SPH
Solutions for Public Health

NHS
Thames Valley
Strategic Clinical Network

# A review of current and future demand and capacity for cancer diagnostic services in the Thames Valley

Colorectal, Gynaecology, Lung, Upper GI, Urology

## Trends in Cancer Data

www.sph.nhs.uk

SPH
Solutions for Public Health

NHS
Thames Valley
Strategic Clinical Network

# Contents

## Introduction

This report is one of a number of reports produced by Solutions for Public Health (SPH) as part of a project commissioned by the Thames Valley Strategic Cancer Network (TVSCN) to review the current and future demand for cancer diagnostic capacity across the Thames Valley. The project reviewed the following cancer specialties;

- gynaecology (specifically ovarian, cervical, vulvar, and endometrial cancers)
- colorectal
- upper GI (specifically oesophageal, pancreas and stomach cancers)
- lung
- urological cancers (specifically bladder, kidney and prostate cancers).

The reports resulting from this project are:

- Guidance summary of national reports focussed on cancer published between 2014-15
- Trends in cancer data
- Modelling future demand for cancer diagnostics
- Trust reports – one for each of the six provider Trusts within the Thames Valley Strategic Clinical Network including:
    - Oxford University Hospitals NHS Foundation Trust
    - Royal Berkshire NHS Foundation Trust
    - Buckinghamshire Healthcare NHS Trust
    - Frimley Park NHS Foundation Trust (Frimley North Hospital)
    - Milton Keynes NHS Foundation Trust
    - Great Western Hospitals NHS Foundation Trust

This report (Trends in Cancer Data) reviews information from the Thames Valley CCGs and provider Trusts for a variety of indicators associated with timely cancer diagnosis showing trends in:

- Performance against national cancer waiting times targets
- The number of two week wait referrals for suspected cancer
- The number of referrals from cervical and bowel cancer screening programmes
- Cancer incidence
- Cancers diagnosed by the 2 week wait and by other routes
- Proportions of cancers diagnosed by different routes
- Stage at diagnosis
- Emergency presentations
- Diagnostic imaging activity
- Variation in demand for diagnostic services

Data is presented either by NHS provider Trust, Thames Valley CCG or Thames Valley Health Economy depending on latest data available. Health economy is based on one or more CCGs referring to one main provider for cancer diagnostics and treatment which also reflects historic commissioning footprints. Some cancer diagnoses are very low (<5) for the smaller CCGs and so are reported by health economy.

**Table 1: Thames Valley CCGs and their equivalent health economy and main provider for referral for suspected cancer**

| CCG Name | Health Economy Name | Main provider for suspected cancer referral |
|---|---|---|
| NHS Bracknell and Ascot | East Berkshire | Frimley Park NHS Foundation Trust (Frimley North Hospital) |
| NHS Slough | | |
| NHS Windsor, Ascot & Maidenhead | | |
| NHS Newbury and District | West Berkshire | Royal Berkshire NHS Foundation Trust |
| NHS North and West Reading | | |
| NHS South Reading | | |
| NHS Wokingham | | |
| NHS Aylesbury Vale CCG | Buckinghamshire | Buckinghamshire Healthcare NHS Trust |
| NHS Chiltern CCG | | |
| NHS Milton Keynes | Milton Keynes | Milton Keynes NHS Foundation Trust |
| NHS Oxfordshire | Oxfordshire | Oxford University Hospitals NHS Foundation Trust |
| NHS Swindon | Swindon | Great Western Hospitals NHS Foundation Trust |

The report highlights where Thames Valley CCGs and provider trusts are meeting national waiting time guidance and compares them to national averages where appropriate.

The variation in rates of the indicators between CCGs is described in the report. The population demographic profile of CCGs may account for some differences in addition to variation in service protocols and delivery.

Where the report describes the number of referrals or diagnoses per Trust, the variation between Trusts will reflect the size of catchment populations. The pattern and trend of the data will be the points to note.

Variation in trend and pattern of data between Trusts and CCGS may prompt a range of questions about the reasons behind these differences and can be a starting point for local interpretation and follow up.

# 1 Key Messages from Available Data

## 1.1 National Cancer Waiting Time Targets

- The Thames Valley CCGs have achieved the 93% two week wait target for most quarters since Q1 2013/14 with the exception of the CCGs in West Berkshire, where the level of achievement has declined since the end of 2013/14. The Royal Berkshire is the only hospital trust to have repeatedly not met the two week wait national target since the beginning of 2013/14
- All the Thames Valley CCGs and providers met the 96% 31 day diagnosis to first definitive treatment target in the first two quarters of 2015/16.
- Seven of the twelve Thames Valley CCGs failed to meet the 85% national 62 day GP referral to treatment target in Q2 2015/16. However, the English CCGs collectively have also failed to meet this target since Q3 2013/14. The Thames Valley providers that have not consistently met this target since 2013/14 are Oxford University Hospitals NHS Trust and the Royal Berkshire Foundation NHS Trust.
- A new cancer waiting times target of 95% of cancer cases receiving a definitive cancer diagnosis within 28 days of referral will come into force in 2020. Current mapping of the Thames Valley CCGs and providers against this target show that specialties and Trusts vary in the proportion of people diagnosed within 28 days from 0% to 60%.

## 1.2 Two Week Referrals for Suspected Cancer

- The numbers of two week wait referrals for the five cancer specialties of interest increased by 31% in the first two quarters of the financial year between 2013/14 and 2015/16. The increase in two week wait referrals for the same cancer specialties over the same period for England as a whole was 25%.
- However, two week wait referral rates in the Thames Valley remain lower than for England for four of the five cancer specialties (the exception being urological cancers).
- The increase in two week wait referrals in the first two quarters of the year in the Thames Valley was greater for upper GI cancers (57% increase) than for the other four cancer specialties. The Thames Valley increase (61%) in upper GI cancer referrals is also greater than the England average (39% increase).
- Across the five cancer specialties of interest, NHS South Reading CCG (50%), NHS Chiltern CCG (45%) and NHS Milton Keynes CCG (36%) had the largest increase in two week wait referrals in the first half of the year between 2013/14 and 2015/16.

## 1.3 Trends in Referrals from Cancer Screening Programmes

- Between 2010/11 and 2014/15 the number of referrals from cervical cancer screening programmes received by hospital providers in the Thames Valley increased by 61%. This compares to a 39% increase for England as a whole over the same period.
- The number of referrals from the bowel cancer screening programme for suspected bowel cancer was relatively stable from 2010/11 to 2013/14, but increased by around 10% in 2014/15 and based on year to date data this increase is likely to be sustained in 2015/16.

## 1.4 Numbers of New Cancer Diagnoses

- Incidence of the 11 cancers of interest grew by 9% in the Thames Valley between 2009 and 2013. The incidence of some individual cancers increased by a greater amount than this, notably kidney cancer, where the number of new diagnoses increased by 25% and vulval cancer where the number of new diagnoses increased by 18%.

- The proportions of cancers diagnosed via two week wait referrals compared to referrals from other routes varies by cancer specialty, with urological cancers being the only cancer specialty where the majority of cancers were diagnosed via the two week wait at Thames Valley provider trusts between 2013/14 and 2015/16. Most of the cancer specialties apart from urological cancers have seen a decline in the proportion of cancers diagnosed via the two week wait and a corresponding increase in the proportion of cancers diagnosed by other routes.

## 1.5 Routes to Diagnoses

- The cancers with the highest proportion of diagnoses made through the two week wait in the Thames Valley between 2006 and 2013 were bladder and uterine (both 40%). Across all cancer sites (not just our 11) only 29% of cancers were detected by the two week wait route, a similar figure to the England average (30%).
- Pancreas (44%) and lung cancers (34%) had the highest proportion of cancers diagnosed via emergency presentations in the Thames Valley over the period 2006 to 2013.
- Referrals from cancer screening programmes in the Thames Valley accounted for 28% of cervical cancer diagnoses and 6% of colorectal cancer diagnoses between 2006 and 2013.

## 1.6 Stage at Diagnosis

- In common with much of the rest of England, the completeness of staging data for cancers diagnosed in Thames Valley residents and at providers in the Thames Valley varies from place to place and by specialty.
- The available data suggest that the Thames Valley had a slightly higher proportion of gynaecological cancers diagnosed at stages 3 and 4 compared to England.

## 1.7 Late presentations

- In common with England as a whole, the proportion of emergency cancer presentations for all cancers combined has been declining over the last couple of years. The majority of the Thames Valley CCGs have had lower proportions of emergency presentations for all cancers than the England average.

## 1.8 Diagnostic Imaging activity

- NHS England publishes monthly data on diagnostic imaging tests on NHS patients in England, known as the Diagnostic Imaging Dataset (DID).The national dataset does not identify all patients whose imaging is concerned cancer diagnosis, follow up or recurrence, it is therefore not possible to determine with any accuracy all imaging activity related to diagnosis of the 11 cancers that are the focus of the report.
- In order to help with this challenge a subset of procedures have been identified and activity published that are commonly requested by GPs that contribute to the early diagnosis of some cancers. These include:
    - Kidney or bladder (Ultrasound). This may diagnose kidney or bladder cancer, this includes – ultrasound of kidney, ultrasound scan of bladder or ultrasound and Doppler scan of kidney.
    - Chest and/or abdomen (CT).These may diagnose lung cancer, this includes - chest + abdominal CT, CT of chest (high resolution or other), CT thorax + abdomen with contrast, CT thorax with contrast or CT chest + abdomen;
    - Chest (X-ray). This may diagnose lung cancer, this includes – plain chest X-ray only;
    - Abdomen and/or pelvis (Ultrasound). This may diagnose ovarian cancer, this includes – ultrasonography of pelvis, ultrasonography of abdomen (upper, lower or other) or abdomen + pelvis.

- Figures from the DID show that across the 6 provider trusts, the largest percentage increase in such tests has been in ultrasounds of the kidney or bladder, where the number of imaging events was 112% higher in April to September 2015 than in April to September 2013. The number of tests was higher in 2015 than in 2013 for all types of test (39% chest and abdomen CT and 22% Ultrasound of chest and abdomen) except chest x-rays which dropped by 9% compared to April to September 2013.
- The figures show that directly referred imaging events for ultrasounds of the kidney or bladder have increased the most (74%) during the same time period with chest and abdomen CT increasing by 40% and ultrasound for chest and abdomen 24%.Overall chest x rays appeared not to increase although trends varied from Trust to Trust and the data for Buckinghamshire Healthcare NHS Trust was anomalous.

## 1.9 Variation in demand for diagnostic services

- The Atlas of Variation in diagnostic services was published in November 2013 by NHS RightCare. It brings together data from around 60 different diagnostic tests from radiology, pathology and endoscopy, presented as a rate by commissioning organisation.
- From the data of the 60 tests available 10 which are commonly used in the diagnosis of the 11 cancers are presented as examples of how rates of tests requested vary from CCG to CCG.
- In 2012/13 there were 211 CCGs in England and each was assigned a quintile from 1-5 with 1 being the 20% of CCGs with highest rate of test requests per head of population and 5 are the 20% of CCGs with the lowest number of requests per head of population. Table 2 below summarises the quintiles for each of the Thames Valley health economies for each of the 10 diagnostic tests.

**Table 2: Table Quintiles assigned to each of the Thames Valley health economies for 10 procedures suitable to aid the diagnosis of cancer.**

| | E Berks | W.Berks | Bucks | M.Keynes | Oxon | Swin |
|---|---|---|---|---|---|---|
| MRI scans performed per 1,000 weighted population for TVSCN health economies and England in 2012/13 | 4 | 4 | 1 | 1 | 1 | 4 |
| CT scans performed per 1,000 weighted population for TVSCN health economies and England in 2012/13 | 5 | 5 | 1 | 5 | 3 | 1 |
| Non-obstetric ultrasounds per 1000 weighted population for TVSCN health economies and England in 2012/13 | 2 | 5 | 1 | 3 | 3 | 1 |
| Colonoscopy and flexible sigmoidoscopy procedures per 10,000 weighted population for TVSCN health economies and England in 2011/12 | 3 | 5 | 4 | 2 | 3 | 3 |
| CT colonoscopy procedures per 10,000 weighted population for TVSCN health economies and England from April to November 2012 | 5 | 3 | 3 | 2 | 2 | - |
| Gastroscopy procedures per 10,000 weighted population for TVSCN health economies and England in 2011/12 | 2 | 5 | 4 | 3 | 4 | 2 |
| Endoscopic ultrasound procedures per 10,000 weighted population for TVSCN health economies and England in 2011/12 | 5 | 4 | 5 | 5 | 4 | 5 |
| Percentage of Gastroscopy procedures in < 55 year olds for TVSCN health economies and England in 2011/12 | 2 | 5 | 4 | 1 | 3 | 3 |
| CA125 blood tests ordered by GPs per 1000 practice population for TVSCN health economies and England in 2012 | 4 | 4 | 1 | 1 | 1 | 4 |
| PSA tests ordered by GPs per 1,000 GP practice population for TVSCN health economies and England in 2012 | 3 | 3 | 1 | 2 | 2 | 4 |

# 2 Recent Trends in Cancer Diagnosis in the Thames Valley

## 2.1 Current Performance Against National Cancer Waiting Time Targets

The 2007 Cancer Reform Strategy set out the following national cancer waiting time targets:

- Patients to be first seen within 14 days of receipt of GP urgent suspected cancer referral (operational standard = 93%)
- All cancers to be treated within 31 days of decision to treat (operational standard = 96%).
- Patients to be treated within 62 days of receipt of GP urgent suspected cancer referral (operational standard = 85%)

NHS England published the latest cancer waiting time performance information for November 2015 in January 2016 and this showed that in England:

- Two week wait:
  - 94.8% of people were seen by a specialist within two weeks of an urgent GP referral for suspected cancer (94.7% in October 2015 )
- One month (31-day) wait from diagnosis to first definitive treatment:
  - 97.6% of people treated began first definitive treatment within 31 days of receiving their diagnosis, all cancers (97.7% in October 2015)
- Two month (62-day) wait from urgent GP referral to first definitive treatment:
  - 83.3% of people treated began first definitive treatment within 62 days of being urgently referred for suspected cancer by their GP, all cancers (81.7% in October 2015)
- 62-day wait extensions
  - 90.2% of patients began first definitive treatment within 62 days of a consultant's decision to upgrade their priority, all cancers (89.9% in October 2015 )
  - 93.0% of people began first definitive treatment for cancer within 62 days of referral from an NHS cancer screening service, all cancers (93.4% in October 2015)

The figures below show the quarterly data for the Thames Valley CCGs for the achievement of the 2 week wait, 31 day diagnosis to first definitive treatment and 62 day wait from urgent GP referral to first definitive treatment national targets, for each quarter from Q1 2013 to Q2 2015/16.

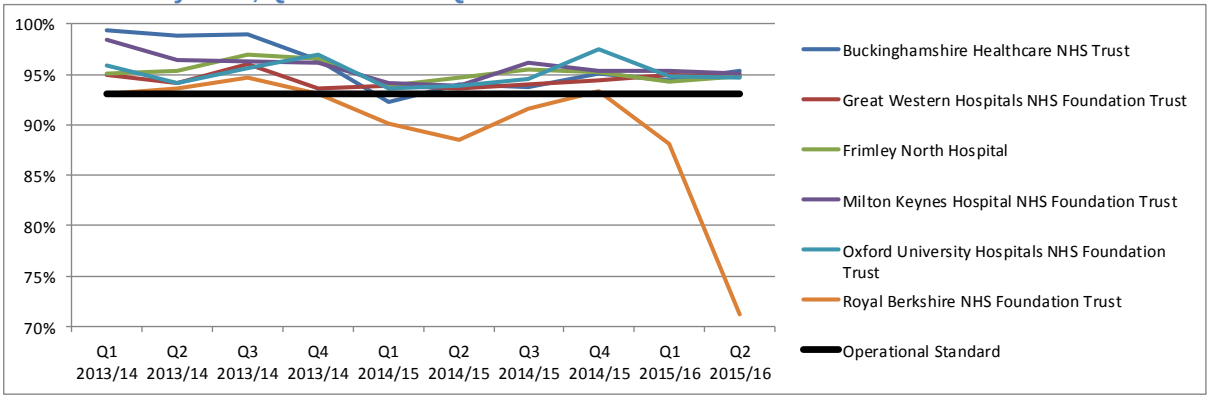
**Table 3: Percentage of GP urgent cancer referrals seen in two weeks for CCGs in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

| CCG | 2013/14 Q1 | 2013/14 Q2 | 2013/14 Q3 | 2013/14 Q4 | 2014/15 Q1 | 2014/15 Q2 | 2014/15 Q3 | 2014/15 Q4 | 2015/16 Q1 | 2015/16 Q2 |
|---|---|---|---|---|---|---|---|---|---|---|
| NHS Bracknell and Ascot CCG | 94.7% | 94.2% | 96.2% | 96.7% | 93.2% | 93.6% | 95.9% | 94.5% | 94.0% | 94.2% |
| NHS Slough CCG | 94.7% | 95.5% | 97.7% | 96.7% | 94.4% | 96.1% | 95.1% | 94.8% | 94.1% | 94.1% |
| NHS Windsor, Ascot and Maidenhead CCG | 94.7% | 95.5% | 97.2% | 96.1% | 92.9% | 94.7% | 95.3% | 95.3% | 95.1% | 94.3% |
| NHS Newbury and District CCG | 93.2% | 93.4% | 95.4% | 94.3% | 90.9% | 88.5% | 91.2% | 93.8% | 89.3% | 75.9% |
| NHS North & West Reading CCG | 92.6% | 94.1% | 95.1% | 93.9% | 90.9% | 88.0% | 91.8% | 92.9% | 88.2% | 71.6% |
| NHS South Reading CCG | 93.7% | 94.6% | 94.6% | 93.8% | 90.4% | 90.1% | 91.5% | 94.8% | 88.3% | 72.4% |
| NHS Wokingham CCG | 93.8% | 94.3% | 94.2% | 93.4% | 91.0% | 90.2% | 93.4% | 94.5% | 88.8% | 71.5% |
| NHS Aylesbury Vale CCG | 99.1% | 98.8% | 98.5% | 96.7% | 94.0% | 94.3% | 94.4% | 96.2% | 95.1% | 95.9% |
| NHS Chiltern CCG | 98.6% | 97.8% | 97.6% | 96.0% | 91.8% | 93.9% | 93.9% | 94.4% | 94.0% | 94.6% |
| NHS Milton Keynes CCG | 98.6% | 96.9% | 96.8% | 96.5% | 94.7% | 93.9% | 96.0% | 95.1% | 95.8% | 94.8% |
| NHS Oxfordshire CCG | 95.4% | 93.6% | 95.6% | 96.5% | 93.0% | 93.1% | 94.1% | 97.1% | 94.1% | 93.1% |
| NHS Swindon CCG | 94.6% | 94.1% | 95.6% | 93.5% | 94.2% | 93.8% | 94.1% | 95.1% | 94.8% | 95.1% |
| | | | | | | | | | | |
| Operational Standard | 93% | 93% | 93% | 93% | 93% | 93% | 93% | 93% | 93% | 93% |
| England | 95.5% | 95.2% | 95.6% | 95.0% | 93.5% | 93.6% | 94.7% | 94.7% | 93.6% | 93.5% |

Source: NHS England Cancer Waiting Time Statistics

Table 3 shows that there has been a decline in performance against the 95% two week wait target in the Thames Valley since Quarter 1 of 2013/14 for almost all CCGs. This reflects the trend in England where performance has declined from 95.5% achieving the two week target in Quarter 1 of 2013/14 to 93.5% achieving the target in Quarter 2 of 2015/16. In Quarter 1 of 2013/14, all the Thames Valley CCGs exceeded the two week wait operational standard, apart from NHS North and West Reading CCG (92.6%). However, in Quarter 2 of 2015/16, four CCGs failed to meet the operational standard by wide margins. These were the west Berkshire CCGs of NHS Wokingham CCG (71.5%), NHS North & West Reading (71.6%), NHS South Reading CCG (72.4%) and NHS Newbury and District CCG (75.9%). These same CCGs also failed to meet the operational standard from the first quarter of 2014/15 to the third Quarter of 2014/15, but performance improved in the final quarter of 2014/15 before falling again in the first two quarters of this financial year.

**Figure 1: Percentage of GP urgent cancer referrals seen in two weeks for hospital providers in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**




Source: NHS England Cancer Waiting Time Statistics

Figure 1 shows that all of the Thames Valley hospital providers exceeded the 93% operational standard for urgent suspected cancer referrals from GPs in Quarter 2 of 2015/16, except for the Royal Berkshire NHS Foundation Trust. In general, there has been a slight deterioration in performance across the Thames Valley providers since Q1 of 2013/14, but there has been a sharp decline in the proportion of two week wait referrals seen within 2 weeks at the Royal Berkshire hospital since Q1 2015/16.

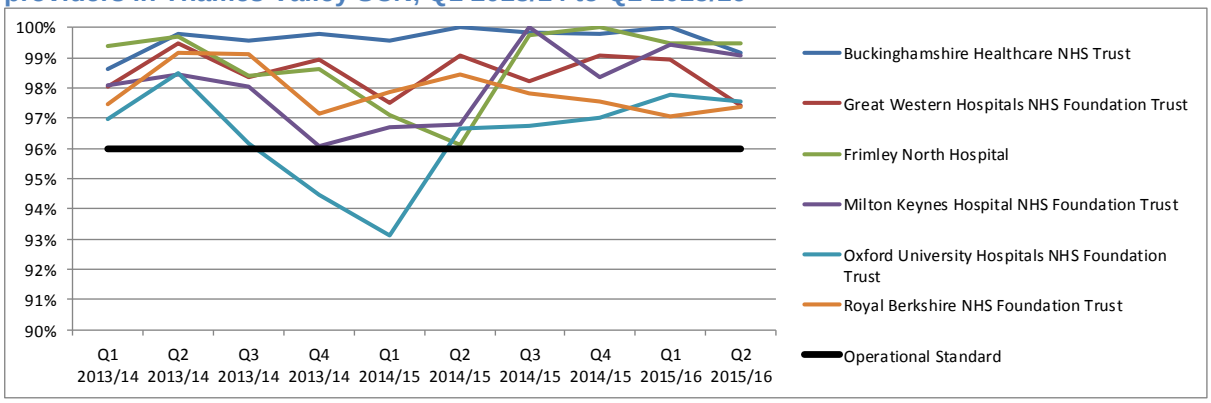
**Table 4: Percentage of all cancers treated within 31 days of decision to treat for CCGs in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

| CCG | 2013/14 Q1 | 2013/14 Q2 | 2013/14 Q3 | 2013/14 Q4 | 2014/15 Q1 | 2014/15 Q2 | 2014/15 Q3 | 2014/15 Q4 | 2015/16 Q1 | 2015/16 Q2 |
|---|---|---|---|---|---|---|---|---|---|---|
| NHS Bracknell and Ascot CCG | 97.4% | 100.0% | 99.4% | 97.8% | 100.0% | 96.7% | 99.2% | 100.0% | 98.5% | 99.2% |
| NHS Slough CCG | 97.1% | 99.0% | 96.5% | 96.5% | 97.0% | 92.7% | 98.2% | 100.0% | 99.0% | 99.1% |
| NHS Windsor, Ascot and Maidenhead CCG | 99.4% | 99.4% | 99.4% | 98.4% | 95.8% | 95.2% | 98.9% | 100.0% | 100.0% | 98.8% |
| NHS Newbury and District CCG | 97.6% | 99.3% | 98.8% | 99.2% | 98.2% | 97.8% | 94.9% | 94.0% | 97.7% | 96.7% |
| NHS North & West Reading CCG | 95.6% | 100.0% | 97.8% | 96.2% | 97.2% | 98.9% | 97.4% | 98.1% | 96.5% | 98.4% |
| NHS South Reading CCG | 96.6% | 100.0% | 100.0% | 98.7% | 95.8% | 98.9% | 99.0% | 94.5% | 97.8% | 96.0% |
| NHS Wokingham CCG | 96.9% | 97.7% | 100.0% | 96.8% | 98.3% | 98.1% | 98.4% | 97.7% | 98.3% | 98.4% |
| NHS Aylesbury Vale CCG | 98.7% | 99.1% | 97.9% | 99.2% | 98.2% | 99.6% | 99.2% | 98.7% | 99.0% | 99.6% |
| NHS Chiltern CCG | 97.6% | 99.1% | 98.7% | 98.8% | 98.1% | 99.3% | 100.0% | 99.7% | 99.7% | 99.1% |
| NHS Milton Keynes CCG | 99.0% | 98.2% | 95.6% | 94.5% | 93.6% | 95.3% | 99.0% | 98.2% | 99.0% | 99.2% |
| NHS Oxfordshire CCG | 96.8% | 98.6% | 97.9% | 94.8% | 93.9% | 97.3% | 97.0% | 96.8% | 98.0% | 97.5% |
| NHS Swindon CCG | 98.6% | 99.3% | 96.5% | 97.0% | 94.2% | 98.4% | 99.6% | 98.7% | 96.9% | 96.1% |
| | | | | | | | | | | |
| Operational Standard | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% | 96.0% |
| ENGLAND | 98.3% | 98.4% | 98.2% | 97.9% | 97.7% | 97.7% | 97.7% | 97.4% | 97.4% | 97.5% |

Source: NHS England Cancer Waiting Time Statistics

Table 4 shows that all of the Thames Valley CCGs met the operational standard for the percentage of all cancers treated within 31 days of decision to treat in both Quarter 1 and Quarter 2 of 2015/16. This is an improvement compared to Quarter 4 of 2014/15, where both NHS Newbury and District CCG (94.0%) and NHS South Reading CCG (94.5%) fell slightly below the operational standard.

**Figure 2: Percentage of all cancers treated within 31 days of decision to treat for hospital providers in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**




Source: NHS England Cancer Waiting Time Statistics

Figure 2 shows that all of the hospital providers in the Thames Valley SCN have met the operational standard for all cancers being treated within 31 days of decision to treat since Quarter 2 of 2014/15. Oxford University Hospitals NHS Foundation Trust failed to reach the operational standard in the latter part of 2013/14 and early part of 2014/15, but improved this performance during the latter part of 2014/15.

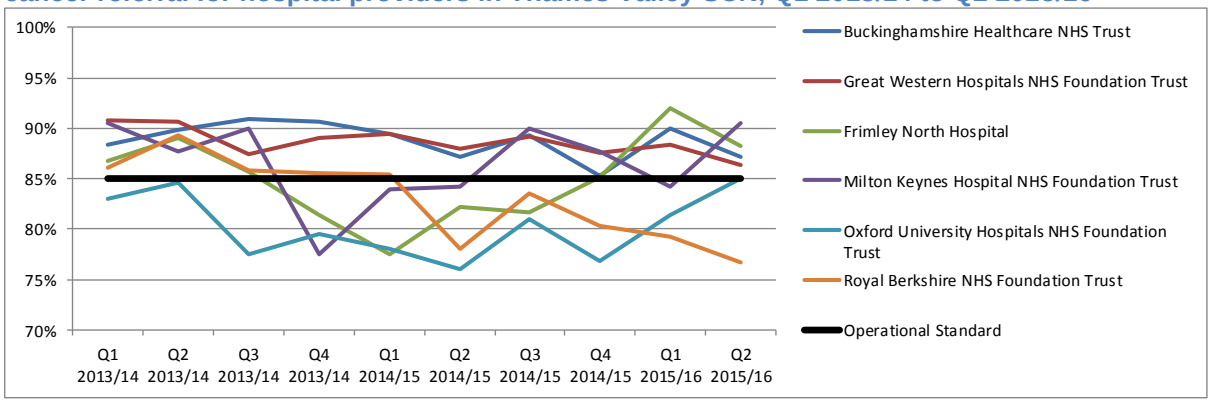
**Table 5: Percentage of patients treated within 62 days of receipt of GP urgent suspected cancer referral for CCGs in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

| CCG | 2013/14 Q1 | 2013/14 Q2 | 2013/14 Q3 | 2013/14 Q4 | 2014/15 Q1 | 2014/15 Q2 | 2014/15 Q3 | 2014/15 Q4 | 2015/16 Q1 | 2015/16 Q2 |
|---|---|---|---|---|---|---|---|---|---|---|
| NHS Bracknell and Ascot CCG | 89.8% | 90.0% | 89.0% | 81.7% | 79.4% | 83.1% | 81.4% | 87.9% | 82.0% | 87.1% |
| NHS Slough CCG | 84.3% | 86.4% | 85.7% | 76.3% | 80.5% | 78.3% | 73.1% | 86.5% | 92.9% | 89.1% |
| NHS Windsor, Ascot and Maidenhead CCG | 83.3% | 84.0% | 81.2% | 80.5% | 76.9% | 82.4% | 82.9% | 77.8% | 89.6% | 80.5% |
| NHS Newbury and District CCG | 77.8% | 89.9% | 83.1% | 90.5% | 87.9% | 80.6% | 87.3% | 78.4% | 82.8% | 83.3% |
| NHS North & West Reading CCG | 93.5% | 91.4% | 81.1% | 79.2% | 87.3% | 75.8% | 75.8% | 81.4% | 76.6% | 75.4% |
| NHS South Reading CCG | 87.7% | 91.7% | 89.7% | 94.7% | 80.4% | 83.7% | 68.6% | 76.6% | 69.2% | 74.5% |
| NHS Wokingham CCG | 86.1% | 85.1% | 89.2% | 77.5% | 83.0% | 75.3% | 88.7% | 76.6% | 82.4% | 76.6% |
| NHS Aylesbury Vale CCG | 84.4% | 96.6% | 91.1% | 87.4% | 86.8% | 86.8% | 89.8% | 84.5% | 86.8% | 89.5% |
| NHS Chiltern CCG | 82.8% | 87.0% | 88.3% | 90.3% | 83.5% | 83.7% | 89.3% | 82.9% | 89.6% | 84.9% |
| NHS Milton Keynes CCG | 89.5% | 86.1% | 88.5% | 77.9% | 80.8% | 80.2% | 87.2% | 83.5% | 79.3% | 88.1% |
| NHS Oxfordshire CCG | 84.8% | 85.5% | 79.8% | 80.7% | 78.7% | 77.4% | 82.3% | 79.6% | 82.2% | 87.6% |
| NHS Swindon CCG | 89.2% | 86.1% | 90.5% | 84.1% | 89.4% | 87.5% | 90.1% | 87.1% | 83.2% | 84.2% |
| Operational Standard | 85% | 85% | 85% | 85% | 85% | 85% | 85% | 85% | 85% | 85% |
| ENGLAND | 86.8% | 86.7% | 85.6% | 84.2% | 83.9% | 83.3% | 83.6% | 82.0% | 81.7% | 81.9% |

Source: NHS England Cancer Waiting Time Statistics

Table 5 shows that in Quarter 2 of 2015/16, 7 of the 12 Thames Valley SCN CCGs failed to meet the operational standard. This was one CCG fewer than in the previous quarter and two CCGs fewer than in the final quarter of 2014/15. The CCGs with the lowest proportion of patients treated within 62 days of receipt of urgent GP cancer referral in Quarter 2 of 2015/16 were: NHS South Reading CCG (74.5%); NHS North and West Reading CCG (75.4%) and NHS Wokingham CCG (76.6%). Since Quarter 4 of 2013/14, between 6 and 10 of the 12 Thames Valley SCN CCGs have not met the operational standard each quarter. CCGs nationally have also seen their performance deteriorate with 86.5% of patients being treated within 62 days of urgent GP referral in Quarter 1 2013/14, declining to 81.9% in Quarter 2 of 2015/16.

**Figure 3: Percentage of patients treated within 62 days of receipt of GP urgent suspected cancer referral for hospital providers in Thames Valley SCN, Q1 2013/14 to Q2 2015/16**




Source: NHS England Cancer Waiting Time Statistics

Figure 3 shows that both the Royal Berkshire NHS Foundation Trust and the Oxford University Hospitals NHS Foundation Trust performed below the operational standard for the percentage of patients treated within 62 days of receipt of urgent GP referral in Quarter 2 of 2015/16. Oxford University Hospitals NHS Foundation Trust has not achieved the operational standard in any quarter since Quarter 1 of 2013/14, but performance has improved in recent quarters. The Royal Berkshire NHS Foundation Trust has failed to meet the operational standard since Quarter 1 of 2014/15, and performance has declined since Quarter 3 of 2014/15.

## 2.2 Future Cancer Waiting Time Targets

The government has pledged that from 2020, people with suspected cancer will be diagnosed within 28 days of being referred by a GP[1]. According to the Independent Cancer Taskforce, set up as part of the NHS's Five Year Forward View to examine how to improve cancer care and survival rates, the target to diagnosis all suspected cancer cases within 28 days could help save up to 11,000 lives a year. The Taskforce recommended that by 2020 95% of people with suspected cancer should receive a definitive diagnosis or have cancer excluded within 4 weeks from referral by their GP.

Table 6 below shows the latest data for 2015 for the percentage of cancer cases where the recorded decision to treat data was within 28 days of referral for each quarter for the TVSCN CCGs.

