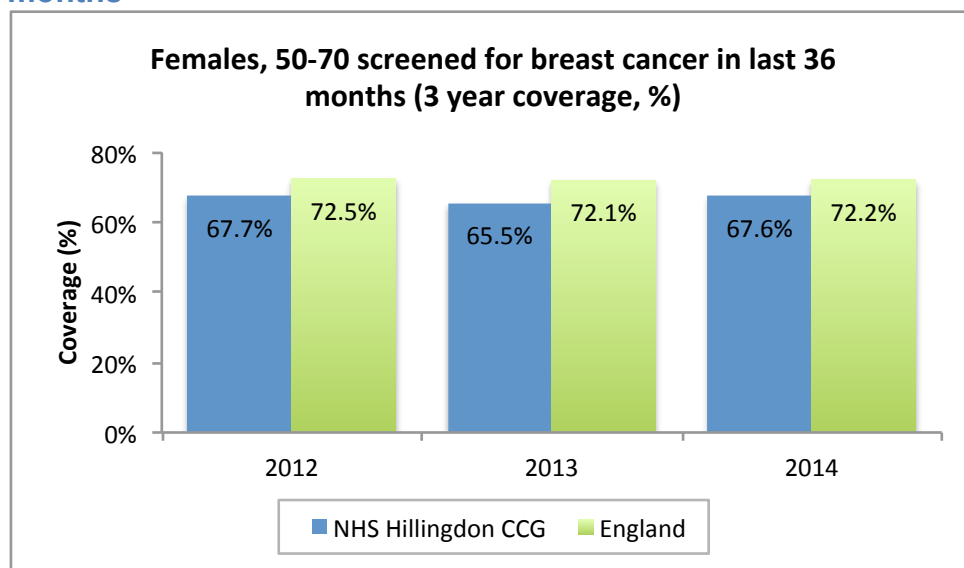
<sup>14</sup><http://www.cancerresearchuk.org/health-professional/cancer-statistics/incidence/age#ref-6>  
last accessed 16 October 2015

<sup>15</sup>Hewitson P, Glasziou P, Irwig L, et al. [Screening for colorectal cancer using the faecal occult blood test \(link is external\)](#). Hemoccult. Cochrane Database Syst Rev 2007(1): CD001216.

## NHS Hillingdon CCG

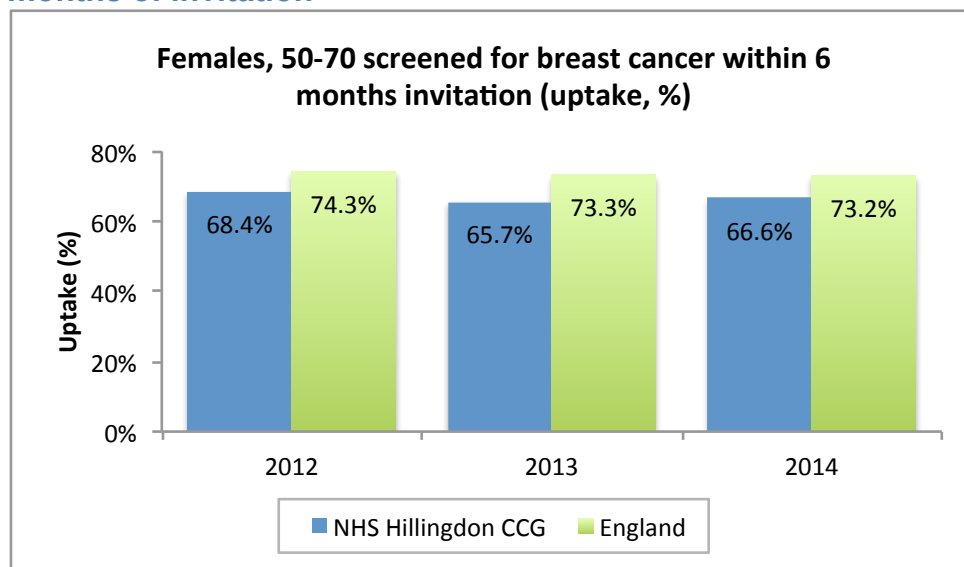
Hillingdon were consistently lower than the England average during the period 2012 - 2014.

**Figure 9: Females aged 50-70 screened for breast cancer in last 36 months**



Source: NCIN, National GP Practice Profiles

**Figure 10: Females aged 50-70 screened for breast cancer within 6 months of invitation**



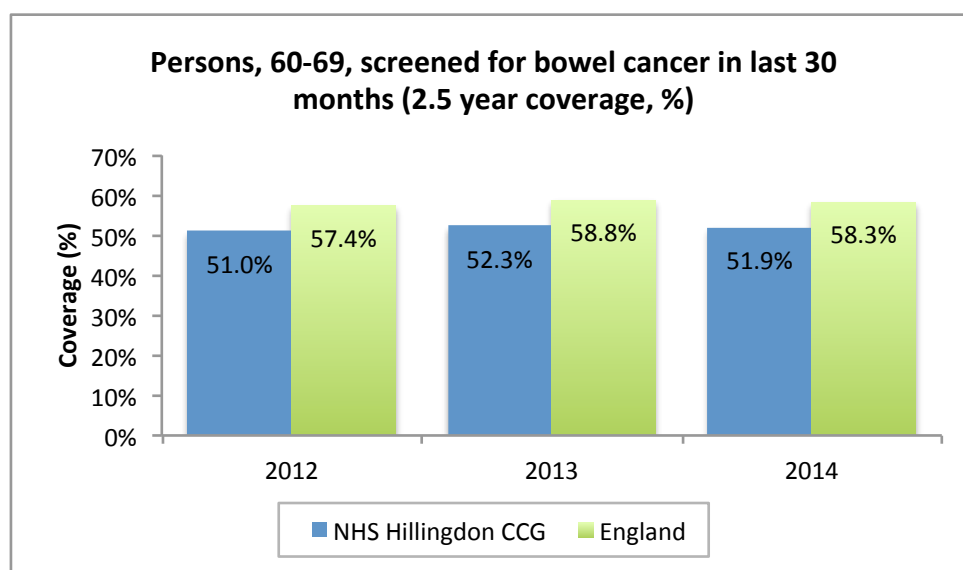
Source: NCIN, National GP Practice Profiles

## NHS Hillingdon CCG

### 3.3.1.2 Bowel cancer screening

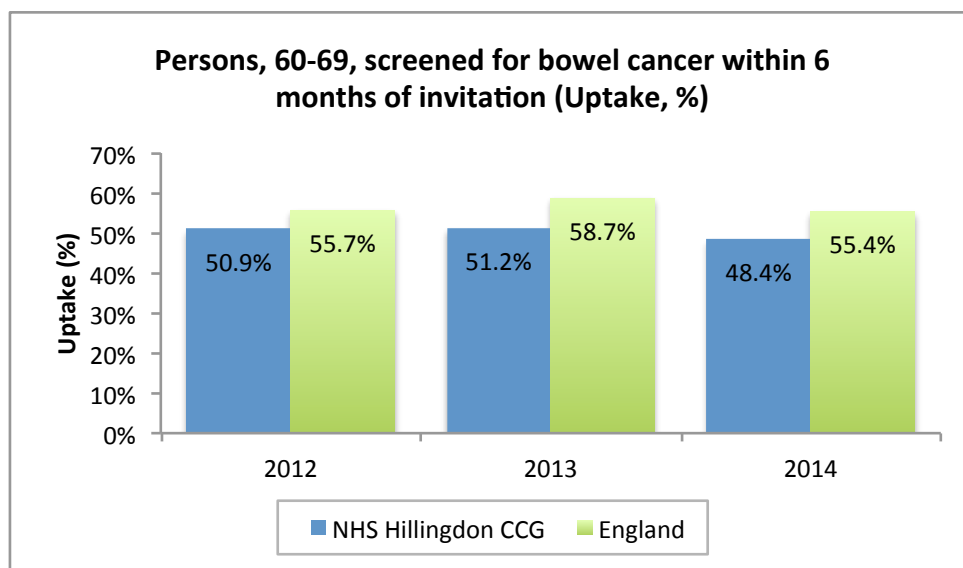
The narrative for bowel cancer broadly echoes that for breast cancer. *Hillingdon residents in the 60-69 years target age group consistently have lower coverage and uptake for bowel cancer screening than for England as a whole.*

**Figure 11: Persons aged 60-69 screened for bowel cancer in last 30 months**



Source: NCIN, National GP Practice Profiles

Figure 12: Persons aged 60-69 screened for bowel cancer within 6 months of invitation



Source: NCIN, National GP Practice Profiles

### 3.3.2 Use of the urgent referral pathway

Cancer being diagnosed later is a major reason for poorer survival rates in the UK. The Improving Outcomes: A Strategy for Cancer<sup>8</sup> estimates that, if patients were diagnosed at the same earlier stage as they are in other countries, up to 10,000 deaths could be avoided every year. The Strategy states that the challenge is clear: ‘In order to improve early diagnosis, we need to encourage people to recognise the symptoms and signs of cancer and seek advice from their doctor as soon as possible. We also need doctors to recognise these symptoms and (if appropriate) refer people urgently for specialist care.’ In a 2010 report, the National Audit Office identified that, amongst PCTs, there was almost a four-fold variation in the urgent cancer referral (two week wait) rate<sup>16</sup>.

