

Diagnostic Imaging Dataset: Standardised CCG rates 2013/14



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1 Introduction

NHS England published finalised 2013/14 data from the Diagnostic Imaging Dataset (DID) in November 2014¹. Whilst comparisons between Clinical Commissioning Groups (CCGs) were included in that publication, these were not expressed as an imaging rate per population, nor were they adjusted for the impact of age, sex or deprivation. This analysis was undertaken to investigate the impact of age, sex and deprivation on the rates (via Odds Ratios) and to provide standardised CCG rates of imaging for each modality and for early diagnosis of cancer (EDOC) tests².

2 CCG Standardised Rates

2.1 Method

Rates per 10,000 population were calculated using 2013/14 DID activity by responsible CCG divided by July 2014 GP Practice-registered CCG populations from the Exeter system. Both sources were available by age and sex, with Index of Multiple Deprivation (IMD) quintile information added based on Lower Super Output Area (LSOA)³.

Monthly counts of imaging activity by CCG, sex, 5 year age band, imputed IMD quintile and modality or EDOC were extracted from DID. Cases that did not have full completeness for all required fields were removed: approximately 6.5 million (17%) cases. Of those that were removed, 4.1 million did not have a valid English CCG in the DID (derived from GP Practice code). Of the others, IMD (matched from a valid English LSOA) was missing slightly more often than age or sex (the latter rarely missing), but there was considerable overlap. The missing data were often clustered around particular data submitters and so affect some areas more than others.

Rates were indirectly standardised by applying the national rate by modality or EDOC for each IMD/Sex/Age breakdown to the local CCG population, to obtain an expected rate for each CCG based on their demography. The extent to which the observed rate differed from the expected rate indicated the extent to which the CCG differed from the standard, national rate. A standardised rate for each CCG by modality or EDOC was calculated as:

$$\text{Standardised Rate}_{\text{CCG}} = \left(\frac{\text{Observed Rate}_{\text{CCG}}}{\text{Expected Rate}_{\text{CCG}}} \right) \times \text{National Rate}$$

¹ *Diagnostic Imaging Dataset Annual Statistical Release 2013/14*, NHS England, 6 November 2014.

Available (with appended tables by CCG) from <http://www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/diagnostic-imaging-dataset-diagnostic-imaging-dataset-2013-14-data/>

² See above publication for definitions of each modality and further details on the survey.

³ The 2013/14 DID has 2001 LSOA derived from patient postcode, which was matched to 2010 IMD quintiles.

2.2 Results

The national rates of diagnostic imaging tests in 2013/14 per 10,000 people are shown in Tables 1 & 2 below.

Table 1. National Imaging Rates by modality, 2013/14

	X-ray	Ultrasound	CT Scan	MRI	Fluoro-scropy	Nuclear Medicine	PET Scan	SPECT Scan	Medical Photography
Rate per 10,000 people	3,201	1,212	562	380	154	66	8	2	1

Table 2. National Imaging Rates by Early Diagnosis of Cancer⁴, 2013/14

	Brain MRI	Chest X-ray	Chest CT	Kidney or Bladder Ultrasound	Abdomen or Pelvis Ultrasound
Rate per 10,000 people	77	1,128	67	34	181

Some CCGs have very low rates across all modalities because their providers did not report the GP Practice and thereby the CCG responsible for commissioning the activity. Even CCGs with higher rates may have shortfalls for this reason. Further details are given in Annex A, which gives a list of the CCGs thought to be most affected. Consequently the rates should be interpreted with caution, especially those at the lower end of the distribution across all modalities.

For most CCGs the standardised rate is within 10% of the crude rate, but there are some exceptions. For example NHS Eastbourne, Hailsham & Seaford CCG's standardised rates are consistently lower than the crude rates, in some modalities 20% lower, adjusting for its elderly population. Conversely, NHS Bradford City CCG's standardised rates are higher than the crude rate, with some modalities as much as 50% higher, particularly adjusting for its younger population. The impact of age, sex and deprivation on imaging rates is explored in Section 3.

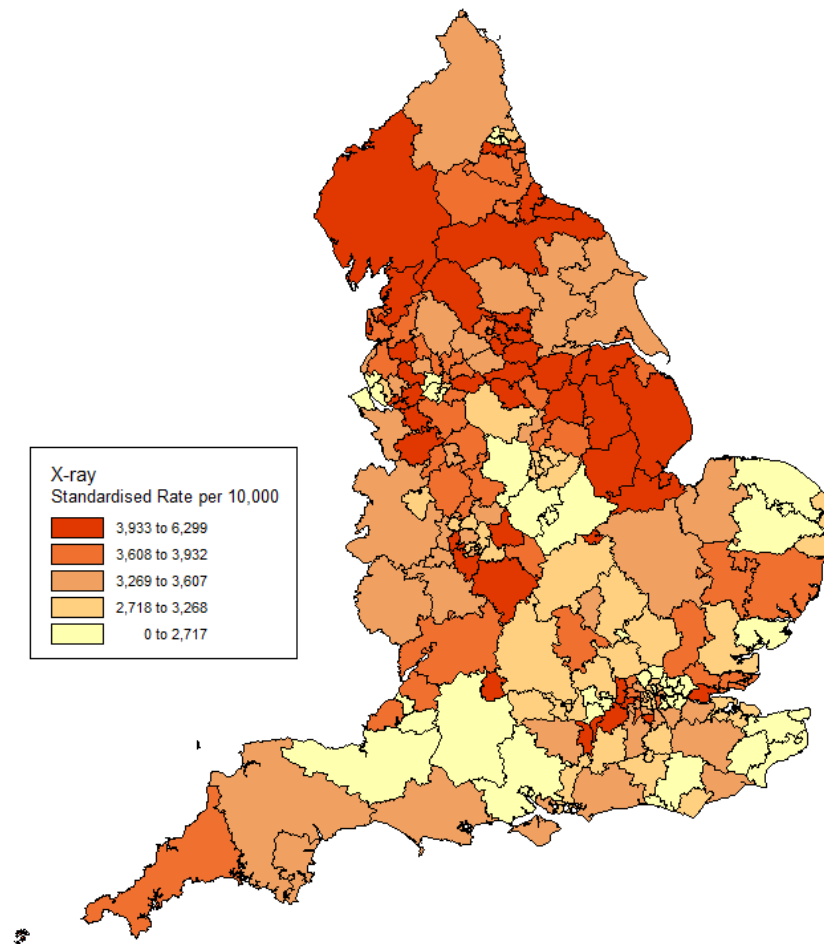
Standardised 2013/14 rates by CCG are available in Annex B (separate Excel file). The following sections summarise the distribution of rates for each modality or EDOC and illustrate these on a map.

⁴ Brain MRI may be used to diagnose brain cancer; Chest X-ray and Chest CT to diagnose lung cancer, Kidney or Bladder ultrasound to diagnose kidney or bladder cancer and Abdomen and/or pelvis ultrasound to diagnose ovarian cancer (but this test, and the rates given here, are not restricted to females). Although these tests may be used to diagnose cancer, many have wider clinical uses and it is not possible to distinguish between the different uses of these tests.

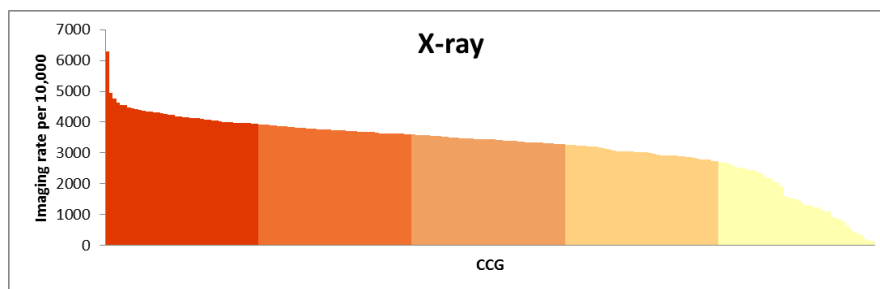
2.2.1 X-ray

As can be seen from Map 1 and Graph 1 there appears to be some regional variation in X-ray rates, with rates generally higher in CCGs in the North Region. The low level of rates in the lower fifth of CCGs illustrates the impact of missing data – some of these rates will be understated for that reason. The national rate is 3,201 X-rays per 10,000 registered population and 77% CCGs are within one standard deviation of the mean, that is between 2,181 and 4,214 tests per 10,000 population.

Map 1. Standardised X-ray rates by CCG, 2013/14



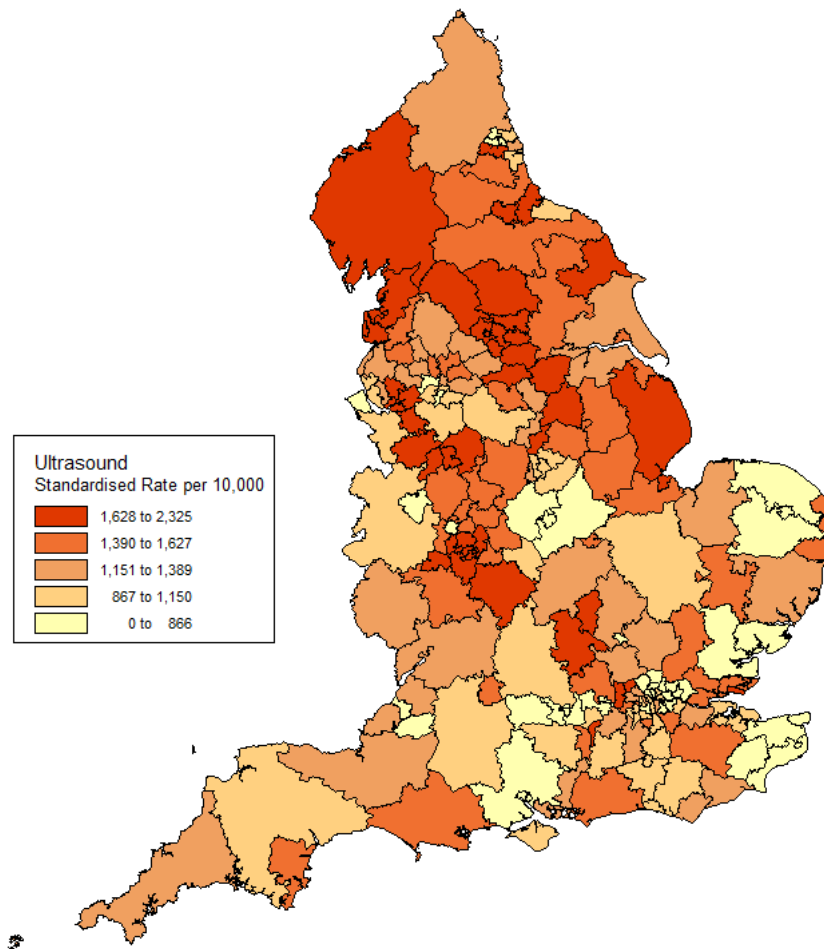
Graph 1. Standardised X-ray rates by CCG, 2013/14