**Table 6: Percentage of patients with a decision to treat date within 28 days by cancer specialty and CCG in calendar year 2015**

| | | Calendar Year 2015 | | | |
|---|---|---|---|---|---|
| **Specialty** | **Trust** | **Q1** | **Q2** | **Q3** | **Q4** |
| Gynaecological | TVSCN – CCG | 12.0 | 22.4 | 13.4 | 14.7 |
| | NHS Bracknell and Ascot CCG | 20.0 | 0 | 0 | 0 |
| | NHS Slough CCG | 0 | 0 | 0 | 0 |
| | NHS Windsor, Ascot and Maidenhead CCG | 0 | 0 | 0 | 66.7 |
| | NHS Newbury and District CCG | 0 | 0 | 33.3 | 0 |
| | NHS North and West Reading CCG | 0 | 0 | 0 | 0 |
| | NHS South Reading CCG | 50.0 | 20.0 | 0 | 0 |
| | NHS Wokingham CCG | 0 | 0 | 0 | 33.3 |
| | NHS Aylesbury Vale CCG | 25.0 | 33.0 | 0 | 20.0 |
| | NHS Chiltern CCG | 0 | 25 | 12.5 | 0 |
| | NHS Milton Keynes CCG | 33.3 | 0 | 16.6 | 0 |
| | NHS Oxfordshire CCG | 8.6 | 30.0 | 14.8 | 22.7 |
| | NHS Swindon CCG | 28.6 | 42.9 | 60.0 | 11.1 |
| Colorectal | TVSCN – CCG | 16.7 | 16.6 | 26.5 | 12.9 |
| | NHS Bracknell and Ascot CCG | 25.0 | 16.7 | | 0 |
| | NHS Slough CCG | 33.3 | 66.7 | 0 | 25.0 |
| | NHS Windsor, Ascot and Maidenhead CCG | 18.2 | 25.0 | 25.0 | 12.5 |
| | NHS Newbury and District CCG | 0 | 25.0 | 0 | 14.3 |
| | NHS North and West Reading CCG | 0 | 11.1 | 0 | 0 |
| | NHS South Reading CCG | 0 | 0 | 16.7 | 0 |
| | NHS Wokingham CCG | 0 | 0 | 16.7 | 16.7 |
| | NHS Aylesbury Vale CCG | 33.3 | 7.7 | 25.0 | 28.6 |
| | NHS Chiltern CCG | 22.2 | 30.4 | 56.3 | 12.4 |
| | NHS Milton Keynes CCG | 42.9 | 8.3 | 22.2 | 16.7 |
| | NHS Oxfordshire CCG | 13.9 | 16.1 | 30.7 | 18.5 |
| | NHS Swindon CCG | 11.1 | 0 | 25.0 | 0 |
| Lung | TVSCN – CCG | 14.3 | 8.8 | 19.6 | 16.0 |
| | NHS Bracknell and Ascot CCG | 0 | 0 | 0 | 0 |
| | NHS Slough CCG | 33.3 | 0 | 25.0 | 0 |
| | NHS Windsor, Ascot and Maidenhead CCG | 100.0 | 0 | 40.0 | 50.0 |
| | NHS Newbury and District CCG | 12.5 | 25.0 | 50.0 | 28.6 |
| | NHS North and West Reading CCG | 0 | 20.0 | 25.0 | 11.1 |

[1] *Achieving world-class cancer outcomes*: *A strategy for England 2015-2020*. Report of the Independent Cancer Taskforce, August 2015

| | | | | | |
|---|---|---|---|---|---|
| | NHS South Reading CCG | 0 | 16.7 | 16.7 | 0 |
| | NHS Wokingham CCG | 33.3 | 16.7 | 25.0 | 0 |
| | NHS Aylesbury Vale CCG | 14.3 | 0 | 25.0 | 0 |
| | NHS Chiltern CCG | 27.3 | 9.1 | 0 | 25.0 |
| | NHS Milton Keynes CCG | 15.4 | 0 | 20.0 | 20.0 |
| | NHS Oxfordshire CCG | 5.0 | 4.3 | 12.5 | 13.6 |
| | NHS Swindon CCG | 15.4 | 12.5 | 30.8 | 11.1 |
| Upper GI | TVSCN – CCG | 21.3 | 20.8 | 21.2 | 30.0 |
| | NHS Bracknell and Ascot CCG | 20 | 33.3 | 0 | 0 |
| | NHS Slough CCG | | 0 | 0 | 20.0 |
| | NHS Windsor, Ascot and Maidenhead CCG | 28.6 | 33.3 | 33.3 | 50.0 |
| | NHS Newbury and District CCG | 0 | 0 | 40.0 | 0 |
| | NHS North and West Reading CCG | 0 | 0 | 0 | 60.0 |
| | NHS South Reading CCG | 20.0 | 33.3 | 0 | 25.0 |
| | NHS Wokingham CCG | 0 | 28.6 | 0 | 0 |
| | NHS Aylesbury Vale CCG | 44.4 | 14.3 | 42.9 | 25.0 |
| | NHS Chiltern CCG | 25.0 | 35.7 | 50.0 | 22.2 |
| | NHS Milton Keynes CCG | 0 | 0 | 0 | 0 |
| | NHS Oxfordshire CCG | 7.7 | 13.4 | 18.1 | 52.9 |
| | NHS Swindon CCG | 28.6 | 26.7 | 42.9 | 50.0 |
| Urological | TVSCN – CCG | 23.6 | 29.5 | 25.2 | 29.1 |
| | NHS Bracknell and Ascot CCG | 37.5 | 35.3 | 14.3 | 43.7 |
| | NHS Slough CCG | 0 | 50.0 | 20.0 | 25.0 |
| | NHS Windsor, Ascot and Maidenhead CCG | 13.3 | 18.8 | 0 | 40.0 |
| | NHS Newbury and District CCG | 27.3 | 10.0 | 23.1 | 35.0 |
| | NHS North and West Reading CCG | 35.0 | 41.2 | 33.4 | 24.0 |
| | NHS South Reading CCG | 20.0 | 14.3 | 30.8 | 36.4 |
| | NHS Wokingham CCG | 11.1 | 44.4 | 30.0 | 20.0 |
| | NHS Aylesbury Vale CCG | 25.0 | 16.0 | 33.4 | 30.0 |
| | NHS Chiltern CCG | 34.1 | 31.5 | 27.3 | 30.3 |
| | NHS Milton Keynes CCG | 16.2 | 16.2 | 15.4 | 19.0 |
| | NHS Oxfordshire CCG | 20.5 | 30.4 | 25.9 | 27.0 |
| | NHS Swindon CCG | 33.4 | 40.7 | 37.5 | 36.3 |

Table 7 below shows the percentage of cancer cases in 2015 where the decision to treat date was within 28 days of referral for the Thames Valley providers (except Great Western Hospital and Milton Keynes Hospital, whose data is not held by TVSCN).

**Table 7: Percentage of patients with a decision to treat date within 28 days by cancer specialty and Provider in calendar year 2015**

| | | Calendar Year 2015 | | | |
|---|---|---|---|---|---|
| **Specialty** | **Trust** | **Q1** | **Q2** | **Q3** | **Q4** |
| Gynaecological | Buckinghamshire Healthcare NHS Trust | 5.6 | 25.0 | 0 | 0 |
| | Frimley North Hospital | 12.5 | 28.6 | 7.7 | 0 |
| | Oxford University Hospitals NHS Foundation Trust | 13.4 | 22.2 | 13.8 | 23.4 |
| | Royal Berkshire NHS Foundation Trust | 8.3 | 20.0 | 6.1 | 11.1 |
| Colorectal | Buckinghamshire Healthcare NHS Trust | 24.0 | 18.5 | 38.3 | 20.7 |
| | Frimley North Hospital | 26.1 | 59.3 | 54.5 | 0 |
| | Oxford University Hospitals NHS Foundation Trust | 15.0 | 16.1 | 33.3 | 21.0 |
| | Royal Berkshire NHS Foundation Trust | 4.4 | 10.7 | 3.8 | 8.0 |
| Lung | Buckinghamshire Healthcare NHS Trust | 21.2 | 15.1 | 17.2 | 12.5 |
| | Frimley North Hospital | 33.3 | 28.6 | 38.5 | |
| | Oxford University Hospitals NHS Foundation Trust | 13.6 | 10.7 | 12.2 | 13.6 |
| | Royal Berkshire NHS Foundation Trust | 6.5 | 25.0 | 22.7 | 21.3 |
| Upper GI | Buckinghamshire Healthcare NHS Trust | 37.9 | 31.6 | 42.9 | 25.7 |
| | Frimley North Hospital | 35.3 | 32.3 | 25.0 | 0 |
| | Oxford University Hospitals NHS Foundation Trust | 8.3 | 13.9 | 15.7 | 38.8 |
| | Royal Berkshire NHS Foundation Trust | 19.0 | 26.1 | 7.1 | 15.4 |
| Urological | Buckinghamshire Healthcare NHS Trust | 30.4 | 20.9 | 27.9 | 30.5 |
| | Frimley North Hospital | 20.3 | 34.9 | 13.3 | 0 |
| | Oxford University Hospitals NHS Foundation Trust | 20.4 | 29.5 | 21.6 | 26.1 |
| | Royal Berkshire NHS Foundation Trust | 22.3 | 28.4 | 29.7 | 23.3 |

Source: TVSCN

Tables 6 and 7 suggest that in 2015 all the Thames Valley CCGs and providers were some way short of achieving the new 95% target to provide a definitive diagnosis in 28 days from referrals.

## 2.3 Numbers of Two Week Wait Referrals for Suspected Cancer

**Table 8: Trend in two week wait referrals for selected cancer specialties across the 12 CCGs within the Thames Valley SCN, Q1 and Q2 2013/14, 2014/15 and 2015/16**

| | Q1 & Q2 2013/14 | Q1 & Q2 2014/15 | Q1 & Q2 2015/16 | | % Change Q1 & Q2 2013/14 to Q1 & Q2 2014/15 | % Change Q1 & Q2 2014/15 to Q1 & Q2 2015/16 | % Change Q1 & Q2 2013/14 to Q1 & Q2 2015/16 |
|---|---|---|---|---|---|---|---|
| Gynaecological cancers | 2,457 | 2,514 | 3,042 | | 2% | 21% | 24% |
| Colorectal cancers | 4,562 | 5,021 | 5,702 | | 10% | 14% | 25% |
| Upper GI cancers | 2,376 | 2,912 | 3,735 | | 23% | 28% | 57% |
| Lung cancer | 891 | 988 | 1,096 | | 11% | 11% | 23% |
| Urological cancers | 3,586 | 4,053 | 4,554 | | 13% | 12% | 27% |
| **Total of above cancers** | **13,872** | **15,488** | **18,129** | | **12%** | **17%** | **31%** |

Source: NCIN Cancer Commissioning Toolkit

Table 8 shows the number of two week wait referrals for each of the five cancer specialties for the period April to September of 2013/14, 2014/15 and 2015/16. It shows that the number of two week wait referrals has risen substantially for all five cancer specialties since

the first half of 2013/14. For example, the number of two week wait referrals for suspected upper GI cancers in the Thames Valley has increased from 2,376 in the first half of 2013/14 to 3,735 in the first half of 2015/16, an increase of 57%. Two week wait referrals from the other cancer specialties have increased between 23% and 27% over the same period.

Table 9 presents the equivalent data on two week wait referrals for England as a whole.

**Table 9: Trend in two week wait referrals for selected cancer specialties for England, Q1 and Q2 2013/14, 2014/15 and 2015/16**

| | Q1 & Q2 2013/14 | Q1 & Q2 2014/15 | Q1 & Q2 2015/16 | | % Change Q1 & Q2 2013/14 to Q1 & Q2 2014/15 | % Change Q1 & Q2 2014/15 to Q1 & Q2 2015/16 | % Change Q1 & Q2 2013/14 to Q1 & Q2 2015/16 |
|---|---|---|---|---|---|---|---|
| Gynaecological cancers | 59,550 | 68,384 | 74,089 | | 15% | 8% | 24% |
| Colorectal cancers | 101,993 | 113,557 | 126,058 | | 11% | 11% | 24% |
| Upper GI cancers | 66,456 | 75,986 | 92,438 | | 14% | 22% | 39% |
| Lung cancer | 25,346 | 27,182 | 28,334 | | 7% | 4% | 12% |
| Urological cancers | 77,587 | 86,063 | 93,046 | | 11% | 8% | 20% |
| **Total of above cancers** | **330,932** | **371,172** | **413,965** | | **12%** | **12%** | **25%** |

Source: NCIN Cancer Commissioning Toolkit

Table 9 shows that across England, the number of two week wait referrals for the five cancer specialties of interest increased by 25% between the first half of 2013/14 and the first half of 2015/16. The increases in two week wait referrals for suspected gynaecological cancers and colorectal cancers for the Thames Valley shown in Table 1 are similar to the percentage changes in referral numbers seen in England as a whole (Table 2). However, the increases in two week wait referrals in the Thames Valley for the other three cancer specialties (upper GI, lung and urological cancers) have been greater than those seen in England as a whole.

Table 10 shows the number of two week wait referrals for these five cancer specialties combined for each of the CCGs in the Thames Valley SCN for the first two quarters of 2013/14, 2014/15 and 2015/16 and the percentage change between years.

**Table 10: Number of two week wait referrals for the cancer specialties of gynaecology, colorectal, upper GI, lung and urology for CCGs in the Thames Valley SCN, Q1 and Q2 2013/14, 2014/15 and 2015/16**

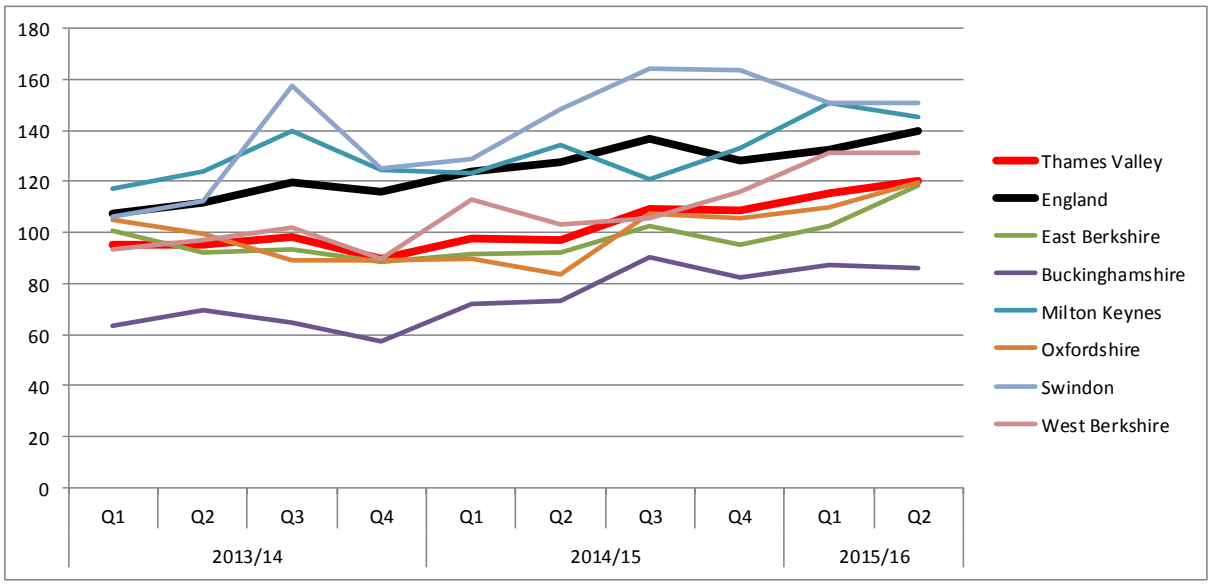
| | Q1 & Q2 2013/14 | Q1 & Q2 2014/15 | Q1 & Q2 2015/16 | | % Change Q1 & Q2 2013/14 to Q1 & Q2 2014/15 | % Change Q1 & Q2 2014/15 to Q1 & Q2 2015/16 | % Change Q1 & Q2 2013/14 to Q1 & Q2 2015/16 |
|---|---|---|---|---|---|---|---|
| NHS Bracknell and Ascot CCG | 696 | 771 | 845 | | 11% | 10% | 21% |
| NHS Slough CCG | 681 | 715 | 797 | | 5% | 11% | 17% |
| NHS Windsor, Ascot and Maidenhead CCG | 857 | 930 | 982 | | 9% | 6% | 15% |
| NHS Newbury and District CCG | 703 | 743 | 801 | | 6% | 8% | 14% |
| NHS North & West Reading CCG | 662 | 762 | 887 | | 15% | 16% | 34% |
| NHS South Reading CCG | 492 | 563 | 740 | | 14% | 31% | 50% |
| NHS Wokingham CCG | 764 | 862 | 988 | | 13% | 15% | 29% |
| NHS Aylesbury Vale CCG | 1,076 | 1271 | 1,452 | | 18% | 14% | 35% |
| NHS Chiltern CCG | 1,499 | 1,742 | 2,174 | | 16% | 25% | 45% |
| NHS Milton Keynes CCG | 1,277 | 1,429 | 1,742 | | 12% | 22% | 36% |
| NHS Oxfordshire CCG | 3,858 | 4,238 | 4,954 | | 10% | 17% | 28% |
| NHS Swindon CCG | 1,307 | 1,462 | 1,767 | | 12% | 21% | 35% |
| **Thames Valley Total** | **13,872** | **15,488** | **18,129** | | **12%** | **17%** | **31%** |

Source: NCIN Cancer Commissioning Toolkit

Table 10 shows that in percentage terms NHS South Reading CCG had the highest increase (+50%) in two week wait referrals for suspected cancer in the five specialties between April to September 2013/14 and the same period in 2015/16. NHS Chiltern CCG had the second highest percentage increase in two week wait referrals over the same period (45% increase). NHS Newbury and District CCG and NHS Windsor, Ascot and Maidenhead CCG had the smallest percentage increases in referrals (14% and 15% respectively).

The graphs below show the two week wait referrals made by GPs for suspected cancer in the CCGs within the Thames Valley SCN each quarter from Quarter 1 of 2013/14 to Quarter 2 of 2015/16 for each of the five specialties. The data are presented as crude rates per 100,000 population for Thames Valley health economies (see Table 1) and as actual numbers of referrals for provider trusts. Note that differences in crude rates may reflect differences in referral practices and / or differences in cancer incidence or age structure of local populations.

**Figure 4: Two week wait referrals for suspected gynaecological cancers per 100,000 female population for health economies in the Thames Valley SCN and England, Q1 2013/14 to Q2 2015/16**

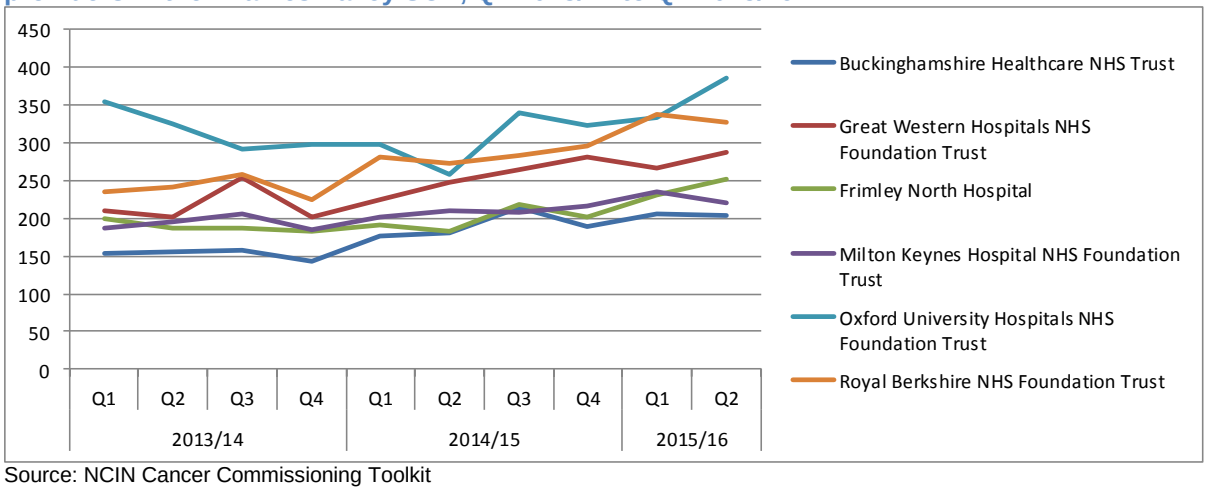



Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16 there were a total of 1,549 two week wait referrals for suspected gynaecological cancers from CCGs within the Thames Valley SCN area. This compares to 1,256 referrals in Q2 of 2014/15 (a 23% increase) and 1,231 referrals in Q2 of 2013/14 (a 26% increase). Figure 7 shows that for gynaecological cancers the two week wait referral rate for the Thames Valley overall has been slightly below the England average, although both NHS Swindon CCG and NHS Milton Keynes CCG had referral rates higher than the England average in Q1 and Q2 2015/16. NHS Buckinghamshire CCG has consistently had the lowest two week wait referral rate out of the CCGs in the Thames Valley SCN.

Figure 5 shows the quarterly trend in the actual number of two week wait referrals for gynaecological cancers at each hospital provider in the Thames Valley between Q1 2013/14 and Q2 2015/16.

**Figure 5: Number of two week wait referrals for suspected gynaecological cancers for hospital providers in the Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

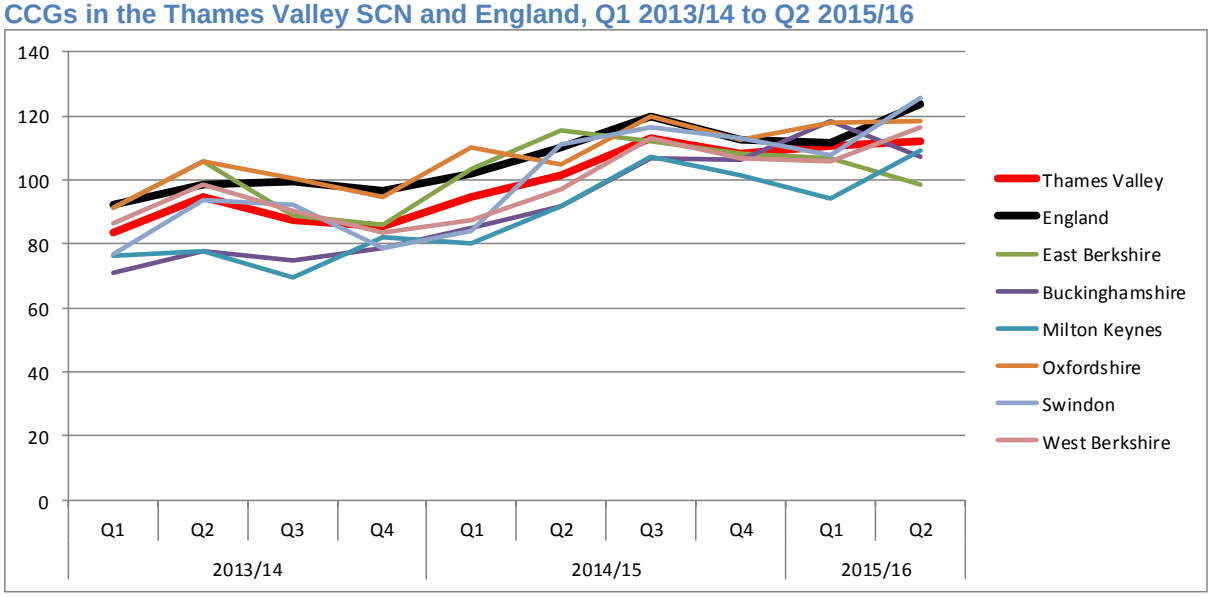



Source: NCIN Cancer Commissioning Toolkit

In Quarter 1 of 2015/16, the Oxford University Hospitals NHS Foundation Trust received the highest number of two week wait referrals for suspected gynaecological cancers (386) followed by the Royal Berkshire NHS Foundation Trust (328). Overall, the number of referrals into the 6 hospital trusts increased by 24% compared to Quarter 2 of 2014/15, with the largest percentage increase seen at the Oxford University Hospitals NHS Foundation Trust (49%) and the smallest at Milton Keynes Hospital NHS Foundation Trust (5%).

*Colorectal Cancers*

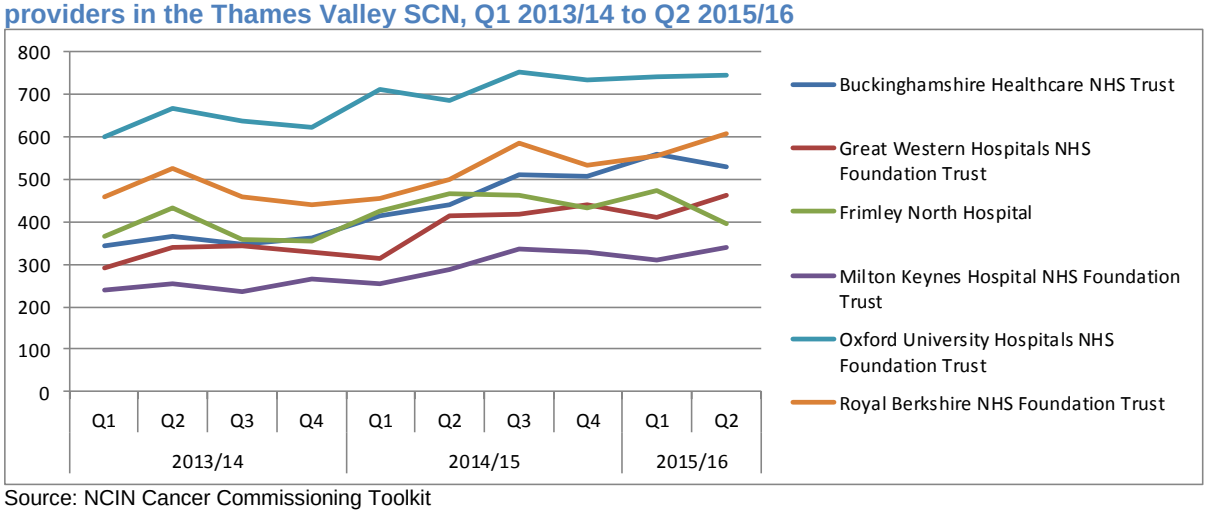
**Figure 6: Two week wait referrals for suspected colorectal cancers per 100,000 population for CCGs in the Thames Valley SCN and England, Q1 2013/14 to Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16 there were a total of 2,872 two week wait referrals for suspected colorectal cancers from the 12 CCGs within the Thames Valley SCN area. This compares to 2,602 referrals in Q2 of 2014/15 (a 10% increase) and 2,426 referrals in Q2 of 2013/14 (an 18% increase). Figure 9 shows that for colorectal cancers the two week wait referral rate for the Thames Valley CCGs combined has been slightly below the England average in every quarter since Q1 2013/14. The rates for the Thames Valley CCG clusters fall within a relatively narrow range and have both narrowed and increased since the beginning of 2013/14.

**Figure 7: Number of two week wait referrals for suspected colorectal cancers for hospital providers in the Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

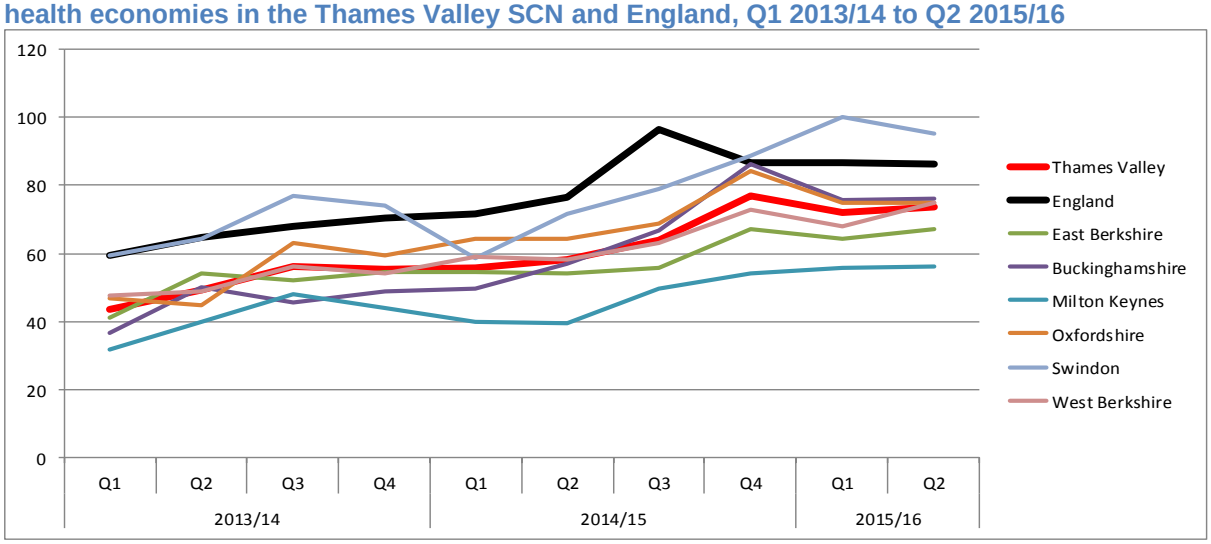



Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16, the Oxford Radcliffe Hospitals Trust received the highest number of two week wait referrals for suspected colorectal cancers (747) followed by the Royal Berkshire Hospital NHS Trust (609). Overall, the number of referrals into the 6 hospital trusts increased by 10% compared to Quarter 2 of 2014/15, with the largest percentage increase seen at the Royal Berkshire NHS Foundation Trust (22%) and a decrease at Frimley North Hospital (-16%).

*Upper GI Cancers*

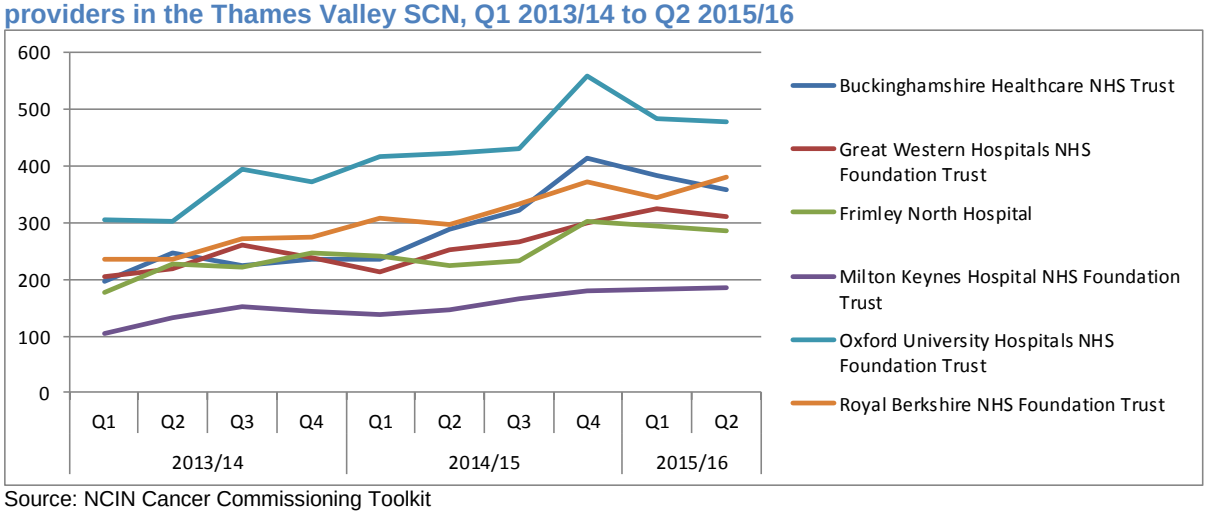
**Figure 8: Two week wait referrals for suspected upper GI cancers per 100,000 population for health economies in the Thames Valley SCN and England, Q1 2013/14 to Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16 there were a total of 1,886 two week wait referrals for suspected upper GI cancers from within the Thames Valley SCN area. This compares to 1,488 referrals in Q2 of 2014/15 (a 27% increase) and 1,265 referrals in Q2 of 2013/14 (a 49% increase). However, this constitutes a fall from Quarter 4 of 2014/15 were there were 1,973 suspected upper GI cancer two week wait referrals. Figure 8 shows that overall the Thames Valley has consistently had lower two week wait referral rates for suspected upper GI cancers than England as a whole. NHS Milton Keynes has had the lowest referral rate out in the Thames Valley and NHS Swindon has had the highest referral rate in most quarters since Q1 2013/14.

**Figure 9: Number of two week wait referrals for suspected upper GI cancers for hospital providers in the Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

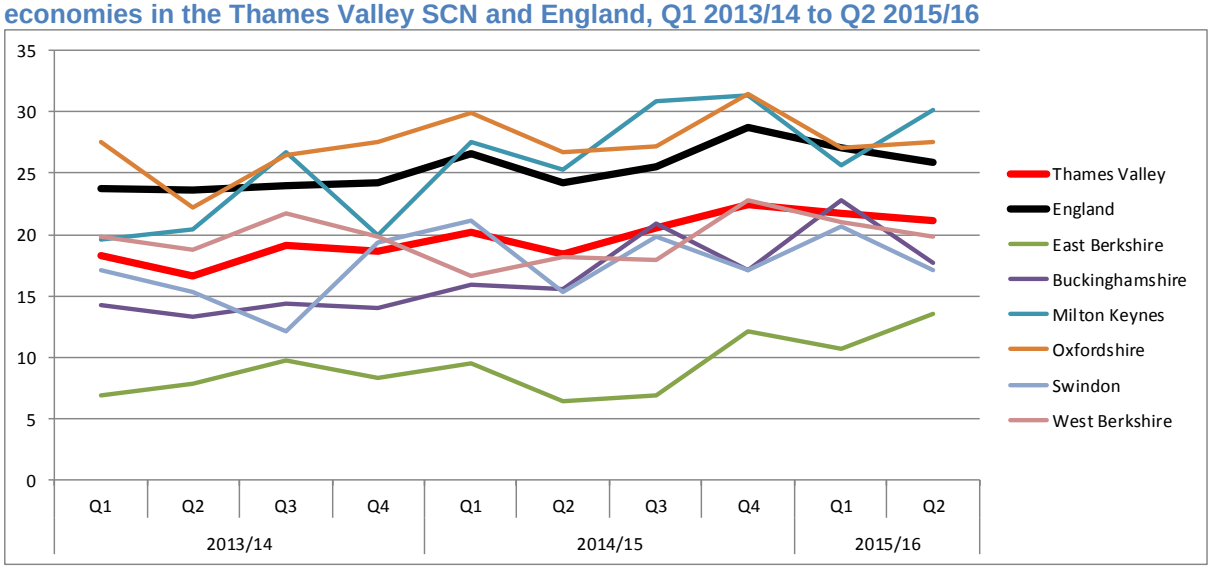



Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16, the Oxford University Hospitals NHS Foundation Trust received the highest number of two week wait referrals for suspected upper GI cancers (479) followed by the Royal Berkshire Hospital NHS Foundation Trust (380). Overall, the number of referrals into the 6 hospital trusts increased by 23% compared to Quarter 2 of 2014/15, with the largest percentage increase seen at the Royal Berkshire Hospital NHS Foundation Trust (28%) and the smallest at the Oxford University Hospitals NHS Foundation Trust (13%).

*Lung Cancer*

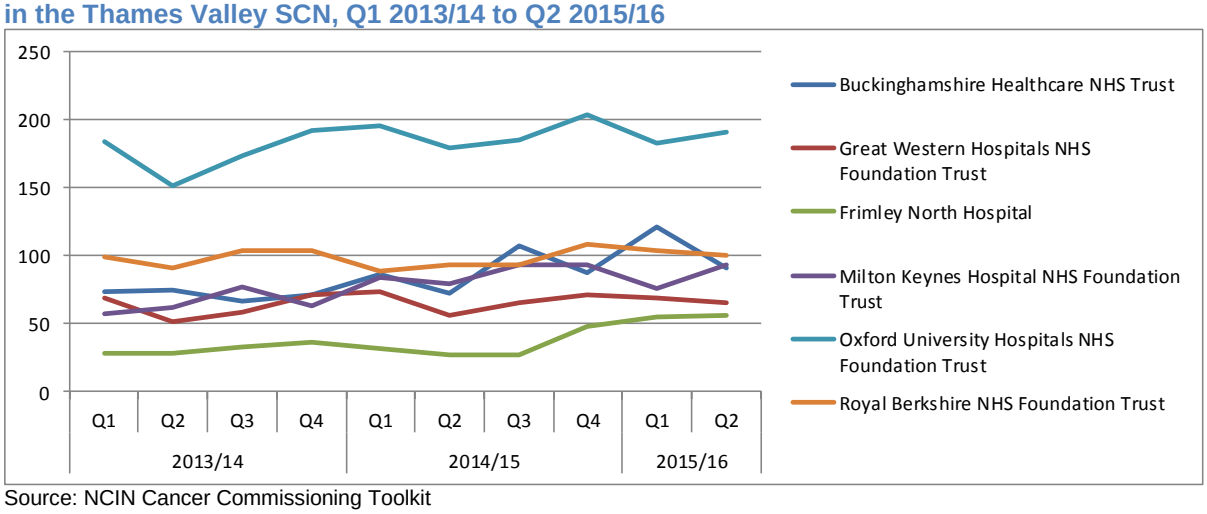
**Figure 10: Two week wait referrals for suspected lung cancer per 100,000 population for health economies in the Thames Valley SCN and England, Q1 2013/14 to Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16 there were 541 two week wait referrals for suspected lung cancer within the Thames Valley SCN area. This compares to 470 referrals in Q2 of 2014/15 (a 15% increase) and 424 referrals in Q2 of 2013/14 (a 19% increase). Whilst most of the health economies in the Thames Valley SCN had lower two week referral rates for lung cancer than the England average, NHS Milton Keynes and NHS Oxfordshire often had higher quarterly referral rates. The referral rate for the CCGs in East Berkshire has been lower than for the other areas of the Thames Valley, but has been rising since Quarter 2 of 2014/15.