Use of the urgent referral pathway is central to the NAEDI pathway and a key focus of service improvement initiatives. Here we present:

---

<sup>16</sup> <http://www.nao.org.uk/wp-content/uploads/2010/11/1011568.pdf> last accessed 16 October 2015

## NHS Hillingdon CCG

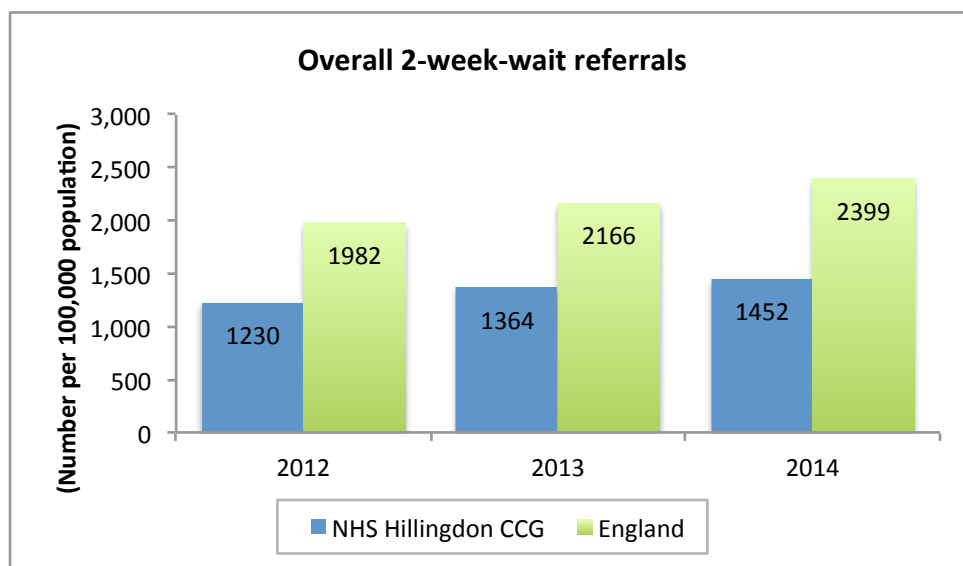
- The rate of urgent referrals per 100,000 population: (the 2 week wait urgent referral pathway)
- The proportion of patients referred who are subsequently diagnosed with cancer (conversion rate); and
- The proportion of cancer cases in the practice that were referred through the two-week wait route (detection rate).

To better understand variations in use of the urgent referral pathway and to achieve earlier diagnosis, it is important that all three of these measures are considered together along with measures of the use of diagnostic tests.

Whilst the rate of urgent referrals per 100,000 population (referred using the two-week wait urgent referral pathway) increased in Hillingdon between 2012 and 2014 it was consistently lower than the England rate.

The following charts show the overall referrals and for each of the three main cancer site-specific referrals.

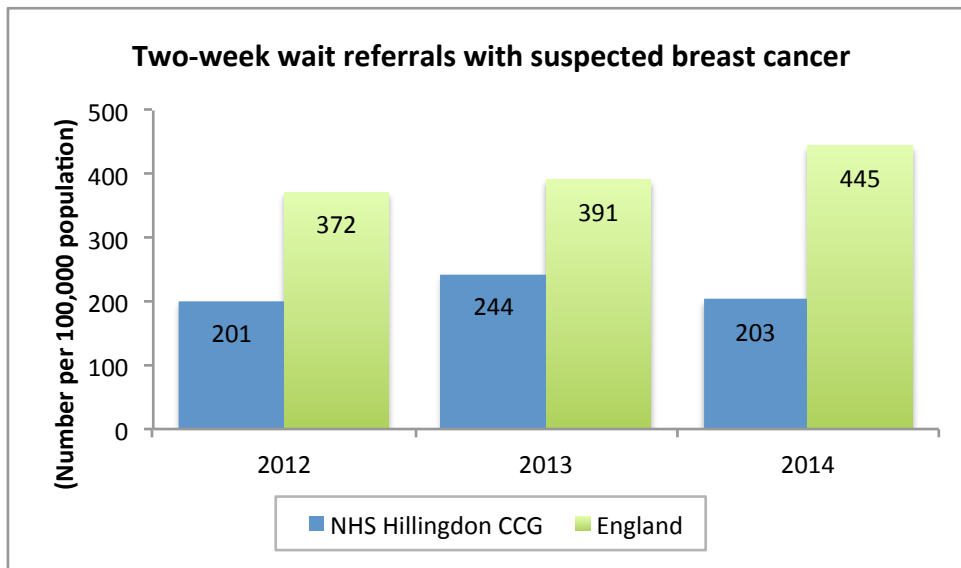
**Figure 13: Overall two-week-wait referrals**



Source: NCIN, National GP Practice Profiles

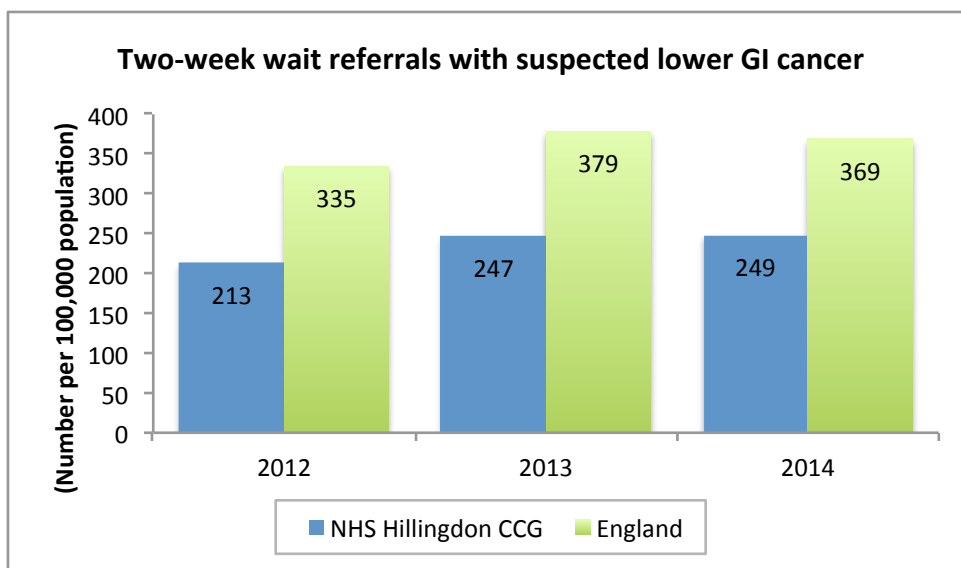
## NHS Hillingdon CCG

Figure 14: Two-week-wait referrals with suspected breast cancer



Source: NCIN, National GP Practice Profiles

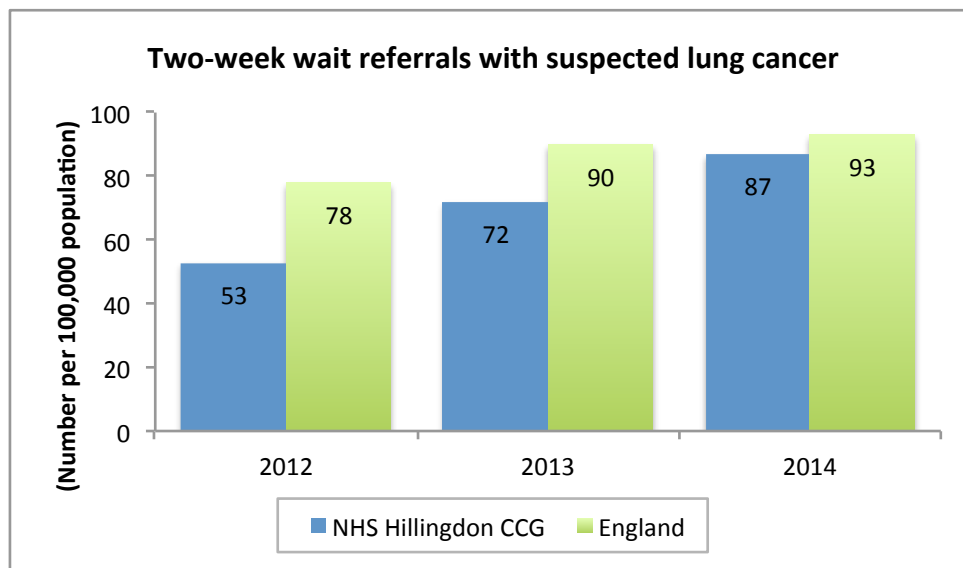
Figure 15: Two-week-wait referrals with suspected lower GI cancer