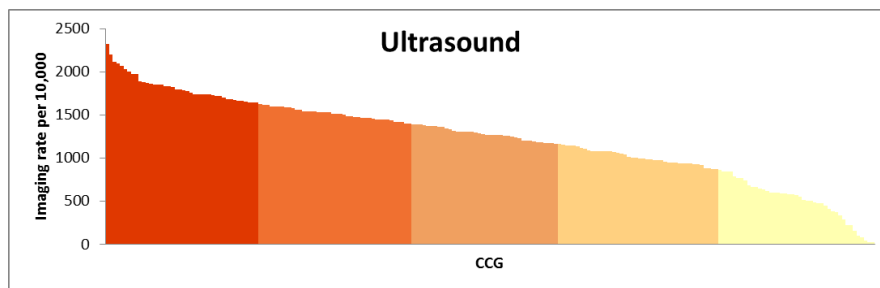
2.2.2 Ultrasound

As with X-ray, Ultrasound shows a concentration of higher rates in CCGs in the North region (Map 2). The comparison of standardised rates to crude rates shows that 96% of CCGs have a standardised rate within 10% of their crude rate, mainly because ultrasound does not rise as steeply with age as the other modalities (see Odds ratios) so demographics have less impact on the rate. Nevertheless, the rates vary more than the other major modalities and one standard deviation of the mean, ranges from 750 to 1,695 ultrasounds per 10,000 registered population (67% CCGs are within this), with a national rate of 1,212 ultrasounds per 10,000 population.

Map 2. Standardised Ultrasound rates by CCG, 2013/14



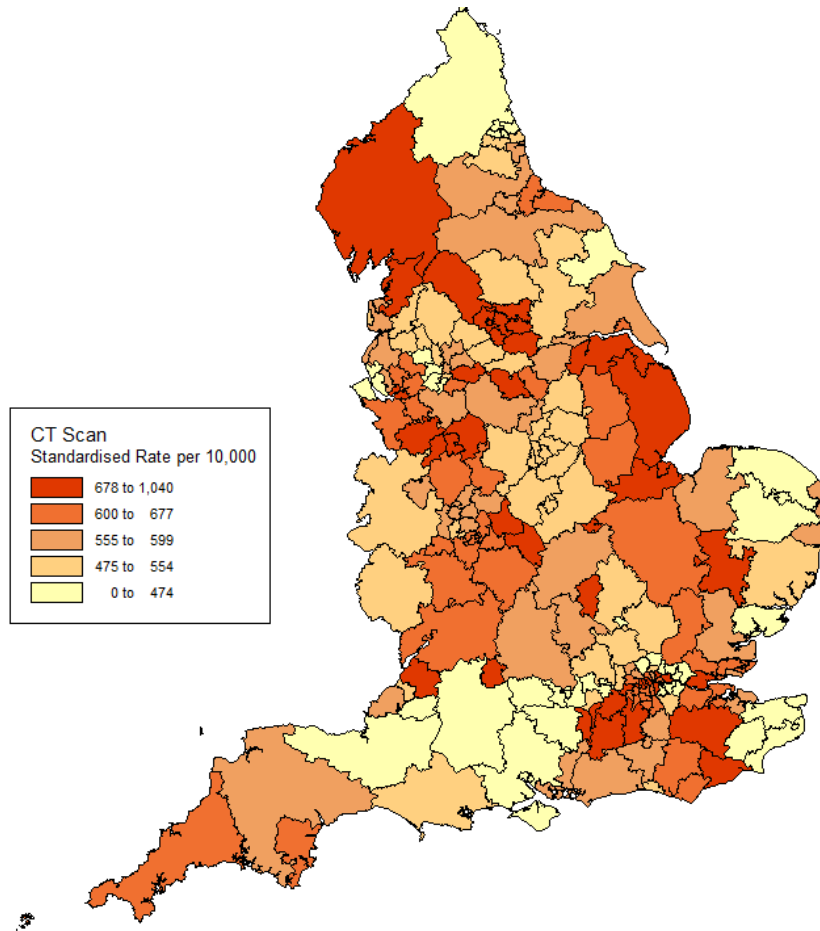
Graph 2. Standardised Ultrasound rates by CCG, 2013/14



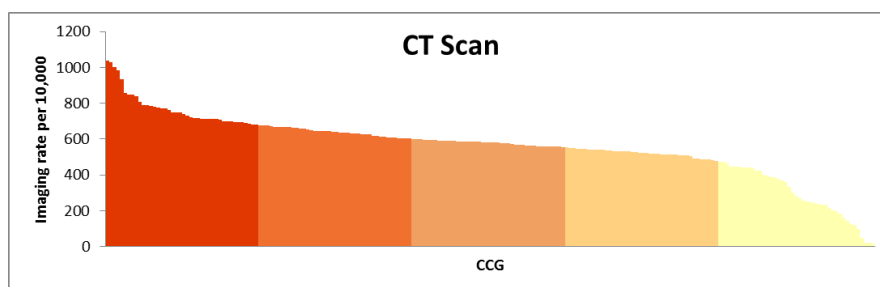
2.2.3 CT Scans

CT scans do not appear to show any strongly regional concentration and there are both high and lower rates across England (Map 3). The comparison of standardised rates to crude rates shows that only 55% of CCGs have a standardised rate within 10% of their crude rate, suggesting that demographics have a large effect on CT scans. The national rate is 562 CT scans per 10,000 registered population and 77% CCGs are within one standard deviation of the mean, that is between 383 and 737 tests per 10,000 population.

Map 3. Standardised CT rates by CCG, 2013/14



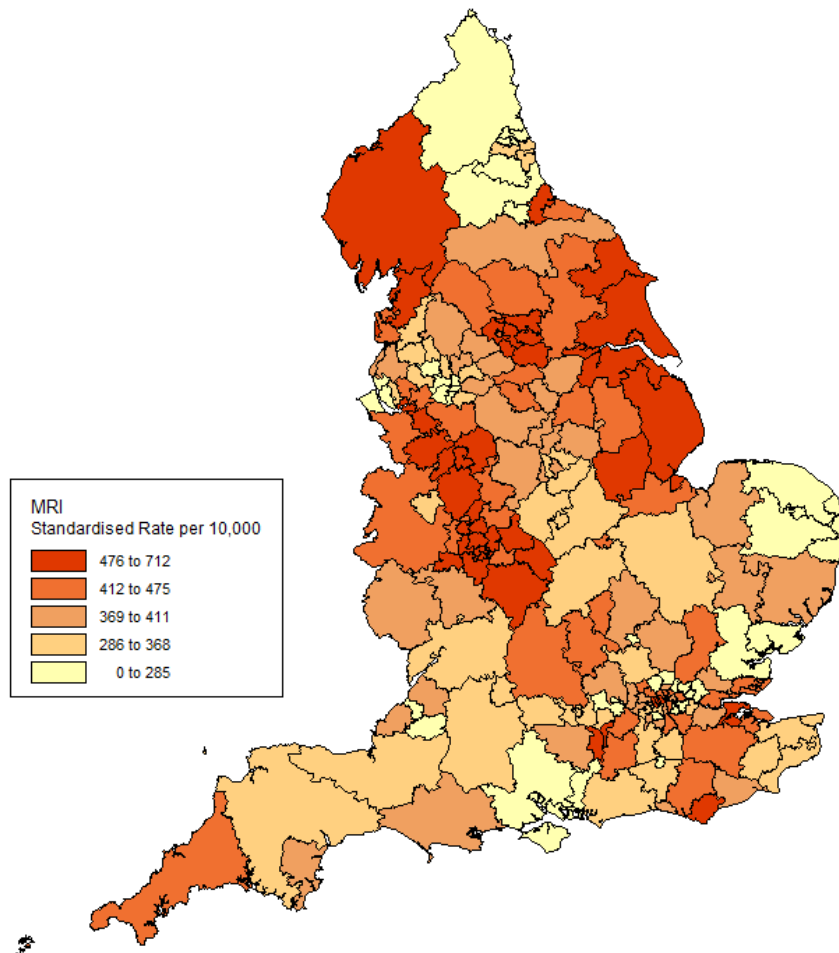
Graph 3. Standardised CT rates by CCG, 2013/14



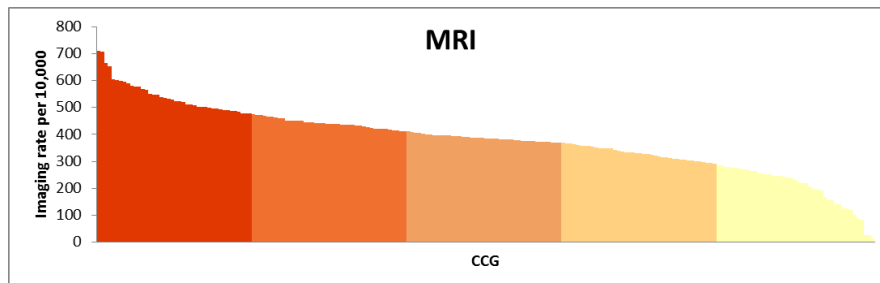
2.2.4 MRI Scans

MRI shows a greater concentration of high rates in the North Region, specifically East Yorkshire, Cumbria and West Midlands (Map 4). The national rate is 380 MRI scans per 10,000 registered population and 72% CCGs are within one standard deviation of the mean, between 257 and 503 tests per 10,000 population.