**Figure 11: Number of two week wait referrals for suspected lung cancer for hospital providers in the Thames Valley SCN, Q1 2013/14 to Q2 2015/16**

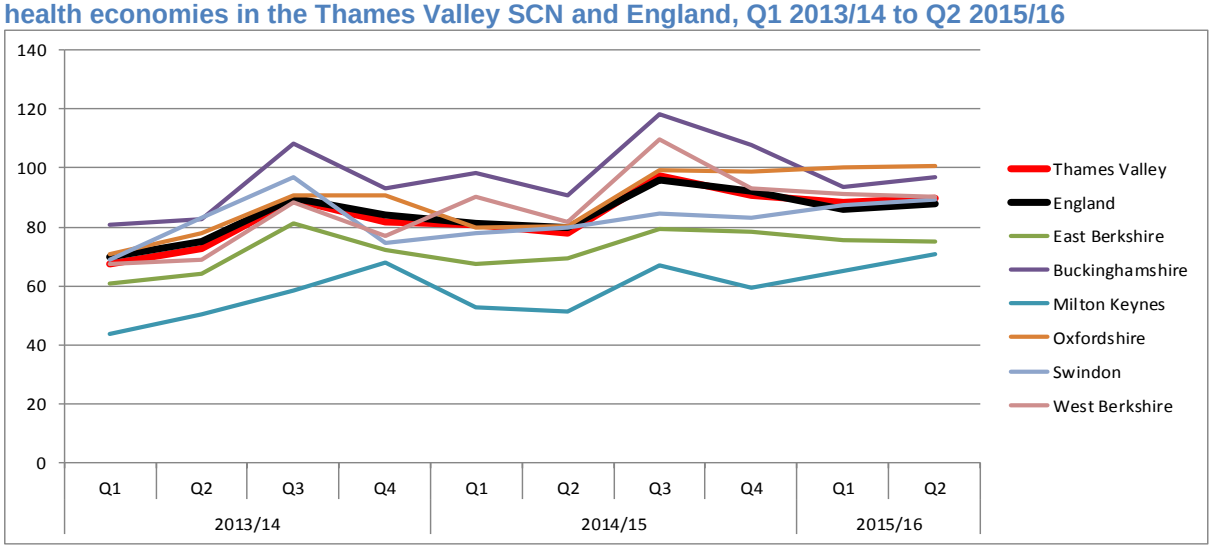



Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16, the Oxford University Hospitals NHS Foundation Trust received the highest number of two week wait referrals for suspected lung cancer (191), which might be expected as it has the largest catchment population of the Trusts in the SCN. Overall, the number of referrals into the 6 hospital trusts increased by 18% compared to Quarter 2 of 2014/15. The number of lung cancer referrals at Frimley Health NHS Foundation Trust (north) increased from 27 in Quarter 2 of 2014/15 to 56 in Quarter 2 of 2015/16, an increase of 107%. This continues an apparent rising trend in referrals at this hospital provider that started in Quarter 4 of 2014/15.

*Urological Cancers*

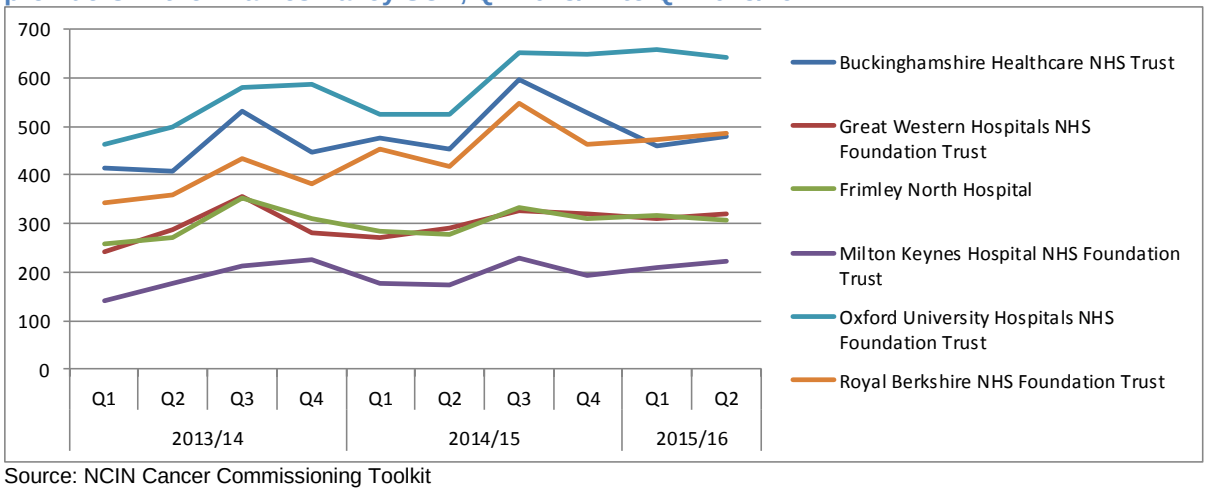
**Figure 12: Two week wait referrals for suspected urological cancers per 100,000 population for health economies in the Thames Valley SCN and England, Q1 2013/14 to Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16 there were 2,294 two week wait referrals for suspected urological cancers from the Thames Valley SCN area. This compares to 1,192referrals in Q2 of 2014/15 (a 15% increase) and 1,857 referrals in Q2 of 2013/14 (a 24% increase). The referral rate for the Thames Valley has remained very similar to the England average throughout the period from Q1 2013/14 to Q2 2015/16. NHS Milton Keynes has had a consistently lower two week wait referral rate than the England and Thames Valley averages.

**Figure 13: Number of two week wait referrals for suspected urological cancers for hospital providers in the Thames Valley SCN, Q1 2013/14 to Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

In Quarter 2 of 2015/16, the Oxford University Hospitals NHS Foundation Trust received the highest number of two week wait referrals for suspected urological cancers (644). Overall, the number of referrals into the 6 hospital trusts increased by 15% in Quarter 2 of 2015/16 compared to Quarter 2 of 2014/15. Upwards trends are most apparent at Oxford University Hospitals NHS Foundation Trust and Buckinghamshire Healthcare NHS Trust.

## 2.4 Trends in Referrals from Cancer Screening Programmes

For the cancer specialties of interest in this project only the national cervical and bowel cancer screening programmes generate referrals for cancer diagnostic testing. Data on the number of cervical screening referrals received by each hospital provider are published annually by the Health and Social Care Information Centre. The table below shows the number of cervical screening referrals received by each of the Thames Valley providers for the period 2010/11 to 2014/15.

**Table 11: Number of referrals from cervical cancer national screening programme to Thames Valley providers, 2010/11 to 2014/15**

| | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | % Change from 2010/11 |
|---|---|---|---|---|---|---|
| Buckinghamshire Healthcare | 920 | 809 | 916 | 1,599 | 1,527 | +66% |
| Great Western Hospitals NHS Foundation Trust | 629 | 615 | 676 | 816 | 806 | +28% |
| Frimley North | 1,424 | 1,569 | 1,604 | 1,675 | 1,894 | +33% |
| Milton Keynes Hospital | 741 | 686 | 810 | 946 | 1094 | +48% |
| Oxford University Hospitals | 1,293 | 1,081 | 1,632 | 2929 | 2404 | +86% |
| Royal Berkshire Hospital | 946 | 1,039 | 1,149 | 1287 | 1884 | +99% |
| Thames Valley | 5,953 | 5,799 | 6,787 | 9,252 | 9,609 | +61% |
| England | 142,984 | 147,889 | 167,394 | 199,322 | 198,216 | +39% |

Source: HSCIC

Table 11 shows that the total number of referrals from the cervical cancer screening programme at Thames Valley SCN providers increased by 61% between 2010/11 and 2014/15. Oxford University Hospitals, the Royal Berkshire and Buckinghamshire Healthcare trusts had higher percentage increases than the Thames Valley average. For comparison, across England as a whole, the number of cervical cancer screening referrals increased from 142,984 to 198,216 or by 39%, over the same period. This large increase in referrals is most likely due to implementation of new referral guidance (NHS Cancer screening programmes 2010[2]) and the introduction of HPV triage and test of cure (NHS Cervical Screening Programme 2011[3]). The number of referrals per year varies considerably in some cases because the guidance about who should be referred has been changing over the last five years. These changes include:

- In May 2010 new guidance was issued recommending the referral of women with mild and borderline abnormalities. These women had previously just had a repeat screen at the GP practice after 6 months. This resulted in an increase in referrals of

[2]NHS Cancer Screening Programme, *Colposcopy and Programme Management Guidelines for the NHS Cervical Screening Programme, NHSCSP publication No 20 May 2010*
[3]NHS Cervical Screening Programme *HPV triage and test of cure Implementation guidance, Good Practice Guide No3* July 2011

around 30% in most Trusts apart from Frimley North where this was already standard practice.

- Carrying out test of cure (around 2012)– i.e. if a woman was treated she would be discharged back to the community and a cervical screen taken 6 months later – this would be tested for Human Papillomavirus (HPV). If she was HPV positive, then she would be referred back for treatment. This resulted in an increase in referrals.
- HPV testing of samples from people with mild and borderline results – in 2010 referrals of women with mild and borderline results (first bullet point) was introduced (increasing referrals by a third), then in around 2013 HPV triage was implemented for those samples and women referred only if she was positive for the virus. This resulted in a decrease in referrals.
- The classification of grading samples changed from mild, moderate, severe, abnormalities to low grade (mild) and high grade (moderate and severe). Women with high grade abnormalities were referred in to the 2ww pathway and low grade to the routine pathway. This would result in an increase in speed of referral.

Table 10 shows the number of referrals for suspected bowel cancer for residents of the Thames Valley CCGs and NHS Wiltshire CCG made by the bowel cancer screening programme between 2010/11 and 2015/16. These data were provided by the Southern Bowel Cancer Screening Programme and the data for 2015/16 are as of early February 2016, so comprises just over 10 months of data, rather than a full 12 months.

**Table 12: Number of Bowel Screening Referrals for Thames Valley CCGs plus Wiltshire, 2010/11 to 2015/16 (*10 months of data for 2015/16)**

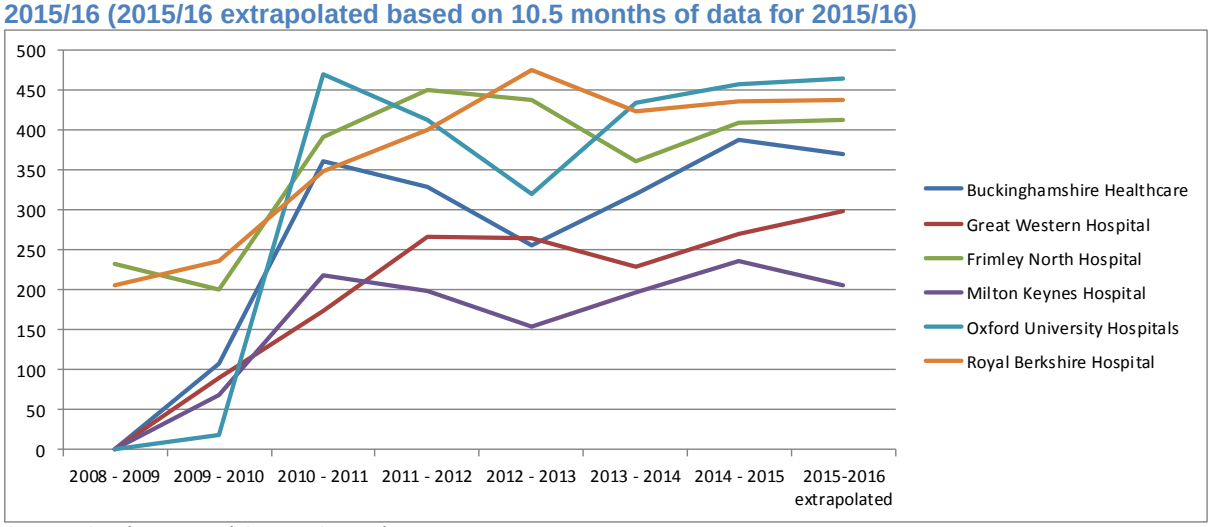
| CCG | 2010 - 2011 | 2011 - 2012 | 2012 - 2013 | 2013 - 2014 | 2014 - 2015 | 2015 – 2016* |
|---|---|---|---|---|---|---|
| NHS Bracknell And Ascot CCG | 100 | 113 | 113 | 104 | 106 | 90 |
| NHS Slough CCG | 83 | 108 | 131 | 118 | 130 | 135 |
| NHS Windsor, Ascot And Maidenhead CCG | 125 | 139 | 123 | 117 | 113 | 94 |
| NHS Newbury And District CCG | 94 | 102 | 101 | 98 | 83 | 85 |
| NHS North & West Reading CCG | 78 | 90 | 99 | 80 | 81 | 94 |
| NHS South Reading CCG | 51 | 89 | 82 | 79 | 79 | 67 |
| NHS Wokingham CCG | 127 | 147 | 145 | 124 | 146 | 122 |
| NHS Aylesbury Vale CCG | 151 | 128 | 108 | 127 | 154 | 121 |
| NHS Chiltern CCG | 254 | 246 | 207 | 221 | 288 | 229 |
| NHS Milton Keynes CCG | 208 | 183 | 152 | 193 | 238 | 179 |
| NHS Oxfordshire CCG | 520 | 447 | 385 | 478 | 513 | 440 |
| NHS Swindon CCG | 84 | 171 | 159 | 150 | 167 | 167 |
| **Total** | **1,875** | **1,963** | **1,805** | **1,889** | **2,098** | **1,823** |

Source: Southern Bowel Cancer Screening Programme

Table 12 shows that the number of referrals for suspected bowel cancer made by the screening programme each year was similar between 2010/11 and 2013/14, but increased in 2014/15. Changes in the NHS Bowel Screening Programme from 2010 to 2014 include extending the age range from 60-69 to 60-74 which may account for this increase. The data for 2015/16 year to date, suggest that this increase will be sustained for that year. It is worth noting that not all of these referrals are made to hospital providers in the Thames Valley.

Figure 14 shows the number of referrals for suspected bowel cancer made by the bowel cancer screening service to providers in the Thames Valley for residents of the Thames Valley CCGs and NHS Wiltshire CCG only.

**Figure 14: Number of Bowel Screening Referrals for Thames Valley providers, 2010/11 to 2015/16 (2015/16 extrapolated based on 10.5 months of data for 2015/16)**




Source: Southern Bowel Cancer Screening Programme

Figure 14 shows that there has been some fluctuation year on year in the number of referrals from the bowel cancer screening service to hospital providers in the Thames Valley. All the hospital providers saw an increase in referrals between 2013/14 and 2014/15, with the largest increase at Buckinghamshire Healthcare Hospitals NHS Trust. These fluctuations are likely due to the broadening of the age group invited for screening from 60-69 to 60-74. Trusts started to invite the extended age range at different times depending on when they had the resources in place to meet the increased demand from referrals. Variation in uptake of screening and subsequent referrals is also affected by local health promotion activities which typically cause a spike in screening programme participation.

## 2.5 Numbers of New Cancer Diagnoses

This section describes the trend in the recorded incidence of cancer in each of the CCGs within the TVSCN for the calendar years 2009 to 2013. The data have been provided by the TVSCN from annual cancer registrations.

Data have been supplied for the 11 cancer sites covered by this review. The ICD 10 codes used to identify relevant incident cancer cases are enclosed at Appendix 1.

### *2.5.1 Thames Valley Summary*

Table 13 shows the total number of people diagnosed with each of the 11 cancers for residents of the 12 CCGs in TVSCN each year between 2009 and 2013 and the change in numbers since 2009.

**Table 13: Number of incident cases of selected cancers in the 12 CCGs in the TVSCN, 2009 - 2013**

| | 2009 | 2010 | 2011 | 2012 | 2013 | **Total** | Change between 2009 and 2013 | % Change between 2009 and 2013 | % Change in England between 2009 and 2013 (where data are available) |
|---|---|---|---|---|---|---|---|---|---|
| Cervical Cancer | 111 | 100 | 105 | 88 | 105 | **509** | -6 | -5% | - |
| Endometrial | 261 | 303 | 282 | 276 | 280 | **1,402** | 19 | 7% | - |
| Ovarian Cancer | 277 | 266 | 252 | 274 | 281 | **1,350** | 4 | 1% | - |
| Vulval Cancer | 45 | 51 | 40 | 60 | 53 | **249** | 8 | 18% | - |
| *Sub-total for gynaecological cancers* | *694* | *720* | *679* | *698* | *719* | ***3,510*** | *25* | *4%* | *7%* |
| Colorectal Cancer | 1,433 | 1,494 | 1,501 | 1,567 | 1,575 | **7,570** | 142 | 10% | - |
| Oesophageal & Stomach Cancer | 439 | 482 | 512 | 480 | 484 | **2,397** | 45 | 10% | - |
| Pancreatic Cancer | 325 | 319 | 265 | 332 | 377 | **1,618** | 52 | 16% | - |
| *Sub-total for upper GI cancers* | *764* | *801* | *777* | *812* | *861* | ***4,015*** | *97* | *13%* | 7% |
| Lung Cancer | 1235 | 1247 | 1268 | 1290 | 1250 | **6,290** | 15 | 1% | 7% |
| Bladder Cancer | 400 | 379 | 361 | 343 | 349 | **1,832** | -51 | -13% | - |
| Kidney Cancer | 299 | 276 | 305 | 320 | 375 | **1,575** | 76 | 25% | - |
| Prostate Cancer | 1,585 | 1,585 | 1,654 | 1,638 | 1,841 | **8,303** | 256 | 16% | - |
| *Sub-total for urological cancers* | *2,284* | *2,240* | *2,320* | *2,301* | *2,565* | ***11710*** | *281* | *12%* | *13%* |
| **Total 11 cancer sites** | **6,399** | **6,490** | **6,542** | **6,658** | **6,960** | **33,049** | **561** | **9%** | **-** |

Source: TVSCN for Thames Valley data and NCIN Cancer Commissioning Toolkit for England data

Compared to 2009, Table 13 shows that the number of newly diagnosed cancers has increased for more cancer sites than it has decreased. The cancer sites with the largest percentage increase since 2009 have been Kidney (+25%), Vulval (+18%), Pancreatic and Prostate (both +16%). However, for some cancer sites there were fewer newly diagnosed patients in 2013 compared to 2009, specifically for Bladder cancer (-13%) and Cervical cancer (-5%). Compared to England, incidence of upper GI cancers in the Thames Valley has increased by a larger percentage (13%) than the England average (7%). Note that these figures relate to numbers and not rates and may therefore reflect differences in population size and composition.

*2.5.2 Incidence of gynaecological cancers (cervical, endometrial, ovarian & vulval)*

*Cervical Cancer*

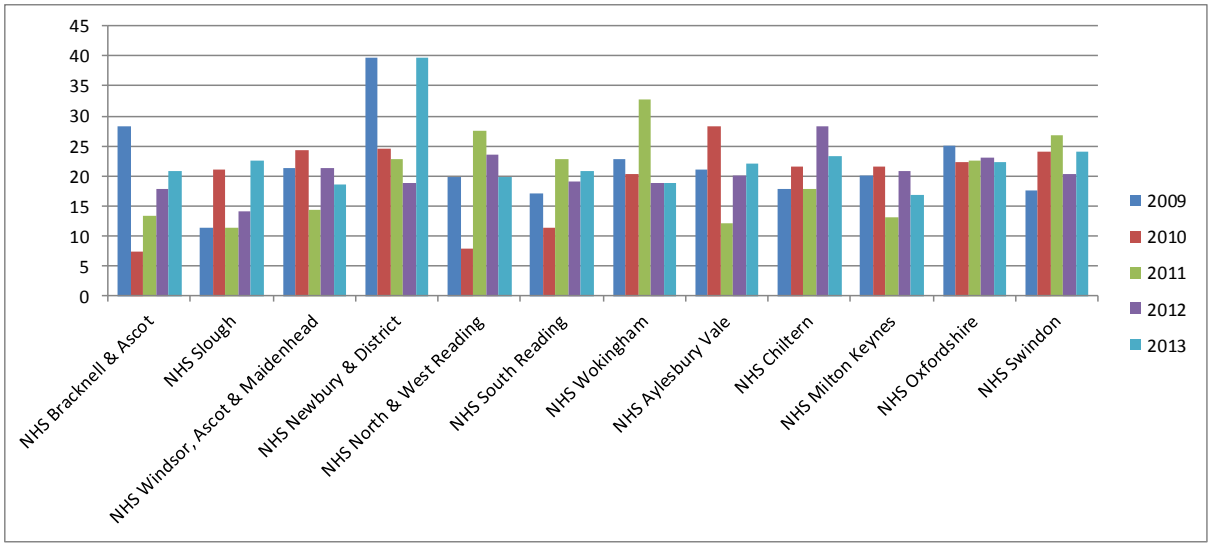
The incidence data provided by TVSCN show that across the 12 CCGs in TVSCN there were 105 patients diagnosed with cervical cancer in 2013, more than the 88 diagnosed in 2012, but fewer than the 111 diagnosed in 2009. As the numbers per CCG and year are quite small we have not calculated individual annual CCG incidence rates. Rates have been calculated using mid-2012 population estimates for CCGs produced by the ONS.

*Ovarian Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 281 patients diagnosed with ovarian cancer in 2013, slightly more than the 274 diagnosed in 2012, and more than the 277 diagnosed in 2009.

Figure 15 shows the incidence of ovarian cancer each year for each CCG as a crude rate per 100,000 of the female population.

**Figure 15: Incidence of ovarian cancer per 100,000 female population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

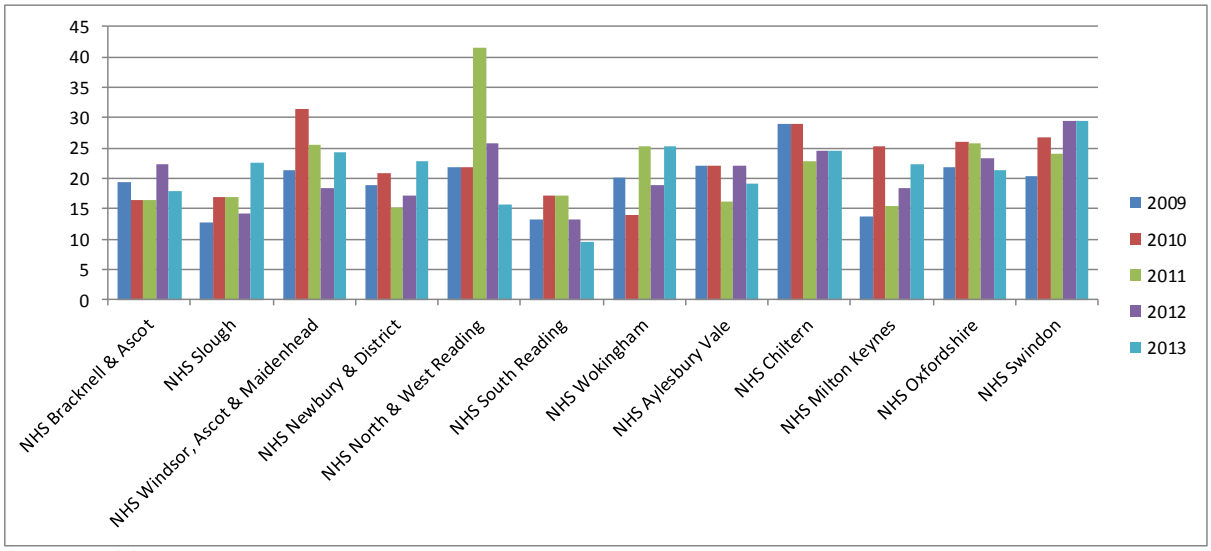
Figure 15 shows that NHS Newbury and District CCG had the highest incidence rate per 100,000 female population for ovarian cancer in 2013 and NHS Milton Keynes CCG the lowest. Compared to some of the other cancer sites there was less variation between the different CCG incidence rates.

*Endometrial Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 280 patients diagnosed with endometrial cancer in 2013, a similar number to the 276 diagnosed in 2012, and more than the 261 diagnosed in 2009.

Figure 16 shows the incidence of endometrial cancer each year for each CCG as a crude rate per 100,000 of the female population.

**Figure 16: Incidence of endometrial cancer per 100,000 female population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

Figure 16 shows that NHS Swindon CCG had the highest incidence rates for endometrial cancers in 2013 and NHS South Reading CCG the lowest.

*Vulval Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were only 53 patients diagnosed with vulval cancer in 2013 across the Thames Valley, slightly fewer than the 60 diagnosed in 2012, but more than the 45 diagnosed in 2009.

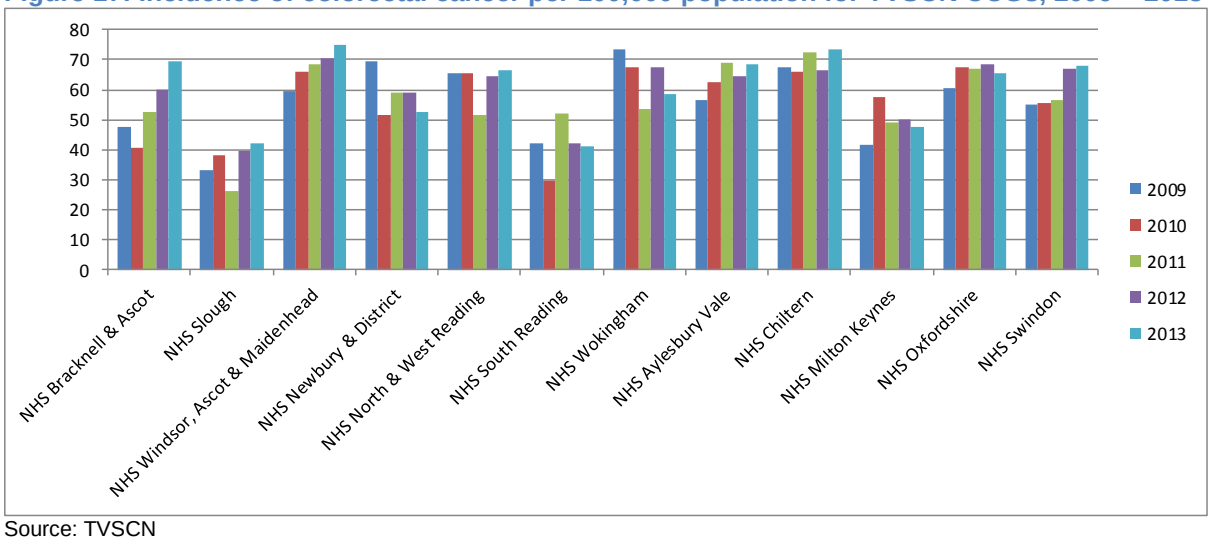
As the number of cases per CCG varied from 0 to 16 in 2013, we have not calculated individual CCG annual incidence rates.

### *2.5.3 Incidence of colorectal cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 1,575 patients diagnosed with colorectal cancer in 2013, a similar number to the 1,567 diagnosed in 2012, but more than the 1,433 diagnosed in 2009.

Figure 17 shows the incidence of colorectal cancer each year for each CCG as a crude rate per 100,000 population.

**Figure 17: Incidence of colorectal cancer per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

Figure 17 shows that NHS Windsor, Ascot and Maidenhead had the highest incidence of colorectal cancer in 2013 and NHS South Reading the lowest. Incidence rates in NHS Windsor, Ascot and Maidenhead CCG have risen each year since 2009. Colorectal cancer incidence rates have generally been lower in NHS Slough and NHS South Reading CCGs than in the other Thames Valley CCGs.

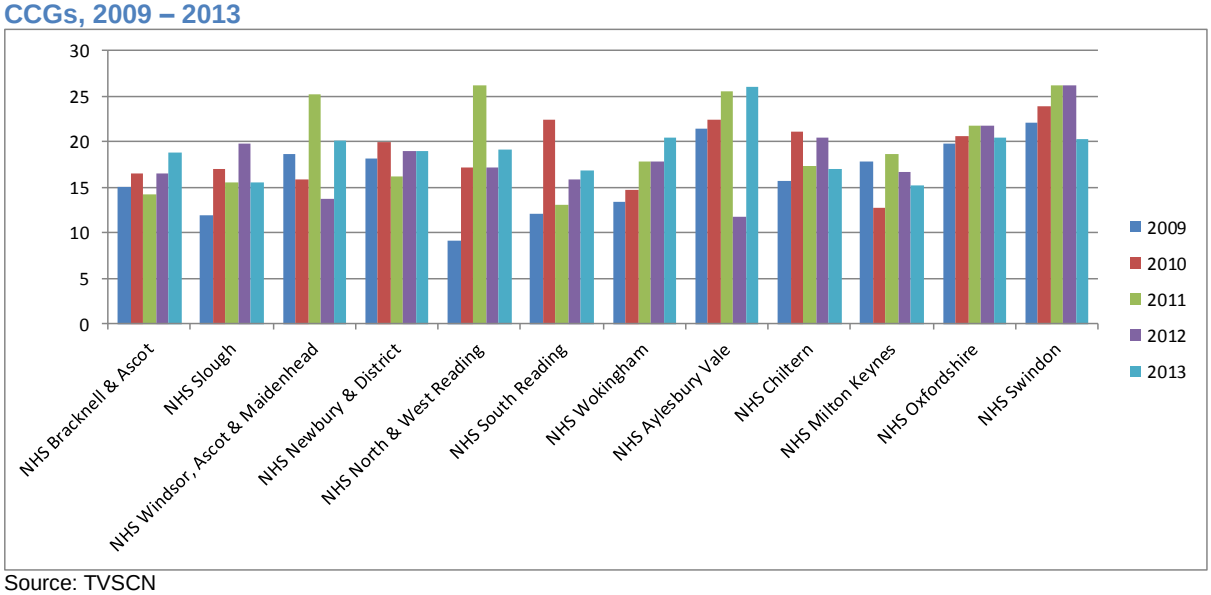
### *2.5.4 Incidence of upper GI cancers*

*Oesophageal and Stomach Cancers*

The incidence data show that across the 12 CCGs in TVSCN there were 484 patients diagnosed with oesophageal and stomach cancers in 2013, a very similar number to the 480 diagnosed in 2012, but more than the 439 diagnosed in 2009. This means that the incidence rate for oesophageal and stomach cancers has increased by 10% since 2009.

Figure 18 shows the incidence of oesophageal and stomach cancers each year for each CCG as a crude rate per 100,000 population.

**Figure 18: Incidence of oesophageal and stomach cancers per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

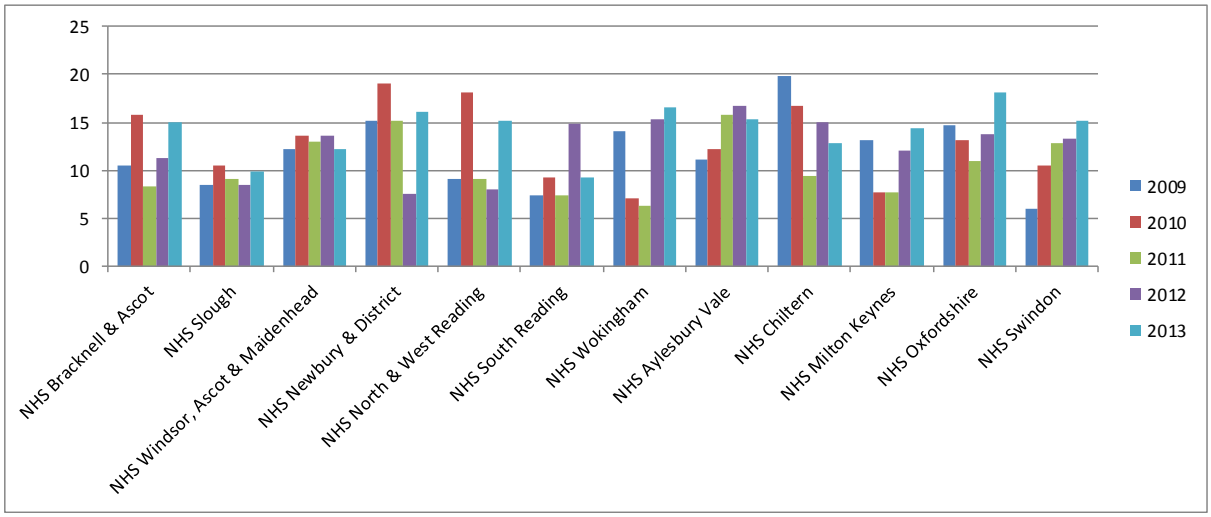
Figure 18 shows that NHS Aylesbury Vale had the highest incidence rate of oesophageal and stomach cancers in 2013 and NHS Milton Keynes CCG had the lowest incidence rate. NHS Wokingham has had a steady increase in the incidence rates for these cancers since 2009.

*Pancreatic Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 377 patients diagnosed with pancreatic cancer in 2013, more than the 332 diagnosed in 2012, and more than the 325 diagnosed in 2009. This means that the incidence rate for pancreatic cancer has increased by 16% since 2009.

Figure 19 shows the incidence of pancreatic cancer each year for each CCG as a crude rate per 100,000 population.

**Figure 19: Incidence of pancreatic cancer per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

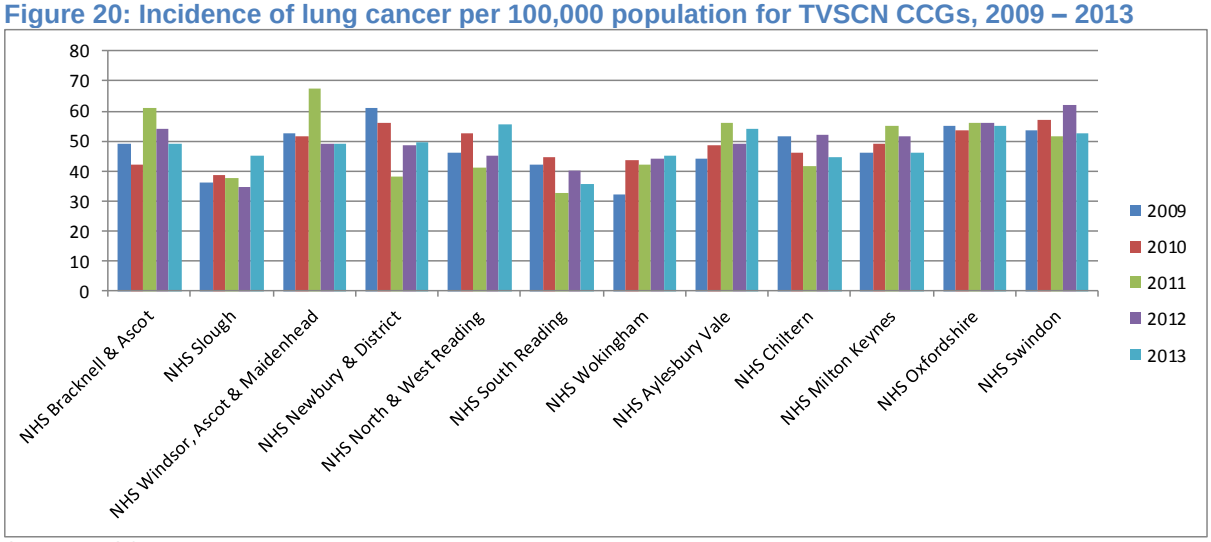
Figure 19 shows that NHS Oxfordshire CCG had the highest incidence rates of pancreatic cancer in 2013 and NHS South Reading CCG the lowest. The incidence rates in NHS Swindon have increased year on year since 2009.

