



## Indicator metadata

### The 2nd Atlas of Variation in NHS Diagnostic Services in England

December 2016

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## Map 1: Rate of computed axial tomography (CT) activity per weighted population by CCG

<b>Indicator:</b>	<b>Computed axial tomography (CT) activity</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2015/16
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of computed axial tomography (CT) activity per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England  Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.7 codes: U01.1 Computerised tomography of whole body U05.1 Computerised tomography of head U05.4 Computerised tomography of spine U06.1 Computerised tomography of sinuses U07.1 Computerised tomography of chest U08.1 Computerised tomography of abdomen NEC (not elsewhere classified) U09.1 Computerised tomography of pelvis U10.1 Cardiac computed tomography for calcium scoring U10.2 Cardiac computed tomography angiography U11.4 Computed tomography scan of cerebral vessels U13.6 Computed tomography of bone U17.5 Computed tomography of colon U21.2 Computed tomography NEC (not elsewhere classified) U35.4 Computed tomography of pulmonary arteries U37.2 Computed tomography of kidneys
Numerator:	The number CT scans
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.  This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.  These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.  Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 2: Rate of magnetic resonance imaging (MRI) activity per weighted population by CCG

<b>Indicator:</b>	<b>Magnetic resonance imaging (MRI) activity</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2015/16
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of magnetic resonance imaging (MRI) activity per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.7 codes: U01.2 Magnetic resonance imaging of whole body U05.2 Magnetic resonance imaging of head U05.3 Functional magnetic resonance imaging of head U05.5 Magnetic resonance imaging of spine U07.2 Magnetic resonance imaging of chest U08.5 Magnetic resonance imaging of abdomen U09.3 Magnetic resonance imaging of pelvis U10.3 Cardiac magnetic resonance imaging U13.3 Magnetic resonance imaging of bone U16.2 Magnetic resonance cholangiopancreatography U21.1 Magnetic resonance imaging NEC (not elsewhere classified) U37.1 Magnetic resonance imaging of kidneys
Numerator:	The number of MRI scans
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

### Map 3: Rate of non-obstetric ultrasound activity per weighted population by CCG

<b>Indicator:</b>	<b>Non-obstetric ultrasound activity</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2015/16
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description	The rate of non-obstetric ultrasound activity per 1,000 weighted population by Clinical Commissioning Group (CCG) of Residence
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
Coding scheme	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England. Numerator OPCS4.7 codes: U06.3 Ultrasound of thyroid gland U08.2 Ultrasound of abdomen U09.2 Ultrasound of pelvis U12.2 Ultrasound of scrotum U12.3 Ultrasound of kidneys U12.4 Ultrasound of bladder U13.2 Ultrasound of bone U21.6 Ultrasound scan NEC (not elsewhere classified) C87.4 Ultrasonic evaluation of retina K51.2 Intravascular ultrasound of coronary artery Q55.5 Transvaginal ultrasound examination of female genital tract
Numerator:	The number of non-obstetric ultrasound tests
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 4a: Median time (minutes) from arrival at hospital to brain imaging for stroke patients by CCG

<b>Indicator:</b>	<b>Stroke - time to brain imaging</b>
Statistic:	Median (minutes)
Time period (map):	2015 October-December
Time period (boxplot):	2014 January-March to 2015 October-December
Age group:	16 years and over
Description:	<p>The median time in minutes from 'clock start' to brain imaging for patients with a stroke, by Clinical Commissioning Group (CCG) of residence.</p> <p>The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.</p>
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme:	Not applicable
Numerator:	The median time (minutes) from time of arrival in hospital to scan for newly arrived patients, and from time of onset/awareness of symptoms to scan for patients already in hospital at the time of stroke.
Denominator:	Not applicable
Methodology:	<p>The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.</p> <p>Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'. Confidence intervals were calculated using the method outlined at <a href="https://www-users.york.ac.uk/~mb55/intro/cicent.htm">https://www-users.york.ac.uk/~mb55/intro/cicent.htm</a></p>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/outputs/sentinel-stroke-national-audit-programme-ssnap">https://www.rcplondon.ac.uk/projects/outputs/sentinel-stroke-national-audit-programme-ssnap</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx</a>
Further notes (1):	<p>The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).</p> <p>100% of hospitals in England which treat acute stroke patients participate in SSNAP.</p>
Further notes (2):	<p>Produced by: SSNAP - RCP Audit</p> <p>Date created: May 2016</p>