Map 4. Standardised MRI rates by CCG, 2013/14



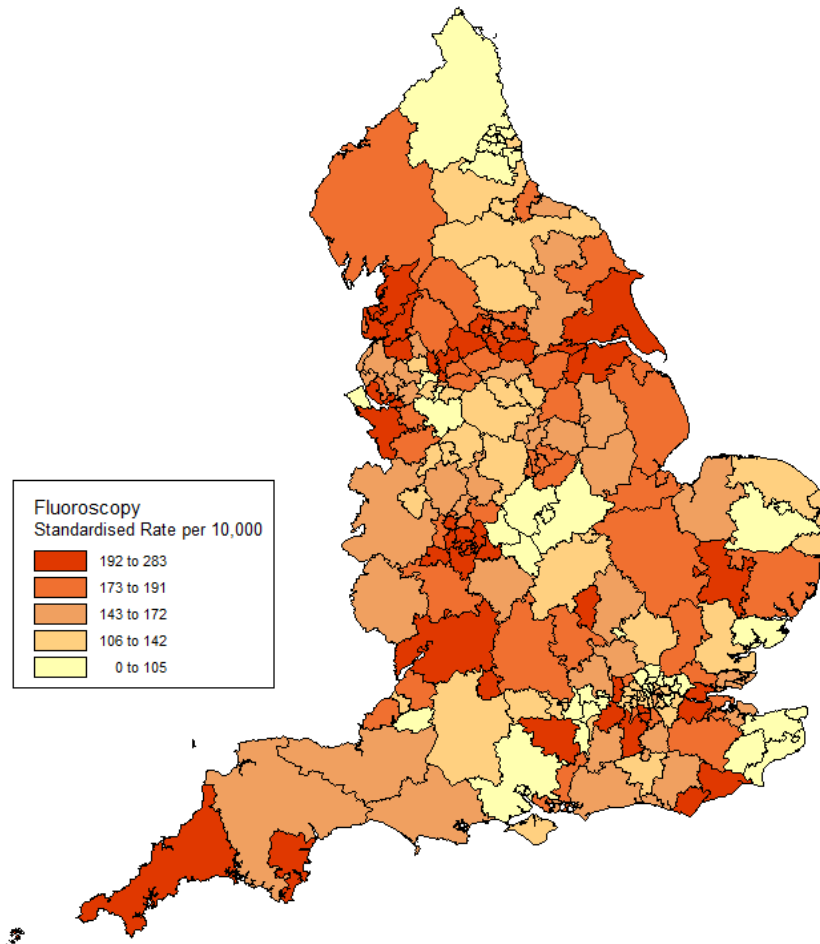
Graph 4. Standardised MRI rates by CCG, 2013/14



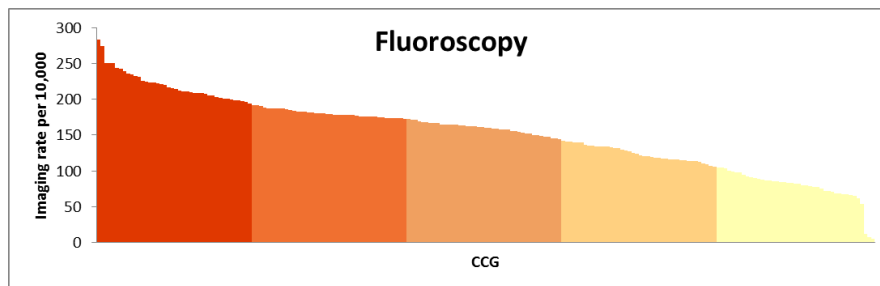
2.2.5 Fluoroscopy

Fluoroscopy shows no marked concentration of high or low standardised rates (Map 5), but rates are relatively variable across CCGs. The national rate is 154 Fluoroscopy scans per 10,000 registered population and 66% CCGs are within one standard deviation of the mean, that is between 101 and 203 tests per 10,000 population

Map 5. Standardised Fluoroscopy rates by CCG, 2013/14



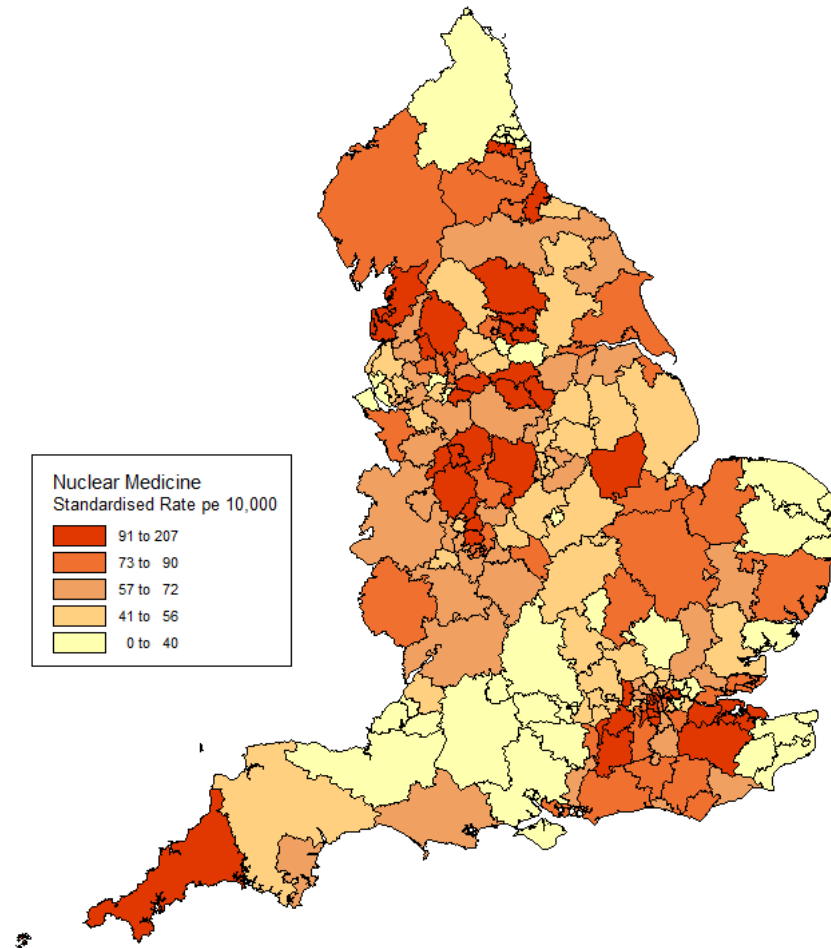
Graph 5. Standardised Fluoroscopy rates by CCG, 2013/14



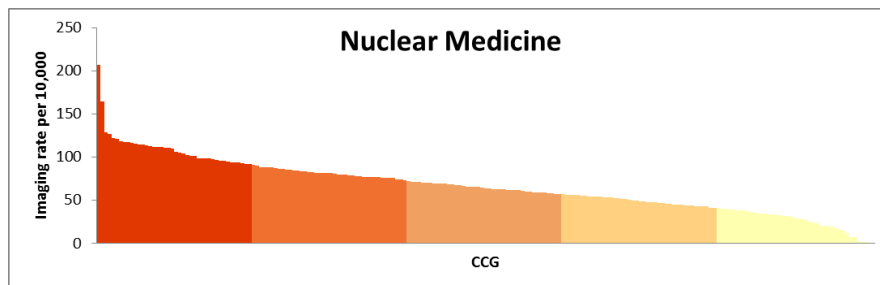
2.2.6 Nuclear Medicine

Nuclear Medicine shows considerable regional variation, with higher rates in the south east of England and lower rates in the Cotswolds and surrounding areas (Map 6). The national rate is 66 Nuclear Medicine exams per 10,000 registered population and 70% CCGs are within one standard deviation of the mean, that is between 35 and 97 tests per 10,000 population.