Source: NCIN, National GP Practice Profiles

## NHS Hillingdon CCG

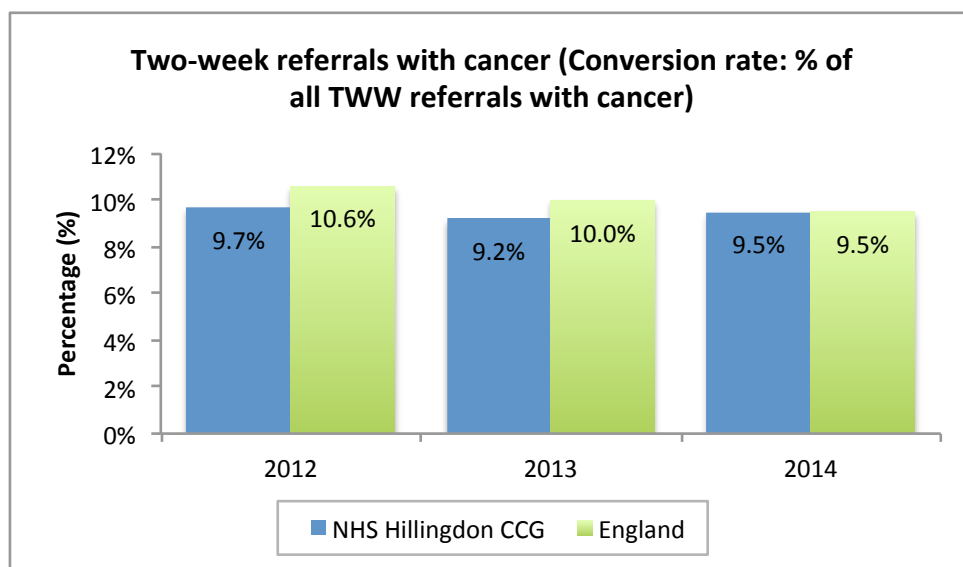
Figure 16: Two-week-wait referrals with suspected lung cancer



Source: NCIN, National GP Practice Profiles

The conversion rate is the percentage of the referrals that were found to have cancer and provides an indicator of the referral quality. The conversion rate for Hillingdon has been similar to the England rate during the period 2012 - 2014.

Figure 17: Conversion rates (percentage of 2WW found to be cancer)



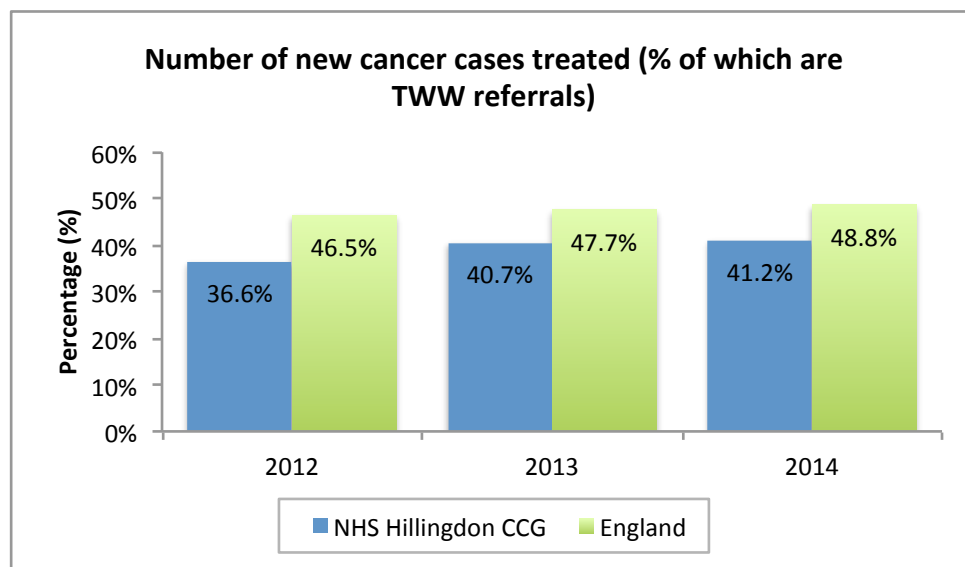
Source: NCIN, National GP Practice Profiles



## NHS Hillingdon CCG

The detection rate tells us the percentage of all cancers that were identified through the two-week wait pathway. This was approximately 40% in Hillingdon, (in 2012, 2013 and 2014) being consistently below the percentage for England.

**Figure 18: Detection rate (number of new cancer cases treated)**



Source: NCIN, National GP Practice Profiles

*The two-week wait referrals measures indicate there is room for improvement and suggest there is scope for additional GP training and support.*

### 3.3.3 Emergency presentations

Emergency presentations suggest late presentation and diagnosis and hence reduced chance of survival. High levels of emergency presentation indicate the need for improved awareness raising and support for the public to recognise and act on possible symptoms, and/or training for professionals (GPs) in symptom recognition and earlier referral. There is clearly a link between this and the previous section on two-week wait referrals and this theme is explored in this section and the following on 'routes to diagnosis'.

## NHS Hillingdon CCG

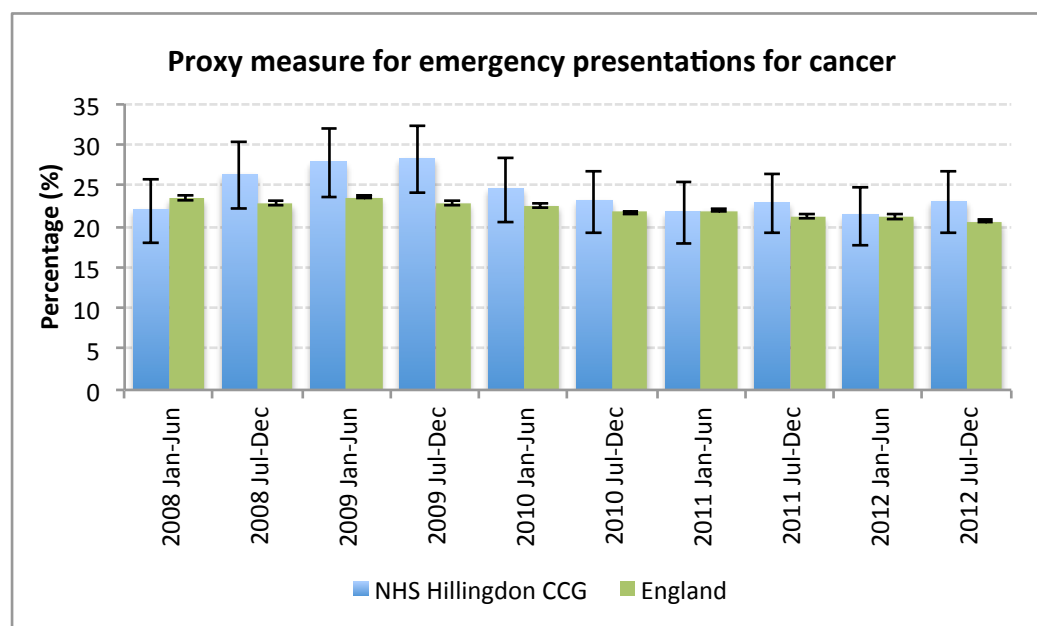
This section includes:

- The National Cancer Intelligence Network (NCIN)<sup>17</sup> proxy measure for emergency presentations for cancer; and
- the overall rate of emergency admissions.

### 3.3.3.1 Proxy measure for emergency presentations for cancer

The percentage of emergency presentations for cancer for Hillingdon residents is broadly comparable with that for England as a whole. The following chart shows approximately a quarter of Hillingdon cancer patients presenting as emergencies. The percentage has fluctuated around this level during 2008 - 2012 and tends to be higher than that for England as a whole.

**Figure 19: Proxy measure for emergency presentations for cancer**



Source: NCIN, National GP Practice Profiles

### 3.3.3.2 Rate of emergency admissions with cancer

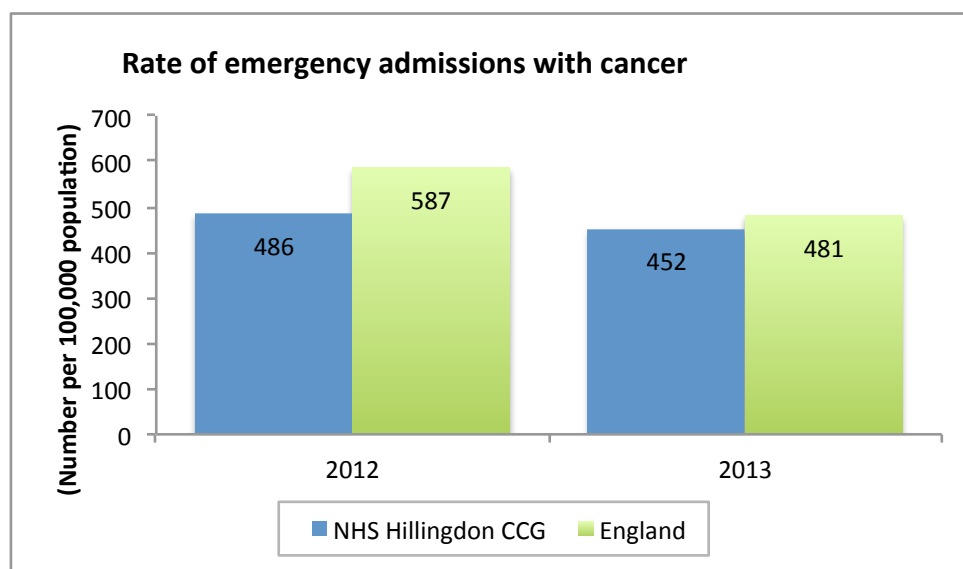
The rate of emergency admissions with cancer per 100,000 population was lower for Hillingdon than England as a whole for 2012 and 2013. In keeping with the rate for England overall, there was a drop in the rate in Hillingdon

<sup>17</sup> National Cancer Intelligence Network, [http://www.ncin.org.uk/cancer\\_information\\_tools/cct](http://www.ncin.org.uk/cancer_information_tools/cct)

## NHS Hillingdon CCG

from 2012 to 2013. For both of these years, the rate in Hillingdon was lower than that for England.