### *2.5.5 Incidence of lung cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 1,250 patients diagnosed with lung cancer in 2013, slightly fewer than the 1,290 diagnosed in 2012, but slightly more than the 1,235 diagnosed in 2009.

Figure 20 shows the incidence of lung cancer each year for each CCG as a crude rate per 100,000 population.

**Figure 20: Incidence of lung cancer per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

Figure 20 shows that NHS Oxfordshire and NHS North and West Reading had the highest incidence rate for lung cancer in 2013 and NHS South Reading had the lowest. Oxfordshire's incidence rates have remained stable during the period 2009 to 2013 and have been consistently amongst the highest recorded by any of the Thames Valley CCGs.

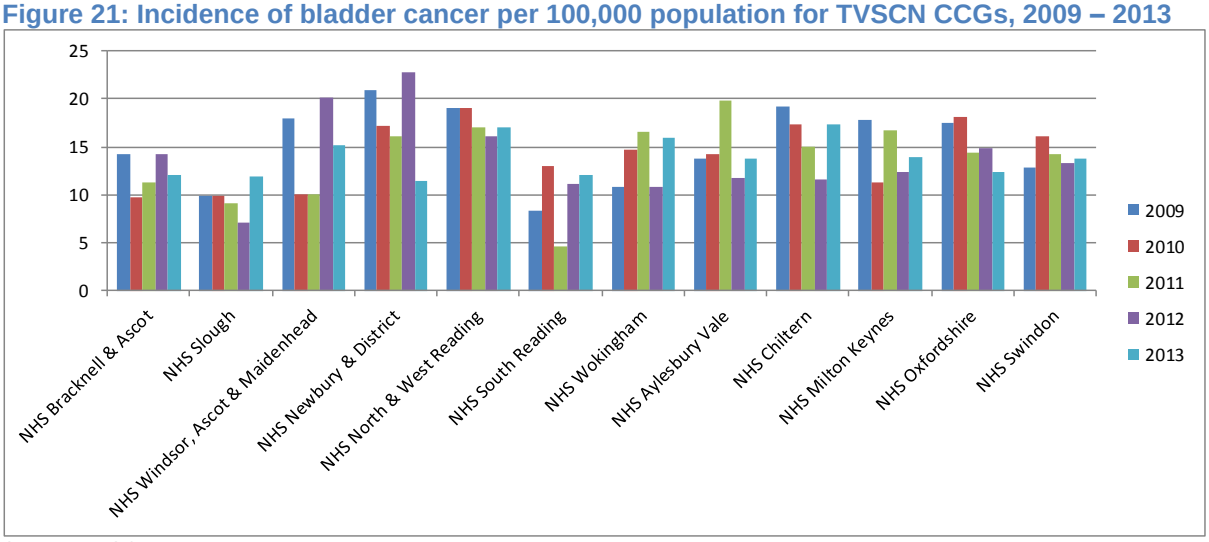
### 2.5.6 *Incidence of urological cancers (bladder, kidney and prostate)*

*Bladder Cancer*

The incidence data shows that across the 12 CCGs in TVSCN there were 349 patients diagnosed with bladder cancer in 2013, a similar number to the 343 diagnosed in 2012, but fewer than the 400 diagnosed in 2009.

Figure 21 shows the incidence of bladder cancer each year for each CCG as a crude rate per 100,000 population.

**Figure 21: Incidence of bladder cancer per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

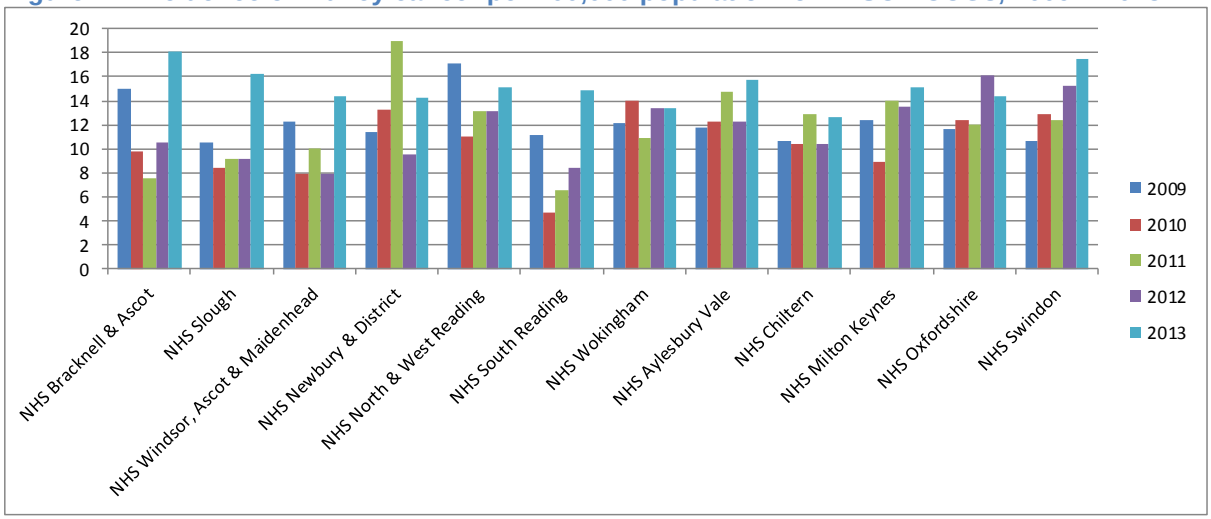
Figure 21 shows that at CCG level rates have fluctuated from year to year and between CCGs. NHS Slough and NHS South Reading CCGs often had lower incidence rates of bladder cancer than the other CCGs, with an average of less than 10 cases per 100,000 population per year. NHS Newbury & District CCG had the highest rate in both 2009 and 2012, but in 2013 NHS Chiltern CCG had the highest rate (17.3 per 100,000).

*Kidney Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 375 patients diagnosed with kidney cancer in 2013, an increase on the 320 diagnosed in 2012, and more than the 299 diagnosed in 2009. Therefore, since 2009 the number of kidney cancer incident cases has increased by 25%.

Figure 22 shows the incidence of kidney cancer each year for each CCG as a crude rate per 100,000 population.

**Figure 22: Incidence of kidney cancer per 100,000 population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

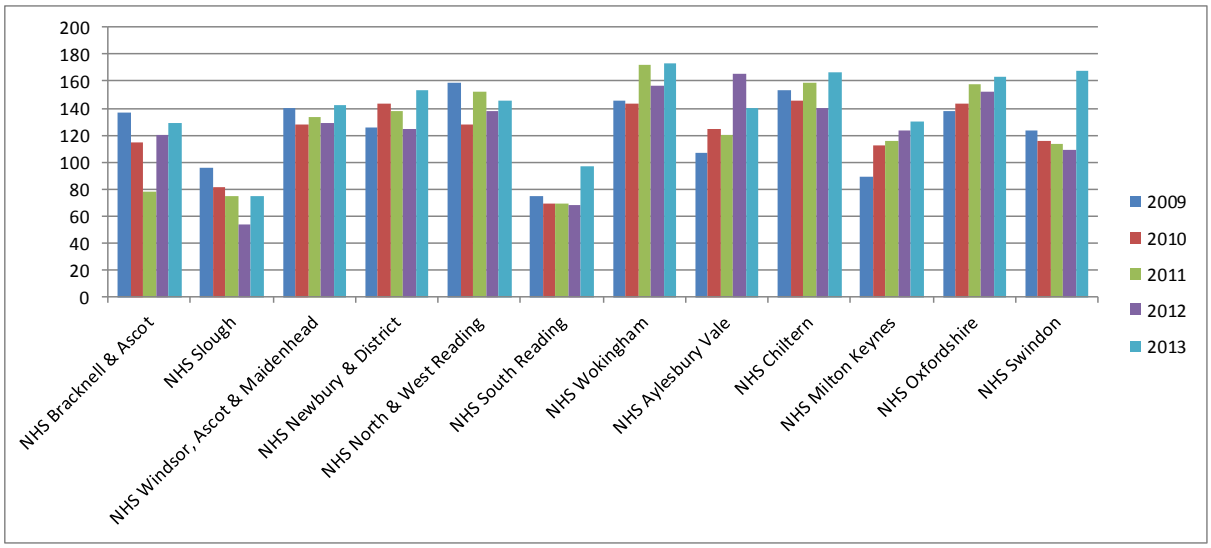
Figure 22 shows that NHS Bracknell and Ascot CCG had the highest incidence of kidney cancer in 2013 and NHS Chiltern the lowest. Incidence rates in NHS Swindon CCG have increased almost year on year since 2009 and incidence rates in NHS South Reading have increased sharply since 2010.

*Prostate Cancer*

The incidence data show that across the 12 CCGs in TVSCN there were 1,843 patients diagnosed with prostate cancer in 2013, an increase on the 1,638 diagnosed in 2012, and more than the 1,585 diagnosed in 2009. Therefore, since 2009 the number of prostate cancer incident cases has increased by 16%.

Figure 23 shows the incidence of prostate cancer each year for each CCG as a crude rate per 100,000 of the male population.

**Figure 23: Incidence of prostate cancer per 100,000 male population for TVSCN CCGs, 2009 – 2013**




Source: TVSCN

Figure 23 shows that NHS Wokingham had the highest incidence rate for prostate cancer in 2013 and NHS Slough the lowest. With the exception of 2013, incidence rates had declined year on year in NHS Slough. The rate has increased year on year in NHS Milton Keynes.

# 3 Routes to Diagnosis

The NCIN established the Routes to Diagnosis study to define a methodology by which the route the patient follows to the point of diagnosis can be categorised, in order to examine demographic, organisational, service and personal reasons for delayed diagnosis. Initial Routes to Diagnosis results for patients diagnosed in 2007 were presented in a data briefing published by the NCIN in November 2010. Since then the methodology has been reviewed and the results have been updated to include patients diagnosed from 2006 to 2013. Only the four most common cancer sites (breast, lung, prostate and colorectal) have routes to diagnosis data available at CCG level. Because of the smaller number of cases by route at CCG level, the following routes have been combined into a "Managed Presentation Route" namely, two week wait, GP referral, elective inpatient and other outpatient routes. The figures below feature graded shading depending upon how great the proportion of cancers diagnosed by each route is out of the total.

## 3.1 Thames Valley SCN compared to England

The figure below shows the percentage of selected cancers that were diagnosed by different routes for residents of the Thames Valley SCN for cancers diagnosed between 2006 and 2013.

**Figure 24: Proportion of selected cancers diagnosed by different routes for cancers diagnosed for residents of the Thames Valley SCN, 2006 to 2013**

| | Thames Valley SCN | Screen detected | Two Week Wait | GP referral | Other Outpatient | Inpatient Elective | Emergency presentation | Death Certificate Only | Unknown | Number of cases |
|---|---|---|---|---|---|---|---|---|---|---|
| 2006-2013 | All Malignant Neoplasms (excl. NMSC) | 6% | 29% | 24% | 12% | 4% | 19% | 0% | 6% | 75,753 |
| | *Confidence interval* | 6% 6% | 28% 29% | 24% 25% | 11% 12% | 4% 4% | 19% 19% | 0% 1% | 6% 6% | |
| | Bladder | | 40% | 19% | 14% | 7% | 15% | 0% | 5% | 2,348 |
| | *Confidence interval* | | 38% 42% | 18% 21% | 13% 15% | 6% 9% | 13% 16% | 0% 1% | 4% 6% | |
| | Bladder (in-situ) | | 32% | 29% | 18% | 9% | 4% | | 8% | 640 |
| | *Confidence interval* | | 29% 36% | 26% 33% | 15% 21% | 7% 12% | 2% 5% | | 6% 10% | |
| | Cervix | 28% | 10% | 34% | 10% | 3% | 9% | 0% | 6% | 639 |
| | *Confidence interval* | 25% 32% | 8% 13% | 30% 38% | 8% 12% | 2% 5% | 7% 11% | 0% 1% | 4% 8% | |
| | Cervix (in-situ) | 1% | 0% | 64% | 21% | 6% | 1% | | 7% | 7,639 |
| | *Confidence interval* | 1% 1% | 0% 0% | 63% 65% | 21% 22% | 5% 7% | 1% 1% | | 6% 7% | |
| | Colorectal | 6% | 24% | 22% | 11% | 8% | 22% | 1% | 6% | 9,379 |
| | *Confidence interval* | 5% 6% | 23% 25% | 22% 23% | 10% 11% | 8% 9% | 22% 23% | 0% 1% | 6% 6% | |
| | Kidney | | 22% | 26% | 20% | 4% | 22% | 0% | 6% | 1,853 |
| | *Confidence interval* | | 20% 24% | 24% 28% | 18% 22% | 3% 5% | 20% 24% | 0% 1% | 5% 7% | |
| | Other and unspecified urinary | | 20% | 30% | 25% | 7% | 12% | | 5% | 328 |
| | *Confidence interval* | | 16% 25% | 25% 35% | 21% 30% | 5% 11% | 9% 16% | | 4% 9% | |
| | Lung | | 24% | 21% | 14% | 3% | 34% | 0% | 3% | 7,671 |
| | *Confidence interval* | | 23% 25% | 20% 22% | 13% 15% | 2% 3% | 33% 35% | 0% 1% | 3% 4% | |
| | Oesophagus | | 34% | 17% | 9% | 14% | 20% | 0% | 5% | 1,741 |
| | *Confidence interval* | | 32% 36% | 15% 19% | 8% 11% | 13% 16% | 18% 22% | 0% 1% | 4% 6% | |
| | Ovary | | 26% | 23% | 14% | 3% | 27% | 1% | 7% | 1,751 |
| | *Confidence interval* | | 24% 28% | 21% 25% | 12% 16% | 2% 4% | 25% 29% | 0% 1% | 5% 8% | |
| | Pancreas | | 13% | 18% | 15% | 5% | 44% | 1% | 5% | 2,074 |
| | *Confidence interval* | | 12% 15% | 16% 19% | 13% 16% | 4% 6% | 42% 46% | 1% 2% | 4% 6% | |
| | Prostate | | 37% | 34% | 12% | 3% | 7% | 0% | 7% | 10,512 |
| | *Confidence interval* | | 36% 38% | 33% 35% | 11% 12% | 3% 3% | 7% 8% | 0% 0% | 7% 8% | |
| | Stomach | | 22% | 20% | 10% | 12% | 31% | 1% | 4% | 1,312 |
| | *Confidence interval* | | 20% 25% | 18% 22% | 8% 11% | 11% 14% | 28% 33% | 0% 1% | 4% 6% | |
| | Uterus | | 40% | 33% | 11% | 2% | 8% | 0% | 5% | 1,786 |
| | *Confidence interval* | | 38% 43% | 31% 35% | 10% 13% | 1% 3% | 7% 9% | 0% 1% | 4% 7% | |
| | Vulva | | 33% | 37% | 15% | 2% | 6% | | 7% | 245 |
| | *Confidence interval* | | 28% 39% | 31% 43% | 11% 20% | 1% 4% | 4% 10% | | 4% 11% | |

Source: NCIN Routes to Diagnosis

Figure 24 shows that for all malignant neoplasms (exc non-melanoma skin cancer) diagnosed in the Thames Valley, although the two week wait accounted for the highest percentage, this route only accounted for 29% of all cancers diagnosed. This was similar to the England average of 30%. Other GP referrals and emergency presentations accounted

for 24% and 19% of diagnoses respectively. The equivalent percentages for other GP referrals and emergency presentations for England as a whole were 26% and 22% respectively. Bladder and Uterine cancers had the highest proportion of diagnoses via the two week wait (both 40%). Cancer diagnosis via emergency presentation was noticeably more common for some cancers than others, with 44% of pancreas and 34% of lung cancers being diagnosed by this route.

Figure 25 below shows the proportions of cancers diagnosed by different routes between 2006 and 2013 for England as a comparison with the Thames Valley.

**Figure 25: Proportion of selected cancers diagnosed by different routes for cancers diagnosed for residents of England, 2006 to 2013**

| England | | Screen detected | Two Week Wait | GP referral | Other Outpatient | Inpatient Elective | Emergency presentation | Death Certificate Only | Unknown | Number of cases |
|---|---|---|---|---|---|---|---|---|---|---|
| 2006-2013 | All Malignant Neoplasms (excl. NMSC) | 5% | 30% | 26% | 10% | 2% | 22% | 0% | 4% | 2,152,704 |
| | *Confidence interval* | 5% 6% | 30% 30% | 26% 26% | 10% 10% | 2% 3% | 22% 22% | 0% 0% | 4% 4% | |
| | Bladder | | 34% | 28% | 13% | 3% | 18% | 0% | 3% | 70,043 |
| | *Confidence interval* | | 34% 35% | 28% 28% | 13% 13% | 3% 4% | 18% 19% | 0% 0% | 3% 3% | |
| | Bladder (in-situ) | | 23% | 47% | 16% | 4% | 7% | 0% | 3% | 25,570 |
| | *Confidence interval* | | 22% 23% | 46% 47% | 16% 17% | 4% 5% | 6% 7% | 0% 0% | 3% 3% | |
| | Cervix | 23% | 18% | 32% | 10% | 2% | 11% | 0% | 4% | 19,897 |
| | *Confidence interval* | 23% 24% | 18% 19% | 31% 32% | 10% 10% | 2% 2% | 10% 11% | 0% 0% | 4% 4% | |
| | Cervix (in-situ) | 16% | 0% | 56% | 19% | 4% | 1% | 0% | 4% | 190,962 |
| | *Confidence interval* | 16% 16% | 0% 0% | 56% 57% | 19% 19% | 4% 4% | 1% 1% | 0% 0% | 4% 4% | |
| | Colorectal | 7% | 28% | 25% | 8% | 4% | 25% | 0% | 3% | 263,880 |
| | *Confidence interval* | 7% 7% | 28% 28% | 25% 25% | 8% 8% | 4% 4% | 24% 25% | 0% 0% | 3% 3% | |
| | Kidney | | 22% | 30% | 18% | 2% | 25% | 0% | 3% | 55,272 |
| | *Confidence interval* | | 22% 23% | 30% 30% | 17% 18% | 2% 2% | 24% 25% | 0% 1% | 3% 3% | |
| | Other and unspecified urinary | | 17% | 37% | 22% | 3% | 18% | 0% | 3% | 9,364 |
| | *Confidence interval* | | 16% 18% | 36% 38% | 21% 23% | 3% 4% | 17% 19% | 0% 0% | 2% 3% | |
| | Lung | | 26% | 21% | 11% | 2% | 37% | 1% | 3% | 275,307 |
| | *Confidence interval* | | 26% 26% | 21% 22% | 11% 11% | 2% 2% | 37% 37% | 1% 1% | 3% 3% | |
| | Oesophagus | | 38% | 20% | 8% | 10% | 21% | 0% | 3% | 54,934 |
| | *Confidence interval* | | 38% 39% | 19% 20% | 7% 8% | 10% 11% | 21% 21% | 0% 0% | 3% 3% | |
| | Ovary | | 27% | 26% | 12% | 2% | 29% | 1% | 4% | 47,970 |
| | *Confidence interval* | | 26% 27% | 25% 26% | 12% 13% | 2% 2% | 29% 30% | 1% 1% | 4% 4% | |
| | Pancreas | | 14% | 21% | 11% | 3% | 47% | 1% | 4% | 57,566 |
| | *Confidence interval* | | 14% 14% | 20% 21% | 10% 11% | 3% 3% | 47% 48% | 1% 1% | 4% 4% | |
| | Prostate | | 33% | 41% | 11% | 2% | 9% | 0% | 4% | 280,346 |
| | *Confidence interval* | | 33% 33% | 41% 41% | 11% 11% | 2% 2% | 9% 9% | 0% 0% | 4% 4% | |
| | Stomach | | 25% | 22% | 8% | 9% | 32% | 0% | 3% | 48,227 |
| | *Confidence interval* | | 25% 26% | 22% 22% | 8% 9% | 9% 9% | 32% 33% | 0% 1% | 3% 3% | |
| | Uterus | | 45% | 34% | 8% | 1% | 8% | 0% | 4% | 53,941 |
| | *Confidence interval* | | 44% 45% | 34% 34% | 8% 8% | 1% 1% | 8% 8% | 0% 0% | 4% 4% | |
| | Vulva | | 36% | 40% | 12% | 1% | 7% | 0% | 3% | 7,885 |
| | *Confidence interval* | | 35% 37% | 39% 41% | 11% 13% | 1% 1% | 7% 8% | 0% 1% | 3% 4% | |

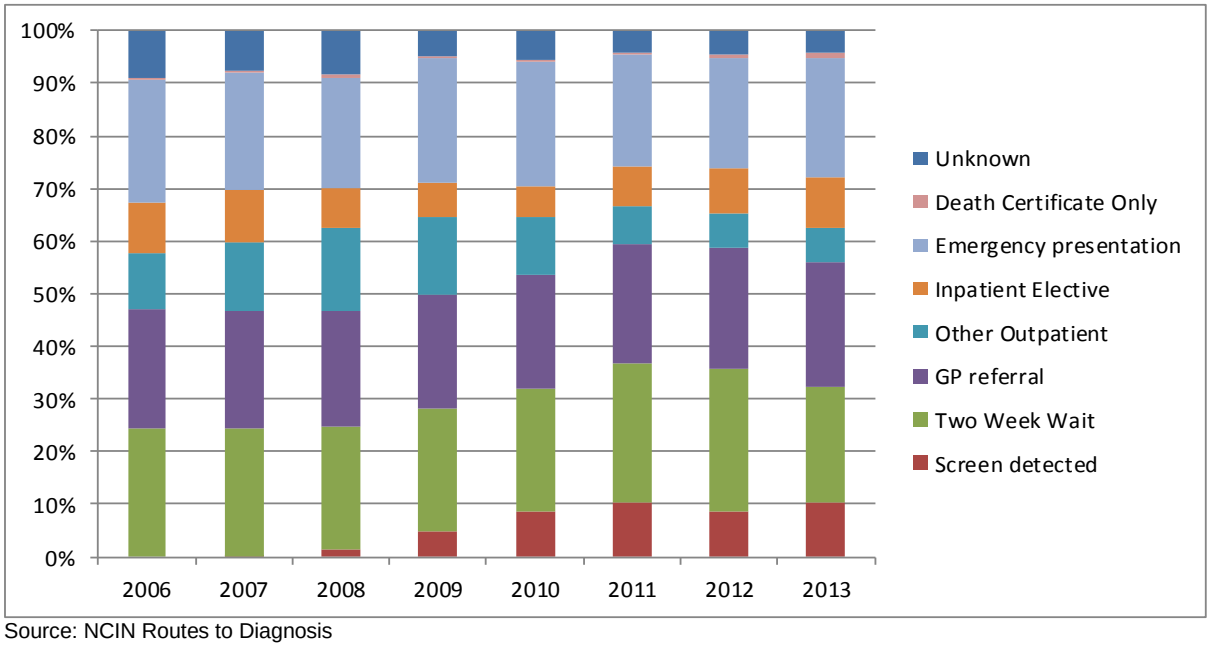
Source: NCIN Routes to Diagnosis

Figure 25 suggests that the proportions of cancers diagnosed by the different routes were similar for England and for the Thames Valley. In general, most cancer sites in England had between 20% and 40% of cancers diagnosed via the two week wait, similar proportions as for England. England had a slightly lower proportion of Cervix cancers diagnosed by screening (23%) between 2006 and 2013 than was the case in the Thames Valley (28%). Compared with the Thames Valley, England had a slightly higher proportion of emergency presentations for some cancer sites for example, pancreas (47% for England, 44% for Thames Valley), lung (37% for England and 34% for Thames Valley) and bladder (22% for England and 19% for Thames Valley).

## 3.2 Trend in routes to diagnosis for specific cancers in the Thames Valley

The graphs below illustrate whether and how the proportions of cancers diagnosed by the different routes in the Thames Valley have changed from year to year between 2006 and 2013.

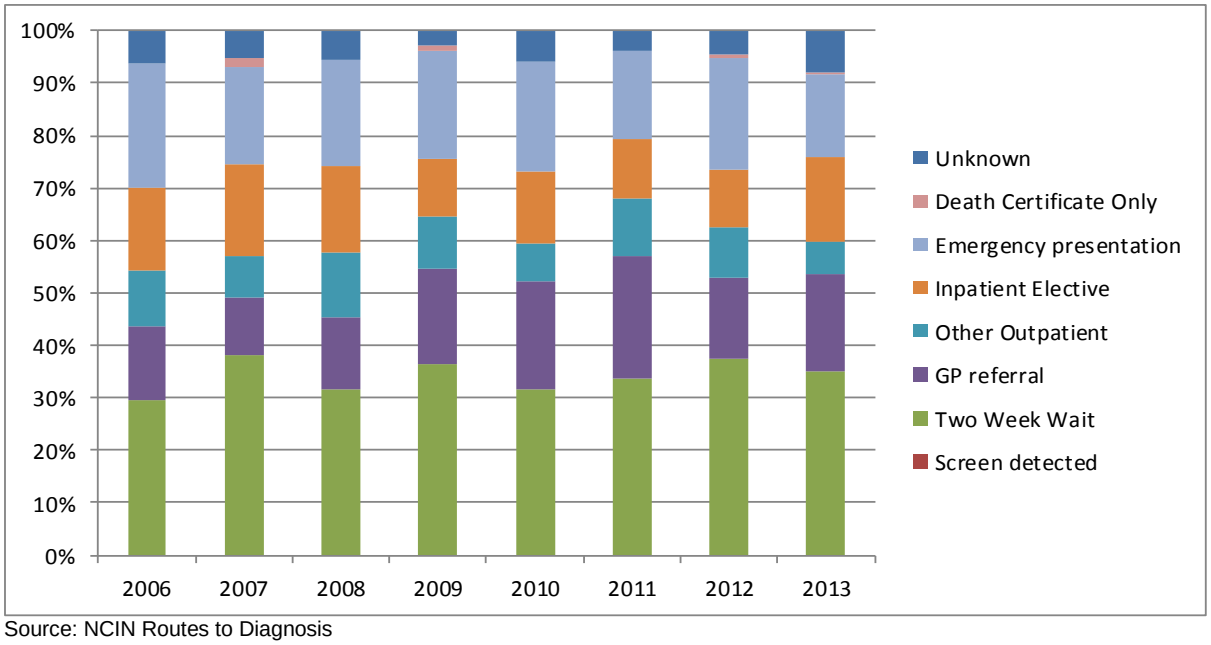
**Figure 26: Proportions of colorectal cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 26 shows the proportion of colorectal cancers in the Thames Valley diagnosed by different routes between 2006 and 2013. It shows impact of the introduction of bowel cancer screening from 2008, which seems to have mostly reduced the proportions of diagnoses from 'Other Outpatient' routes, as these have declined from 16% of colorectal cancers diagnosed in 2008 to 7% in 2013.

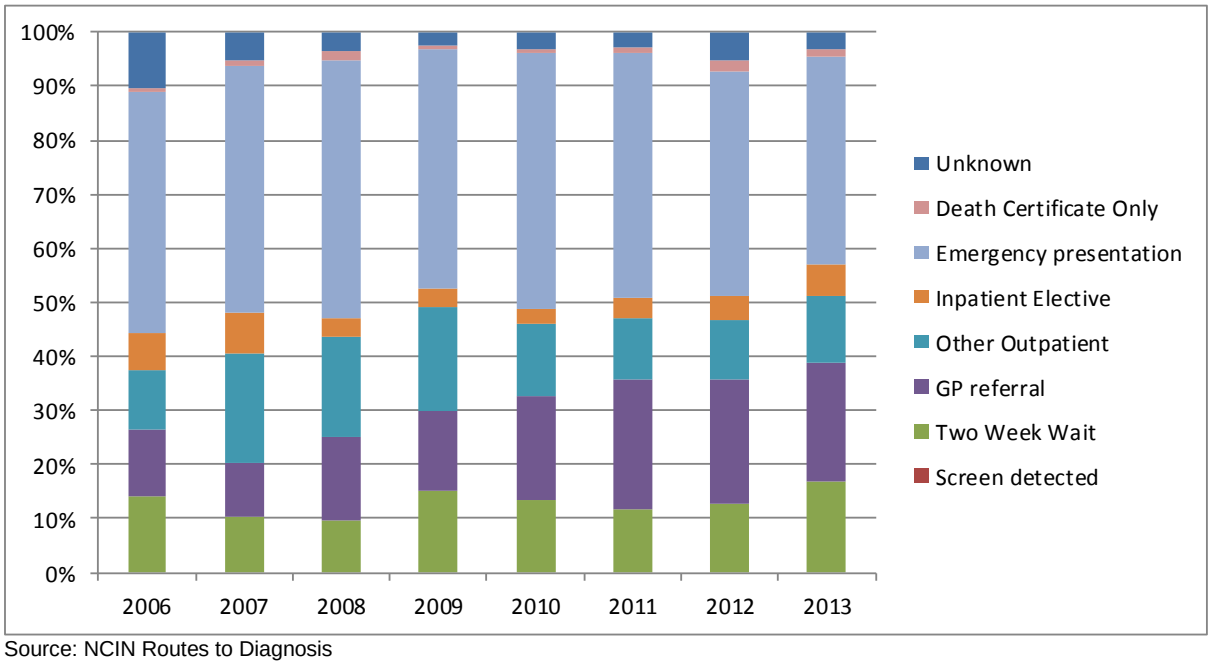
**Figure 27: Proportions of oesophageal cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 27 shows that the proportion of oesophageal cancers diagnosed via the two week wait has fluctuated from year to year, from 29% in 2006 to 28% in 2012. The proportion of other GP referral diagnoses has increased from 14% in 2006 to 19% in 2013, but reached 24% in 2011. In 2013, emergency presentations accounted for 16% of oesophageal cancer diagnoses the lowest proportion since 2006.

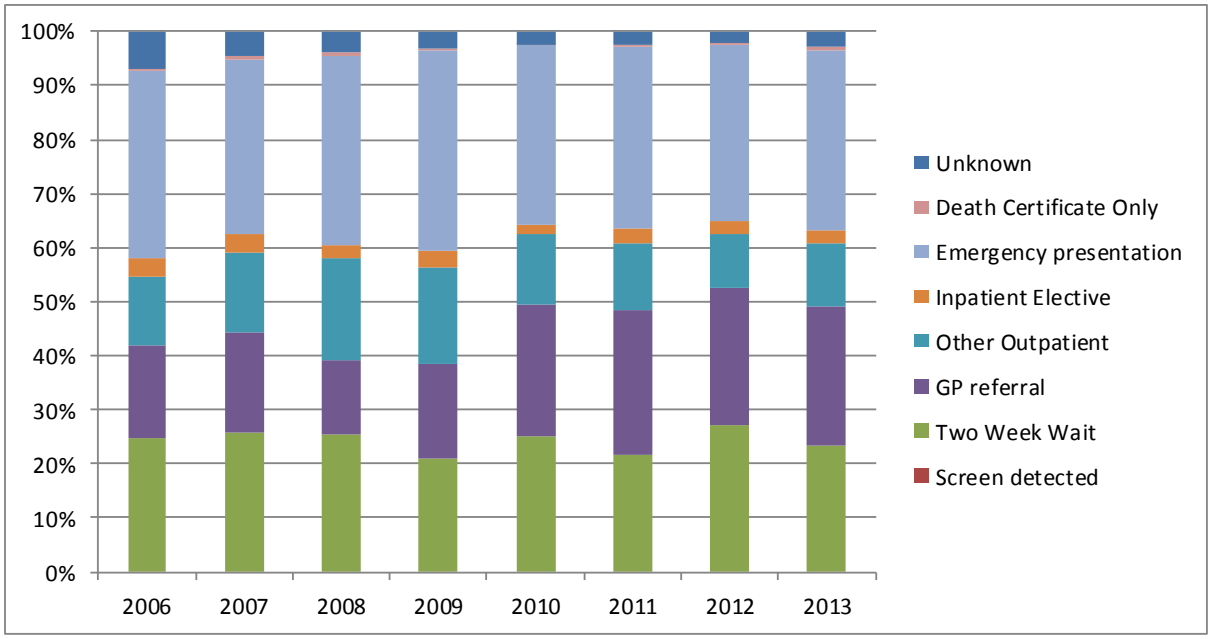
**Figure 28: Proportions of pancreatic cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 28 shows that the proportion of pancreatic cancers diagnosed via the two week wait increased in 2013 compared to the previous 3 years. The proportion of pancreatic cancers diagnosed via GP referrals has also increased from 10% in 2007 to 22% in 2013. The proportion of pancreatic cancers diagnosed via emergency presentations decreased in 2012 and 2013 from 45% in 2011 to 41% in 2012 and 38% in 2013.

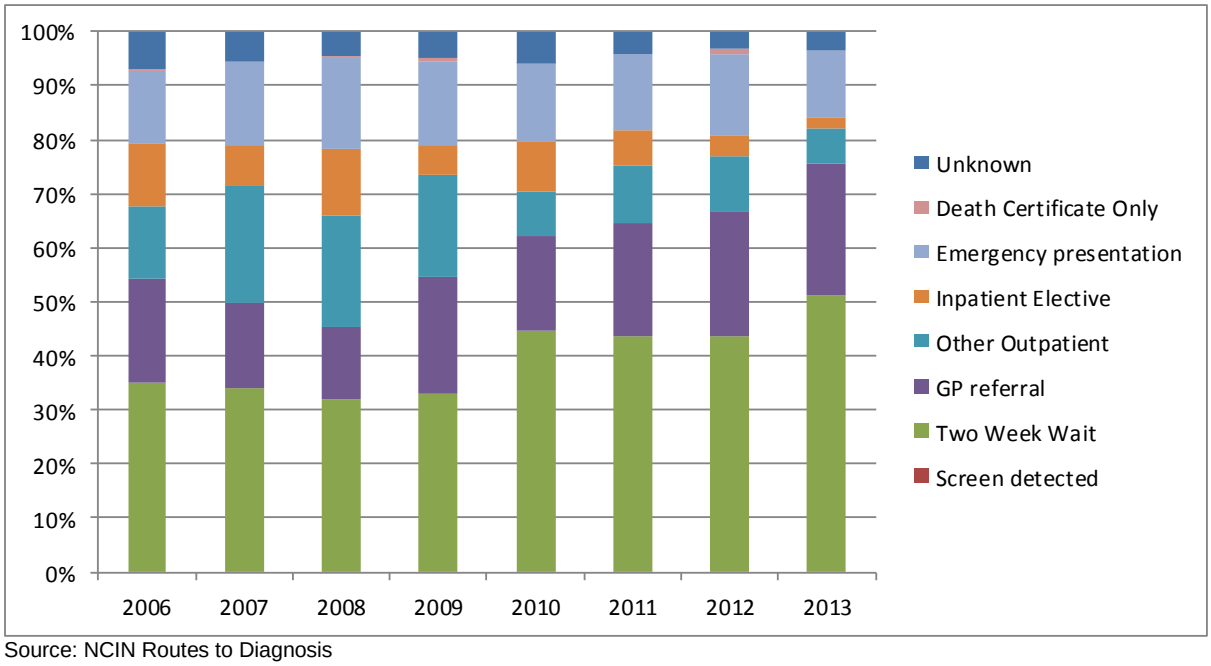
**Figure 29: Proportions of lung cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 29 shows that the proportion of lung cancer diagnosed from GP referral routes has increased from 17% in 2006 to 26% in 2013. The proportions of lung cancers diagnosed by other routes has fluctuated slightly from year to year, but there has been no discernible increase in cancers diagnosed two week wait referrals since 2006 and similarly no decrease in the proportion of cancers diagnosed via emergency presentations.