Map 6. Standardised Nuclear Medicine rates by CCG, 2013/14



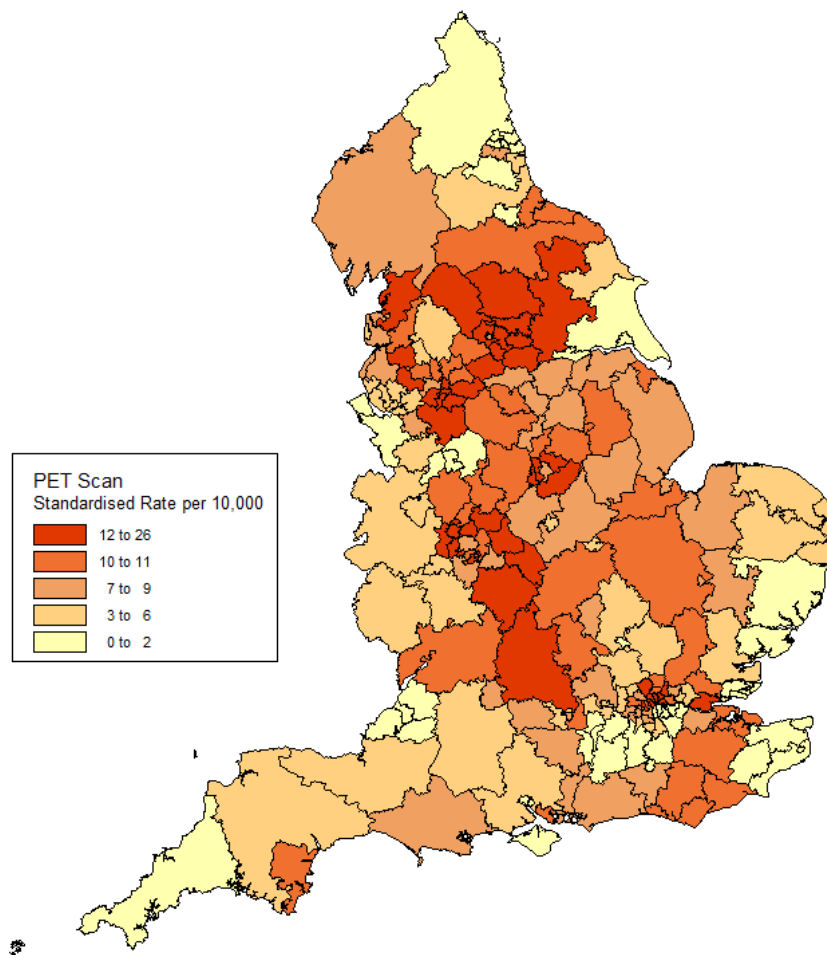
Graph 6. Standardised Nuclear Medicine rates by CCG, 2013/14



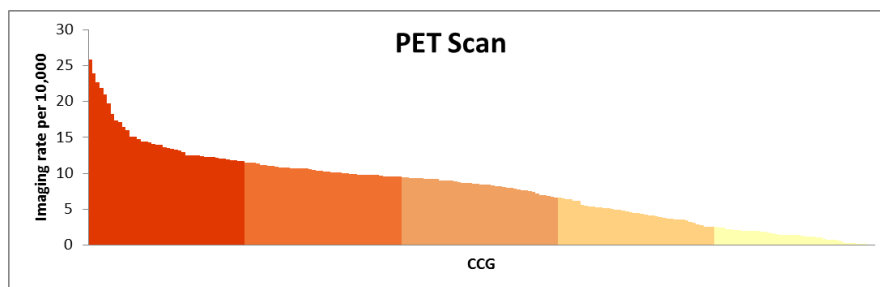
2.2.7 PET Scan

PET Scan shows some regional variation, with clusters of higher rates in North Yorkshire and North London (Map 7). Some of the variability arises from the relatively small numbers: the national rate is 8 PET scans per 10,000 registered population and 65% CCGs are within one standard deviation of the mean between 3 and 13 tests per 10,000 population.

Map 7. Standardised PET Scan rates by CCG, 2013/14



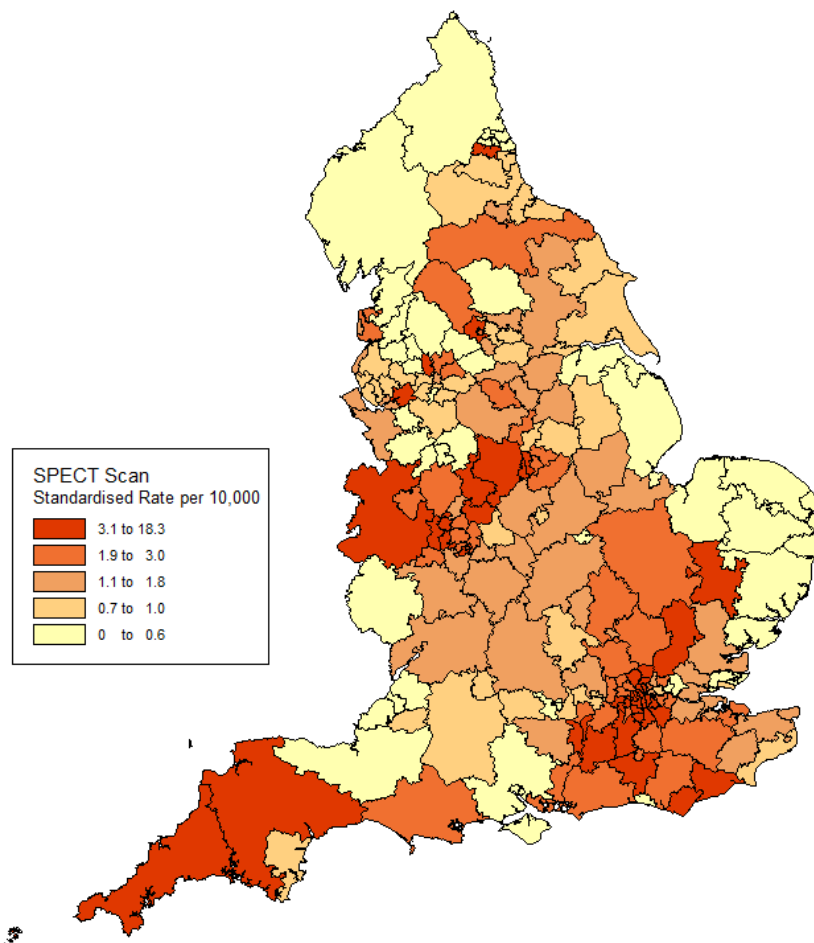
Graph 7. Standardised PET Scan rates by CCG, 2013/14



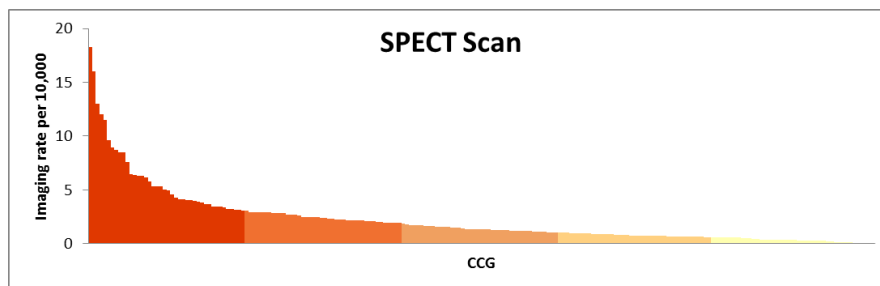
2.2.8 SPECT Scan

SPECT Scan shows clusters of high rates amongst generally low rates. The West Midlands, Devon & Cornwall and the south east show the greatest concentration of high rates (Map 8). The biggest volume providers of SPECT are reported in Plymouth, Derby and Wolverhampton, with others in and around London, leading to higher rates in those and neighbouring CCGs (Chart 8). The national rate is 2.2 SPECT scans per 10,000 registered population but the variance is wide and one standard deviation of the mean extends from 0 to 4.9 tests per 10,000 population (with 90% CCGs within this range, but some considerably higher).

Map 8. Standardised SPECT Scan rates by CCG, 2013/14



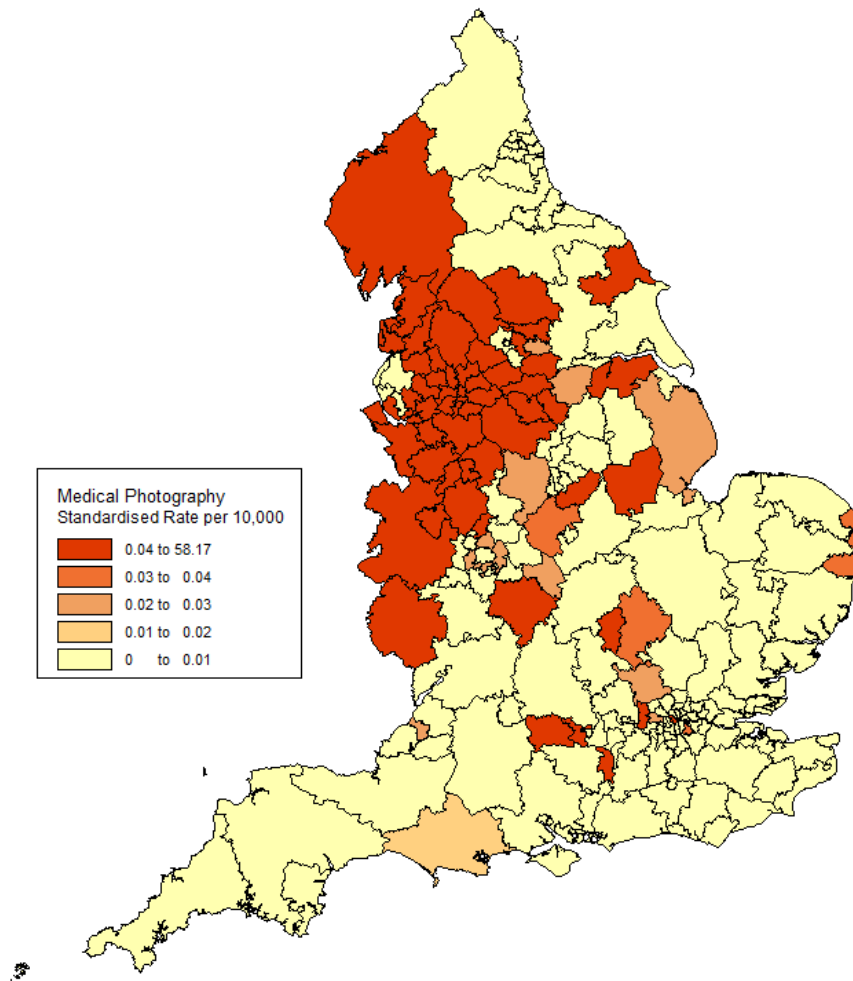
Graph 8. Standardised SPECT Scan rates by CCG, 2013/14



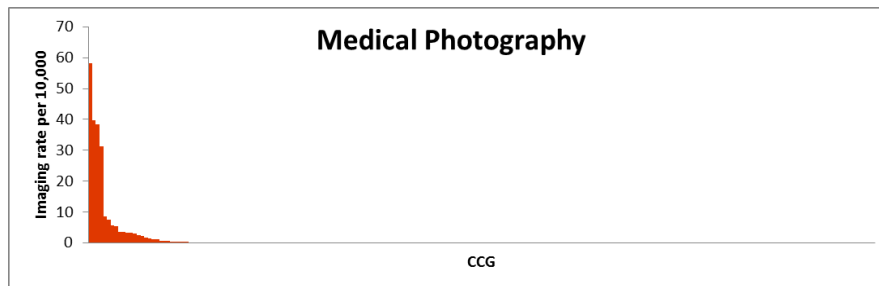
2.2.9 Medical Photography

Medical Photography shows a very marked cluster of high rates in the North west of England and North & west Midlands (Map 9). There are only four providers nationally that report more than a few Medical Photography images in the DID: Pennine Acute Hospitals NHS Trust, University Hospital of South Manchester NHS Foundation Trust, The Christie NHS Foundation Trust and The Rotherham NHS Foundation Trust, so the majority of CCGs have no reported Medical Photography (Chart 9).