**Figure 20: Rate of emergency admissions with cancer**



Source: NCIN, National GP Practice Profiles

### 3.3.4 Routes to diagnosis

The routes to diagnosis produced by the National Cancer Intelligence Network provided a valuable summary picture of the route patients take to diagnosis.

The data on emergency presentations gives valuable context and additional detail to the overall emergencies presentations measures in 3.3.3 above. In particular we can see from these figures (below) that:

- The proportion of female breast cancer in Hillingdon diagnosed through the screen detected route is slightly lower than for England and the proportion detected through emergency presentations slightly higher;
- The proportion of colorectal cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher

## NHS Hillingdon CCG

- The proportion of lung cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher.

There is a need to better understand the 'other' routes to diagnosis category; it has been suggested this might be the result of some patients being screened under private health care schemes.

The CCG is encouraged to explore means of increasing the proportion of cancer cases detected through managed routes.

**Figure 21: Directly age-standardised rate per 100,000 population by route to diagnosis – breast cancer**

Directly age-standardised rate per 100,000 population by route Bordered cells indicate 3 SD outliers on respective funnel plots						Percentage by Route				
Female Breast Cancer						Screen detected	Managed	Emergency presentation	Other	Number of cases
England		38.4	71.2	3.9	6.0	28%	62%	5%	5%	191,120
Confidence interval		38.1	38.7	70.8	71.6	3.8	4.0	5.9	6.1	
NHS Hillingdon CCG		34.7	66.6	5.9	6.5	26%	61%	7%	6%	793
Confidence interval		30.0	39.4	60.7	72.5	4.3	7.4	4.6	8.4	

Source: NCIN

**Figure 22: Directly age-standardised rate per 100,000 population by route to diagnosis – colorectal cancer**

Directly age-standardised rate per 100,000 population by route Bordered cells indicate 3 SD outliers on respective funnel plots						Percentage by Route				
Colorectal						Screen detected	Managed	Emergency presentation	Other	Number of cases
England		2.5	29.3	10.2	1.9	5%	66%	25%	4%	156,057
Confidence interval		2.5	2.6	29.1	29.4	10.1	10.3	1.9	1.9	
NHS Hillingdon CCG		3.0	24.9	11.1	2.1	6%	60%	29%	5%	621
Confidence interval		2.0	3.9	22.4	27.5	9.4	12.7	1.3	2.8	

Source: NCIN

**Figure 23: Directly age-standardised rate per 100,000 population by route to diagnosis – lung cancer**

Directly age-standardised rate per 100,000 population by route Bordered cells indicate 3 SD outliers on respective funnel plots						Percentage by Route				
Lung						Screen detected	Managed	Emergency presentation	Other	Number of cases
England		27.5	16.6	1.6		58%	38%	4%		163,176
Confidence interval		27.4	27.7	16.5	16.8	1.5	1.6			
NHS Hillingdon CCG		23.0	17.0	1.9		53%	43%	4%		623
Confidence interval		20.6	25.5	14.9	19.0	1.2	2.6			

Source: NCIN

## NHS Hillingdon CCG

### 3.3.5 Stage at diagnosis

The earlier cancer is detected the better the chance to improve survival. In this section we consider two measures:

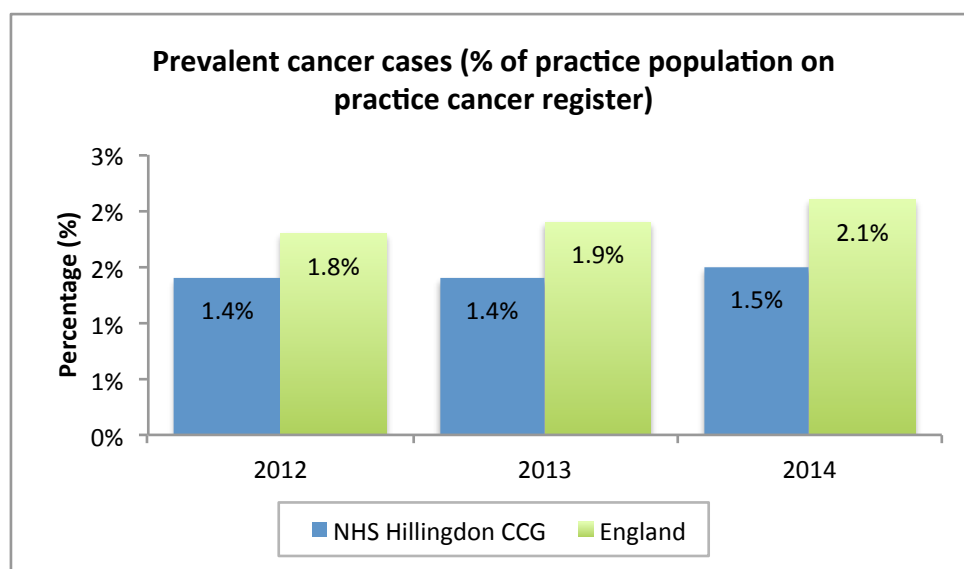
- The proportion of the practice list on the practice cancer register (prevalent cancer cases); and
- Stage at diagnosis.

The first of these can be considered to be indicative of practice detection of cancers. Where a CCG has low percentages of residents on practice cancer registers it is anticipated that detection will be later and diagnosis will likely be at a later stage.

#### 3.3.5.1 Prevalent cancer cases

The prevalent cancer cases (% of practice population on practice cancer registers) for Hillingdon residents in each of the three years 2012, 2013 and 2014, was lower than the England value.

**Figure 24: Prevalent cancer cases**



Source: NCIN, National GP Practice Profiles

### 3.3.5.2 Cancer Staging

High-quality, comparable staging data on more than 80% of all cases of the most common cancers is now available for the whole of the country, making England's National Cancer Registration Service one of the most advanced anywhere in the world.

The latest staging data from the Cancer Outcomes and Services Dataset (COSD)<sup>18</sup> shows lower percentages of cancers diagnosed at early stages (stages 1 and 2) for Hillingdon residents than for London overall. The proportion diagnosed with an unknown stage is considerably higher than that across London.

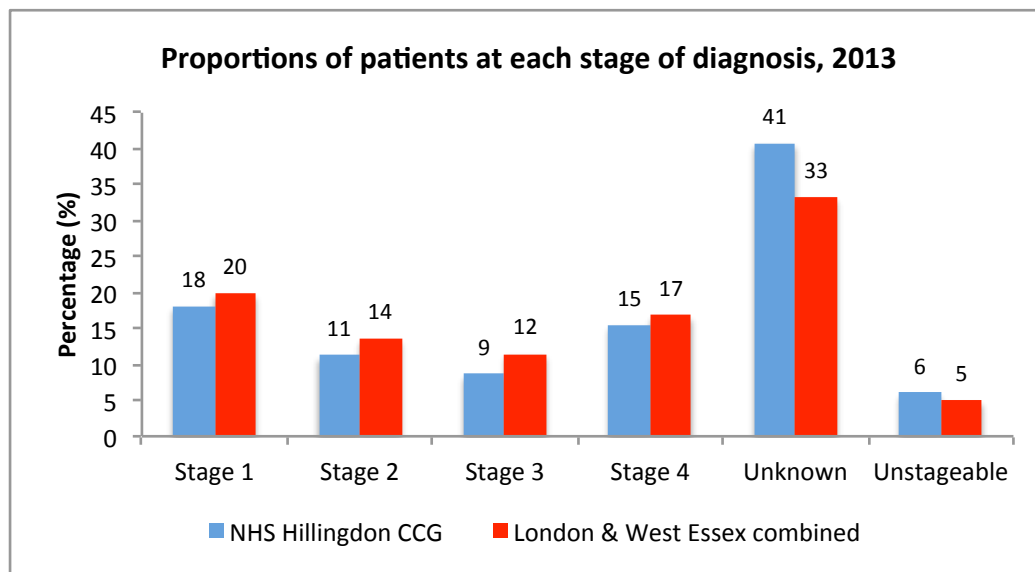
These findings though should be treated with caution given the high proportions of cancers that were unknown (staging data not submitted by the hospital trust) or unstageable\* at diagnosis.