## Map 4b: Median time (minutes) from arrival at hospital to brain imaging for stroke patients by stroke team

<b>Indicator:</b>	<b>Stroke - time to brain imaging</b>
Statistic:	Median (minutes)
Time period (map):	2015 October-December
Time period (boxplot):	2013 July-September to 2015 October-December
Age group:	16 years and over
Description:	<p>The median time in minutes from 'clock start' to brain imaging for patients with a stroke, by stroke team.</p> <p>The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.</p>
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme:	Not applicable
Numerator:	The median time (minutes) from time of arrival in hospital to scan for newly arrived patients, and from time of onset/awareness of symptoms to scan for patients already in hospital at the time of stroke.
Denominator:	Not applicable
Methodology:	<p>The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.</p> <p>Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'.</p> <p>Confidence intervals were calculated using the method outlined at <a href="https://www-users.york.ac.uk/~mb55/intro/cicent.htm">https://www-users.york.ac.uk/~mb55/intro/cicent.htm</a></p>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme">https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx</a>
Further notes (1):	<p>The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).</p> <p>100% of hospitals in England which treat acute stroke patients participate in SSNAP.</p>
Further notes (2):	Produced by: SSNAP - RCP Audit
Date created:	May 2016

**Map 5a: Percentage of stroke patients undergoing brain imaging within one hour of arrival at hospital by CCG**

<b>Indicator:</b>	<b>Stroke - brain imaging within 1 hour</b>
Statistic:	Percentage
Time period (map):	2015 October-December
Time period (boxplot):	2014 January-March to 2015 October-December
Age group:	16 years and over
Description	<p>The percentage of stroke patients receiving brain imaging within 1 hour of 'clock start', by Clinical Commissioning Group (CCG) of residence.</p> <p>The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.</p>
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme	Not applicable
Numerator:	The number of stroke patients brain scanned within 1 hour of arrival at hospital for newly arrived patients, and within 1 hour of onset/awareness of symptoms for patients already in hospital at the time of stroke.
Denominator:	All stroke patients
Methodology:	<p>Numerator divided by denominator expressed as a percentage.</p> <p>The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.</p> <p>Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'.</p> <p>Confidence intervals were calculated using the Wilson Score Method  <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a></p>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme">https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx</a>
Further notes (1):	<p>The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).</p> <p>100% of hospitals in England which treat acute stroke patients participate in SSNAP.</p>
Further notes (2):	Produced by: SSNAP - RCP Audit
Date created:	May 2016

**Map 5b: Percentage of stroke patients undergoing brain imaging within one hour of arrival at hospital by stroke team**

<b>Indicator:</b>	<b>Stroke - brain imaging within 1 hour</b>
Statistic:	Percentage
Time period (map):	2015 October-December
Time period (boxplot):	2013 July-September to 2015 October-December
Age group:	16 years and over
Description	<p>The percentage of stroke patients receiving brain imaging within 1 hour of 'clock start', by stroke team.</p> <p>The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.</p>
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme	Not applicable
Numerator:	The number of stroke patients brain scanned within 1 hour of arrival at hospital for newly arrived patients, and within 1 hour of onset/awareness of symptoms for patients already in hospital at the time of stroke.
Denominator:	All stroke patients
Methodology:	<p>Numerator divided by denominator expressed as a percentage.</p> <p>The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.</p> <p>Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'.  Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a></p>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme">https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-2016).aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-2016).aspx</a>
Further notes (1):	The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).
Further notes (2):	100% of hospitals in England which treat acute stroke patients participate in SSNAP.
Produced by:	SSNAP - RCP Audit
Date created:	May 2016



**Map 6a: Percentage of stroke patients undergoing brain imaging within 12 hours of arrival at hospital by CCG**

<b>Indicator:</b>	<b>Stroke - brain imaging within 12 hours</b>
Statistic:	Percentage
Time period (map):	2015 October-December
Time period (boxplot):	2014 January-March to 2015 October-December
Age group:	16 years and over
Description:	The percentage of stroke patients receiving brain imaging within 1 hour of 'clock start', by Clinical Commissioning Group (CCG) of residence.  The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme:	Not applicable
Numerator:	The number of stroke patients brain scanned within 12 hours of arrival at hospital for newly arrived patients, and within 12 hours of onset/awareness of symptoms for patients already in hospital at the time of stroke.
Denominator:	All stroke patients
Methodology:	Numerator divided by denominator expressed as a percentage.  The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.  Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'.  Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme">https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx</a>
Further notes (1):	The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).
Further notes (2):	100% of hospitals in England which treat acute stroke patients participate in SSNAP.
Produced by:	SSNAP - RCP Audit
Date created:	May 2016