Map 9. Standardised Medical Photography rates by CCG, 2013/14



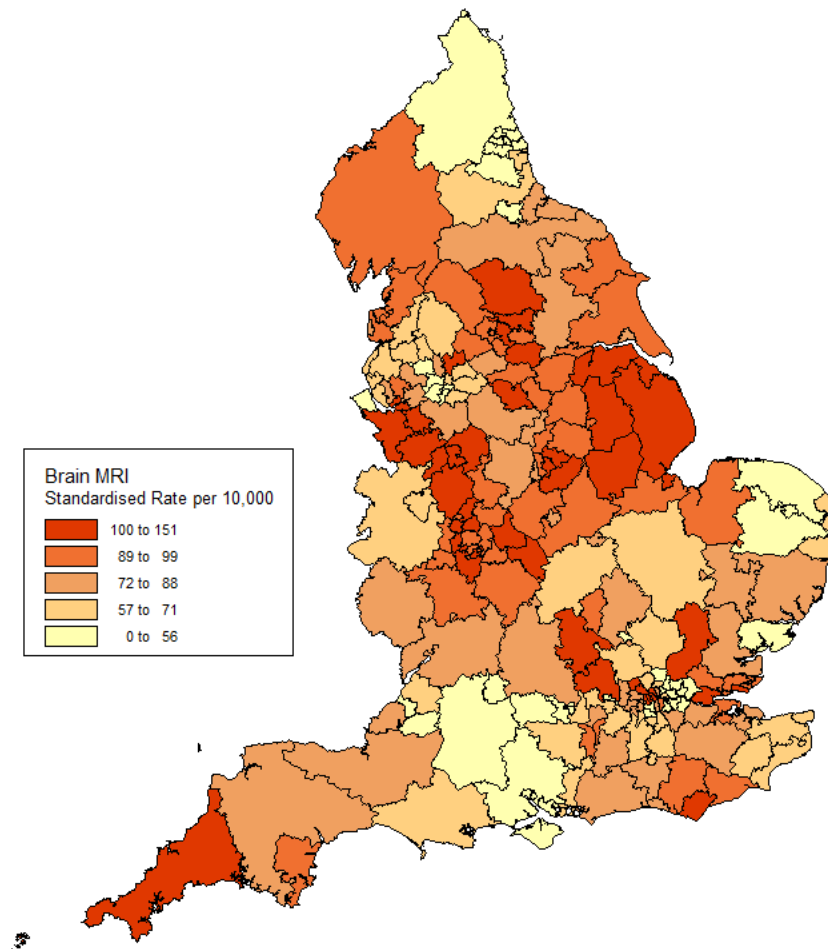
Graph 9. Standardised Medical Photography rates by CCG, 2013/14



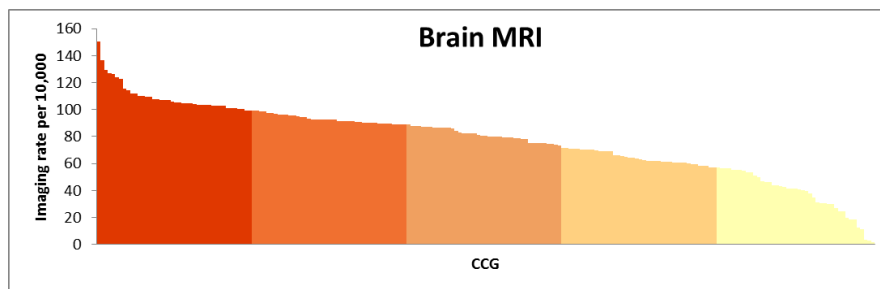
2.2.10 Brain MRI

Brain MRI shows little consistent regional variation (Map 10). High rates tend to cluster around neighbouring CCGs and many of these areas have at least one high-volume provider, but there is a wide variety of providers of different levels of activity. The national rate is 77 Brain MRIs per 10,000 registered population and 72% CCGs are within one standard deviation of the mean, between 50 and 103 tests per 10,000 population.

Map 10. Standardised Brain MRI rates by CCG, 2013/14



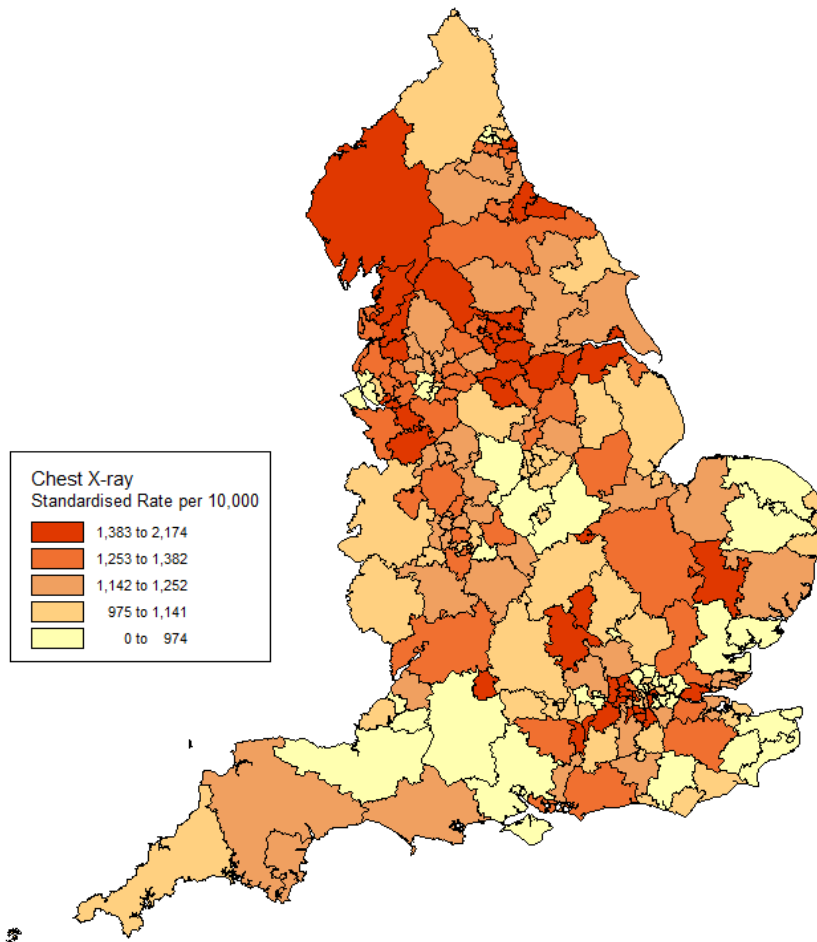
Graph 10. Standardised Brain MRI rates by CCG, 2013/14



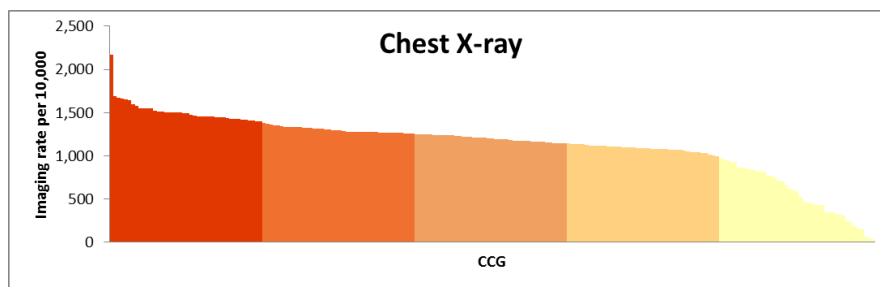
2.2.11 Chest X-ray

Chest X-ray shows less variation across CCGs than the other tests for potential early diagnosis of cancer (with much bigger numbers of tests), but there are generally higher rates in the north of England (Map 11). The national rate is 1,128 Chest X-rays per 10,000 registered population and 75% CCGs are within one standard deviation of the mean, between 775 and 1,480 tests per 10,000 population.