---

<sup>18</sup> [http://www.ncin.org.uk/collecting\\_and\\_using\\_data/data\\_collection/cosd](http://www.ncin.org.uk/collecting_and_using_data/data_collection/cosd) last accessed 16 October 2015

\* Unstageable should be assigned only after all efforts to identify the extent of the disease have been exhausted or the site or histology does not meet criteria for staging. Some cancers such as blood cancer are not stageable.

Figure 25: Proportions of patients at each stage of diagnosis, 2013



Source: COSD

### 3.4 Diagnostics and treatment

A range of patient and service factors will affect stage at diagnosis. We have considered above patient knowledge and GP referrals (two-week wait). Once referred, the time patients wait for key diagnostics will have a bearing on the stage at diagnosis.

In this section we review:

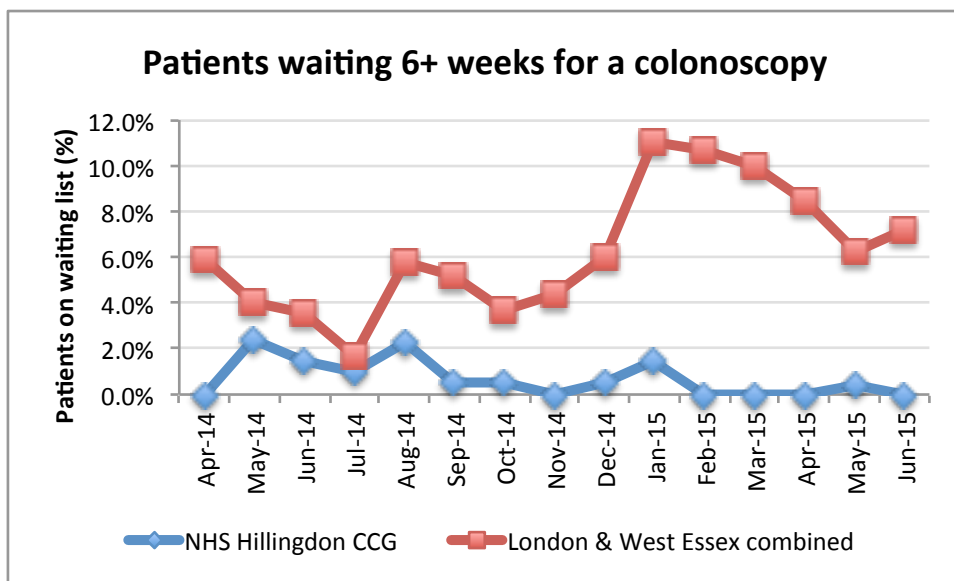
- 6 week waits for key diagnostics;
- Access to diagnostics;
- Cancer waiting times; and
- Key provider treatment performance measures.

#### 3.4.1 6 week waits for key diagnostics

Colonoscopy, flexible sigmoidoscopy and gastroscopy are key procedures used to identify bowel and gastrointestinal cancers (diagnostic) or treat conditions (therapeutic). We see from the following charts that the proportion of Hillingdon residents waiting more than six weeks for colonoscopy, flexible sigmoidoscopy and gastroscopy procedures were consistently very low throughout 2014 / 2015.

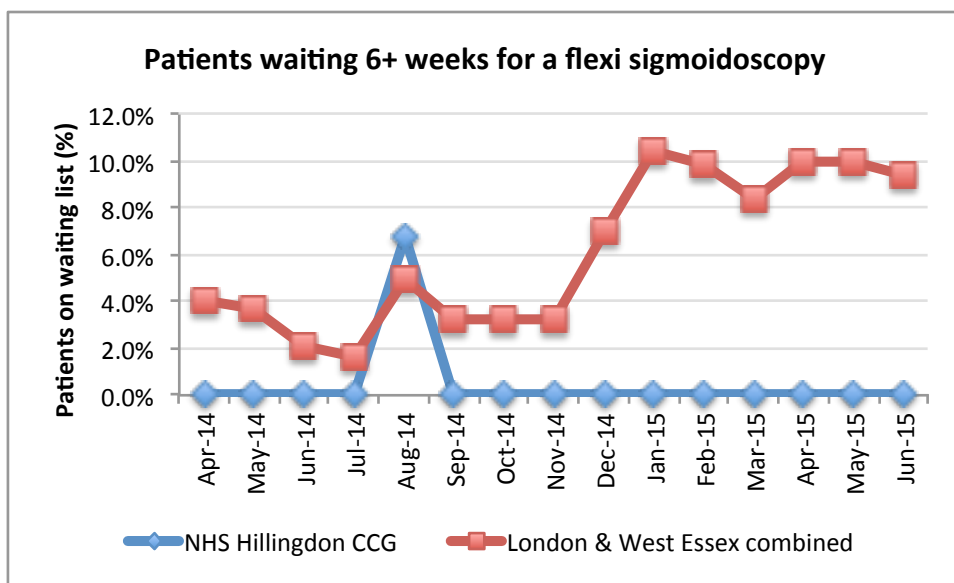
## NHS Hillingdon CCG

**Figure 26: Patients waiting over 6 weeks for a colonoscopy**



Source: <http://www.england.nhs.uk/statistics/diagnostics-waiting-times-and-activity/>

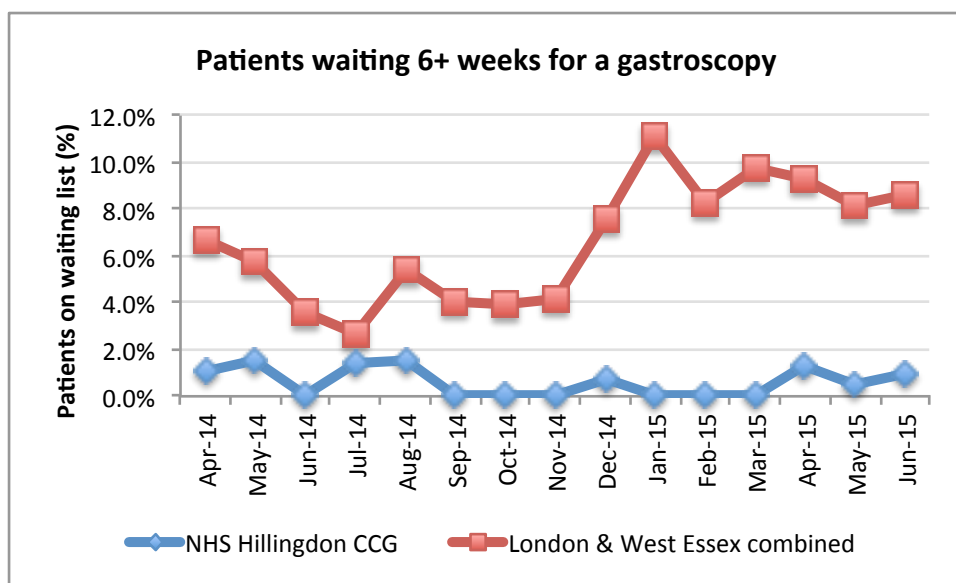
**Figure 27: Patients waiting over 6 weeks for a flexible sigmoidoscopy**



Source: <http://www.england.nhs.uk/statistics/diagnostics-waiting-times-and-activity/>



Figure 28: Patients waiting over 6 weeks for a gastroscopy



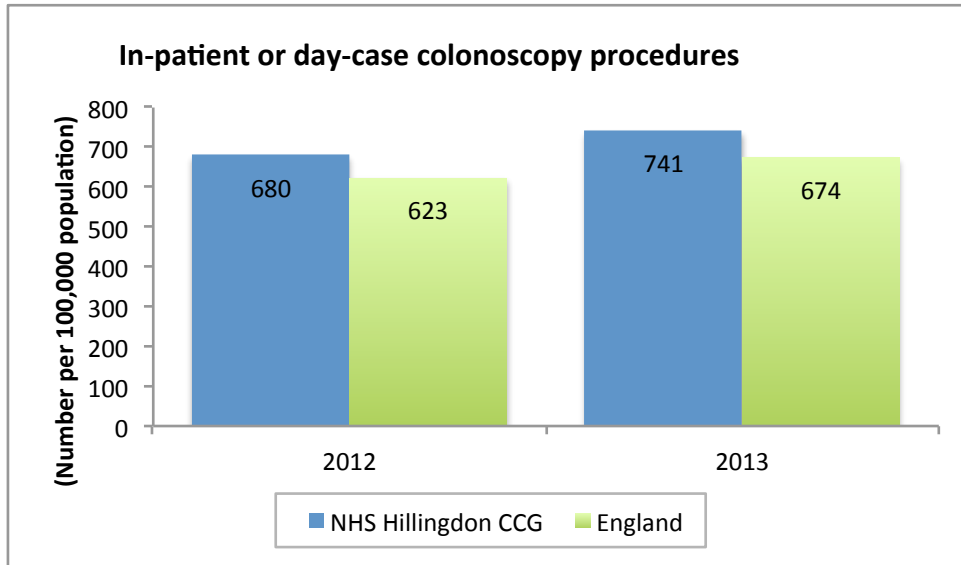
Source: <http://www.england.nhs.uk/statistics/diagnostics-waiting-times-and-activity/>

### 3.4.2 Access to diagnostic procedures

Here we review rates of key diagnostic procedures. There is variation across the three procedures with higher rates of access in Hillingdon for colonoscopy procedures and lower rates for sigmoidoscopy and gastroscopy procedures compared with England averages.