**Map 6b: Percentage of stroke patients undergoing brain imaging within 12 hours of arrival at hospital by stroke team**

<b>Indicator:</b>	<b>Stroke - brain imaging within 12 hours</b>
Statistic:	Percentage
Time period (map):	2015 October-December
Time period (boxplot):	2013 July-September to 2015 October-December
Age group:	16 years and over
Description	<p>The percentage of stroke patients receiving brain imaging within 1 hour of 'clock start', by stroke team.</p> <p>The term 'clock start' is used throughout SSNAP reporting to refer to the date and time of arrival at first hospital for newly arrived patients, or to the date and time of symptom onset/awareness if the patient is already in hospital at the time of their stroke.</p>
Data source:	Sentinel Stroke National Audit Programme (SSNAP)
Coding scheme	Not applicable
Numerator:	The number of stroke patients brain scanned within 12 hours of arrival at hospital for newly arrived patients, and within 12 hours of onset/awareness of symptoms for patients already in hospital at the time of stroke.
Denominator:	All stroke patients
Methodology:	<p>Numerator divided by denominator expressed as a percentage.</p> <p>The SSNAP register includes over 95% of patients treated in hospital for stroke. Only patients with a diagnosis of stroke are included in this measure.</p> <p>Further technical information on the definition of this indicator can be found in the Excel spreadsheets downloadable from the link in 'Source locations (2)' and in 'Source locations (3)'.</p> <p>Confidence intervals were calculated using the Wilson Score Method  <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a></p>
Source locations (1):	<a href="https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme">https://www.rcplondon.ac.uk/projects/sentinel-stroke-national-audit-programme</a>
Source locations (2):	<a href="https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx">https://www.strokeaudit.org/results/Clinical-audit/National-Results.aspx</a>
Source locations (3):	<a href="https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx">https://www.strokeaudit.org/SupportFiles/Documents/Clinical-Audit-Resources/Simplified-Technical-Info-version-3-(September-201.aspx</a>
Further notes (1):	The Sentinel Stroke National Audit Programme (SSNAP) is a national clinical audit, which collects information from hospitals about stroke patient care from arrival at hospital, through care in the community, and up to six month assessment. SSNAP is run by the RCP Stroke Programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP).
Further notes (2):	100% of hospitals in England which treat acute stroke patients participate in SSNAP.
Produced by:	SSNAP - RCP Audit
Date created:	May 2016

**Map 7: Median time (minutes) to head computed axial tomography (CT) for patients admitted directly to hospital meeting NICE head injury guidelines by NHS Trust**

<b>Indicator:</b>	<b>Head injury - time to CT scan</b>
Statistic:	Median (minutes)
Time period (map):	2014/15
Time period (boxplot):	2011/12 to 2014/15
Age group:	All ages
Description	The median time (minutes) to head computed axial tomography (CT) for patients admitted directly to hospital meeting NICE head injury guidelines by NHS Trust.  Whole body CT counted as CT to head, patients admitted directly from the scene of injury to an English hospital only. Sites with fewer than 10 eligible cases with a CT recorded are excluded.
Data source:	The Trauma Audit and Research Network (TARN) database.
Coding scheme	Abbreviated Injury Scale (AIS), 2005 version, 2008 update. Codes used: Patients meeting the National Institute for Health and Care Excellence guidelines for head injured patients.
Numerator:	The median time (minutes) to head computed axial tomography (CT) for patients admitted directly to hospital meeting NICE head injury guidelines.
Denominator:	Not applicable
Methodology:	The TARN database was queried using SQL Server 2012. All patients admitted to English hospitals meeting the criteria for each injury group (see above) were indentified. The earliest CT scan recorded for each patient in each injury group was indentified, and the hours from hospital arrival to this scan was calculated. A count of CT scans by hospital for each injury group was performed, and the median hours to scan, again by hospital, was calculated. In accordance with TARN standard practice and to prevent distortion of results by outliers, hospitals with fewer than 10 cases with a CT recorded with full dates and times were excluded.  Median confidence intervals were calculated using the methodology outlined in the following two papers:  1. Price, R.M. & Bonnet, D.G. 2002. Distribution-free confidence intervals for difference and ratio of medians. J. Statist. Comput. Simul. 72(2), 119-124. 2. Bonnet, D.G. & Price, R.M. 2002. Statistical inference for a linear function of medians: Confidence intervals, hypothesis testing, and sample size requirements. Psychological Methods, 7(3), 370-383.
Source locations (1):	<a href="https://www.tarn.ac.uk/">https://www.tarn.ac.uk/</a>
Source locations (2):	<a href="http://www.aaam.org">http://www.aaam.org</a>
Source locations (3):	<a href="https://www.nice.org.uk/guidance/cg176">https://www.nice.org.uk/guidance/cg176</a>
Further notes (1):	See <a href="http://www.aaam.org">http://www.aaam.org</a> for details of the Abbreviated Injury Scale.
Further notes (2):	See <a href="https://www.nice.org.uk/guidance/cg176">https://www.nice.org.uk/guidance/cg176</a> for details of the National Institute for Health and Care Excellence guidelines for head injured patients.
Produced by:	The Trauma Audit and Research Network
Date created:	May 2016