Map 11. Standardised Chest X-ray rates by CCG, 2013/14



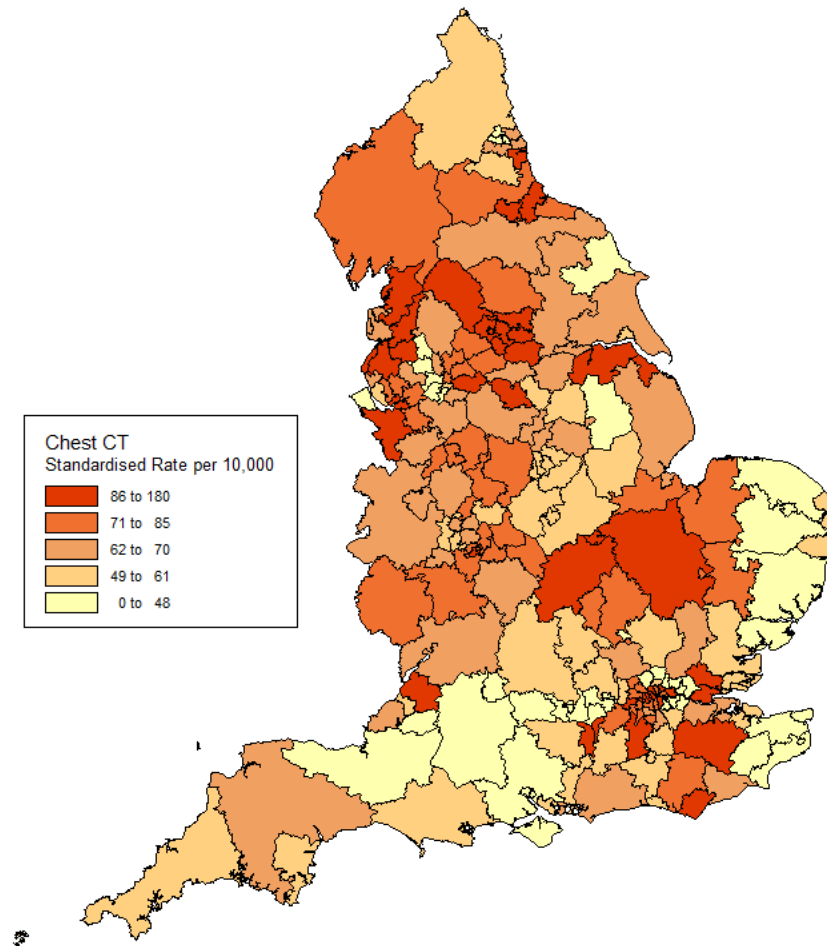
Graph 11. Standardised Chest X-ray rates by CCG, 2013/14



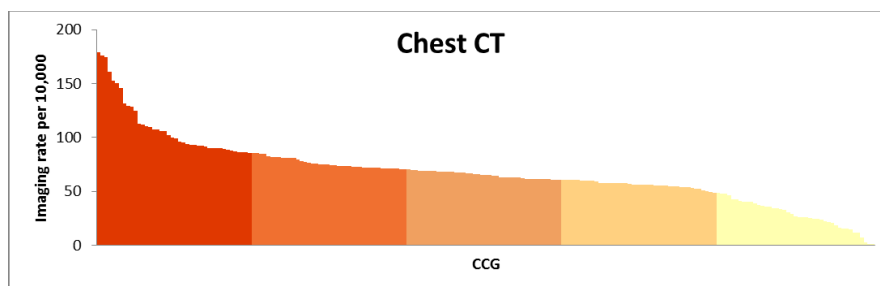
2.2.12 Chest CT

Chest CT shows some regional variation with particularly high rates clustered in Yorkshire and Lincolnshire (Map 12). The national rate is 67 Chest CTs per 10,000 registered population and 75% CCGs are within one standard deviation of the mean, between 37 and 97 tests per 10,000 population

Map 12. Standardised Chest CT rates by CCG, 2013/14



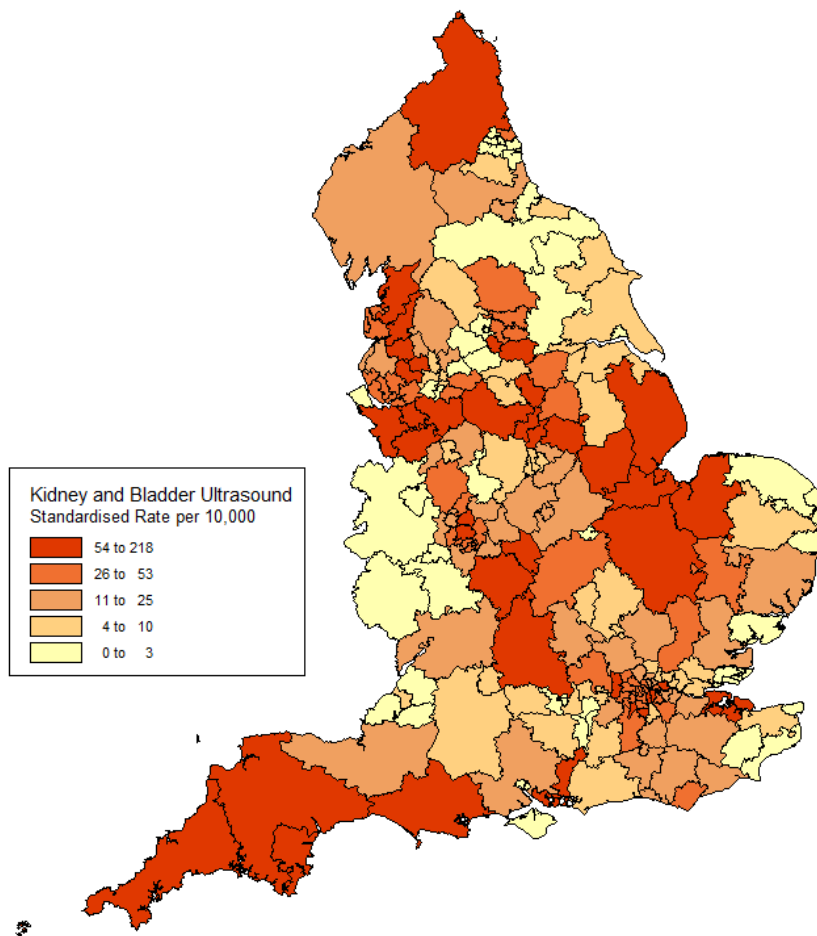
Graph 12. Standardised Chest CT rates by CCG, 2013/14



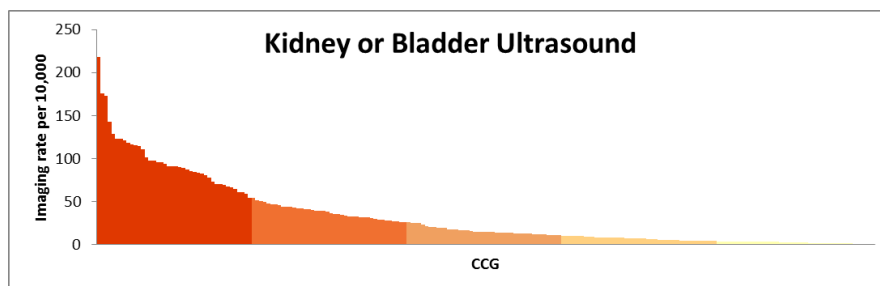
2.2.13 Kidney & Bladder Ultrasound

Kidney & Bladder Ultrasound shows more regional variation in the lower standardised rates than other Early Diagnosis of Cancer (EDOC) tests. A few CCGs will be affected by missing data, as for all the modalities above, but many more have rates barely a tenth of the highest reported (Graph 13). Both the highest rates and lowest rates are grouped together in clusters of CCGs (Map 13). The national rate is lower than the other EDOC tests at 34 Kidney & Bladder ultrasounds per 10,000 registered population, with one standard deviation of the mean ranging from 0 to 70 tests per 10,000 population (84% CCGs within this range).

Map 13. Standardised Kidney & Bladder Ultrasound rates by CCG, 2013/14



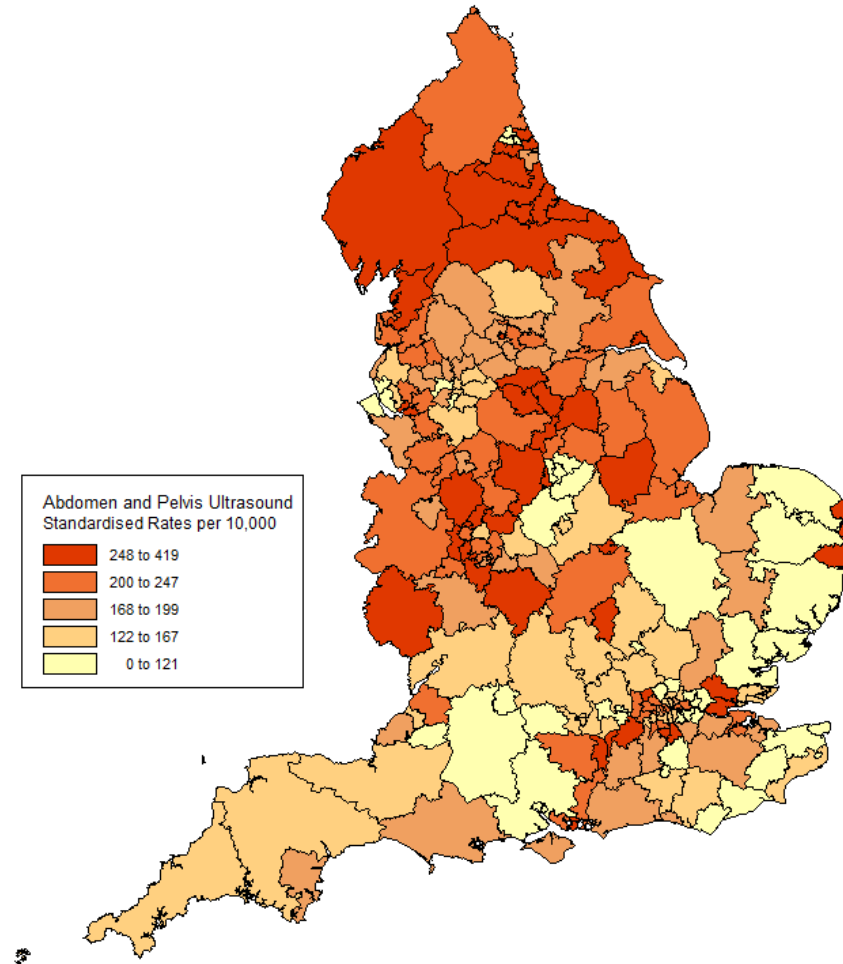
Graph 13. Standardised Kidney & Bladder Ultrasound rates by CCG, 2013/14



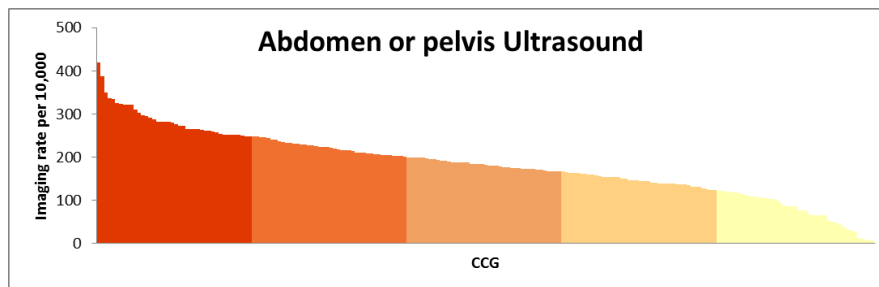
2.2.14 Abdomen & Pelvis Ultrasound

The highest rates of Abdomen & Pelvis Ultrasound appear to be clustered in the North, with relatively few high rates in the South and East, (Map 14). The national rate is 181 Abdomen & Pelvis ultrasounds per 10,000 registered population, with one standard deviation of the mean ranging from 107 to 258 tests per 10,000 population (70% CCGs within this range).