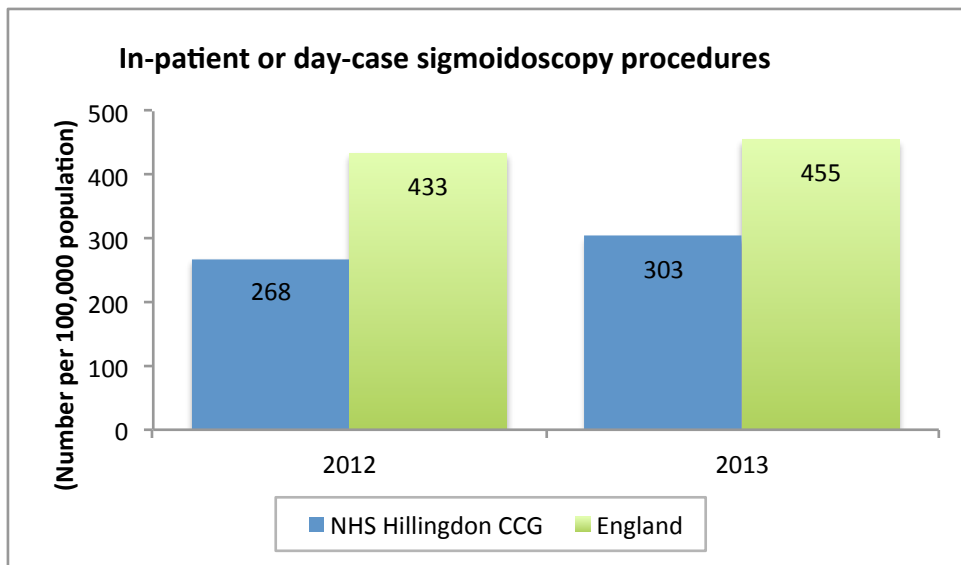
## NHS Hillingdon CCG

Figure 29: In-patient or day-case colonoscopy procedures



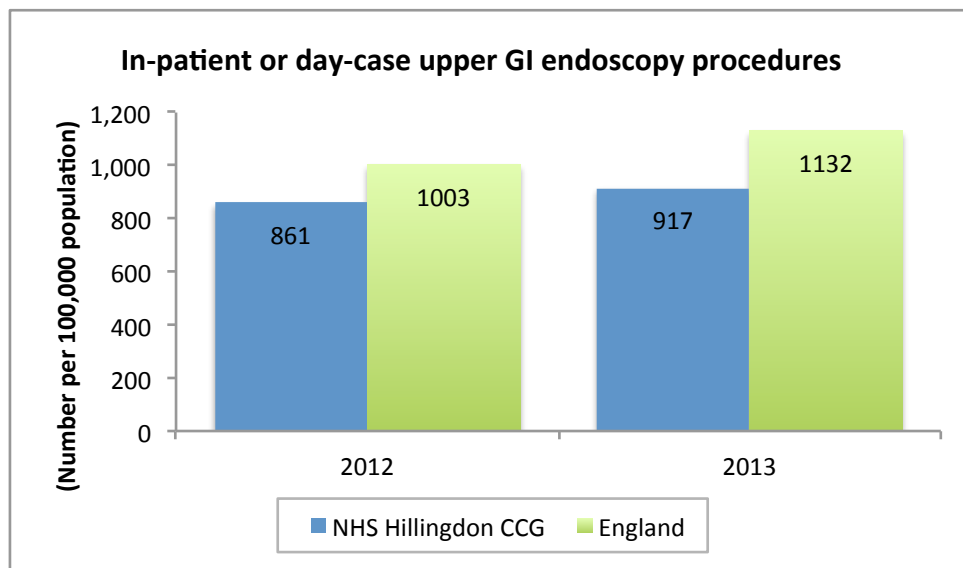
Source: NCIN, National GP Practice Profiles

Figure 30: In-patient or day-case sigmoidoscopy procedures



Source: NCIN, National GP Practice Profiles

**Figure 31: In-patient or day-case upper GI endoscopy procedures**



Source: NCIN, National GP Practice Profiles

*These measures suggest action may be required Hillingdon commissioners to address variation in access to these procedures.*

### 3.4.3 Cancer waiting times

The time taken for a patient to be diagnosed and for treatment to begin will impact on chances of survival. In this section we review the following measures:

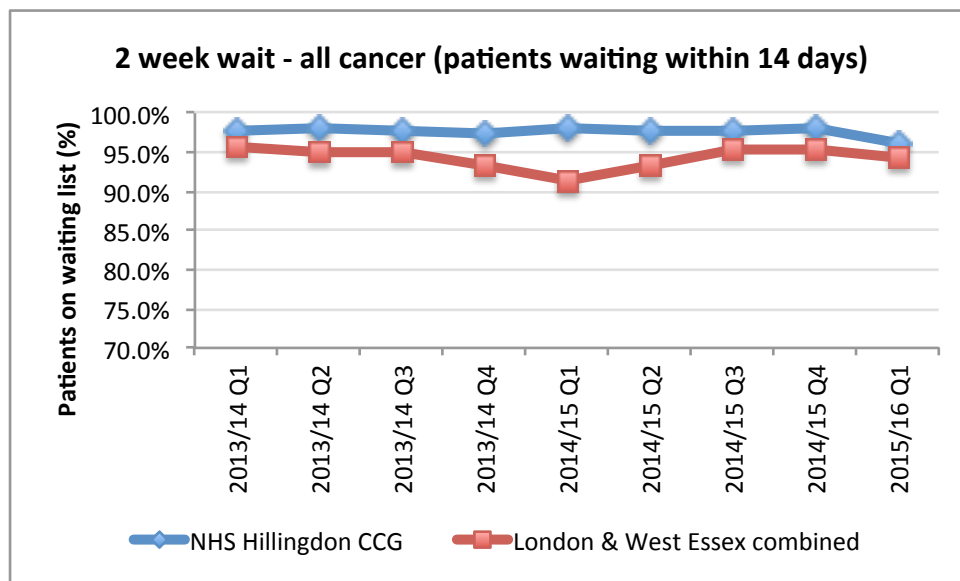
- 2 week wait:
- 31 day wait; and
- 62 day wait.

#### 3.4.3.1 2 week wait, all cancer (patients waiting within 14 days)

This measure is key in terms of early diagnosis. The standard set for England is 93%. In 2013/14, 97.7% of patients in NHS Hillingdon CCG saw a specialist within two weeks. This is higher than the standard set and the English average (95.3%).

## NHS Hillingdon CCG

Figure 32: 2 week wait, all cancer



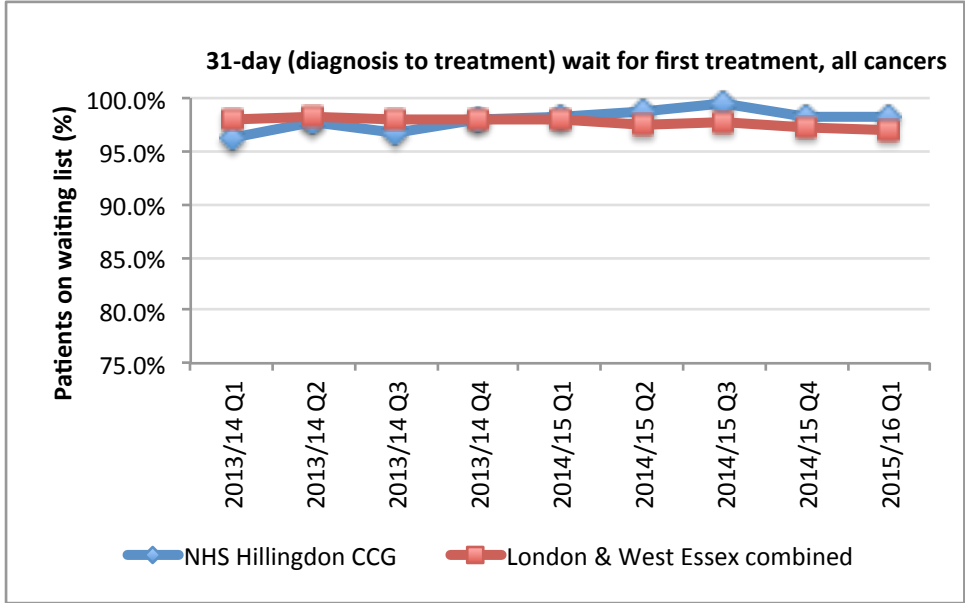
Source: Cancer Waiting Times, NHS England

### 3.4.3.2 31-day (diagnosis to treatment) wait for first treatment, all cancers

This measure records patients receiving their first treatment within 31 days of the decision to treat. The standard set in England is 96%. We can see from the following chart that in 2013/14, 97.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 31 days of a decision to treat. This is lower than the English average (98.2%).