**Map 8: Median time (minutes) to pelvic computed axial tomography (CT) for patients admitted directly to hospital with pelvic injury by NHS Trust**

<b>Indicator:</b>	<b>Pelvic injury - time to CT scan</b>
Statistic:	Median (minutes)
Time period (map):	2014/15
Time period (boxplot):	2011/12 to 2014/15
Age group:	All ages
Description:	The median time (minutes) to pelvic computed axial tomography (CT) for patients admitted directly to hospital with pelvic injury by NHS Trust.  Whole body and abdominal CT counted as CT to pelvis, patients admitted directly from the scene of injury to an English hospital only. Sites with fewer than 10 eligible cases with a CT recorded are excluded.
Data source:	The Trauma Audit and Research Network (TARN) database.
Coding scheme:	Abbreviated Injury Scale (AIS), 2005 version, 2008 update. Patients with at least one pelvic injury. Codes used for selection are 856100, 856101, 856151, 856152, 856162, 856163, 856164, 856173, 856174, 856300, 856302, 856304, 856306, 856308 and 856310.
Numerator:	The median time (minutes) to pelvic computed axial tomography (CT) for patients admitted directly to hospital with pelvic injury.
Denominator:	Not applicable
Methodology:	The TARN database was queried using SQL Server 2012. All patients admitted to English hospitals meeting the criteria for each injury group (see above) were indentified. The earliest CT scan recorded for each patient in each injury group was indentified, and the hours from hospital arrival to this scan was calculated. A count of CT scans by hospital for each injury group was performed, and the median hours to scan, again by hospital, was calculated. In accordance with TARN standard practice and to prevent distortion of results by outliers, hospitals with fewer than 10 cases with a CT recorded with full dates and times were excluded.  Median confidence intervals were calculated using the methodology outlined in the following two papers:  1. Price, R.M. & Bonnet, D.G. 2002. Distribution-free confidence intervals for difference and ratio of medians. J. Statist. Comput. Simul. 72(2), 119-124. 2. Bonnet, D.G. & Price, R.M. 2002. Statistical inference for a linear function of medians: Confidence intervals, hypothesis testing, and sample size requirements. Psychological Methods, 7(3), 370-383.
Source locations (1):	<a href="https://www.tarn.ac.uk/">https://www.tarn.ac.uk/</a>
Source locations (2):	<a href="http://www.aaam.org">http://www.aaam.org</a>
Source locations (3):	<a href="https://www.nice.org.uk/guidance/cg176">https://www.nice.org.uk/guidance/cg176</a>
Further notes (1):	See <a href="http://www.aaam.org">http://www.aaam.org</a> for details of the Abbreviated Injury Scale.  See <a href="https://www.nice.org.uk/guidance/cg176">https://www.nice.org.uk/guidance/cg176</a> for details of the National Institute for Health and Care Excellence guidelines for head injured patients.
Further notes (2):	
Produced by:	The Trauma Audit and Research Network
Date created:	May 2016

## Map 9: Rate of endovascular aneurysm repair (EVAR) procedures for abdominal aortic aneurysm (AAA) per population by CCG

<b>Indicator:</b>	<b>EVAR for AAA procedure rate</b>
Statistic:	Directly age-standardised rate per 100,000
Time period (map):	2012/13-2014/15
Time period (boxplot):	2009/10-2011/12 to 2012/13-2014/15
Age group:	All ages
Description:	The directly age standardised rate of admission to hospital for a procedure of endovascular aneurysm repair per 100,000 population, by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.  Denominator - CCG mid-year population estimates, Office for National Statistics.
Coding scheme:	Numerator: Any EVAR procedure with OPCS4.5 - 4.7 codes: 'L27.1', 'L27.2', 'L27.3', 'L27.4', 'L27.5', 'L27.6', 'L27.8', 'L27.9', 'L28.1', 'L28.2', 'L28.3', 'L28.4', 'L28.5', 'L28.6', 'L28.8', 'L28.9' OR 'O20.1', 'O20.2', 'O20.3', 'O20.4', 'O20.5', 'O20.8', 'O20.9' in any secondary operative position  Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The number of admissions with a procedure code indicating an EVAR.
Denominator:	2009 to 2014 mid-year population estimates (2011 Census based) aggregated to three-year totals
Methodology:	For both numerator and denominator, the CCG of residence quinary ageband totals were derived by aggregating Lower Super Output Area (LSOA) of residence quinary ageband data.  The indicator is constructed as a directly standardised rate for all persons and all ages using the 2013 European population as the reference standard. Numerator data for each ageband group are divided by the denominator population data for each ageband group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area.  The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	May 2016