**Figure 30: Proportions of bladder cancers diagnosed by different routes for TVSCN between 2006 and 2013**

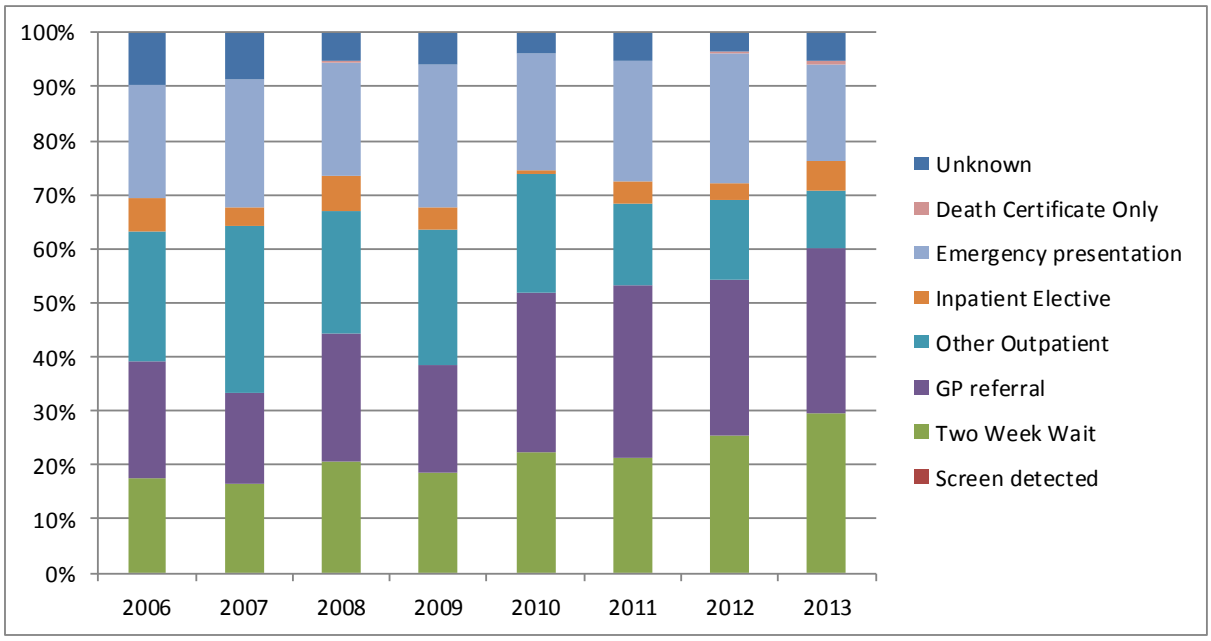



Source: NCIN Routes to Diagnosis

Figure 30 shows that the proportion of bladder cancer diagnosed via the two week wait has been higher since 2010 than in earlier years, reaching a high of 51% in 2013. The proportion of bladder cancers diagnosed via other GP referral routes has also increased

over the same period from 18% in 2010 to 24% in 2013. To balance these increases the proportion of bladder cancers diagnosed via Other Outpatient and Inpatient Elective routes has declined. However, there has been little reduction in the proportion of bladder cancers diagnosed by emergency presentation (13% in 2006 and 12% in 2013).

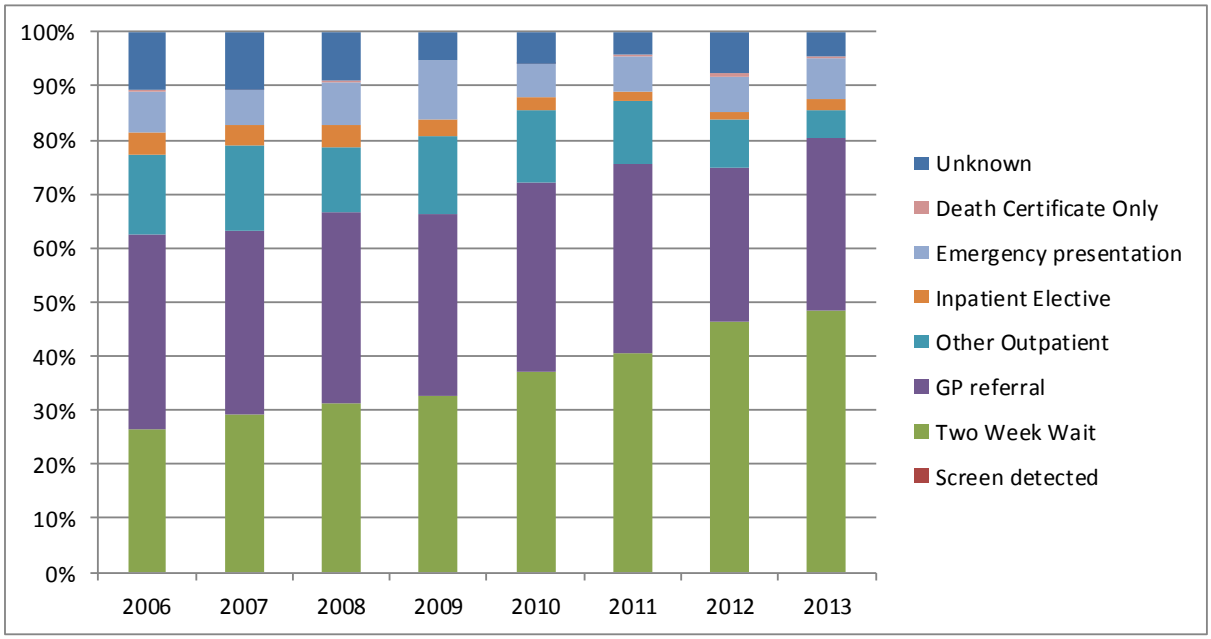
**Figure 31: Proportions of kidney cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 31 shows that the proportion of kidney cancer diagnosed via the two week wait increased in 2012 and 2013 compared to earlier years. In 2013, 30% of kidney cancers were diagnosed via the two week wait, whereas between 2006 and 2011 the highest proportion of kidney cancers diagnosed in any year via the two week wait was 22% (in 2010). The proportion of lung cancers diagnosed via other GP referral routes has also increased from 20% in 2009 to 31% in 2013. Whereas the proportion of kidney cancers diagnosed by Other Outpatient routes has declined from a peak of 31% in 2007 to 11% in 2013.

**Figure 32: Proportions of prostate cancers diagnosed by different routes for TVSCN between 2006 and 2013**




Source: NCIN Routes to Diagnosis

Figure 32 shows the proportion of prostate cancers diagnosed by different routes in the Thames Valley between 2006 and 2013. It shows that the proportion of prostate cancers diagnosed via the two week wait referral has increased from 26% in 2006 to 48% in 2013. The proportion of prostate cancers diagnosed by the 'Other Outpatient' route has declined from 15% in 2006 to 5% in 2013 and the proportion diagnoses from unknown routes has also declined from 11% to 4% over the same period.

## 3.3 Routes to diagnosis for selected cancers in the Thames Valley by CCG

The figures below show the NCIN Routes to Diagnosis data for the CCGs in the TVSCN area for the years 2006-2013 for colorectal, lung and prostate cancers.

**Figure 33: Proportion of colorectal cancers diagnosed by different routes for Thames Valley SCN CCGs compared with England, cancers diagnosed in 2006 to 2013**

| | Colorectal | Percentage by Route | | | | | | | | Number of cases |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Screen detected | | Managed | | Emergency presentation | | Other | | |
| 2006-2013 | England | 7% | | 53% | | 25% | | 16% | | 263,880 |
| | *Confidence interval* | *7%* | *7%* | *52%* | *53%* | *24%* | *25%* | *16%* | *16%* | |
| | NHS Bracknell and Ascot CCG | 9% | | 43% | | 23% | | 25% | | 538 |
| | *Confidence interval* | *7%* | *12%* | *39%* | *47%* | *20%* | *27%* | *22%* | *29%* | |
| | NHS Slough CCG | 4% | | 48% | | 27% | | 21% | | 406 |
| | *Confidence interval* | *2%* | *6%* | *43%* | *53%* | *23%* | *32%* | *17%* | *25%* | |
| | NHS Windsor, Ascot and Maidenhead CCG | 6% | | 45% | | 19% | | 30% | | 706 |
| | *Confidence interval* | *5%* | *8%* | *42%* | *49%* | *16%* | *22%* | *26%* | *33%* | |
| | NHS Newbury and District CCG | 10% | | 45% | | 22% | | 23% | | 485 |
| | *Confidence interval* | *7%* | *13%* | *41%* | *49%* | *19%* | *26%* | *20%* | *27%* | |
| | NHS North & West Reading CCG | 8% | | 41% | | 21% | | 30% | | 465 |
| | *Confidence interval* | *6%* | *11%* | *37%* | *46%* | *18%* | *25%* | *26%* | *34%* | |
| | NHS South Reading CCG | 5% | | 38% | | 30% | | 27% | | 333 |
| | *Confidence interval* | *3%* | *7%* | *33%* | *44%* | *25%* | *35%* | *23%* | *32%* | |
| | NHS Wokingham CCG | 8% | | 47% | | 19% | | 26% | | 720 |
| | *Confidence interval* | *6%* | *10%* | *44%* | *51%* | *16%* | *22%* | *23%* | *30%* | |
| | NHS Aylesbury Vale CCG | 4% | | 50% | | 22% | | 23% | | 902 |
| | *Confidence interval* | *3%* | *6%* | *47%* | *54%* | *20%* | *25%* | *20%* | *26%* | |
| | NHS Chiltern CCG | 5% | | 50% | | 21% | | 25% | | 1,643 |
| | *Confidence interval* | *4%* | *6%* | *47%* | *52%* | *19%* | *23%* | *23%* | *27%* | |
| | NHS Milton Keynes CCG | 5% | | 55% | | 24% | | 16% | | 947 |
| | *Confidence interval* | *4%* | *6%* | *52%* | *58%* | *21%* | *27%* | *14%* | *19%* | |
| | NHS Oxfordshire CCG | 5% | | 47% | | 24% | | 25% | | 3,181 |
| | *Confidence interval* | *4%* | *6%* | *45%* | *49%* | *22%* | *25%* | *23%* | *26%* | |
| | NHS Swindon CCG | 4% | | 55% | | 25% | | 16% | | 955 |
| | *Confidence interval* | *3%* | *6%* | *52%* | *58%* | *22%* | *28%* | *14%* | *18%* | |

Source: NCIN Routes to Diagnosis

Figure 33 shows the proportion of colorectal cancers that were screen detected, diagnosed via managed routes, diagnosed by emergency presentation or were diagnosed through other routes for each CCG and the England average. It shows that most of the TVSCN CCGs had a lower proportion of screen diagnosed cancers than England (often statistically significantly lower) and none were statistically significantly higher. A number of Thames Valley CCGs had lower proportions of cancers diagnosed via Managed Routes than the England average, notably NHS South Reading CCG, which had 38% of cancers diagnosed by Managed Routes compared to 53% for England as a whole. NHS South Reading CCG also had the highest proportion of cancers diagnosed via Emergency Presentation of the 12 TVSCN CCGs, but this difference is border line in terms of statistical significance compared to the England average. Diagnosis by other routes was statistically significantly more common in 10 of the 12 Thames Valley CCGs than for England as a whole.

**Figure 34: Proportion of lung cancers diagnosed by different routes for Thames Valley SCN CCGs compared with England, cancers diagnosed in 2006 to 2013**

| | Lung | Percentage by Route | | | | | | | | | | Number of cases |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Screen detected | | Managed | | Emergency presentation | | Other | | | | |
| 2006-2013 | England | | | 47% | | 37% | | 16% | | | | 275,307 |
| | *Confidence interval* | | | *47%* | *47%* | *37%* | *37%* | *16%* | *16%* | | | |
| | NHS Bracknell and Ascot CCG | | | 35% | | 38% | | 27% | | | | 509 |
| | *Confidence interval* | | | *31%* | *39%* | *34%* | *42%* | *24%* | *31%* | | | |
| | NHS Slough CCG | | | 30% | | 38% | | 32% | | | | 458 |
| | *Confidence interval* | | | *26%* | *35%* | *34%* | *42%* | *28%* | *36%* | | | |
| | NHS Windsor, Ascot and Maidenhead CCG | | | 36% | | 37% | | 27% | | | | 589 |
| | *Confidence interval* | | | *33%* | *40%* | *33%* | *41%* | *24%* | *31%* | | | |
| | NHS Newbury and District CCG | | | 53% | | 29% | | 18% | | | | 429 |
| | *Confidence interval* | | | *48%* | *58%* | *25%* | *33%* | *15%* | *22%* | | | |
| | NHS North & West Reading CCG | | | 51% | | 34% | | 15% | | | | 375 |
| | *Confidence interval* | | | *46%* | *57%* | *29%* | *39%* | *12%* | *19%* | | | |
| | NHS South Reading CCG | | | 44% | | 41% | | 15% | | | | 332 |
| | *Confidence interval* | | | *39%* | *50%* | *36%* | *46%* | *12%* | *19%* | | | |
| | NHS Wokingham CCG | | | 48% | | 32% | | 19% | | | | 485 |
| | *Confidence interval* | | | *44%* | *53%* | *28%* | *37%* | *16%* | *23%* | | | |
| | NHS Aylesbury Vale CCG | | | 53% | | 31% | | 16% | | | | 736 |
| | *Confidence interval* | | | *50%* | *57%* | *28%* | *35%* | *13%* | *19%* | | | |
| | NHS Chiltern CCG | | | 47% | | 33% | | 20% | | | | 1,133 |
| | *Confidence interval* | | | *44%* | *50%* | *30%* | *36%* | *18%* | *23%* | | | |
| | NHS Milton Keynes CCG | | | 49% | | 38% | | 13% | | | | 970 |
| | *Confidence interval* | | | *46%* | *52%* | *35%* | *41%* | *11%* | *16%* | | | |
| | NHS Oxfordshire CCG | | | 47% | | 34% | | 19% | | | | 2,625 |
| | *Confidence interval* | | | *45%* | *49%* | *32%* | *35%* | *18%* | *21%* | | | |
| | NHS Swindon CCG | | | 49% | | 37% | | 14% | | | | 942 |
| | *Confidence interval* | | | *46%* | *52%* | *34%* | *40%* | *12%* | *17%* | | | |

Source: NCIN Routes to Diagnosis

Figure 34 shows the proportion of lung cancer diagnoses between 2006 and 2013 that were diagnosed via emergency presentations, managed routes or other routes. Managed routes accounted for the highest proportion of lung cancer diagnosis in all the Thames Valley CCGs except NHS Slough CCG, NHS Bracknell and Ascot CCG and NHS Windsor, Ascot and Maidenhead CCG, where emergency presentations accounted for the highest proportion of lung cancer diagnoses. However, none of these CCGs had higher percentages of emergency presentations that were statistically significantly higher than the average for England.

**Figure 35: Proportion of prostate cancers diagnosed by different routes for Thames Valley SCN CCGs compared with England, cancers diagnosed in 2006 to 2013**

| | Prostate | Percentage by Route | | | | | | | | Number of cases |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Screen detected | | Managed | | Emergency presentation | | Other | | |
| 2006-2013 | England | | | 74% | | 9% | | 17% | | 280,346 |
| | *Confidence interval* | | | *74%* | *74%* | *9%* | *9%* | *17%* | *18%* | |
| | NHS Bracknell and Ascot CCG | | | 63% | | 10% | | 26% | | 589 |
| | *Confidence interval* | | | *59%* | *67%* | *8%* | *13%* | *23%* | *30%* | |
| | NHS Slough CCG | | | 72% | | 9% | | 19% | | 421 |
| | *Confidence interval* | | | *67%* | *76%* | *7%* | *12%* | *16%* | *23%* | |
| | NHS Windsor, Ascot and Maidenhead CCG | | | 67% | | 11% | | 23% | | 730 |
| | *Confidence interval* | | | *63%* | *70%* | *9%* | *13%* | *20%* | *26%* | |
| | NHS Newbury and District CCG | | | 64% | | 7% | | 28% | | 551 |
| | *Confidence interval* | | | *60%* | *68%* | *6%* | *10%* | *25%* | *32%* | |
| | NHS North & West Reading CCG | | | 68% | | 7% | | 26% | | 533 |
| | *Confidence interval* | | | *64%* | *71%* | *5%* | *9%* | *22%* | *30%* | |
| | NHS South Reading CCG | | | 66% | | 9% | | 25% | | 325 |
| | *Confidence interval* | | | *61%* | *71%* | *7%* | *13%* | *21%* | *30%* | |
| | NHS Wokingham CCG | | | 68% | | 6% | | 27% | | 878 |
| | *Confidence interval* | | | *64%* | *71%* | *4%* | *7%* | *24%* | *30%* | |
| | NHS Aylesbury Vale CCG | | | 75% | | 6% | | 18% | | 977 |
| | *Confidence interval* | | | *73%* | *78%* | *5%* | *8%* | *16%* | *21%* | |
| | NHS Chiltern CCG | | | 70% | | 7% | | 23% | | 1,895 |
| | *Confidence interval* | | | *68%* | *72%* | *6%* | *8%* | *22%* | *25%* | |
| | NHS Milton Keynes CCG | | | 77% | | 8% | | 15% | | 1,109 |
| | *Confidence interval* | | | *75%* | *80%* | *6%* | *10%* | *13%* | *17%* | |
| | NHS Oxfordshire CCG | | | 74% | | 7% | | 19% | | 3,613 |
| | *Confidence interval* | | | *73%* | *75%* | *7%* | *8%* | *17%* | *20%* | |
| | NHS Swindon CCG | | | 76% | | 10% | | 13% | | 1,024 |
| | *Confidence interval* | | | *74%* | *79%* | *9%* | *12%* | *12%* | *16%* | |

Source: NCIN Routes to Diagnosis

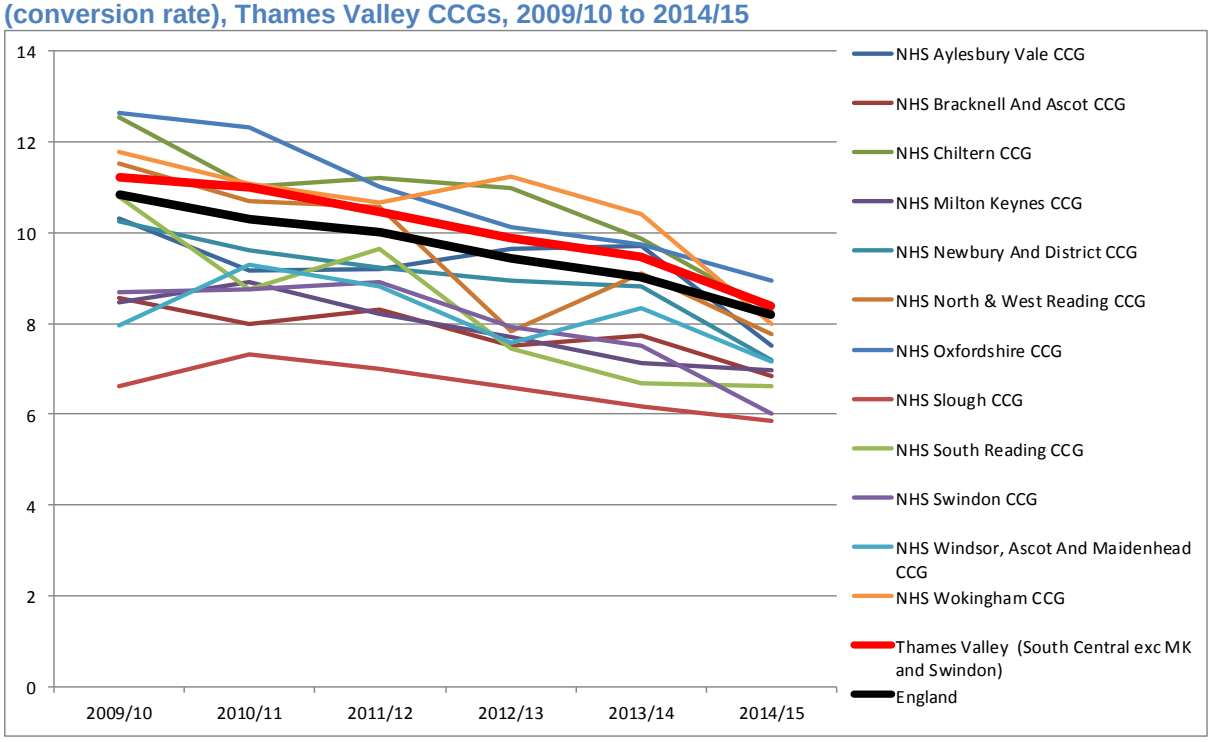
Figure 35 shows that the majority of prostate cancer diagnoses in the Thames Valley between 2006 and 2013 occurred via Managed Routes. The CCGs with the lowest proportion of prostate cancers diagnosed by managed routes were generally those in Berkshire, with NHS Bracknell and Ascot CCG having the lowest percentage of prostate cancers diagnosed by Managed Routes (63%). The proportion of prostate cancers diagnosed via emergency presentations ranged between 6% and 11% and was similar to England as a whole (9%). A number of Thames Valley CCGs had around a quarter of prostate cancers diagnosed via other routes, including NHS Newbury & District CCG and Wokingham CCG. Both had statistically significantly higher proportions of prostate cancers diagnosed by other routes than the England average (17%).

# 4 Proportions of Two Week Wait Referrals Diagnosed with Cancer

## 4.1 All Cancers

Figure 36 shows the proportions of two week wait referrals diagnosed with cancer for all cancers for each of the Thames Valley CCGs, for the Thames Valley as a whole and for England for the years 2009/10 to 2014/15.

**Figure 36: Percentage of all two week wait referrals resulting in a diagnosis of cancer (conversion rate), Thames Valley CCGs, 2009/10 to 2014/15**



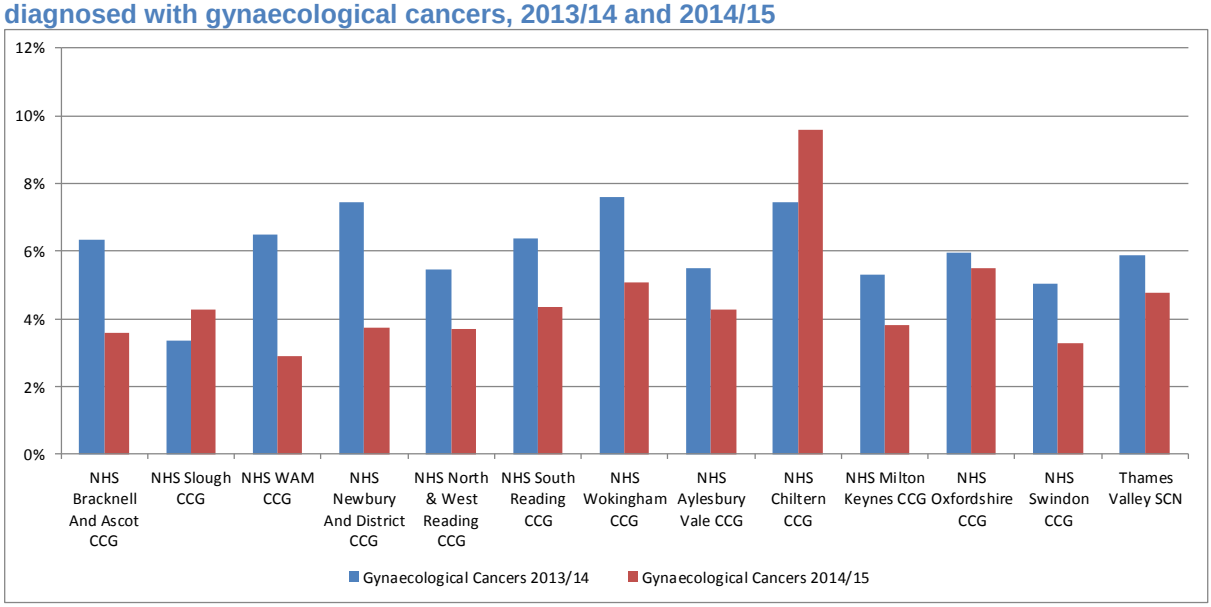

Source: Public Health England Cancer Service Profiles

Figure 36 shows that the percentage of two week wait referrals for all cancers that are ultimately diagnosed with cancer has declined since 2009/10. This is likely to be due to the impact of national and local initiatives such as the National Awareness and Early Diagnosis Initiative (NAEDI) which has tried to raise awareness of cancer signs and symptoms in the general population and has also encouraged GPs to be more alert for potential cancers and refer as soon as possible. The decline in the proportion of two week wait referrals is similar for both England and the Thames Valley (note the Thames Valley average on this graph is a South Central figure, so excludes Milton Keynes and Swindon CCGs). NHS Slough CCG has had consistently lower referral rates than the other Thames Valley CCGs.

The graphs below show data provided by TVSCN and show the proportion of patients referred under the two week wait with suspected cancer that were subsequently diagnosed with the type of cancer they were suspected of having.

## 4.2 Gynaecological Cancers

**Figure 37: Proportion of two week wait referrals with suspected gynaecological cancers, diagnosed with gynaecological cancers, 2013/14 and 2014/15**

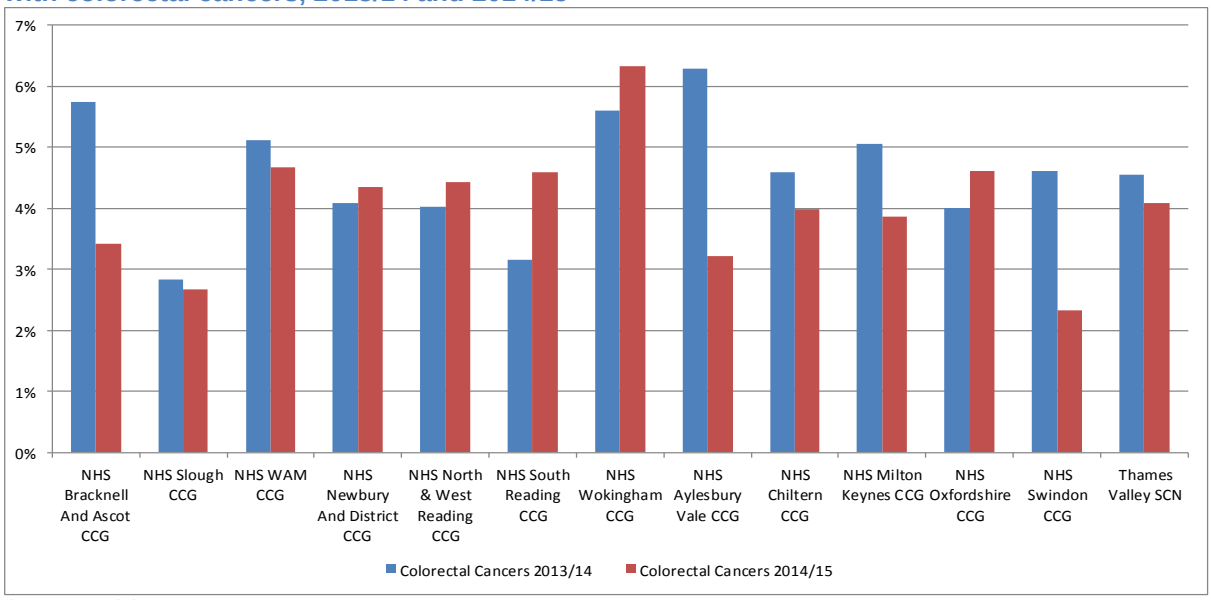



Source: TVSCN

Figure 37 shows the proportion of two week referrals with suspected gynaecological cancers diagnosed with gynaecological cancers for each Thames Valley CCG for the years 2013/14 and 2014/15. It shows that the conversion rate (the proportion of two week wait referrals diagnosed with cancer) for gynaecological cancers for the different CCGs has varied between 3% and 9.6%. The average conversion rate across the Thames Valley was 5.9% in 2013/14 and 4.8% in 2014/15. The only CCG with a higher conversion rate than the Thames Valley average in both years was NHS Chiltern CCG with a conversion rate of 7.4% in 2013/14 and 9.6% in in 2014/15.

## 4.3 Colorectal Cancers

**Figure 38: Proportion of two week wait referrals with suspected colorectal cancers, diagnosed with colorectal cancers, 2013/14 and 2014/15**

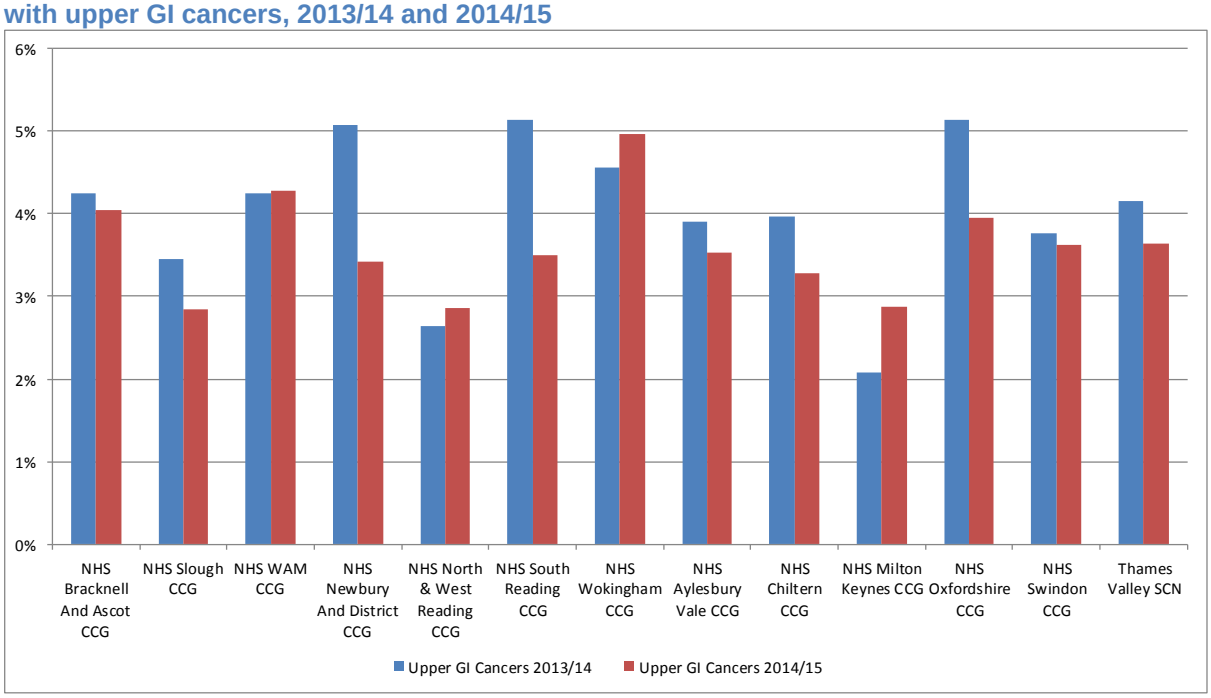



Source: TVSCN

Figure 38 shows that conversion rates for colorectal cancers varied between 2.3% and 6.5% in 2013/14 and 2014/15. The Thames Valley average in 2013/14 was 4.6% and this decreased to 4.1% in 2014/15. Conversion rates for colorectal cancers were higher in the West Berkshire CCGs in 2014/15 than in 2013/14 in contrast to most of the Thames Valley were conversion rates were lower in 2014/15.

## 4.4 Upper GI Cancers

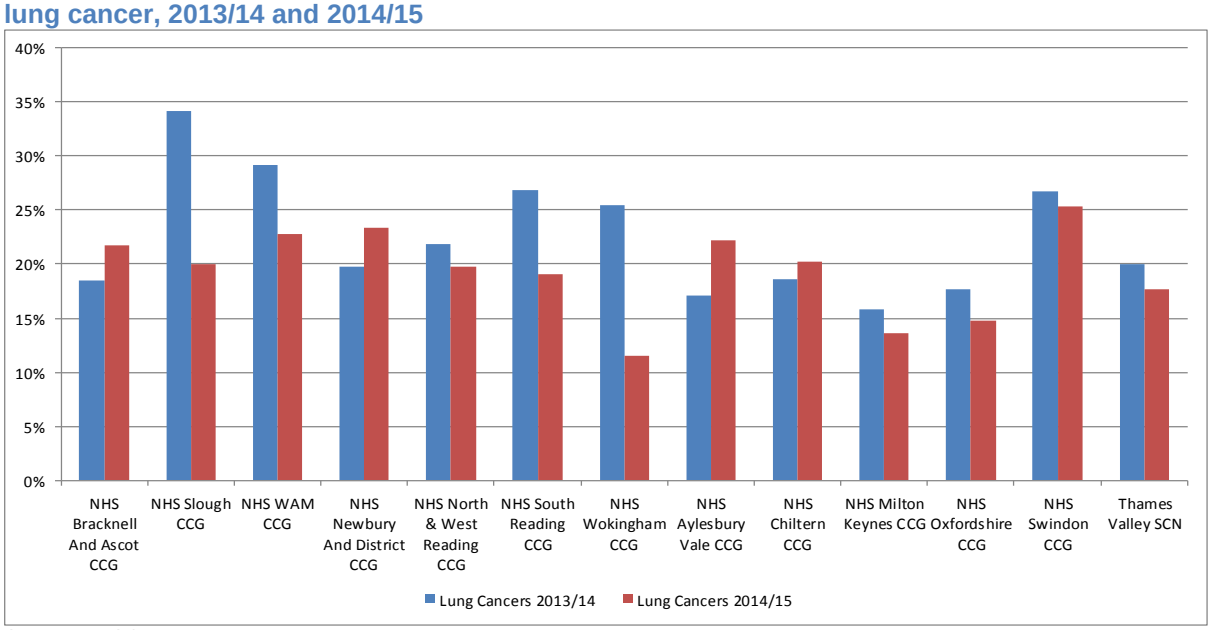
**Figure 39: Proportion of two week wait referrals with suspected upper GI cancers, diagnosed with upper GI cancers, 2013/14 and 2014/15**




Source: TVSCN

Figure 39 shows the proportion of two week wait referrals with suspected upper GI cancer subsequently diagnosed with upper GI cancers. It shows that upper GI cancers had the lowest conversion rate of the five cancer specialties in the Thames Valley in 2013/14 and 2014/15. The average conversion rate for the Thames Valley in 2013/14 was 4.2% and this decreased to 3.6% in 2014/15. NHS Slough CCG, NHS North and West Reading CCG and NHS Milton Keynes CCG had lower conversion rates for suspected upper GI cancer than the Thames Valley average in both years.