# NHS Hillingdon CCG

Figure 33: 31 day wait for first treatment



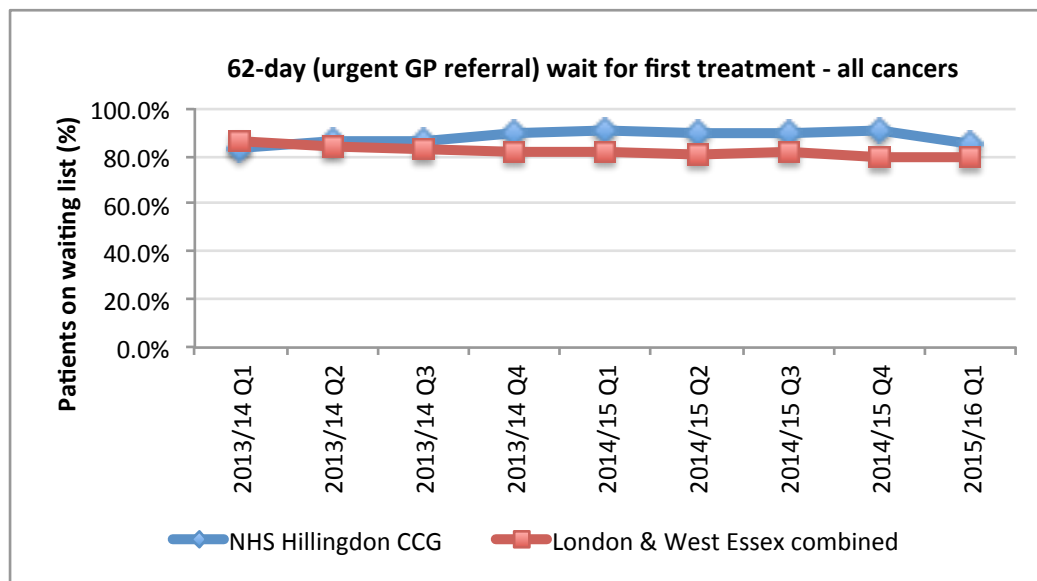
Source: Cancer Waiting Times, NHS England

### 3.4.3.3 62-day (urgent GP referral) wait for first treatment, all cancer

This measures the percentage of patients receiving their first treatment within 62 days of an urgent GP referral. The operational standard in England is 85%. In 2013/14, 86.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 62 days of an urgent GP referral. This is higher than the English average (85.8%).

## NHS Hillingdon CCG

Figure 34: 62 day urgent GP referral for first treatment



Source: Cancer Waiting Times, NHS England

### 3.4.4 Key provider performance

In this section we provide results from the 2014 National Lung and Colorectal cancer audit<sup>19</sup>. Whilst the focus of the audit is provider performance, rather than specifically the treatment for the CCG's residents, we can gain insights for Hillingdon residents by focussing on the main provider for Hillingdon, namely The Hillingdon NHS Foundation Trust.

The following table shows lung cancer provider performance at Hillingdon NHS Foundation Trust to be below average (red ratings in 2 of the 6 measures and 3 amber). The percentage of non-small cell lung cancer (NSCLC) patients with cancer at stages 1a to 2b receiving surgery is considered a particular strong measure of provider performance and here the Trust is lower than the London average (51.4% compared with 52% across London). The percentage of patients having CT prior to bronchoscopy is also

<sup>19</sup> National Bowel Cancer Audit: <http://www.hscic.gov.uk/bowel>  
National Lung Cancer Audit: <http://www.hscic.gov.uk/lung>

## NHS Hillingdon CCG

considered a strong measure of provider performance and here Hillingdon NHS Foundation Trust performs well.

**Table 4: Results by provider from the 2014 National Lung Cancer Audit, London Cancer and London Cancer Alliance**

	% of discussed at patients MDT	% having CT prior to bronchoscopy	% of patients with a histological /cytological diagnosis	% CNS present at diagnosis	% of NSCLC 1a to 2b Receiving surgery 2011-13	% receiving Active treatment
Barking, Havering and Redbridge	88.6%	74.2%	80.4%	52.9	35.2%	50.4
Barnet and Chase Farm	95.6%	77.0%	91.3%	92.3	63.2%	72.1
Bart's Health/Newham	97.2%	82.9%	88.9%	66.7	41.7%	59.7
Bart's Health/RLH	96.7%	95.3%	90.9%	59.5	62.2%	58.7
Bart's Health/Whipps Cross	91.8%	90.5%	86.1%	77.0	45.2%	68.9
Chelsea and Westminster	94.4%	90.9%	91.7%	58.3	59.5%	61.1
Croydon Healthcare NHS Trust	97.0%	92.5%	85.1%	96.7	39.7%	61.2
Ealing Hospital NHS Trust	98.5%	82.4%	55.4%	66.2	31.0%	46.2
Epsom and St Helier Uni. NHS	76.2%	92.5%	73.5%	40.9	32.9%	59.7
Guys and St Thomas' NHS FT	100.0%	94.8%	100.0%	55.0	56.5%	87.4
Imperial College Healthcare NHS	100.0%	95.9%	86.7%	51.8	57.5%	73.1
Kings College Hospital NHS FT	99.3%	88.1%	84.7%	86.1	56.7%	61.3
Kingston Hospital NHS Trust	95.9%	90.9%	76.2%	59.0	60.0%	60.7
Lewisham	97.7%	79.1%	78.3%	67.1	44.2%	58.9
North Middlesex	97.8%	100.0%	80.0%	97.8	45.9%	64.4
North West London	96.8%	95.5%	86.2%	63.8	71.2%	67.0
South London Healthcare	95.9%	91.1%	81.8%	76.5	36.8%	62.4
St Georges Healthcare NHS	84.6%	81.8%	83.8%	35.3	53.7%	56.6
The Hillingdon NHS Foundation	93.5%	97.9%	58.1%	79.0	51.4%	52.4
The Homerton	100.0%	94.7%	83.7%	77.2	44.3%	59.8
The Princess Alexandra	99.4%	93.7%	81.6%	88.6	63.0%	64.6
The Royal Brompton & Harefield	21.7%	95.8%	100.0%	56.5	86.4%	87.0
The Royal Free	100.0%	96.2%	90.3%	97.1	79.6%	63.1
The Whittington	97.8%	96.3%	76.1%	37.0	51.0%	65.2
UCLH	95.6%	94.4%	88.5%	55.0	59.8%	85.5
West Middlesex University NHS	98.9%	97.3%	78.7%	1.1%	54.9%	45.7
<b>London TOTAL</b>	<b>95.0%</b>	<b>95.0%</b>	<b>75.0%</b>	<b>80.0</b>	<b>52.0%</b>	<b>60.0</b>

Source: National Lung Cancer Audit: <http://www.hscic.gov.uk/lung>

## NHS Hillingdon CCG

The following tables show colorectal cancer performance. At Hillingdon NHS Foundation Trust (table 6) performance is below average (red ratings in 4 of the 6 measures). The adjusted 90-day post op mortality is strong measure of colorectal cancer provider performance. This is the only (1 of 6) measure that Hillingdon NHS Foundation Trust is green rated for, with a rate lower than the London and the audits average (2% compared with 4.6%). The adjusted 18-month stoma rate is a key area in which Hillingdon NHS Foundation Trust performs poorly compared with London overall (61% compared with audit averages of 51%).

**Table 5: Results by provider from the 2014 National Colorectal Cancer Audit, London Cancer**

	Adjusted 90 day post op Mortality	% LOS > 5 Days	% of operations attempted laparoscopically	% who underwent major resection	Adjusted 2 year mortality	Adjusted 18 month stoma rate
Barnet and Chase Farm	3.7%	68.6%	67.8%	64.0%	18.6%	62.0%
Bart's Health	4.6%	75.2%	85.0%	65.5%	33.4%	46.0%
Barking, Havering & Redbridge NHST	6.8%	73.5%	52.9%	61.5%	19.1%	54.0%
North Middlesex	4.6%	90.9%	84.1%	68.8%	36.1%	0.0%
The Homerton	5.2%	84.4%	52.2%	64.8%	23.4%	28.0%
The Princess Alexandra	8.3%	42.9%	74.1%	74.2%	32.1%	44.0%
The Whittington	4.4%	78.7%	71.4%	60.0%	20.2%	45.0%
The Royal Free	8.8%	74.1%	53.2%	67.4%	Not reported	39.0%
UCLH	10.1	80.6%	58.0%	66.3%	25.2%	62.0%
London Cancer	5.6%	75.6%	67.8%	64.7%	24.4%	49.0%
<b>Audit Average</b>	<b>4.6%</b>	<b>69.0%</b>	<b>61.0%</b>	<b>66.0%</b>	<b>24.0%</b>	<b>51.0%</b>