Map 14. Standardised Abdomen & Pelvis Ultrasound rates by CCG, 2013/14



Graph 14. Standardised Abdomen & Pelvis Ultrasound rates by CCG, 2013/14



3 Odds Ratios

3.1 Method

Three factors were considered that could have an impact on the rate of diagnostic testing: age (five year age bands⁵), sex (male and female) and deprivation (quintiles of the Index of Multiple Deprivation). Differences in the distribution of these factors across CCGs might be partially responsible for the differences in crude observed rates between CCGs. Odds ratios were used to demonstrate the impact of each factor on the rate of diagnostic testing, whilst controlling for the others. Significant differences between the odds ratios for each factor suggest that it is worth standardising for these.

Odds ratios were calculated using similar methodology to the standardised rates (above). National rates of diagnostic testing activity were calculated by two of the three factors at a time, in order to estimate expected values for the third factor (IMD, Sex or Age). For example, if odds ratios were being calculated for IMD, rates were standardised by Sex and Age. This resulted in three sets of standardised rates per 10,000 population. Odds ratios then used the following formula:

$$\text{Ratio}_2 = \frac{\left(\frac{p_2}{1-p_2}\right)}{\left(\frac{p_1}{1-p_1}\right)}$$

Where

p_1 = standardised rate for the base category (e.g. female)

p_2 = standardised rate for the comparison category (e.g. male)
expressed per unit of population.

So for example the odds ratio for male X-rays was calculated by:

	Standardised rate per 10,000	p	p/(1-p)	Odds Ratio
Female	3,375	0.3375	0.5094	1.00
Male	3,013	0.3013	0.4313	0.85

Note: The base level will always be set to 1 with other levels given as a ratio of this.

In this example, males were 15% less likely to have an X-ray than females, even after standardising for the effect of age and IMD.

Further statistical analysis of the odds ratios was conducted using Pearson's Chi Square test of significance.

⁵ Although five year age bands were used for analysis and standardisation, Odds ratios are given for broader age bands. This illustrates the age effect whilst overcoming the complication that $p > 1$ for the highest 5-year age band for some modalities.

3.2 Results

3.2.1 Sex

There is some variation in how likely each gender is to have a particular imaging test, see Tables 1 and 2. As would be expected, men are only a third as likely to have an ultrasound (odds ratio = 0.33), however they are more likely to have a Chest X-ray (1.12). Of these odds ratios, only X-ray and Ultrasound were found to be significant.

Table 1. Sex odds ratios by modality, 2013/14

	X-ray	Ultrasound	CT Scan	MRI	Fluoro-scopy	Nuclear Medicine	PET Scan	SPECT Scan	Medical Photography
Female	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Male	0.85 ^{***}	0.33 ^{***}	1.09	0.89	1.03	0.88	1.18	0.65	1.07

Table 2. Sex odds ratios by Early Diagnosis of Cancer, 2013/14

	Brain MRI	Chest X-ray	Chest CT	Kidney or Bladder Ultrasound	Abdomen or Pelvis Ultrasound
Female	1.00	1.00	1.00	1.00	1.00
Male	0.82	1.12 ^{**}	1.22	0.90	0.67 ^{***}

3.2.2 Deprivation

There appears to be a consistent tendency for areas of highest deprivation to have most imaging tests, see Tables 3 and 4. Deprivation is significant at all levels for X-ray, Ultrasound and CT Scans, whilst only the least deprived quintile was significantly different from the most deprived for MRI and Fluoroscopy. The odds ratio for Medical Photography shows the lowest values for all groups compared to the most deprived areas, but this may be coincidental as relatively few areas report Medical Photography in the DID.

Table 3. Deprivation odds ratios by modality, 2013/14

	X-ray	Ultrasound	CT Scan	MRI	Fluoro-scopy	Nuclear Medicine	PET Scan	SPECT Scan	Medical Photography
1 Most deprived	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2 More deprived	0.84 ^{***}	0.86 ^{***}	0.85 ^{**}	0.95	0.91	0.89	0.80	0.97	0.43
3 Mid quintile	0.74 ^{***}	0.82 ^{***}	0.75 ^{***}	0.90	0.84	0.80	0.70	0.86	0.29
4 Less deprived	0.68 ^{***}	0.79 ^{***}	0.71 ^{***}	0.88	0.80	0.78	0.65	0.79	0.26
5 Least deprived	0.63 ^{***}	0.76 ^{***}	0.67 ^{***}	0.86 [*]	0.75 [*]	0.75	0.61	0.80	0.16

*** significant at $p < 0.001$

** significant at $p < 0.01$

* significant at $p < 0.05$

Table 4. Deprivation odds ratios by Early Diagnosis of Cancer, 2013/14

	Brain MRI	Chest X-ray	Chest CT	Kidney or Bladder Ultrasound	Abdomen or Pelvis Ultrasound
1 Most deprived	1.00	1.00	1.00	1.00	1.00
2 More deprived	0.95	0.80 ^{***}	0.80	0.95	0.84
3 Mid quintile	0.89	0.68 ^{***}	0.68 [*]	0.83	0.75 ^{**}
4 Less deprived	0.84	0.61 ^{***}	0.61 ^{**}	0.75	0.68 ^{***}
5 Least deprived	0.81	0.56 ^{***}	0.56 ^{***}	0.65	0.62 ^{***}

3.2.3 Age

Age has the largest impact on the likelihood of having an imaging test, with the age band of 75 or older showing much higher odds ratios across all modalities and early diagnosis of cancer tests. Only SPECT scan does not have a significant result for the 75+ age band. Other age bands are also significantly higher than the 0 to 45 group with the exception of ultrasound, which varies least by age, and the modalities with small numbers (SPECT Scan and Medical Photography). Full breakdowns are given in Tables 5 and 6.

Table 5. Age band odds ratios by modality, 2013/14

	X-ray	Ultrasound	CT Scan	MRI	Fluoro-scopy	Nuclear Medicine	PET Scan	SPECT Scan	Medical Photography
0 - <45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
45 - <55	1.93 ^{***}	1.04	3.03 ^{***}	2.21 ^{***}	2.48 ^{***}	3.32 ^{***}	4.20	2.44	2.54
55 - <65	3.26 ^{***}	1.01	5.08 ^{***}	2.57 ^{***}	3.96 ^{***}	5.64 ^{***}	9.62 ^{**}	3.93	4.25
65 - <75	6.34 ^{***}	1.24 ^{***}	8.81 ^{***}	2.89 ^{***}	5.72 ^{***}	8.81 ^{***}	15.63 ^{***}	5.58	6.83
75+	84.25 ^{***}	1.53 ^{***}	17.31 ^{***}	2.50 ^{***}	7.61 ^{***}	9.59 ^{***}	12.99 ^{***}	5.26	16.49 [*]

Table 6. Age band odds ratios by Early Diagnosis of Cancer, 2013/14

	Brain MRI	Chest X-ray	Chest CT	Kidney or Bladder Ultrasound	Abdomen or Pelvis Ultrasound
0 - <45	1.00	1.00	1.00	1.00	1.00
45 - <55	1.80 ^{**}	24.42 ^{***}	4.68 ^{***}	1.53	1.97 ^{***}
55 - <65	2.16 ^{***}	4.19 ^{***}	10.22 ^{***}	1.93 [*]	2.36 ^{***}
65 - <75	2.61 ^{***}	7.55 ^{***}	18.33 ^{***}	2.95 ^{***}	2.80 ^{***}
75+	2.84 ^{***}	20.91 ^{***}	23.02 ^{***}	4.80 ^{***}	3.55 ^{***}

4 Conclusion

After standardising the DID for age, sex and deprivation differences between CCGs, there are a number of modalities with regional variation in the rates of imaging per 10,000 population. Several modalities have higher rates of diagnostic imaging in the North region, particularly X-ray, Ultrasound and MRI. Although there are big differences in the CT and Fluoroscopy rates between CCGs, these show little regional consistency, whilst the modalities with lower activity show different patterns of variation. However, some of the low rates result from missing activity or poor coding by submitting organisations resulting in activity not being reported against their CCGs, which generally affects all modalities for those areas..

Based on the odds ratio calculations, age has the strongest impact on the rate of imaging procedures, particularly the over 75 age band. Over 75s are over 80 times more likely to have an X-ray than those who are under 45.

In general, sex is not a significant factor in the likelihood of having a diagnostic imaging procedure, with the exception of ultrasound. Women are three times as likely to have an ultrasound than men, which is expected given the number of obstetric ultrasounds reported in DID.

The odds ratios for deprivation suggest that imaging increases with increased deprivation, with significant differences for all deprivation levels in the three largest modalities: X-ray, Ultrasound and CT Scans. The differences for MRI and Fluoroscopy are also significant between the most and least deprived quintiles.