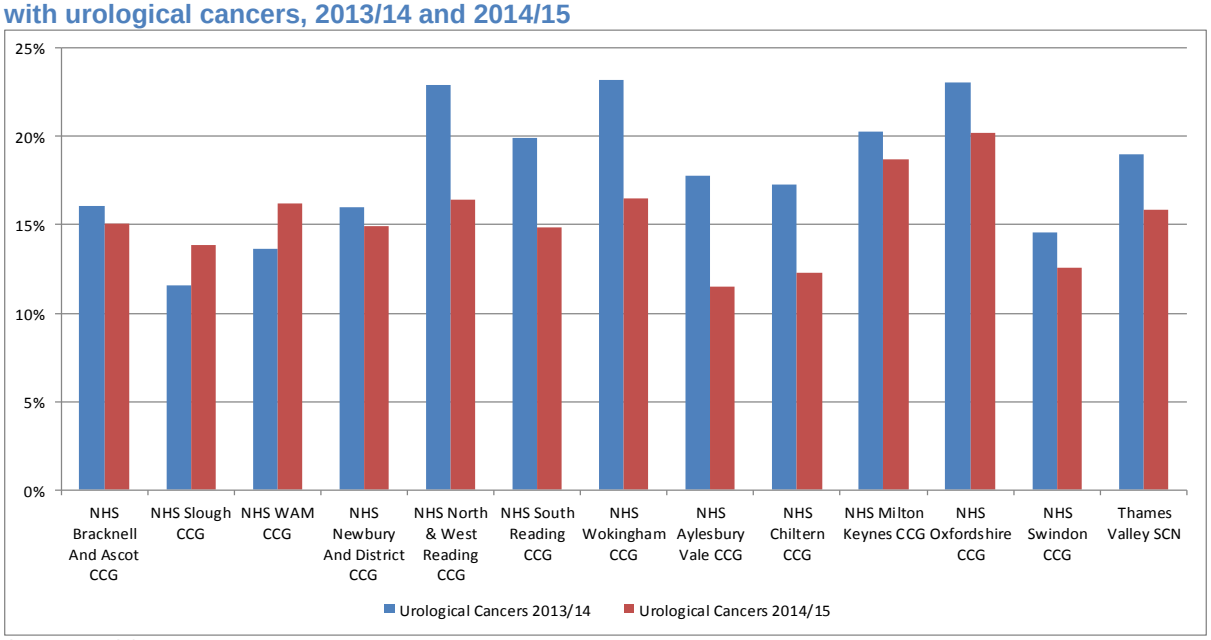
**Figure 40: Proportion of two week wait referrals with suspected lung cancer, diagnosed with lung cancer, 2013/14 and 2014/15**




Source: TVSCN

Figure 40 shows that 1 in 5 suspected lung cancer two week wait referrals were diagnosed in the Thames Valley in 2013/14 and this proportion declined to 17.6% in 2014/15. NHS Milton Keynes CCG and NHS Oxfordshire CCG had lower conversion rates for suspected lung cancer than the Thames Valley average in both years. In contrast, NHS Slough, NHS Windsor, Ascot and Maidenhead CCG and NHS Swindon CCGs had higher suspected lung cancer conversion rates than the Thames Valley average in both years.

**Figure 41: Proportion of two week wait referrals with suspected urological cancers, diagnosed with urological cancers, 2013/14 and 2014/15**




Source: TVSCN

Figure 41 shows that in 2013/14, 19% of two week wait referrals for suspected urological cancers in the Thames Valley were subsequently diagnosed with urological cancers. This figure was lower in 2014/15 at 15.9%. The only CCGs with a higher conversion rate for suspected urological cancers in 2014/15 than in 2013/14 were NHS Slough CCG and NHS Windsor, Ascot and Maidenhead CCG.

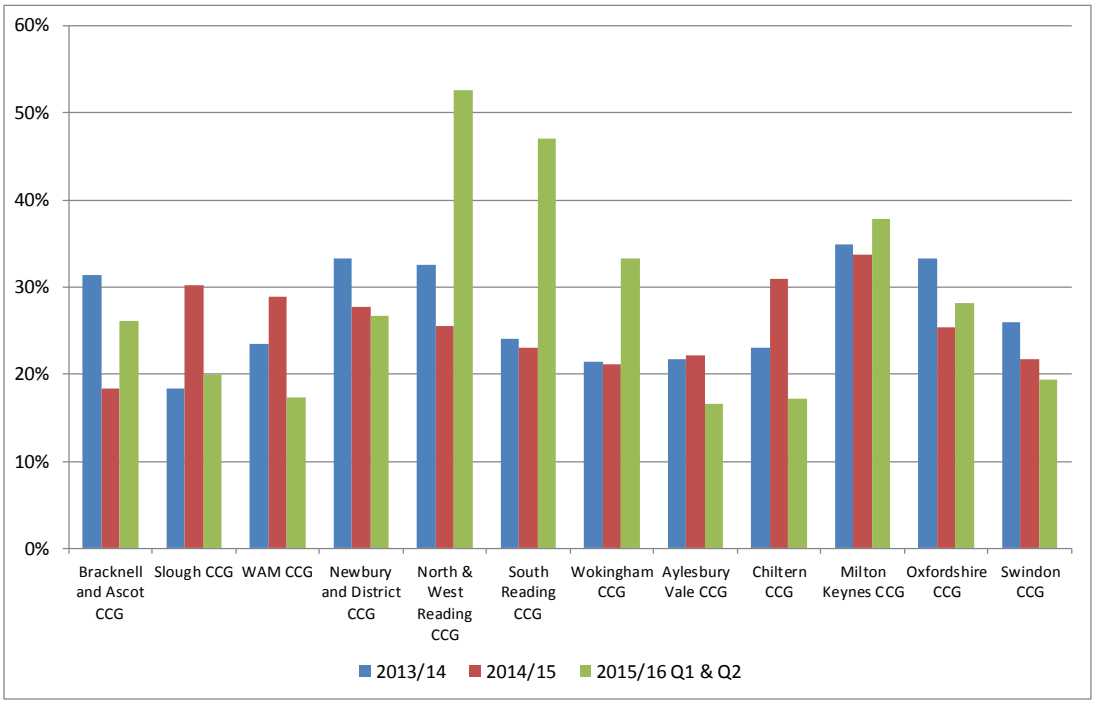
# 5 Two week wait referrals treated in 31 days

A patient should wait a maximum of two weeks to see a specialist after being urgently referred with suspected cancer by their GP, and 31 days from initial referral to treatment. The figures below show the number of patients successfully referred from the two week referral route, that were then given first or subsequent treatment within 31 days as a percentage of the total number of patients treated within 31 days of initial diagnosis within that organisation.

## 5.1 Gynaecological Cancers

Figure 42 below shows the percentage of gynaecological cancer patients treated within 31 days of diagnosis that were referred via the two week wait referral route for suspected gynaecological cancers.

**Figure 42: Percentage of gynaecological cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN CCGs, 2013/14, 2014/15 and Q1 plus Q2 2015/16**

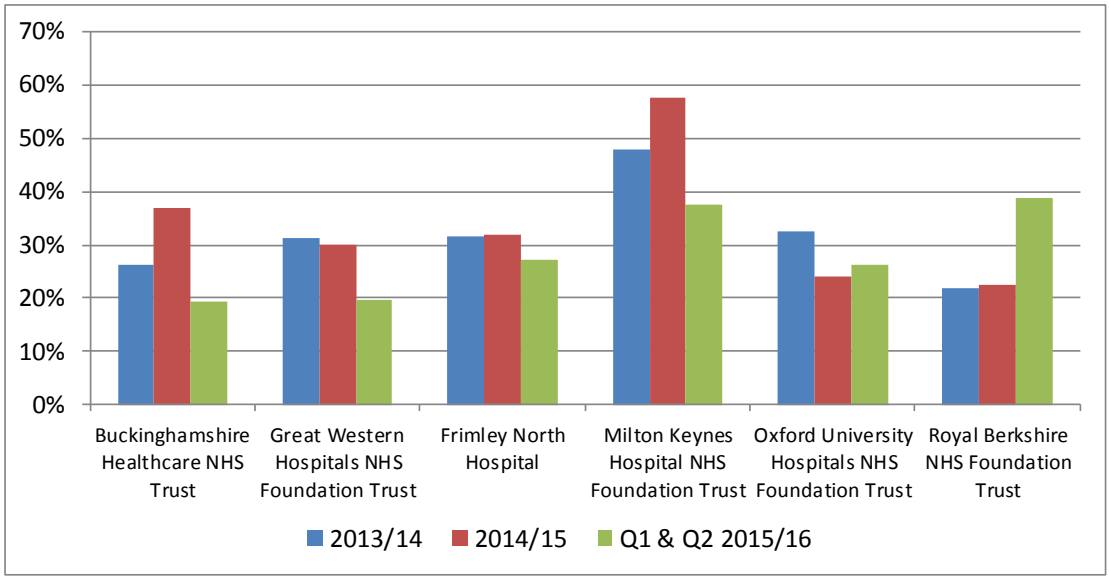



Source: NCIN Cancer Commissioning Toolkit

Figure 42 shows that the proportion of gynaecological cancer patients treated within 31 days of diagnosis referred via the two week wait was higher in the first two quarters of 2015/16 than in previous years for some CCGs, notably the west Berkshire CCGs of NHS North & West Reading CCG, NHS South Reading CCG and NHS Wokingham CCG, but lower in a number of other CCGs. Generally, between 25% and 30% of gynaecological cancer patients treated in 31 days from diagnosis have been referred via the two week wait. NHS Milton Keynes CCG is the only CCG that had a higher proportion than 30% of gynaecological cancer patients treated in 31 days referred from the two week wait in both 2013/14 and 2014/15.

Figure 43 shows the same information on the proportion of gynaecological cancer patients treated within 31 days of diagnosis referred via the two week wait, but for Thames Valley SCN providers rather than CCGs.

**Figure 43: Percentage of gynaecological cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN Providers, 2013/14, 2014/15 and Q1 plus Q2 2015/16**

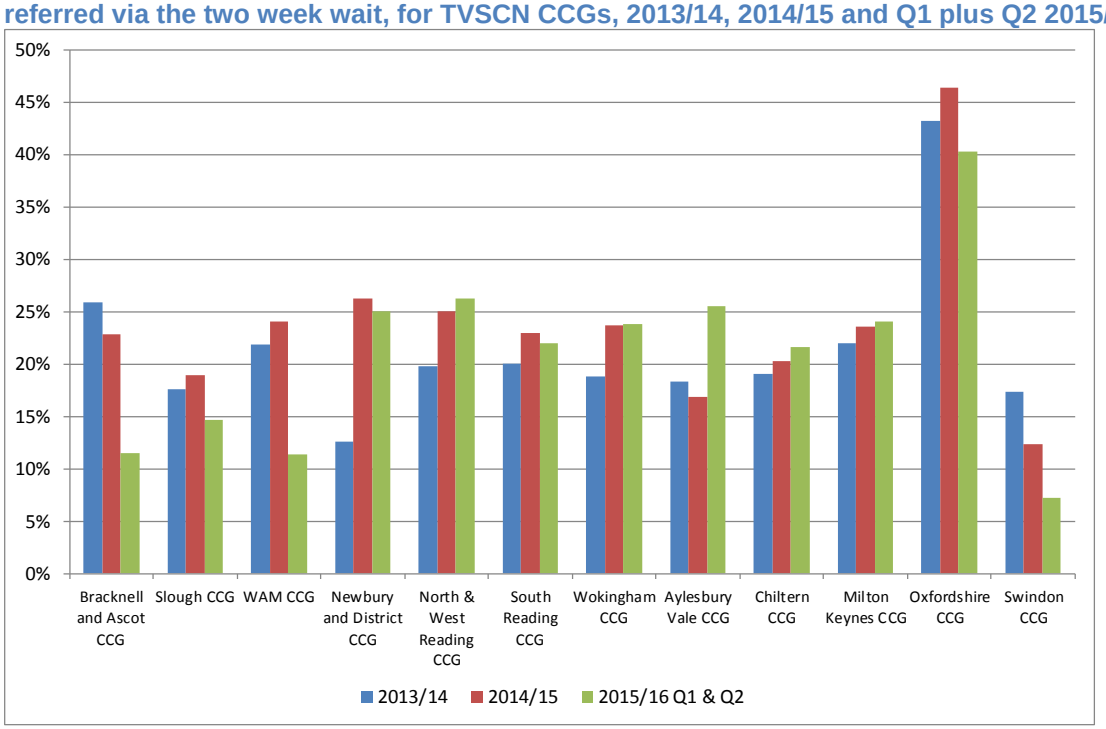



Source: NCIN Cancer Commissioning Toolkit

Figure 43 shows that the proportion of gynaecological cancer patients treated within 31 days of diagnosis that were referred via the two week wait was higher at Milton Keynes Hospital than at the other trusts in 2013/14 and 2014/15. Four of the six providers had a lower proportion of gynaecological cancer patients treated in 31 days referred via the two week wait in Q1 and Q2 2015/16 than in the previous two years, though this proportion may increase when a full year of data becomes available. However, the Royal Berkshire NHS Foundation Trust had an increase in the proportion of gynaecological cancer patients treated in 31 days from the two week wait in Q1 and Q2 of 2015/16, reflecting the change in the figures for the west Berkshire CCGs.

## 5.2 Colorectal Cancers

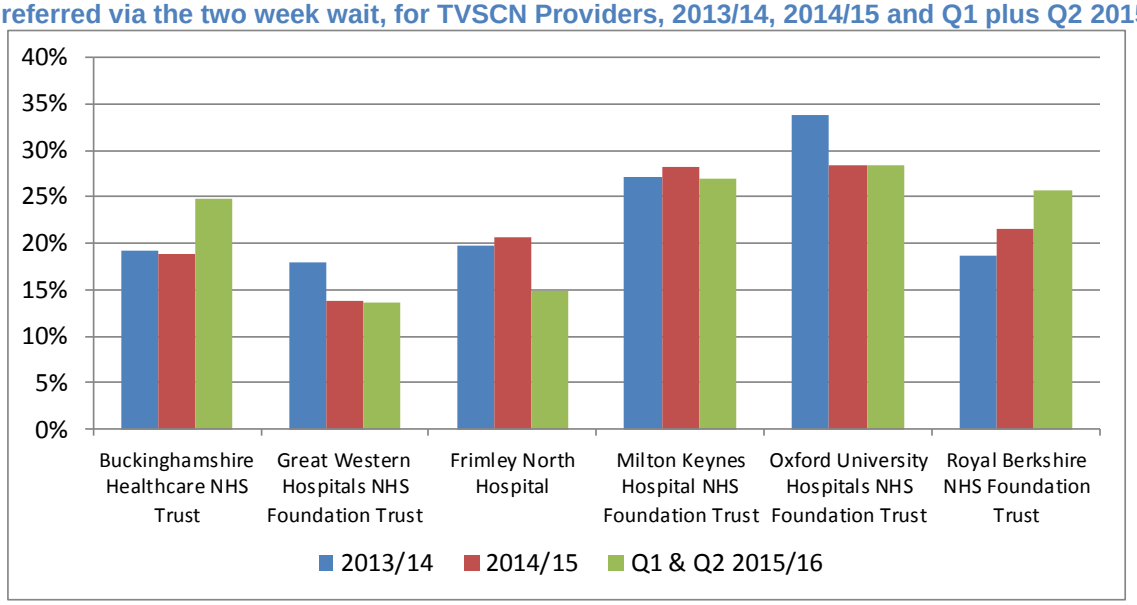
**Figure 44: Percentage of colorectal cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN CCGs, 2013/14, 2014/15 and Q1 plus Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

Figure 44 shows that for most CCGs between 15% and 25% of colorectal cancer patients treated within 31 days of diagnosis were referred via the two week wait. However, NHS Oxfordshire CCG had a higher proportion of around 40% in both 2013/14, 2014/15 and in the first half of 2015/16. All but three of the CCGs (Aylesbury Vale, Bracknell & Ascot and Swindon) had a higher proportion of colorectal cancer patients treated in 31 days referred via the two week wait in 2014/15 than in 2013/14. The three east Berkshire CCGs along with Swindon CCG had a lower proportion of colorectal cancer patients treated in 31days from the two week wait in Q1 and Q2 2015/16 than in the previous two years.

**Figure 45: Percentage of colorectal cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN Providers, 2013/14, 2014/15 and Q1 plus Q2 2015/16**

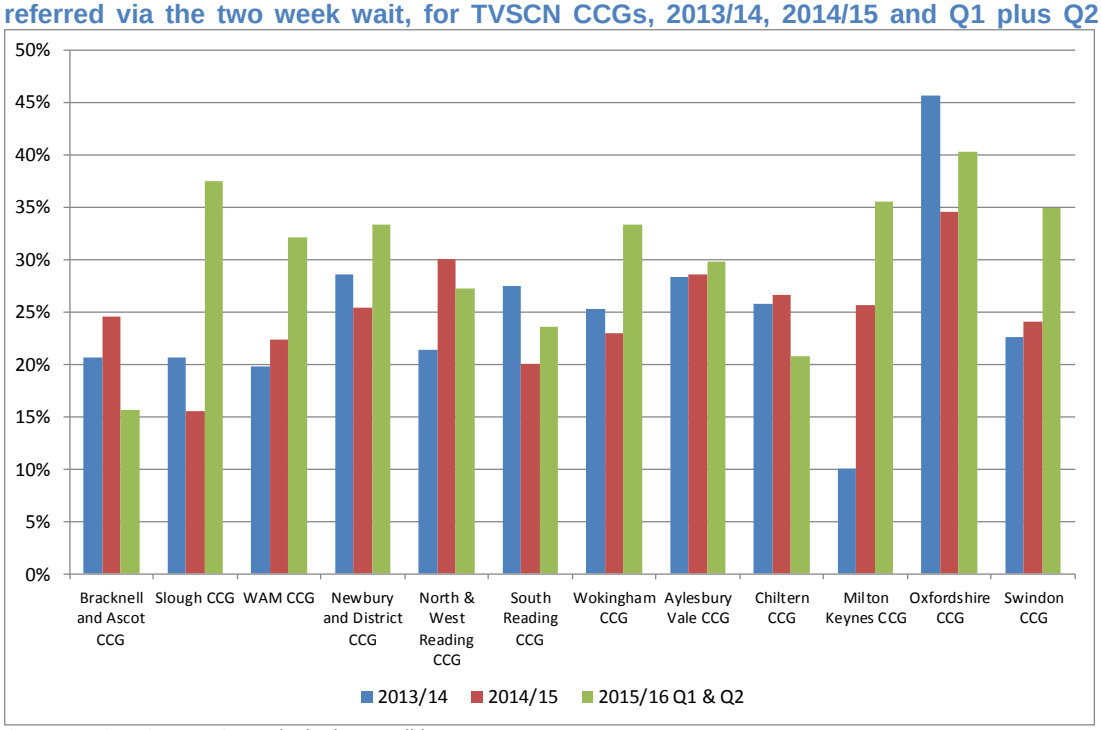



Source: NCIN Cancer Commissioning Toolkit

Figure 45 shows that Oxford University Hospitals and Milton Keynes Hospital had higher proportions of colorectal cancer patients treated in 31 days referred via the two week wait than the other Thames Valley providers in 2013/14 and 2014/15. However, both Buckinghamshire Healthcare and the Royal Berkshire hospitals had a higher proportion of colorectal cancer patients treated in 31 days referred via the two week wait in the first half of 2015/16, than in the previous two years.

## 5.3 Upper GI Cancers

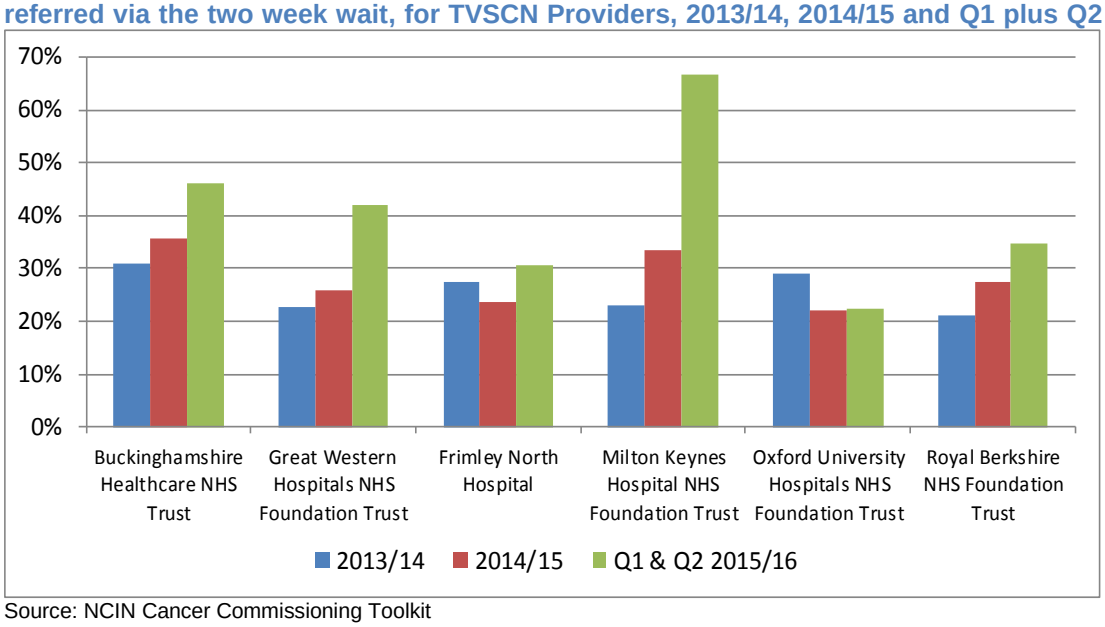
**Figure 46: Percentage of upper GI cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN CCGs, 2013/14, 2014/15 and Q1 plus Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

Figure 46 shows that for most of the Thames Valley CCGs between 20% and 30% of upper GI cancer patients treated in 31 days in 2013/14 and 2014/15 were referred via the two week wait. However, NHS Oxfordshire CCG had a higher proportion between of between 35% and 45%. A majority of the Thames Valley CCGs had a higher proportion of upper GI cancer patients treated in 31 days referred via the two week wait in Q1 and Q2 of 2015/16 than in the previous years.

**Figure 47: Percentage of upper GI cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN Providers, 2013/14, 2014/15 and Q1 plus Q2 2015/16**

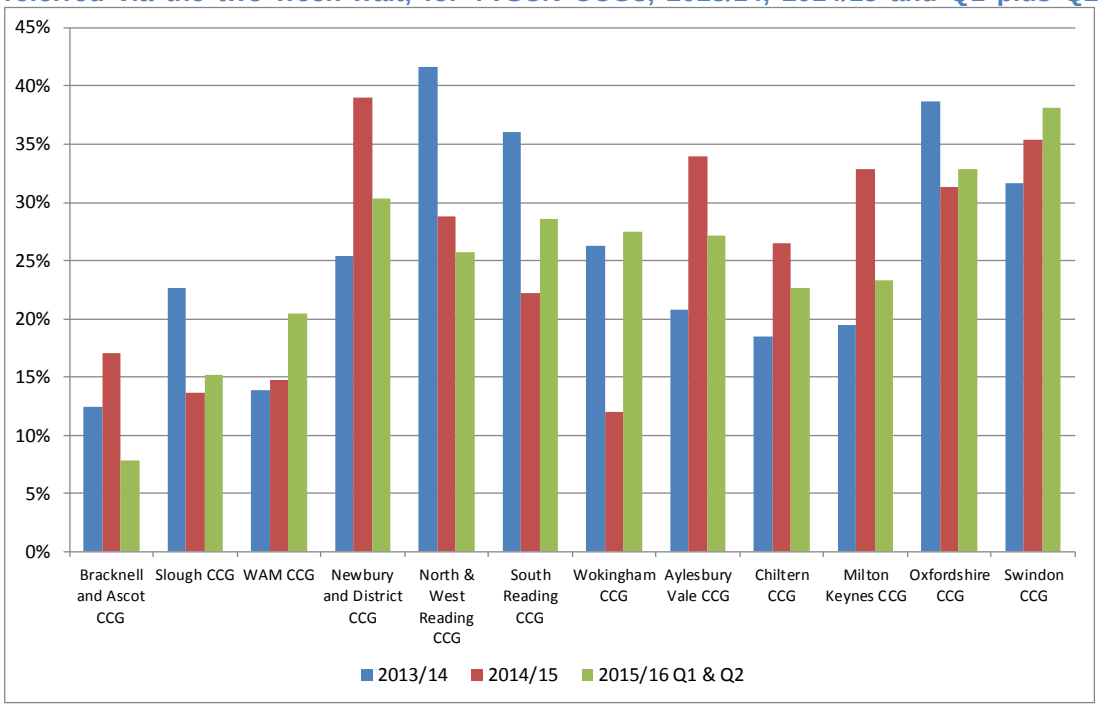



Source: NCIN Cancer Commissioning Toolkit

Figure 47 shows that the Thames Valley providers with the exception of Oxford University Hospitals had a higher proportion of upper GI cancer patients treated in 31 days referred via the two week wait in the first half of 2015/16 than in both of the previous two years. The proportion of upper GI two week wait referrals diagnosed with cancer has increased over time at most of the Thames Valley providers, except at the Oxford University Hospitals NHS Foundation Trust where the proportions have been lower in 2014/15 and in the first half of 2015/16 than in 2013/14 .

## 5.4 Lung Cancers

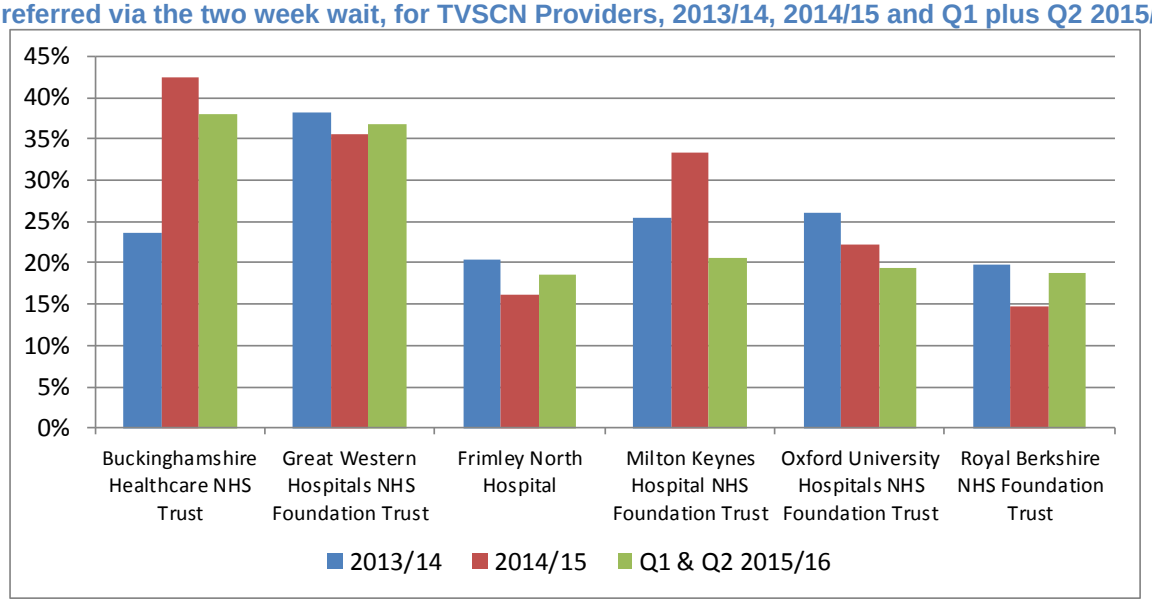
**Figure 48: Percentage of lung cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN CCGs, 2013/14, 2014/15 and Q1 plus Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

Figure 48 shows that the east Berkshire CCGs had a slightly lower proportion of lung cancer patients treated within 31 days of diagnosis referred via the two week wait, than the other CCGs, with the exception of NHS Slough CCG in 2013/14. The proportion of lung cancer patients treated in 31 days referred via the two week wait has increased over time at NHS Swindon CCG but decreased at NHS North and West Reading CCG.

**Figure 49: Percentage of lung cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN Providers, 2013/14, 2014/15 and Q1 plus Q2 2015/16**

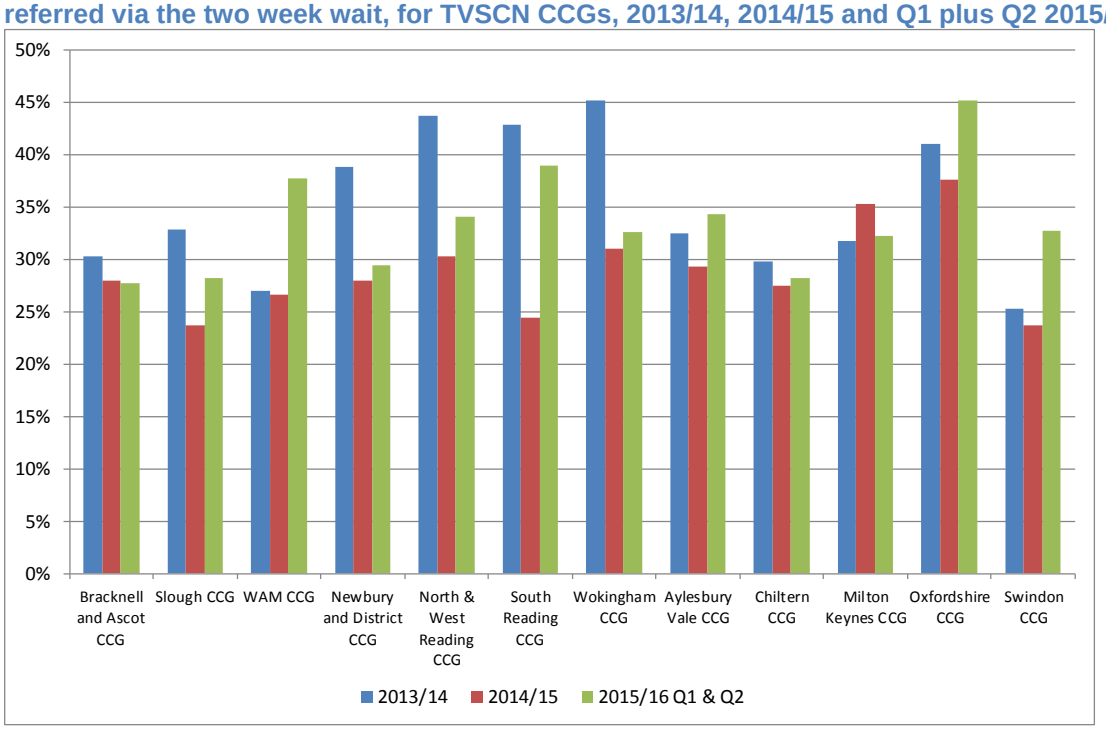



Source: NCIN Cancer Commissioning Toolkit

Figure 49 shows that both Buckinghamshire Healthcare and Great Western Hospitals had a higher proportion of lung cancer patients treated within 31 days of diagnosis referred via the two week wait than the other Thames Valley providers in 2014/15 and the first half of 2015/16. Frimley North Hospital and the Royal Berkshire Hospital had around half the percentage of lung cancer patients treated in 31 days referred via the two week wait cancer than Buckinghamshire Healthcare and Great Western Hospitals in 2014/15, but both providers had a higher proportion of treated cases from the two week wait in the first half of 2015/16 than in 2014/15.

## 5.5 Urological Cancers

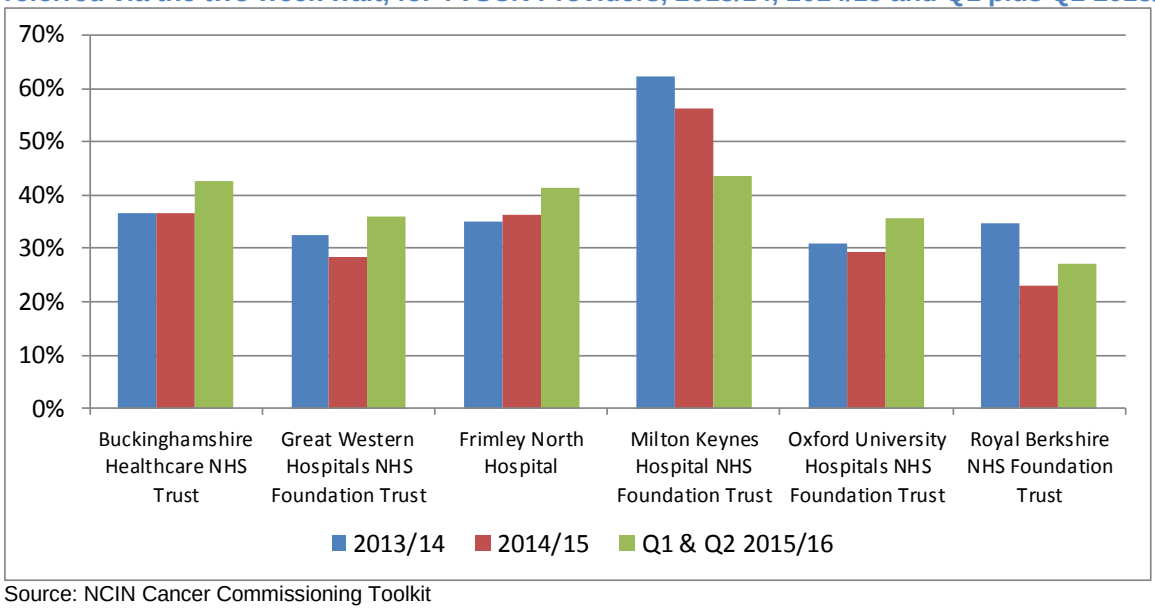
**Figure 50: Percentage of urological cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN CCGs, 2013/14, 2014/15 and Q1 plus Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

Figure 50 shows that all the Thames Valley CCGs with the exception of NHS Milton Keynes CCG had a lower proportion of urological cancer patients treated in 31 days of diagnosis referred via the two week wait in 2014/15 compared with the previous year. However, nine of the Thames Valley CCGs had a higher proportion of urological cancer patients treated in 31 days referred via the two week wait in the first half of 2015/16 than in the previous year.

**Figure 51: Percentage of urological cancer patients treated in 31 days of diagnosis that were referred via the two week wait, for TVSCN Providers, 2013/14, 2014/15 and Q1 plus Q2 2015/16**




Source: NCIN Cancer Commissioning Toolkit

Figure 51 shows Milton Keynes Hospital had a higher proportion of urological cancer patients treated in 31 days referred via the two week wait referral than the other Thames

Valley providers in both 2013/14 and 2014/15, but this proportion was lower and similar to the other trusts in the first half of 2015/16. Frimley North Hospital was the only Thames Valley provider to have an increase in the proportion of urological cancer patients treated in 31 days referred via the two week wait in 2014/15 and in the first half of 2015/16.

# 6 Non - Two week wait referrals diagnosed with cancer

This section of the report presents data from the NCIN Cancer Commissioning Toolkit showing the number of cancers diagnosed and treated in 31 days by Thames Valley providers from routes other than the two week wait. This section also shows the proportion of cancers diagnosed via the two week wait compared to other routes for each cancer speciality and provider. Data are shown for 2013/14, 2014/15 and 2015/16. Data for 2015/16 are extrapolated using the data for quarters 1 and 2 of the financial year.