Source: National Bowel Cancer Audit: <http://www.hscic.gov.uk/bowel>



## NHS Hillingdon CCG

**Table 6: Results by provider from the 2014 National Colorectal Cancer Audit, London Cancer Alliance**

	Adjusted 90 day post op Mortality	% LOS > 5 Days	% of operations attempted laparoscopically	Adjusted 90 day unplanned readmission rate %	Adjusted 2 year mortality	Adjusted 18 month stoma rate using HES
Chelsea and Westminster	5.6%	87.0%	47.9%	26.7%	19.4%	56.0%
Croydon Healthcare NHS Trust	9.9%	Data not submitted	41.3%	8.1%	21.0%	38.0%
Ealing Hospital NHS Trust	1.9%	90.2%	73.8%	31.0%	22.1%	53.0%
Epsom and St Helier University NHS Trust	5.2%	82.1%	82.1%	20.1%	24.0%	33.0%
Guys and St Thomas' NHS FT	3.8%	Data not submitted	100.0%	21.3%	17.5%	74.0%
Imperial College Healthcare NHS Trust	0.8%	95.0%	83.3%	25.4%	19.5%	51.0%
Kings College Hospital NHS FT	4.3%	80.9%	77.1%	14.3%	18.8%	61.0%
Kingston Hospital NHS Trust	7.8%	72.3%	36.6%	25.7%	22.1%	32.0%
Lewisham	0.0%	69.4%	18.2%	12.0%	30.0%	55.0%
North West London	13.7%	100.0%	83.3%	14.6%	18.3%	29.0%
St Georges Healthcare NHS Trust	4.6%	61.5%	65.1%	22.1%	n/a	26.0%
South London Healthcare	4.3%	71.9%	61.3%	19.8%	26.0%	31.0%
The Hillingdon NHS FT	2.0%	78.0%	58.3%	31.3%	31.7%	61.0%
The Royal Marsden	0.0%	85.7%	52.9%	10.2%	7.9%	25.0%
West Middlesex University NHS Trust	5.2%	67.3%	51.0%	22.7%	21.6%	46.0%
LCA Total	4.3%	78.8%	52.7%	20.6%	22.0%	54.0%
<b>Audit Average</b>	<b>4.6%</b>	<b>69.0%</b>	<b>61.0%</b>	<b>19.8%</b>	<b>24.0%</b>	<b>51.0%</b>

Source: National Bowel Cancer Audit: <http://www.hscic.gov.uk/bowel>

### 3.5 Explanatory factors: summary of section

Here we provide a recap of the key points raised in part 2 of this report:

- For both males and females, at birth and aged 65 years, healthy life expectancy in Hillingdon is higher than that for England
- Breast cancer screening coverage and uptake in Hillingdon were consistently lower than the England average during the period 2012 - 2014
- Hillingdon residents in the 60-69 years target age group consistently have lower coverage and uptake for bowel cancer screening than for England as a whole
- Whilst the rate of urgent referrals per 100,000 population (referred using the two-week wait urgent referral pathway) increased in Hillingdon between 2012 and 2014 it was consistently lower than the England rate
- The conversion rate is the percentage of the referrals that were found to have cancer and provides an indicator of the referral quality. The conversion rate for Hillingdon has been similar to the England rate during the period 2012 - 2014
- The detection rate tells us the percentage of all cancers that were identified through the two-week wait pathway. This was approximately 40% in Hillingdon, (in 2012, 2013 and 2014) being consistently below the percentage for England
- Approximately a quarter of Hillingdon cancer patients present as emergencies as measured by the NCIN proxy measure. The percentage has fluctuated around this level during 2008 - 2012 and tends to be higher than that for England as a whole
- The rate of emergency admissions with cancer per 100,000 population was lower for Hillingdon than England as a whole for 2012 and 2013. In keeping with the rate for England overall, there was a drop in the rate in Hillingdon from 2012 to 2013

## NHS Hillingdon CCG

- The proportion of female breast cancer in Hillingdon diagnosed through the screen detected route is slightly lower than for England and the proportion detected through emergency presentations slightly higher
- The proportion of colorectal cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher
- The proportion of lung cancers diagnosed through the managed route is lower in Hillingdon than England and the proportion detected through emergency presentations higher
- The prevalent cancer cases (% of practice population on practice cancer registers) for Hillingdon residents in each of the three years 2012, 2013 and 2014, was lower than the England value
- The proportion of Hillingdon cancers diagnosed with an unknown stage is considerably higher than that across London
- The proportion of Hillingdon residents waiting more than six weeks for colonoscopy, flexible sigmoidoscopy and gastroscopy procedures were consistently very low throughout 2014 / 2015
- There were higher rates of access in Hillingdon for colonoscopy procedures compared with the England average
- There were lower rates of access for sigmoidoscopy and gastroscopy procedures compared with England averages
- In 2013/14, 97.7% of patients in NHS Hillingdon CCG saw a specialist within two weeks. This is higher than the standard set and the English average (95.3%)
- In 2013/14, 97.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 31 days of a decision to treat. This is lower than the English average (98.2%)
- In 2013/14, 86.1% of cancer patients in NHS Hillingdon CCG received their first treatment within 62 days of an urgent GP referral. This is higher than the English average (85.8%)

## NHS Hillingdon CCG

- The percentage of non-small cell lung cancer (NSCLC) patients with cancer at stages 1a to 2b receiving surgery is considered a particular strong measure of provider performance and here Hillingdon NHS Foundation Trust is lower than the London average (51.4% compared with 52% across London)
- The percentage of patients having CT prior to bronchoscopy is also considered a strong measure of provider performance and here Hillingdon NHS Foundation Trust performs well
- The adjusted 90-day post op mortality is strong measure of colorectal cancer provider performance. This is the only (1 of 6) measures that Hillingdon NHS Foundation Trust is green rated for, with a rate lower than the London and the audits average (2% compared with 4.6%)
- The adjusted 18-month stoma rate is a key area in which Hillingdon NHS Foundation Trust performs poorly compared with London overall (61% compared with audit averages of 51%).

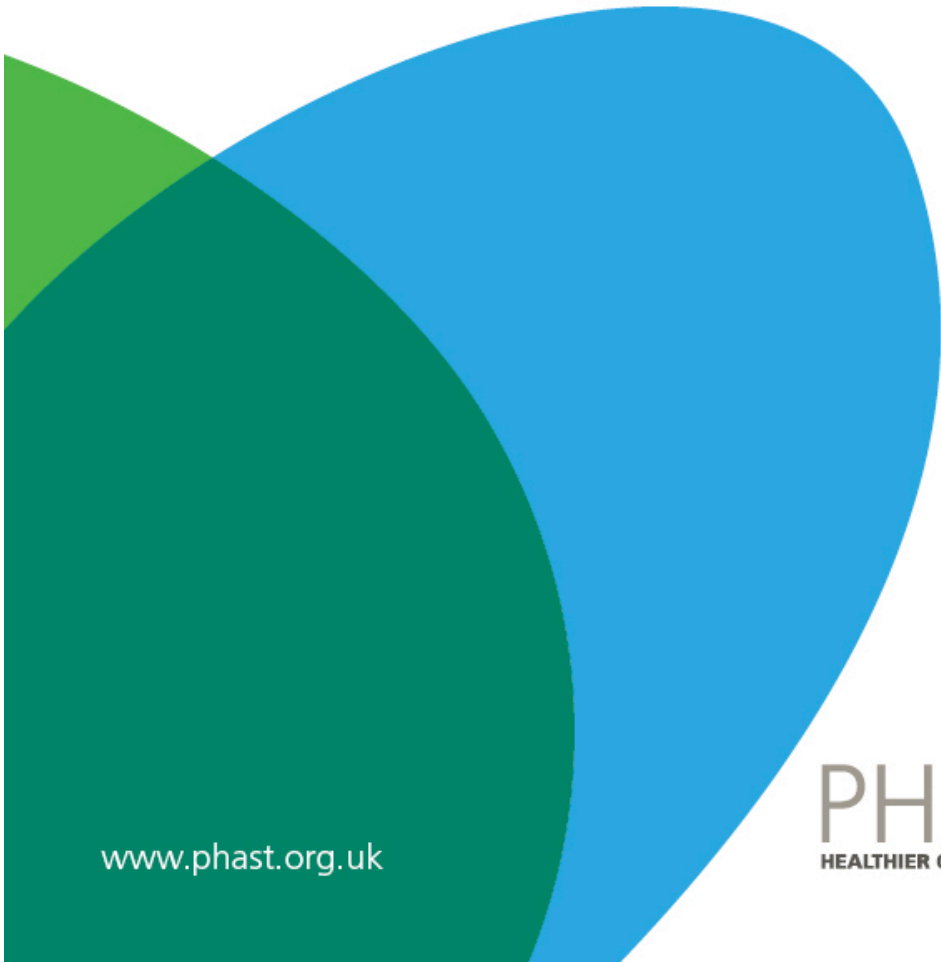
## 4. Next steps

In this review we have examined over two dozen measures related to survival, screening, diagnosis and management of cancer patients, in particular the three main cancers - breast, colorectal and lung.

The key findings and suggested actions are detailed in the report and repeated in summary sections (at the end of Parts 1 and 2) and additionally in the Executive Summary.

It is hoped that CCGs will be engaged through this report and encouraged to consider what can be done to improve further survival from cancer. More detailed data may be available to enable supplementary analyses and TCST for London will assist with this as resources permit.

Finally, the TCST for London welcome your feedback on this report.



[www.phast.org.uk](http://www.phast.org.uk)