5 Annex

5.1 Annex A - Data quality and the impact of missing GP practice

The CCG of patients in the DID is derived from their GP Practice code. Nationally, the CCG in DID is missing or unknown for 12% imaging activity. Some of this reflects valid non-English or other GP Practices (e.g. prisons and Ministry of Defence practices) and some is where there is no Registered GP Practice (V81997) or GP Practice Code is not applicable (V81998), but the majority either has GP Practice Code not known (V81999) or missing data.

Where there is no derived CCG, the activity is omitted from the CCG imaging rates. Many of the lowest CCG imaging rates have these shortfalls, but they also affect some CCGs with higher rates.

An estimate of how the activity with missing GP Practice information might be split between CCGs was made using the Monthly Diagnostic Waiting times and Activity return (DM01) for 2013/14. DM01 is collected by provider and commissioner, so each CCG's share of each provider's total diagnostic test activity from DM01 was used to pro-rate the missing GP Practice tests from DID (defined as GP Practice code V81997 to V81999 or unknown). The CCGs thought to be missing at least 10% of their activity and 10,000 tests from at least one of their providers across all modalities are listed in Table A.1 (ranked in descending order of the estimated number of omitted tests).

Table A.1. CCGs with suspected shortfalls of more than 10% and 10,000 imaging tests in the Diagnostic Imaging Dataset, 2013-14

CCG Provider	CCG total reported imaging tests ⁽¹⁾	Estimated % imaging tests missing	Estimated no. tests missing ⁽²⁾ of which, from this provider ⁽³⁾	% GP Practice missing for this Trust ⁽⁴⁾
NHS North East Essex CCG Colchester Hospital University NHS Foundation Trust	24,000	91%	233,000 228,000	100%
NHS Bristol CCG University Hospitals Bristol NHS Foundation Trust	188,000	42%	134,000 129,000	74%
NHS South Kent Coast CCG East Kent Hospitals University NHS Foundation Trust	55,000	69%	124,000 123,000	73%
NHS Canterbury And Coastal CCG East Kent Hospitals University NHS Foundation Trust	49,000	71%	120,000 119,000	73%
NHS Wirral CCG Wirral University Teaching Hospital NHS FT	217,000	34%	114,000 109,000	37%
NHS Wiltshire CCG Salisbury NHS Foundation Trust	225,000	30%	97,000 90,000	91%
NHS Newcastle West CCG The Newcastle Upon Tyne Hospitals NHS FT	3,000	97%	96,000 96,000	100%
NHS South Norfolk CCG Norfolk & Norwich University Hospitals NHS FT	57,000	63%	96,000 95,000	71%
NHS Liverpool CCG Aintree University Hospital NHS Foundation Trust Royal Liverpool & Broadgreen Uni Hosp NHS Trust	276,000	25%	94,000 52,000 37,000	60% 21%
NHS Salford CCG Salford Royal NHS Foundation Trust	40,000	69%	91,000 86,000	99%
NHS Newcastle North And East CCG The Newcastle Upon Tyne Hospitals NHS FT	4,000	95%	89,000 89,000	100%
NHS Thanet CCG East Kent Hospitals University NHS Foundation Trust	41,000	68%	88,000 87,000	73%
NHS Norwich CCG Norfolk & Norwich University Hospitals NHS FT	40,000	67%	83,000 82,000	71%
NHS Lewisham CCG Lewisham & Greenwich NHS Trust	89,000	48%	82,000 75,000	83%
NHS North Norfolk CCG Norfolk & Norwich University Hospitals NHS FT	48,000	62%	78,000 78,000	71%
NHS Northumberland CCG The Newcastle Upon Tyne Hospitals NHS FT	189,000	29%	75,000 68,000	100%
NHS South Manchester CCG University Hospital Of South Manchester NHS FT	32,000	70%	75,000 71,000	100%
NHS Trafford CCG University Hospital Of South Manchester NHS FT	98,000	43%	75,000 62,000	100%
NHS North Tyneside CCG The Newcastle Upon Tyne Hospitals NHS FT	105,000	41%	74,000 68,000	100%
NHS Ashford CCG East Kent Hospitals University NHS Foundation Trust	32,000	68%	67,000 67,000	73%
NHS Slough CCG Heatherwood & Wexham Park Hospitals NHS FT	36,000	62%	58,000 56,000	67%
NHS South Sefton CCG Aintree University Hospital NHS Foundation Trust	72,000	44%	57,000 55,000	60%
NHS Nene CCG Northampton General Hospital NHS Trust Kettering General Hospital NHS Foundation Trust	319,000	15%	55,000 29,000 24,000	18% 13%
NHS Windsor, Ascot And Maidenhead CCG Heatherwood & Wexham Park Hospitals NHS FT	40,000	57%	54,000 52,000	67%
NHS Greenwich CCG Lewisham & Greenwich NHS Trust	46,000	48%	43,000 36,000	83%

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CCG Provider	CCG total reported imaging tests ⁽¹⁾	Estimated % imaging tests missing	Estimated no. tests missing of which, from this provider ⁽³⁾	% GP Practice missing for this Trust ⁽⁴⁾
NHS Stockport CCG University Hospital Of South Manchester NHS FT	181,000	17%	38,000 31,000	100%
NHS Wigan Borough CCG Wrightington, Wigan & Leigh NHS Foundation Trust	223,000	14%	37,000 24,000	11%
NHS Somerset CCG Yeovil District Hospital NHS Foundation Trust	311,000	10%	36,000 13,000	16%
NHS Walsall CCG Walsall Healthcare NHS Trust	176,000	17%	36,000 32,000	18%
NHS North Somerset CCG University Hospitals Bristol NHS Foundation Trust	139,000	20%	35,000 32,000	74%
NHS Wandsworth CCG St George's University Hospitals NHS FT	151,000	18%	33,000 28,000	25%
NHS West Hampshire CCG Hampshire Hospitals NHS Foundation Trust	293,000	10%	33,000 12,000	11%
NHS Gateshead CCG The Newcastle Upon Tyne Hospitals NHS FT	152,000	17%	31,000 30,000	100%
NHS South Gloucestershire CCG University Hospitals Bristol NHS Foundation Trust	154,000	17%	31,000 26,000	74%
NHS Chiltern CCG Heatherwood & Wexham Park Hospitals NHS FT	184,000	14%	30,000 23,000	67%
NHS Bracknell And Ascot CCG Heatherwood & Wexham Park Hospitals NHS FT	59,000	33%	29,000 24,000	67%
NHS Knowsley CCG Aintree University Hospital NHS Foundation Trust	96,000	21%	26,000 18,000	60%
NHS Wolverhampton CCG The Royal Wolverhampton NHS Trust	154,000	15%	26,000 24,000	15%
NHS Bexley CCG Lewisham & Greenwich NHS Trust	91,000	19%	22,000 15,000	83%
NHS Lambeth CCG Guy's & St Thomas' NHS Foundation Trust	185,000	10%	21,000 11,000	11%
NHS Leicester City CCG University Hospitals Of Leicester NHS Trust	150,000	11%	19,000 17,000	11%
NHS East Leicestershire And Rutland CCG University Hospitals Of Leicester NHS Trust	135,000	11%	17,000 14,000	11%
NHS South Tyneside CCG The Newcastle Upon Tyne Hospitals NHS FT	105,000	13%	15,000 13,000	100%
NHS West Leicestershire CCG University Hospitals Of Leicester NHS Trust	132,000	10%	15,000 13,000	11%
NHS Merton CCG St George's University Hospitals NHS FT	109,000	12%	15,000 13,000	25%
NHS Wokingham CCG Royal Berkshire NHS Foundation Trust	64,000	18%	14,000 12,000	23%
NHS North & West Reading CCG Royal Berkshire NHS Foundation Trust	46,000	20%	12,000 11,000	23%
NHS Newbury And District CCG Royal Berkshire NHS Foundation Trust	49,000	19%	12,000 11,000	23%
NHS South Reading CCG Royal Berkshire NHS Foundation Trust	49,000	18%	11,000 10,000	23%

Notes

- (1) Total reported imaging tests (all modalities) where GP practice is valid and matches to an English CCG.
 - (2) Estimated missing imaging tests for CCG based on DID activity reported without a valid GP Practice at its providers. Providers for each CCG were identified using the Diagnostic Waiting times and Activity return for 2013-14 (DM01, all diagnostic tests).
 - (3) Share of this provider's imaging tests with missing GP Practice that are estimated to be for this CCG. Providers with fewer than 10,000 missing tests for this CCG are omitted from the list.
 - (4) Percentage of all imaging activity for this provider where the GP practice code is missing or unknown.
- FT = Foundation Trust

5.2 Annex B - CCG Standardised Imaging Rates per 10,000, 2013/14

See separate excel file.

5.3 Contact Us

5.3.1 Feedback

We welcome feedback on this publication. Please contact us at did@dh.gsi.gov.uk

5.3.2 iView

The HSCIC allow health sector colleagues to access DID information through their web-based reporting tool, iView. Registered users can access anonymised data at aggregate level in a consistent and flexible format:

- **Access Information** – choose from a variety of data areas.
- **Build Reports** – select data to suit your needs.
- **Generate Charts** – customise report tables and graphs.
- **Export Data** – copy to Excel and manipulate data your way.
- **Save Reports** – store your favourite views for future use.

If you would like to register to use iView for DID, please email enquiries@hscic.gov.uk (subject: DID iView Access). For more information, please visit the iView website <https://iview.hscic.gov.uk/>

5.3.3 Websites

The DID website can be found here: <http://www.hscic.gov.uk/DID>

The DID Tables and Reports can be found here:
<http://www.england.nhs.uk/statistics/diagnostic-imaging-dataset/>

5.3.4 Additional Information

For press enquiries contact the NHS England Media team on 0113 825 0958 or 0113 825 0959. Email enquiries should be directed to nhsengland.media@nhs.net

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