## 6.1 Gynaecological Cancers

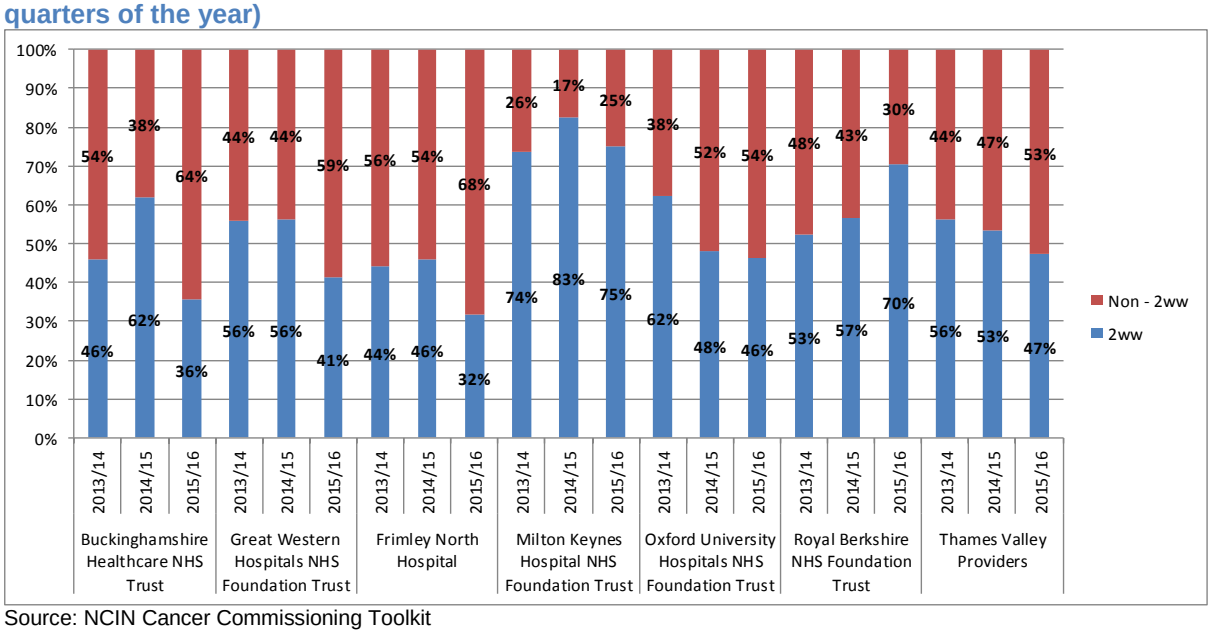
**Table 14: Number of gynaecological cancers diagnosed via two week wait and by non-2ww routes for Providers in TVSCN 2013/14 to 2015/16 (2015/16 figure extrapolated based on data for 2 quarters of the year)**

| | Non 2WW Diagnoses | | | 2WW Diagnoses | | | Total Diagnoses | | |
|---|---|---|---|---|---|---|---|---|---|
| Provider | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 |
| Buckinghamshire Healthcare | 34 | 27 | *36* | 29 | 44 | *20* | 63 | 71 | 56 |
| Great Western Hospitals | 33 | 31 | *40* | 42 | 40 | *28* | 75 | 71 | 68 |
| Frimley North Hospital | 24 | 27 | *26* | 19 | 23 | *12* | 43 | 50 | 38 |
| Milton Keynes Hospital | 5 | <5 | *6* | 14 | 19 | *18* | 19 | 23 | 24 |
| Oxford University Hospitals | 69 | 130 | 166 | 114 | 120 | *144* | 183 | 250 | 310 |
| Royal Berkshire | 38 | 32 | *16* | 42 | 42 | *38* | 80 | 74 | 54 |

Source: NCIN Cancer Commissioning Toolkit

Table 14 suggests that the number of gynaecological cancers diagnosed and treated within 31 days from routes other than the two week wait, has increased each year since 2013/14 at the Oxford University Hospitals NHS Foundation Trust. In contrast, the number of cancers diagnosed and treated in 31 days from routes other than the two week wait has declined since 2013/14 at the Royal Berkshire NHS Foundation Trust. The number of cancers diagnosed and treated in 31 days from routes other than the two week wait has been lower at Milton Keynes Hospital NHS Foundation Trust than at the other providers in all three years.

**Figure 52: Proportion of gynaecological cancers diagnosed via 2ww and non-2ww for Thames Valley providers 2013/14, 2014/15 and 2015/16 (2015/16 figure based on data for first two quarters of the year)**




Source: NCIN Cancer Commissioning Toolkit

Figure 52 shows the proportion of gynaecological cancers diagnosed each year via the two week wait compared to the proportion diagnosed via other routes. It shows that with the exception of the Royal Berkshire Hospital NHS Foundation Trust, the proportion of gynaecological cancers diagnosed via the two week wait has declined since 2013/14. The proportion of cancers diagnosed by other routes than the two week wait has been lower at Milton Keynes Hospital than at the other Thames Valley providers. Diagnosis through other routes than the 2 week wait includes the NHS Cervical Screening Programme.

## 6.2 Colorectal Cancers

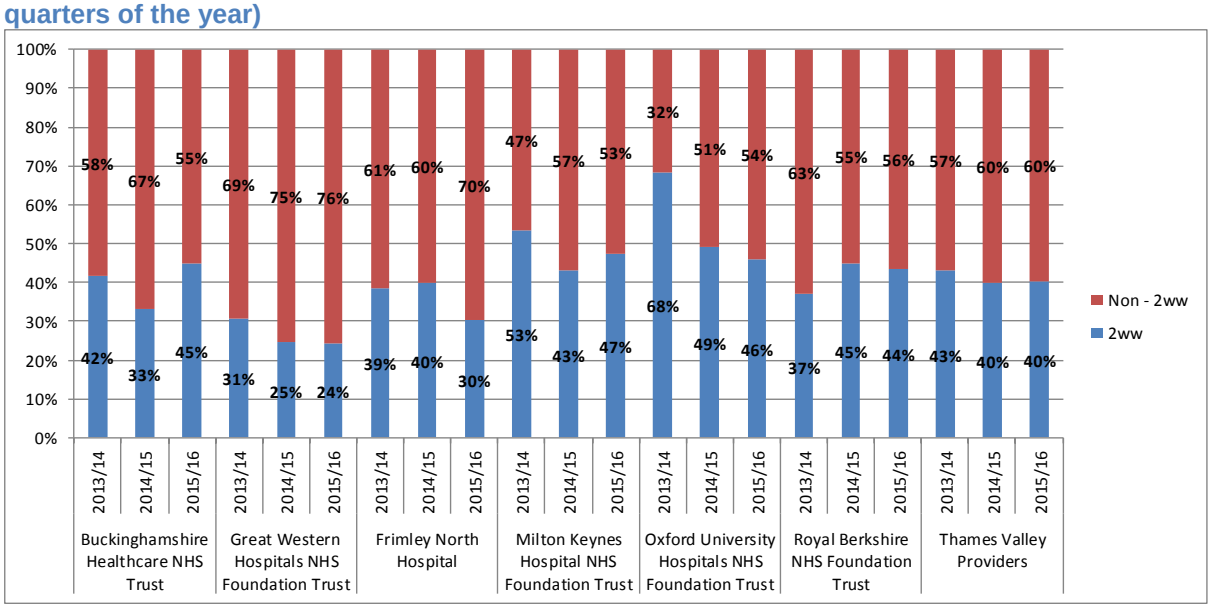
**Table 15: Number of colorectal cancers diagnosed via two week wait and by non-2ww routes for Providers in TVSCN 2013/14 to 2015/16 (2015/16 figure extrapolated based on data for 2 quarters of the year)**

| | Non 2WW Diagnoses | | | 2WW Diagnoses | | | Total Diagnoses | | |
|---|---|---|---|---|---|---|---|---|---|
| Provider | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 |
| Buckinghamshire Healthcare | 102 | 140 | *118* | 73 | 69 | *96* | 175 | 209 | *214* |
| Great Western Hospitals | 137 | 132 | *156* | 61 | 43 | *50* | 198 | 175 | *206* |
| Frimley North Hospital | 110 | 109 | *106* | 69 | 72 | *46* | 179 | 181 | *152* |
| Milton Keynes Hospital | 41 | 65 | *40* | 47 | 49 | *36* | 88 | 114 | *76* |
| Oxford University Hospitals | 49 | 144 | *246* | 106 | 139 | *210* | 155 | 283 | *456* |
| Royal Berkshire | 140 | 131 | *140* | 82 | 107 | *108* | 222 | 238 | *248* |

Source: NCIN Cancer Commissioning Toolkit

Table 15 suggests that the number of colorectal cancers diagnosed and treated within 31 days from routes other than the two week wait, has increased markedly since 2013/14 at the Oxford University Hospitals NHS Foundation Trust. However, the other providers in the Thames Valley have not had similar increases in non-two week wait colorectal cancer diagnoses.

**Figure 53: Proportion of colorectal cancers diagnosed via 2ww and non-2ww for Thames Valley providers 2013/14, 2014/15 and 2015/16 (2015/16 figure based on data for first two quarters of the year)**




Source: NCIN Cancer Commissioning Toolkit

Figure 53 suggests that across all the TV providers more colorectal cancers are diagnosed by non-two week wait routes than by the two week wait. This was particularly true at the Great Western Hospital, where around 70% of cancers were diagnosed by other routes. These routes would include the NHS Bowel Cancer Screening Programme.

## 6.3 Upper GI Cancers

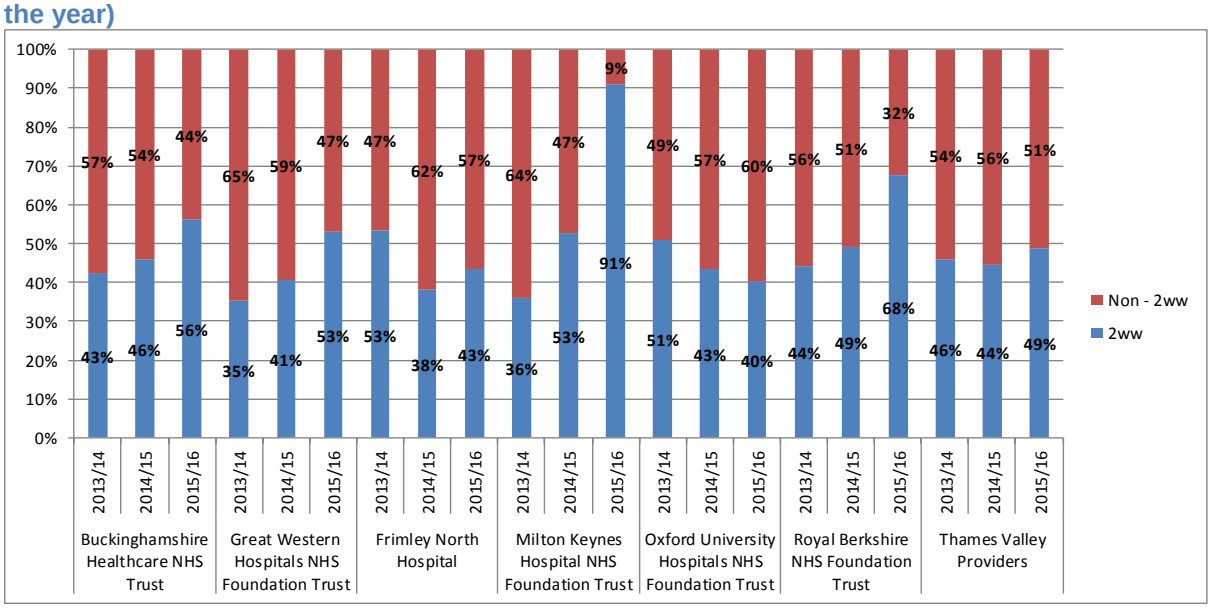
**Table 16: Number of upper GI cancers diagnosed via two week wait and by non-2ww routes for Providers in TVSCN 2013/14 to 2015/16 (2015/16 figure extrapolated based on data for 2 quarters of the year)**

| | Non 2WW Diagnoses | | | 2WW Diagnoses | | | Total Diagnoses | | |
|---|---|---|---|---|---|---|---|---|---|
| Provider | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 |
| Buckinghamshire Healthcare | 50 | 47 | *36* | 37 | 40 | *46* | 87 | 87 | *82* |
| Great Western Hospitals | 66 | 57 | *60* | 36 | 39 | *68* | 102 | 96 | *128* |
| Frimley North Hospital | 35 | 55 | *60* | 40 | 34 | *46* | 75 | 89 | *106* |
| Milton Keynes Hospital | 16 | 17 | *<5* | 9 | 19 | *20* | 25 | 36 | *22* |
| Oxford University Hospitals | 114 | 141 | *198* | 119 | 108 | *134* | 233 | 249 | *332* |
| Royal Berkshire | 63 | 74 | *24* | 50 | 72 | *50* | 113 | 146 | *74* |

Source: NCIN Cancer Commissioning Toolkit

Table 16 suggests that the number of upper GI cancers diagnosed and treated within 31 days from routes other than the two week wait, is likely to increase significantly at the Oxford University Hospitals NHS Foundation Trust in 2015/16. However, based on data for the first two quarters of 2015/16, Buckinghamshire Healthcare, Milton Keynes and the Royal Berkshire hospitals are likely to have fewer upper GI cancers diagnosed and treated via routes other than the two week wait in 2015/16 than in the previous year.

**Figure 54: Proportion of upper GI cancers diagnosed via 2ww and non-2ww for Thames Valley providers 2013/14, 2014/15 and 2015/16 (2015/16 figure based on data for first two quarters of the year)**




Source: NCIN Cancer Commissioning Toolkit

Figure 54 shows that for most Thames Valley providers the proportion of upper GI cancers diagnosed by the two week wait has increased since 2013/14. The exception is Oxford University Hospitals where the proportion of cancers diagnosed via the two week wait has reduced from 51% in 2013/14 to 40% in 2015/16 (although this figure is based on data for the first two quarters of the year only).

## 6.4 Lung Cancers

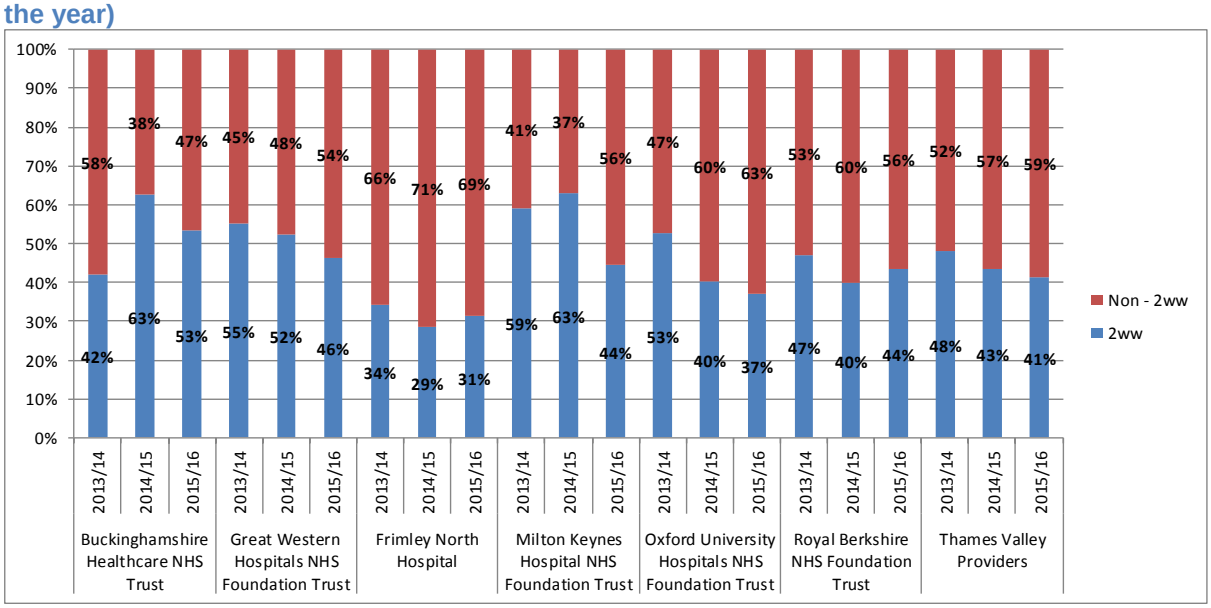
**Table 17: Number of lung cancers diagnosed via two week wait and by non-2ww routes for Providers in TVSCN 2013/14 to 2015/16 (2015/16 figure extrapolated based on data for 2 quarters of the year)**

| | Non 2WW Diagnoses | | | 2WW Diagnoses | | | Total Diagnoses | | |
|---|---|---|---|---|---|---|---|---|---|
| Provider | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 |
| Buckinghamshire Healthcare | 44 | 27 | 42 | 32 | 45 | 48 | 76 | 72 | 90 |
| Great Western Hospitals | 43 | 48 | 58 | 53 | 53 | 50 | 96 | 101 | 108 |
| Frimley North Hospital | 56 | 80 | 66 | 29 | 32 | 30 | 85 | 112 | 96 |
| Milton Keynes Hospital | 9 | 17 | 20 | 13 | 29 | 16 | 22 | 46 | 36 |
| Oxford University Hospitals | 97 | 194 | 166 | 108 | 130 | 98 | 205 | 324 | 264 |
| Royal Berkshire | 86 | 95 | 114 | 76 | 63 | 88 | 162 | 158 | 202 |

Source: NCIN Cancer Commissioning Toolkit

Table 17 suggests that the number of lung cancers diagnosed and treated within 31 days from routes other than the two week wait in 2015/16 is likely to be higher than in 2013/14 at all the Thames Valley providers apart from Buckinghamshire Healthcare.

**Figure 55: Proportion of lung cancers diagnosed via 2ww and non-2ww for Thames Valley providers 2013/14, 2014/15 and 2015/16 (2015/16 figure based on data for first two quarters of the year)**




Source: NCIN Cancer Commissioning Toolkit

Figure 55 shows that the proportion of lung cancers diagnosed via the two week wait has decreased for most of the Thames Valley providers since 2013/14. Frimley North hospital is likely to have the lowest proportion of lung cancers diagnosed via the two week wait in 2015/16, as was the case in 2014/15.

## 6.5 Urological Cancers

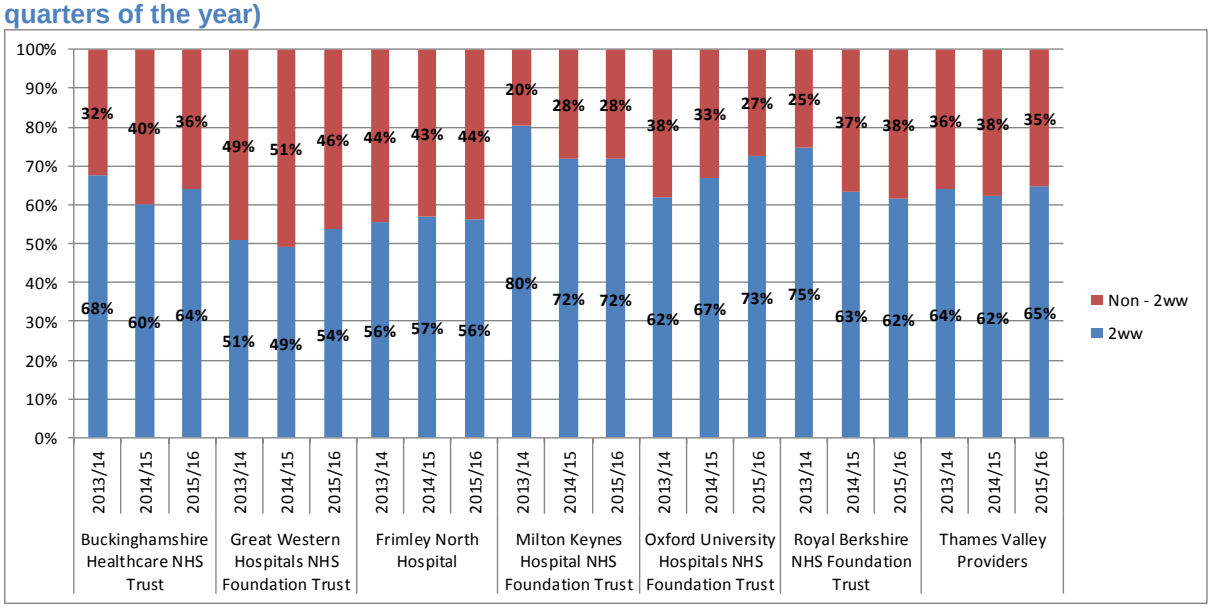
**Table 18: Number of urological cancers diagnosed via two week wait and by non-2ww routes for Providers in TVSCN 2013/14 to 2015/16 (2015/16 figure extrapolated based on data for 2 quarters of the year)**

| | Non 2WW Diagnoses | | | 2WW Diagnoses | | | Total Diagnoses | | |
|---|---|---|---|---|---|---|---|---|---|
| Provider | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 | 2013/14 | 2014/15 | 2015/16 |
| Buckinghamshire Healthcare | 148 | 167 | 130 | 310 | 253 | 230 | 458 | 420 | 360 |
| Great Western Hospitals | 155 | 134 | 148 | 160 | 130 | 172 | 315 | 264 | 320 |
| Frimley North Hospital | 153 | 142 | 166 | 191 | 189 | 212 | 344 | 331 | 378 |
| Milton Keynes Hospital | 31 | 52 | 60 | 126 | 134 | 152 | 157 | 186 | 212 |
| Oxford University Hospitals | 308 | 251 | 246 | 499 | 511 | 656 | 807 | 762 | 902 |
| Royal Berkshire | 100 | 157 | 202 | 298 | 271 | 324 | 398 | 428 | 526 |

Source: NCIN Cancer Commissioning Toolkit

Table 18 suggests that the number of urological cancers diagnosed and treated within 31 days from routes other than the two week wait is likely to have increased since 2013/14 at the Royal Berkshire, Frimley North and Milton Keynes providers but decreased at the other TVSCN providers. The number of urological cancers diagnosed and treated in 31 days from other routes is on track to double in 2015/16 compared to 2013/14 at the Royal Berkshire Hospital.

**Figure 56: Proportion of urological cancers diagnosed via 2ww and non-2ww for Thames Valley providers 2013/14, 2014/15 and 2015/16 (2015/16 figure based on data for first two quarters of the year)**




Source: NCIN Cancer Commissioning Toolkit

Figure 56 shows that the majority of urological cancers are diagnosed via the two week wait at all the Thames Valley providers. The proportions of urological cancers diagnosed via two week wait and non-two week wait routes are more consistent year on year than for the other cancer specialties. The proportion of urological cancers diagnosed by the two week wait has decreased at Milton Keynes since 2013/14 but increased at Oxford University Hospitals.

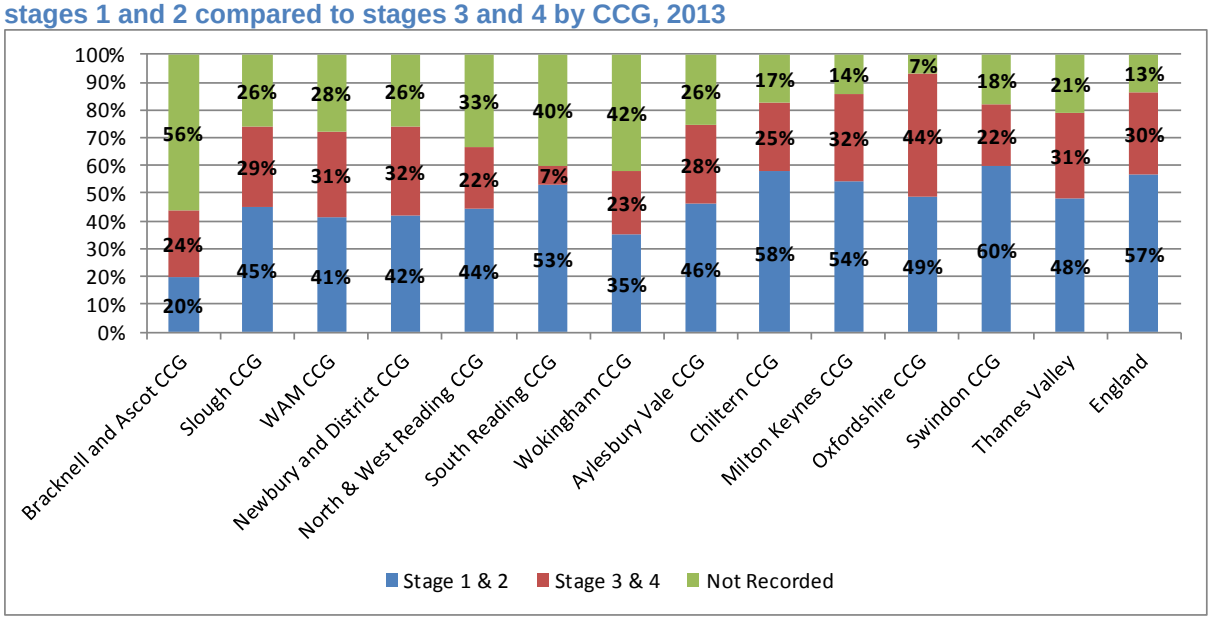
# 7 Stage at Diagnosis and Emergency Presentations

## 7.1 Stage at Diagnosis

The NCIN publish data on the stage at which some selected cancers are diagnosed for CCGs in England. The latest available data are for calendar year 2013. The graphs below show the percentage of cancers diagnosed at stages 1 and 2 compared to the percentage of cancers diagnosed at stages 3 and 4 for the Thames Valley CCGs for selected cancers of interest. Complete data on the stage of cancer at the time of diagnosis is not available in every case and the level of completeness varies between CCGs and cancer sites.

Figure 57 shows the proportion of ovarian and uterine cancers combined, diagnosed at different stages for each of the Thames Valley CCGs, the Thames Valley CCGs as a whole and for England in 2013.

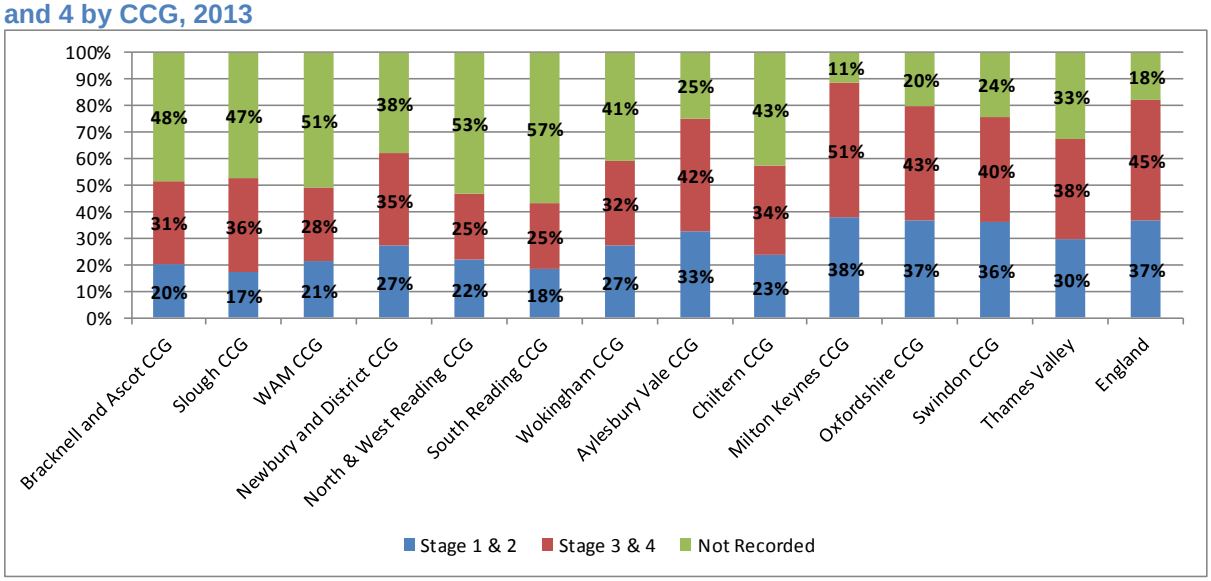
**Figure 57: Proportion of gynaecological (ovarian and uterine only) cancers diagnosed at stages 1 and 2 compared to stages 3 and 4 by CCG, 2013**




Source: NCIN Cancer Commissioning Toolkit

Figure 57 shows that the Thames Valley had a higher proportion of ovarian and uterine cancer patients where the stage at diagnosis was not recorded (21% in the Thames Valley compared to 13% for England). Despite this the Thames Valley had a marginally higher proportion of cancers diagnosed at stages 3 & 4 compared to England (31% for the Thames Valley and 30% for England). NHS Oxfordshire had the most complete staging data out of the Thames Valley CCGs and 44% of ovarian and uterine cancers were diagnosed at stages 3 and 4 compared to 30% for England as a whole. Data on the stage at diagnosis was not available for more than half of the cases of ovarian and uterine cancer in Bracknell and Ascot CCG.

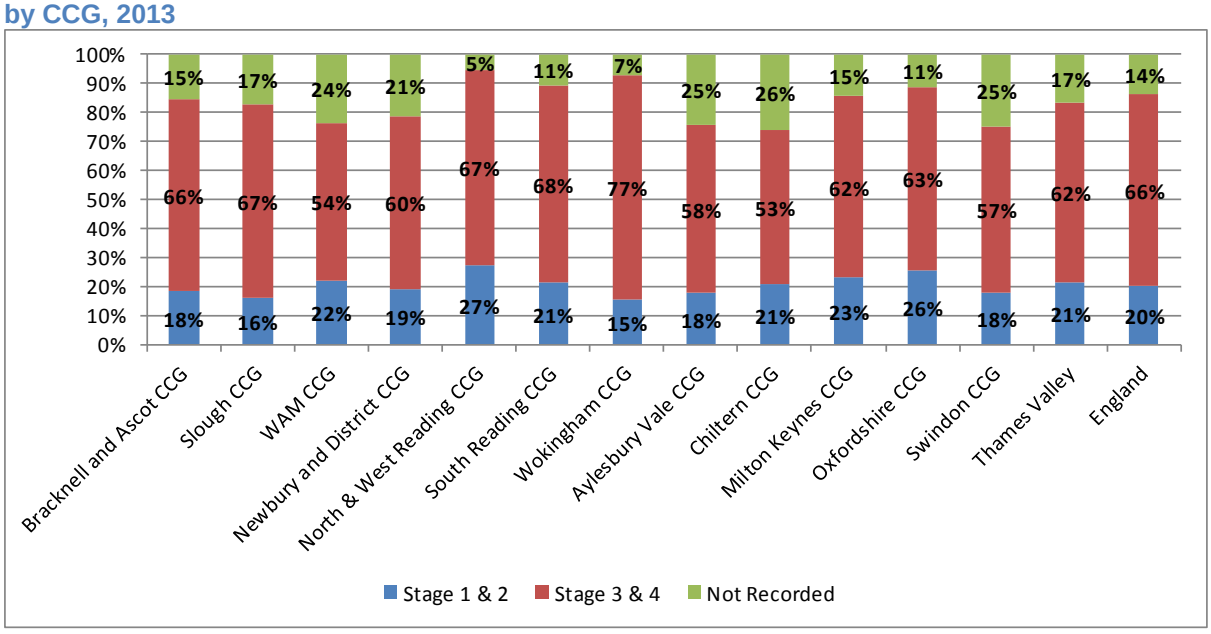
**Figure 58: Proportion of colorectal cancers diagnosed at stages 1 and 2 compared to stages 3 and 4 by CCG, 2013**




Source: NCIN Cancer Commissioning Toolkit

Figure 58 shows the proportion of colorectal cancers diagnosed at stages 1 and 2 compared to those diagnosed at stages 3 and 4 for each Thames Valley CCG, the Thames Valley CCGs combined and England in 2013. It shows that the stage of cancer at diagnosis was not recorded in a third of cases in the Thames Valley as a whole, compared to 18% across England. The Thames Valley CCGs with similar levels of completeness of staging data to England generally had similar proportions of cancers diagnosed at the different stages than the England average, for example NHS Oxfordshire and Milton Keynes had 37% and 38% of cancers diagnosed at stages 1 and 2 compared to 37% for England.

**Figure 59: Proportion of lung cancers diagnosed at stages 1 and 2 compared to stages 3 and 4 by CCG, 2013**

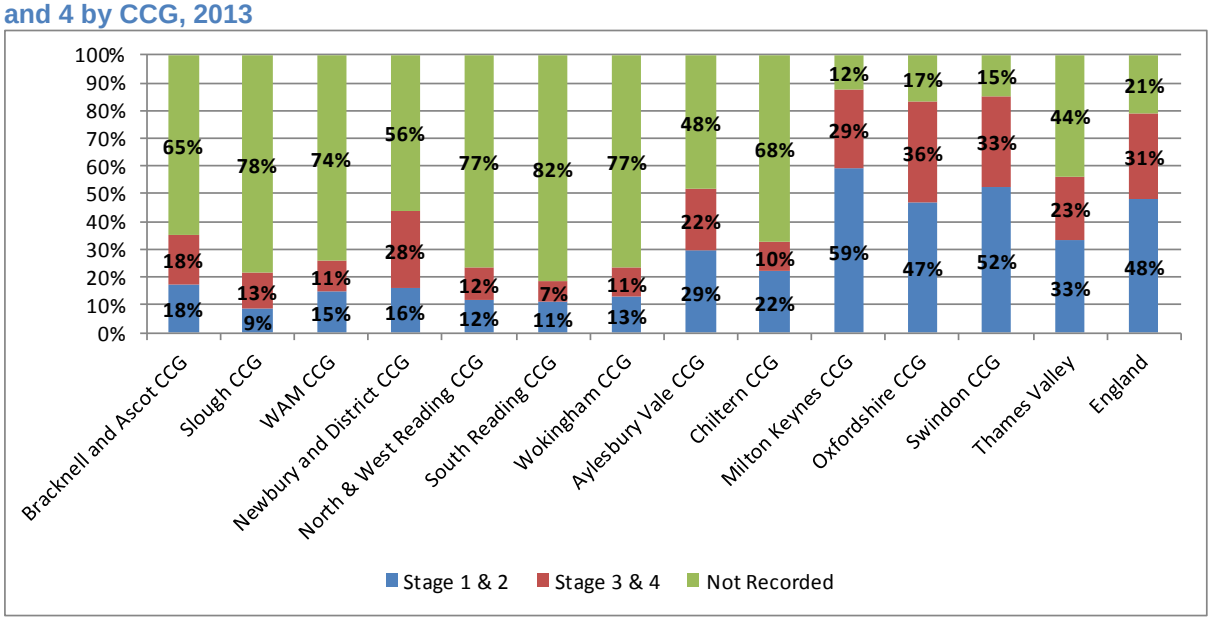



Source: NCIN Cancer Commissioning Toolkit

Figure 59 shows the proportion of lung cancer cases diagnosed at different stages for each Thames Valley CCG, the Thames Valley CCGs combined and for England. It shows that the Thames Valley as a whole had a slightly lower proportion of cancers diagnosed at stages

3 and 4 (62%) than the England average (66%). One exception to this was Wokingham CCG where 77% of lung cancers were diagnosed at stages 3 and 4.

**Figure 60: Proportion of urological cancers diagnosed at stages 1 and 2 compared to stages 3 and 4 by CCG, 2013**



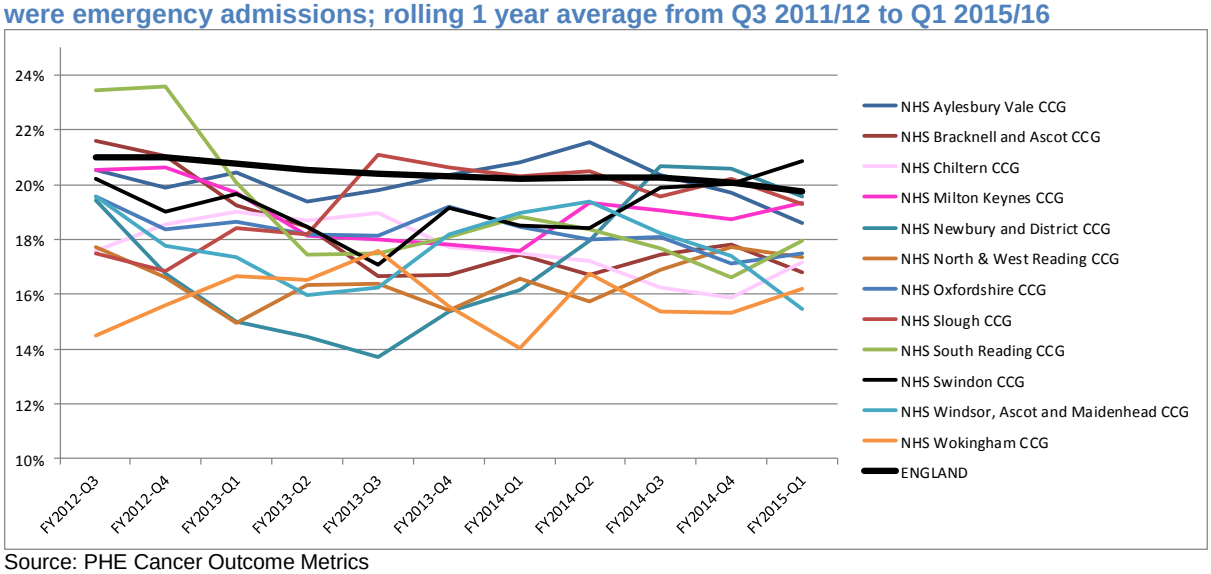

Source: NCIN Cancer Commissioning Toolkit

Figure 60 shows that staging data for urological cancers in the Thames Valley CCGs was less complete than for other cancers with this data not being recorded in 44% of cases compared to 21% for England as a whole. The CCGs with a higher proportion of staging data at diagnosis recorded, such as NHS Milton Keynes CCG, NHS Swindon CCG and NHS Oxfordshire CCG have a similar or higher proportion of cancers diagnosed at stages 1 and 2 as the England average.

## 7.2 Late Presentations

Public Health England publishes an indicator relating to emergency cancer presentations. This indicator, last published in December 2015, shows the estimated proportion of all malignant cancers, excluding non-melanoma of the skin, which presented as an emergency. The metric estimates the true proportion of emergency presentations using first admissions to hospital as a proxy for diagnosis to allow more rapid reporting. Emergency presentation is also an important driver of cancer outcomes: patients with cancers that present as an emergency suffer significantly worse outcomes. The recent cancer strategy for England recommended that the proportion of emergency presentations should be regularly reported and reviewed.

**Figure 61: Proportion of first hospital admissions for patients with a cancer diagnosis that were emergency admissions; rolling 1 year average from Q3 2011/12 to Q1 2015/16**




Source: PHE Cancer Outcome Metrics

Figure 61 shows that for England the proportion of emergency presentations for cancer has declined slightly from 21.0% to 19.8% between the 12 month period ending at Q3 2011/12 and the 12 month period ending at Q1 2015/16. This trend is reflected in the data for the Thames Valley CCGs with most CCGs recording a lower proportion of emergency presentations in the 12 month period ending in Q1 of 2015/16 than in Q3 of 2011/12. All of the Thames Valley CCGs other than NHS Swindon CCG had lower proportions of emergency presentations than England for the 12 months ending in Q1 2015/16.

# 8 Diagnostic Imaging Activity

NHS England publishes monthly data on diagnostic imaging tests on NHS patients in England, known as the Diagnostic Imaging Dataset (DID). The DID was introduced to monitor progress on Improving Outcomes: A Strategy for Cancer (IOSC). This strategy, published 12th January 2011, set out how the Government, NHS and public can help prevent cancer, improve the quality and efficiency of cancer services and move towards achieving outcomes that rival the best.

These data are collated from Radiology Information Systems (RISs), which are hospital administrative systems used to manage the workflow of radiology departments, and uploaded into a database maintained by the Health and Social Care Information Centre (HSCIC).

The national dataset does not specifically identify all patients whose imaging concerned cancer diagnosis, follow up or recurrence. Imaging technology is used for a wide variety of conditions but access to figures about total activity and how this is split between imaging for suspected carcinomas versus activity for other conditions such as cardiovascular disease is not available. It is therefore not possible to determine with any accuracy all imaging activity related to diagnosis of the 11 cancers that are the focus of the report and indeed activity related to cancer diagnosis overall. As its unclear what proportion of imaging activity is cancer related it's difficult to evaluate how implementation of the NICE guidance will impact on imaging capacity in the Thames Valley.

In order to help with this challenge the DID has published a subset of procedures commonly requested by GPs that contribute to the early diagnosis of some cancers in order to help understand the technologies which will be in more demand with changes in referral protocol and a rise in cancer incidence. These include:

- Kidney or bladder (Ultrasound). This may diagnose kidney or bladder cancer, this includes – ultrasound of kidney, ultrasound scan of bladder or ultrasound and Doppler scan of kidney.
- Chest and/or abdomen (CT).These may diagnose lung cancer, this includes - chest + abdominal CT, CT of chest (high resolution or other), CT thorax + abdomen with contrast, CT thorax with contrast or CT chest + abdomen;
- Chest (X-ray). This may diagnose lung cancer, this includes – plain chest X-ray only;
- Abdomen and/or pelvis (Ultrasound). This may diagnose ovarian cancer, this includes – ultrasonography of pelvis, ultrasonography of abdomen (upper, lower or other) or abdomen + pelvis.

## 8.1 Imaging events that may have been performed to diagnose cancer

The table below shows the number of imaging events categorised as potentially undertaken to diagnose or discount cancer for each of the TVSCN provider trusts, for all patients referred and for those directly referred by their GP from April to September 2015.

**Table 19: Total counts of imaging events between April 1st 2015-September 30th 2015 which may have been performed to diagnose or discount cancer by body site on NHS funded patients in England, for all patients referred and those directly referred by a GP**

| Provider Name | Kidney or Bladder (Ultrasound) | | Chest or abdomen CT | | Chest (X-ray) | | Abdomen and/or pelvis (Ultrasound) | |
|---|---|---|---|---|---|---|---|---|
| | All | GP | All | GP | All | GP | All | GP |
| Buckinghamshire Healthcare NHS Trust | 315 | 10 | 1,645 | 240 | 22,815 | 7,205 | 4,295 | 2,115 |
| Oxford University Hospitals NHS Trust | 2,175 | 975 | 2,520 | 275 | 45,530 | 5,680 | 5,170 | 2,505 |
| Great Western Hospitals NHS Foundation Trust | 1,015 | 1,015 | 95 | 95 | 5,440 | 5,435 | 1,620 | 1,620 |
| Royal Berkshire NHS Foundation Trust | 145 | 5 | 1,110 | 100 | 26,840 | 8,385 | 3,595 | 1,755 |
| Milton Keynes Hospital NHS Foundation Trust | 40 | 10 | 1,350 | 50 | 17,990 | 4,235 | 3,590 | 2,180 |
| Frimley Health NHS Foundation Trust | 405 | 25 | 2,460 | 200 | 42,350 | 10,840 | 9,175 | 5,215 |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures indicate that all the imaging events at Great Western Hospitals that were recorded as potentially being to diagnose or discount Cancer were GP referrals. The figures for Frimley Health are for both Wexham Park Hospital and Frimley Park Hospital. In general, chest or abdomen CTs, chest x-rays and ultrasounds of the abdomen or pelvis were more likely to be directly referred by the GP than ultrasounds of the kidney or bladder.

The table below shows the trend in **all imaging events** that may have been performed to diagnose or discount cancer by comparing the period from April to September 2015, with the same period in 2014 and 2015.

**Table 20: Trend in imaging events between April-September 2013/14, 2014/15 and 2015/16 which may have been performed to diagnose or discount cancer by body site on NHS funded patients in England, for all patients referred**

| Provider Name | Time Period | Kidney or Bladder (Ultrasound) | Chest and/or abdomen (CT) | Chest (X-ray) | Abdomen and/or pelvis (Ultrasound) |
|---|---|---|---|---|---|
| Milton Keynes Hospital NHS Foundation Trust | April to Sept 2013/14 | 65 | 870 | 15,315 | 3,230 |
| | April to Sept 2014/15 | 45 | 1,085 | 17,860 | 3,470 |
| | April to Sept 2015/16 | 40 | 1,350 | 17,990 | 3,590 |
| | *Percentage Change since 2013/14* | *-38%* | *55%* | *17%* | *11%* |
| Great Western Hospitals NHS Foundation Trust | April to Sept 2013/14 | 40 | 165 | 20,660 | 860 |
| | April to Sept 2014/15 | 1,415 | 715 | 20,860 | 2,405 |
| | April to Sept 2015/16 | 1,015 | 95 | 5,440 | 1,620 |
| | *Percentage Change since 2013/14* | *2438%* | *-42%* | *-74%* | *88%* |
| Frimley Health NHS Foundation Trust | April to Sept 2013/14 | 210 | 1,910 | 46,115 | 8,120 |
| | April to Sept 2014/15 | 315 | 2,280 | 48,910 | 8,725 |
| | April to Sept 2015/16 | 405 | 2,460 | 42,350 | 9,175 |

| | | | | | |
|---|---|---|---|---|---|
| | *Percentage Change since 2013/14* | *93%* | *29%* | *-8%* | *13%* |
| Royal Berkshire NHS Foundation Trust | April to Sept 2013/14 | 40 | 985 | 26,780 | 3,500 |
| | April to Sept 2014/15 | 35 | 1,160 | 28,175 | 3,665 |
| | April to Sept 2015/16 | 145 | 1,110 | 26,840 | 3,595 |
| | *Percentage Change since 2013/14* | *263%* | *13%* | *0%* | *3%* |
| Oxford University Hospitals NHS Trust | April to Sept 2013/14 | 2,305 | 2,170 | 43,385 | 5,335 |
| | April to Sept 2014/15 | 2,220 | 2,380 | 45,810 | 5,370 |
| | April to Sept 2015/16 | 4,345 | 2,520 | 45,530 | 5,170 |
| | *Percentage Change since 2013/14* | *89%* | *16%* | *5%* | *-3%* |
| Buckinghamshire Healthcare NHS Trust | April to Sept 2013/14 | 295 | 515 | 23,835 | 1,525 |
| | April to Sept 2014/15 | 265 | 1,535 | 24,935 | 4,080 |
| | April to Sept 2015/16 | 315 | 1,645 | 22,815 | 4,295 |
| | *Percentage Change since 2013/14* | *7%* | *219%* | *-4%* | *182%* |
| All TVSCN Providers | April to Sept 2013/14 | 2,955 | 6,615 | 176,090 | 22,570 |
| | April to Sept 2014/15 | 4,295 | 9,155 | 186,550 | 27,715 |
| | April to Sept 2015/16 | 6,265 | 9,180 | 160,965 | 27,445 |
| | *Percentage Change since 2013/14* | *112%* | *39%* | *-9%* | *22%* |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that across the 6 provider trusts, the largest percentage increase in such tests has been in ultrasounds of the kidney or bladder, where the number of imaging events was 112% higher in April to September 2015 than in April to September 2013. The number of tests was higher in 2015 than in 2013 for all types of test except chest x-rays which dropped by 9% compared to April to September 2013.

The table below also shows the trend in imaging events which may have been performed to diagnoses or discount cancer between April and September 2013 and April and September 2015**, but only for patients directly referred by their GP**.

**Table 21: Trend in imaging events between April-September 2013/14, 2014/15 and 2015/16 which may have been performed to diagnose or discount cancer by body site on NHS funded patients in England, for patients directly referred by their GP**

| Provider Name | Time Period | Kidney or Bladder (Ultrasound) | Chest and/or abdomen (CT) | Chest (X-ray) | Abdomen and/or pelvis (Ultrasound) |
|---|---|---|---|---|---|
| Milton Keynes Hospital NHS Foundation Trust | April to Sept 2013/14 | 40 | 30 | 4,080 | 2,040 |
| | April to Sept 2014/15 | 30 | 40 | 4,685 | 2,080 |
| | April to Sept 2015/16 | 10 | 50 | 4,235 | 2,180 |
| | *Percentage Change since 2013/14* | *-75%* | *67%* | *4%* | *7%* |
| Great Western Hospitals NHS Foundation Trust | April to Sept 2013/14 | 0 | 5 | 4,340 | 590 |
| | April to Sept 2014/15 | 595 | 70 | 5,625 | 1,295 |
| | April to Sept 2015/16 | 1,015 | 95 | 5,435 | 1,620 |
| | *Percentage Change since 2013/14* | *N/A* | *1800%* | *25%* | *175%* |
| Frimley Health NHS Foundation Trust | April to Sept 2013/14 | 35 | 105 | 12,265 | 4,565 |
| | April to Sept 2014/15 | 30 | 155 | 13,110 | 4,670 |
| | April to Sept 2015/16 | 25 | 200 | 10,840 | 5,215 |
| | *Percentage Change since 2013/14* | *-29%* | *90%* | *-12%* | *14%* |
| Royal Berkshire NHS Foundation | April to Sept 2013/14 | 20 | 235 | 8,480 | 1,940 |
| | April to Sept 2014/15 | 5 | 115 | 9,010 | 1,800 |

| | | | | | |
|---|---|---|---|---|---|
| Trust | April to Sept 2015/16 | 5 | 100 | 8,385 | 1,755 |
| | *Percentage Change since 2013/14* | *-75%* | *-57%* | *-1%* | *-10%* |
| Oxford University Hospitals NHS Trust | April to Sept 2013/14 | 1,055 | 115 | 5,570 | 2,405 |
| | April to Sept 2014/15 | 970 | 170 | 6,390 | 2,555 |
| | April to Sept 2015/16 | 975 | 275 | 5,680 | 2,505 |
| | *Percentage Change since 2013/14* | *-8%* | *139%* | *2%* | *4%* |
| Buckinghamshire Healthcare NHS Trust | April to Sept 2013/14 | 30 | 30 | 55 | 855 |
| | April to Sept 2014/15 | 15 | 25 | 150 | 1,940 |
| | April to Sept 2015/16 | 20 | 10 | 240 | 2,115 |
| | *Percentage Change since 2013/14* | *-33%* | *-67%* | *336%* | *147%* |
| All TVSCN Providers | April to Sept 2013/14 | 1,180 | 520 | 34,790 | 12,395 |
| | April to Sept 2014/15 | 1,645 | 575 | 38,970 | 14,340 |
| | April to Sept 2015/16 | 2,050 | 730 | 34,815 | 15,390 |
| | *Percentage Change since 2013/14* | *74%* | *40%* | *0%* | *24%* |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that directly referred imaging events for ultrasounds of the kidney or bladder have increased the most since April to September 2013.

## 8.2 Total imaging activity by modality

The table below shows the **total amount of imaging activity for all patients** referred (including those directly referred by their GP) for the period April to September 2015.

**Table 22: Total Count of Imaging Activity by Modality between April 1st 2015-September 30th 2015 on NHS funded patients in England, for all patients referred and those directly referred by a GP**

| Provider Name | CT | Diagnostic Ultrasound | Fluoroscopy | MRI | Nuclear Medicine | Plain Radiography | PET CT | Single Photon Emission CT |
|---|---|---|---|---|---|---|---|---|
| Milton Keynes Hospital NHS Foundation Trust | 10,475 | 32,030 | 2,565 | 7,370 | 0 | 51,755 | 0 | 0 |
| Buckinghamshire Health care NHS Trust | 14,065 | 36,620 | 3,355 | 8,645 | 1,010 | 78,615 | 0 | 0 |
| Frimley Health NHS Foundation Trust | 26,615 | 69,485 | 3,980 | 18,630 | 1,060 | 138,400 | 0 | 170 |
| Great Western Hospitals NHS Foundation Trust | 740 | 12,630 | 15 | 180 | 0 | 19,525 | 0 | 0 |
| Oxford University Hospitals NHS Trust | 29,010 | 39,830 | 9,160 | 18,790 | 1,580 | 116,430 | 1,620 | 45 |
| Royal Berkshire NHS Foundation Trust Foundation Trust | 13,450 | 16,730 | 1,925 | 8,560 | 1,170 | 87,050 | 0 | 0 |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that the Great Western Hospital appears to perform less diagnostic imaging events than the other TVSCN providers, but this may be an artefact of only directly referred GP tests being recorded. Diagnostic ultrasound events were more common at Frimley Health NHS Trust than at the other providers. PET CT events only occurred at Oxford University Hospitals, though Single Photon Emission CT also occurred at Frimley Health.

## 8.3 Average Time for Request to Test

The table below shows the average number of days from test request to the test being performed **for tests suitable for diagnosing cancer** for all patients referred and those patients directly referred by their GP for the period April to September 2015.

**Table 23: Median number of days from 'Date of Test Request' to 'Date of Test' between April 1st 2015-September 30th 2015 for Groups of Tests Suitable for Diagnosing Cancer, by Body Site on NHS funded patients in England, for all patients referred and those directly referred by a GP**

| Provider Name | Kidney or Bladder (Ultrasound) | | Chest and/or abdomen (CT) | | Chest (X-ray) | | Abdomen and/or pelvis (Ultrasound) | |
|---|---|---|---|---|---|---|---|---|
| | All | GP | All | GP | All | GP | All | GP |
| Milton Keynes Hospital NHS Foundation Trust | 2.4 | 13.7 | 18.1 | 17.1 | 0.0 | 1.0 | 20.7 | 22.2 |
| Buckinghamshire Healthcare NHS Trust | 2.3 | 3.0 | 10.7 | 10.4 | 0.9 | 3.7 | 20.9 | 29.4 |
| Frimley Health NHS Foundation Trust | 4.4 | 23.8 | 18.3 | no data | 0.9 | 3.0 | 16.7 | 20.0 |
| Great Western Hospitals NHS Foundation Trust | 28.5 | 28.5 | 9.2 | 9.2 | 2.4 | 2.4 | 26.4 | 26.4 |
| Oxford University Hospitals NHS Trust | 16.6 | 18.7 | 16.4 | 24.0 | 0.9 | 0.9 | 16.6 | 27.6 |
| Royal Berkshire NHS Foundation Trust | 0.9 | 7.5 | 3.3 | 4.2 | 0.9 | 0.9 | 4.0 | 4.3 |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that the Royal Berkshire Hospital had the shortest median number of days from request to test for all referrals including ultrasound of kidney or bladder, chest and/or abdomen CT and ultrasound of abdomen and/or pelvis. For tests directly referred by a GP, the Royal Berkshire also had the shortest median time from request to test for brain MRI, chest and/or abdomen CT and ultrasound of abdomen and/or pelvis, but Buckinghamshire Healthcare had the shortest time from test to request for ultrasounds of the kidney or bladder.

The table below shows the average number of days from test request to the test being performed for **all diagnostic imaging tests** for all patients referred and those patients directly referred by their GP for the period April to September 2015.

**Table 24: Median number of days from 'Date of Test Request' to 'Date of Test' by Modality between April 1st 2015-September 30th 2015 on NHS funded patients in England, for all patients referred and those directly referred by a GP.**

| Provider Name | CT | Diagnostic Ultrasound | Fluoroscopy | MRI | Nuclear Medicine | Plain Radiography | PET | Single Photon Emission CT |
|---|---|---|---|---|---|---|---|---|
| Milton Keynes Hospital NHS Foundation Trust | 1.4 | 19.3 | 0.9 | 11.0 | No data | 0.9 | No data | No data |
| Buckinghamshire Healthcare NHS Trust | 3.4 | 10.0 | 4.6 | 13.1 | 16.1 | 0.9 | no data | no data |
| Frimley Health NHS Foundation Trust | 3.0 | 2.6 | 1.7 | 13.3 | no data | 0.9 | no data | no data |
| Great Western Hospitals NHS Foundation Trust | 18.7 | 29.6 | 18.0 | 12.8 | no data | 2.3 | no data | no data |
| Oxford University Hospitals NHS Trust | 1.7 | 8.3 | 0.9 | 25.1 | 21.1 | 0.9 | 6.9 | 27.1 |
| Royal Berkshire NHS Foundation Trust | 1.3 | 3.9 | 0.9 | 3.7 | 3.6 | 0.9 | no data | no data |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that the Royal Berkshire Hospital had the shortest median time between request and test for CT scans and MRI scans. Frimley Health had the shortest median time between request and test for diagnostic ultrasounds. The Great Western Hospital had a higher median time from request to test than the other providers for Fluoroscopy and for plain radiography.

The table below shows the median time from date of test to date that the report was issued **for groups of tests suitable for diagnosing cancer** for the period April to September 2015.

**Table 25: Median number of days from 'Date of Test' to 'Date of Test Report Issued' for Groups of Tests Suitable for Diagnosing Cancer, by Body Site**

| Provider Name | Kidney or Bladder (Ultrasound) | | Chest and/or abdomen (CT) | | Chest (X-ray) | | Abdomen and/or pelvis (Ultrasound) | |
|---|---|---|---|---|---|---|---|---|
| | All | GP | All | GP | All | GP | All | GP |
| Milton Keynes Hospital NHS Foundation Trust | 1.0 | 2.0 | 7.3 | 4.2 | 7.4 | 2.0 | 0.9 | 0.9 |
| Buckinghamshire Healthcare NHS Trust | 0.9 | 2.0 | 3.9 | 4.9 | 5.4 | 2.3 | 0.9 | 0.9 |
| Frimley Health NHS Foundation Trust | 0.9 | 1.2 | 3.7 | 4.4 | 2.3 | 1.6 | 0.9 | 0.9 |
| Great Western Hospitals NHS Foundation Trust | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 |
| Oxford University Hospitals NHS Trust | 0.9 | 0.9 | 1.6 | 1.9 | 3.4 | 1.9 | 0.9 | 0.9 |
| Royal Berkshire NHS Foundation Trust | 0.9 | 3.0 | 2.9 | 3.9 | 1.7 | 1.7 | 0.9 | 0.9 |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that Great Western Hospital had a median time between test and report of a day or less for all the types of test suitable for diagnosing cancer, both for all tests and for tests directly referred by GPs. All trusts had a longer median time for directly referred GP tests compared to the average for all tests for brain MRI scans, apart from Great Western Hospital where the median time was the same.

The table below shows the median time from date of test to date of test report **for all patients** including those referred directly by a GP for the period from April to September 2015.

**Table 26: Median number of days from 'Date of Test' to 'Date of Test Report Issued' by Modality between April 1st 2015-September 30th 2015 on NHS funded patients in England, for all patients referred and those directly referred by a GP.**

| Provider Name | CT | Diagnostic Ultrasound | Fluoroscopy | MRI | Nuclear Medicine | Plain Radiography | PET Scan | Single Photon Emission CT |
|---|---|---|---|---|---|---|---|---|
| Milton Keynes Hospital NHS Foundation Trust | 0.9 | 0.9 | 0.9 | 4.0 | No data | 2.9 | No data | No data |
| Buckinghamshire Healthcare NHS Trust | 1.0 | 0.9 | 0.9 | 2.4 | 1.3 | 2.7 | No data | No data |
| Frimley Health NHS Foundation Trust | 0.9 | 0.9 | 0.9 | 2.9 | 2.1 | 2.0 | No data | 3.8 |
| Oxford University Hospitals NHS Trust | 0.9 | 0.9 | 0.9 | 2.7 | 2.2 | 2.0 | 2.3 | 5.1 |
| Royal Berkshire NHS Foundation Trust | 0.9 | 0.9 | 0.9 | 3.4 | 3.9 | 1.7 | No data | No data |

Source: Diagnostic Imaging Dataset – HSCIC, January 21st 2016

The figures show that the median time from date of test to date of report being issued was a day or less at all the TVSCN providers for CT scans, diagnostic ultrasounds and fluoroscopy. Buckinghamshire Healthcare had the shortest median time between date of test and date of report for MRI scans and for nuclear medicine. The Royal Berkshire Hospital had the shortest median time for plain radiography.

# 9 Variation in demand for diagnostic services

The Atlas of Variation in diagnostic services was published in November 2013 by NHS RightCare. It brings together data from around 60 different diagnostic tests from radiology, pathology and endoscopy, presented as a rate by commissioning organisation. Data is tabulated by health economy as shown in Table 1 which equate to the CCGs in place in 2011/12 and 2012/13 when the data was collected. These health economies have catchments that typically refer patients to one hospital although on the borders GPs may refer to hospitals in a neighbouring area. The England range (211 CCGs) is included in each table and each health economy is assigned a quintile from 1-5 (1=top 20% CCGs with highest rate of test requests and 5=lowest 20%) determined by their ranking with all other CCGs in the country. From the data of the 60 tests available 10 which are commonly used in the diagnosis of the 11 cancers are presented here as examples of how rates of tests requested vary from CCG to CCG.

The table below shows the number of Magnetic Resonance Imaging scans (MRIs) undertaken per 1000 weighted population for 2012/13.

**Table 27: Number of MRI scans performed per 1,000 weighted population for TVSCN health economies and England in 2012/13**

| | Number MRI scans per 1000 weighted pop 2012/13 | Quintile |
|---|---|---|
| England | range 22.8 -– 99.0 | |
| East Berkshire CCGs | 42.0 | 4 |
| West Berkshire CCGs | 39.8 | 4 |
| Buckinghamshire CCGs | 66.7 | 1 |
| Milton Keynes CCG | 55.3 | 1 |
| Oxfordshire CCG | 59.1 | 1 |
| Swindon CCG | 42.0 | 4 |

Source: The NHS Atlas of Variation in Diagnostic Services

Buckinghamshire undertakes the most scans per head of population in the Thames Valley which is third highest in England. Milton Keynes and Oxfordshire are also in the top quintile for MRI scans per head of population compared to the other health economies which are in the 4th quintile.

The table below shows the number of Computerised Tomography (CT) scans undertaken per 1000 weighted population for 2012/13 for England and the Thames Valley health economies.

**Table 28: Number of CT scans performed per 1,000 weighted population for TVSCN health economies and England in 2012/13**

| | CT scans per 1000 weighted population 2012/13 | Quintile |
|---|---|---|
| England | range 37.2-132.1 | |
| East Berkshire CCGs | 58.2 | 5 |
| West Berkshire CCGs | 60.2 | 5 |
| Buckinghamshire CCGs | 94.1 | 1 |
| Milton Keynes CCG | 37.2 | 5 |
| Oxfordshire CCG | 72.2 | 3 |
| Swindon CCG | 92.6 | 1 |

Source: The NHS Atlas of Variation in Diagnostic Services

Buckinghamshire and Swindon have the most CT scans per 1,000 weighted population and are in the top quintile for number of referrals per head of population compared to West Berkshire, East Berkshire and Milton Keynes in the bottom quintile.

The table below shows the number of non-obstetric ultrasound scans undertaken per 1000 weighted population for 2012/13 for England and the Thames Valley health economies.

**Table 29: Number of non-obstetric ultrasounds performed per 1,000 weighted population for TVSCN health economies and England in 2012/13**

| | Non-obstetric Ultrasound scans per 1,000 weighted pop 2012/13 | Quintile |
|---|---|---|
| England | range 54.4-161.8 | |
| East Berkshire CCGs | 122.4 | 2 |
| West Berkshire CCGs | 76.2 | 5 |
| Buckinghamshire CCGs | 150.2 | 1 |
| Milton Keynes CCG | 118.6 | 3 |
| Oxfordshire CCG | 112.2 | 3 |
| Swindon CCG | 133.0 | 1 |

Source: The NHS Atlas of Variation in Diagnostic Services

Buckinghamshire (ninth highest in England) and Swindon CCGs are in the top quintile for number of referrals per head of population compared to West Berkshire (7th lowest) in the bottom quintile.

The table below shows the number of colonoscopies and flexi sigmoidoscopies undertaken per 10,000 weighted population for 2011/12 for England and the Thames Valley health economies. The data also includes the upper and lower confidence intervals

**Table 30: Number of colonoscopy and flexible sigmoidoscopy procedures performed per 10,000 weighted population for TVSCN health economies and England in 2011/12**

| | Colonoscopy and flexi sigmoidoscopy per 10,000 weighted population 2011/12 (CI)) | Quintile |
|---|---|---|
| England | range 329.3-115.25 | |
| East Berkshire CCGs | 221.02 (216.09-226.03) | 3 |
| West Berkshire CCGs | 142.19 (138.54-145.91) | 5 |
| Buckinghamshire CCGs | 194.55 (190.62-198.54) | 4 |
| Milton Keynes CCG | 234.99 (228.45-241.66) | 2 |
| Oxfordshire CCG | 227.03 (223.12-236.99) | 3 |
| Swindon CCG | 219.84 (213.19-226.65) | 3 |

Source: The NHS Atlas of Variation in Diagnostic Services

West Berkshire CCGs are second lowest in the country for the number of colonoscopies and flexi sigmoidoscopies undertaken per 10,000 weighted population. The other CCGs are spread across quintiles 2, 3 and 4.

The table below shows the number of CT colonoscopies undertaken per 10,000 weighted population between April to November 2012 for England and the Thames Valley health economies.

**Table 31: Number of CT colonoscopy procedures performed per 10,000 weighted population for TVSCN health economies and England from April to November 2012**

| | CT colonoscopy per 10,000 per weighted population Apr-Nov 2012 | Quintile |
|---|---|---|
| England | range 0.34-24.48 | |
| East Berkshire CCGs | 1.37 | 5 |
| West Berkshire CCGs | 5.58 | 3 |
| Buckinghamshire CCGs | 6.54 | 3 |
| Milton Keynes CCG | 7.57 | 2 |
| Oxfordshire CCG | 8.07 | 2 |
| Swindon CCG | No data | - |

Source: The NHS Atlas of Variation in Diagnostic Services

East Berkshire had the lowest rate of CT colonoscopies per 10,000 head of weighted population in (quintile 5) in England whilst the other CCGs where in quintiles 2 or 3.

The table below shows the number of gastroscopy procedures undertaken per 10,000 weighted population in 2011/12 for England and the Thames Valley health economies. The data also includes the upper and lower confidence intervals.

**Table 32: Number of Gastroscopy procedures performed per 10,000 weighted population for TVSCN health economies and England in 2011/12**

| | Gastroscopies per 10,000 weighted population for 2011/12 (CI) | Quintile |
|---|---|---|
| England | range 81.8-215.3 | |
| East Berkshire CCGs | 135.8 (131.9-139.8) | 2 |
| West Berkshire CCGs | 84.4 (86-92.3) | 5 |
| Buckinghamshire CCGs | 113.2 (110.2-116.3) | 4 |
| Milton Keynes CCG | 133.6 (128.7-138.8) | 3 |
| Oxfordshire CCG | 117.6 (114.8-120.5) | 4 |
| Swindon CCG | 143.9 (138.4-149.4) | 2 |

Source: The NHS Atlas of Variation in Diagnostic Services

West Berkshire CCGs (quintile 5) had the second lowest number of gastroscopies per 10,000 weighted population in England with the other CCGs spread across quintiles 2, 3 and 4.

The table below shows the percentage of all gastroscopy procedures that were undertaken in under 55 year olds for England and the Thames Valley health economies. The data also includes the upper and lower confidence intervals.

**Table 33: Percentage of Gastroscopy procedures carried out in under 55 year olds for TVSCN health economies and England in 2011/12**

| | Percentage of total gastroscopies undertaken in under 55 year olds (CI) | Quintile |
|---|---|---|
| England | range 59.1-24% | |
| East Berkshire CCGs | 38.3 (36.1-40.6) | 2 |
| West Berkshire CCGs | 30.8 (28.9-32.7) | 5 |
| Buckinghamshire CCGs | 31.9 (30.4-33.5) | 4 |
| Milton Keynes CCG | 41.9 (39.5-44.4) | 1 |
| Oxfordshire CCG | 35.9 (34.5-37.4) | 3 |
| Swindon CCG | 34.9 (32.7-37.2) | 3 |

Source: The NHS Atlas of Variation in Diagnostic Services

In the Thames Valley Milton Keynes (quintile 1) has the highest proportion of gastroscopies carried out in under 55 year olds and West Berkshire the fewest (quintile 5).

The table below shows the number of endoscopic ultrasound procedures performed per 10,000 weighted population for England and the Thames Valley health economies. The data also includes the upper and lower confidence intervals.

**Table 34: Number of endoscopic ultrasound procedures performed per 10,000 weighted population for TVSCN health economies and England in 2011/12**

| | Endoscopic ultrasound procedures performed per 10,000 weighted population 2011/12 (CI) | Quintile |
|---|---|---|
| England | range 6.76 - 0.12 | |
| East Berkshire CCGs | 1.20 (0.86-1.63) | 5 |
| West Berkshire CCGs | 1.52 (1.16-1.95) | 4 |
| Buckinghamshire CCGs | 0.86 (0.62-1.17) | 5 |
| Milton Keynes CCG | 0.78 (0.45-1.27) | 5 |
| Oxfordshire CCG | 1.63 (1.31-2.00) | 4 |
| Swindon CCG | 0.75 (0.41-1.25 ) | 5 |

Source: The NHS Atlas of Variation in Diagnostic Services

Swindon, Milton Keynes and Buckinghamshire CCGs have the 8th, 9th and 12th lowest rate of endoscopic ultrasound procedures in England. Oxfordshire in quintile 4 has the highest procedure rate but this is still below the median for England.

The table below shows the number of CA125 blood tests ordered by GPs per 1,000 weighted population for England and the Thames Valley health economies in 2012.

**Table 35: Number of CA125 blood tests ordered by GPs per 1000 practice population for TVSCN health economies and England in 2012**

| | Estimated CA125 tests ordered by GP per 1000 practice pop 2012 | Quintile |
|---|---|---|
| England | range 0.213-9.033 | |
| East Berkshire CCGs | 3.070 | 4 |
| West Berkshire CCGs | 3.261 | 4 |
| Buckinghamshire CCGs | 8.271 | 1 |
| Milton Keynes CCG | 8.678 | 1 |
| Oxfordshire CCG | 8.830 | 1 |
| Swindon CCG | No data | N/A |

Source: The NHS Atlas of Variation in Diagnostic Services

Buckinghamshire, Milton Keynes and Oxfordshire CCGs are all in quintile 1 with the highest rates of GP requests for CA125 tests (3rd, 7th, 9th highest respectively in England) whilst the East and West Berkshire CCGs have less than half the rate of requests per head of population and are in quintile 4.

The table below shows the number of PSA blood ordered by GPs per 1,000 weighted practice population for England and the Thames Valley health economies in 2012.

**Table 36: Number of PSA tests ordered by GPs per 1,000 GP practice population for TVSCN health economies and England in 2012**

| | Estimated PSA tests ordered by GPs per 1000 practice population 2012 | Quintile |
|---|---|---|
| England | range 2.84-46.09 | |
| East Berkshire CCGs | 20.05 | 3 |
| West Berkshire CCGs | 20.88 | 3 |
| Buckinghamshire CCGs | 31.29 | 1 |
| Milton Keynes CCG | 29.35 | 2 |
| Oxfordshire CCG | 26.12 | 2 |
| Swindon CCG | 19.92 | 4 |

Source: The NHS Atlas of Variation in Diagnostic Services

Swindon CCG has the lowest rate of PSA tests ordered per 1000 GP practice population (quintile 4) and Buckinghamshire CCGs the highest (quintile 1).

# Appendix 1: ICD 10 Codes Used to Extract Cancer Incidence Data by TVSCN

The table below shows the ICD 10 codes used by TVSCN to extract cancer incidence data for this report.

| Specialty | Site | ICD10 for specific type of cancer | Other |
|---|---|---|---|
| Urology | Prostate | C61 | |
| Urology | Bladder | C67 | |
| Urology | Kidney | C64 | |
| Lung | Lung | C33, C34 | D02 |
| Colorectal | Colorectal | C18-C20 & C21 | |
| Upper GI | Oesophageal & Gastric | C15 & C16 | |
| Upper GI | Pancreatic | C25 | |
| Gynaecology | Cervical | C53 | |
| Gynaecology | Endometrial | C54-C55 | |
| Gynaecology | Ovarian | C56-C57 | |
| Gynaecology | Vulval | C51, C52 | |


1 Wootton Edge Barns, Holly Bank,
Wootton-by-Woodstock, OX20 1AE

T +44 (0)3300 555 180
E solutions@sph.nhs.uk

www.sph.nhs.uk

Published April 2016