**Map 10: Percentage of elective procedures for abdominal aortic aneurysm (AAA) that were EVAR by CCG**

<b>Indicator:</b>	<b>EVAR procedures % of AAA</b>
Statistic:	Percentage
Time period (map):	2012/13-2014/15
Time period (boxplot):	2009/10-2011/12 to 2012/13-2014/15
Age group:	All ages
Description:	The percentage of elective procedures for abdominal aortic aneurysm (AAA) that were recorded as EVAR by Clinical Commissioning Group (CCG) residence, 2014/15
Data source:	Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Coding scheme:	Numerator: Any EVAR procedure with OPCS4.5 - 4.7 codes: 'L27.1', 'L27.2', 'L27.3', 'L27.4', 'L27.5', 'L27.6', 'L27.8', 'L27.9', 'L28.1', 'L28.2', 'L28.3', 'L28.4', 'L28.5', 'L28.6', 'L28.8', 'L28.9';  Admission Method: ADMIMETH NOT IN ('20','21','22','23','24','25','28','2A','2B','2C','2D','2E') Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')  Denominator: As numerator with Open ('L18.1','L18.2','L18.3','L18.4','L18.5','L18.6','L18.8','L18.9','L19.1','L19.2','L19.3','L19.4','L19.5','L19.6','L19.8','L19.9')  Numerator: The number of elective admissions for AAA repair where the procedure was EVAR Denominator: All elective admissions for AAA repair where the procedure was Open or EVAR. Methodology: Numerator divided by denominator expressed as a percentage.  For both numerator and denominator, the CCG of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence level data.  Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England, advised by the National Vascular Registry
Date created:	May 2016

**Map 11: Percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to nephrostomy by strategic health authority**

<b>Indicator:</b>	<b>Nephrostomy - 24 hour access</b>
Statistic:	Percentage
Time period (map):	2013
Time period (boxplot):	2013
Age group:	Not applicable
Description:	The percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to nephrostomy by strategic health authority, 2013
Data source:	Interventional Radiology Survey October 2013 - A survey of English NHS trusts, NHS Improving Quality (NHSIQ). See link in 'Source locations (2)'.  Data extracted from an Excel 'Map tool' (IR Map Tool 2013 ver 2a.xlsm)
Coding scheme:	Not applicable
Numerator:	The number of NHS hospital trusts responding to the survey that stated they offered overall 24-hour access to nephrostomy
Denominator:	The number of NHS hospital trusts responding to the survey
Methodology:	Numerator divided by denominator expressed as a percentage.  This survey focused specifically on services for nephrostomy, embolization for general haemorrhage, embolisation for postpartum haemorrhage and endovascular interventions. Responses were received from 93 acute trusts out of a possible 156.  This number of responses provides enough data to describe the picture of interventional radiology provision across England in 2014 and to indicate how this has changed since 2013.
Source locations (1):	<a href="http://www.nhs.uk/media/2647301/nhsiq_irsurvey.pdf">http://www.nhs.uk/media/2647301/nhsiq_irsurvey.pdf</a>
Source locations (2):	<a href="http://www.surveymonkey.com/r/?sm=0HqAt6cNwlv0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d">http://www.surveymonkey.com/r/?sm=0HqAt6cNwlv0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	NHS Improving Quality
Date created:	2014

**Map 12: Percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to endovascular intervention by strategic health authority**

<b>Indicator:</b>	<b>Endovascular intervention - 24 hour access</b>
Statistic:	Percentage
Time period (map):	2013
Time period (boxplot):	2013
Age group:	Not applicable
Description:	The percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to endovascular intervention by strategic health authority, 2013
Data source:	Interventional Radiology Survey October 2013 - A survey of English NHS trusts, NHS Improving Quality (NHSIQ). See link in 'Source locations (2)'.  Data extracted from an Excel 'Map tool' (IR Map Tool 2013 ver 2a.xlsm)
Coding scheme:	Not applicable
Numerator:	The number of NHS hospital trusts responding to the survey that stated they offered overall 24-hour access to nephrostomy
Denominator:	The number of NHS hospital trusts responding to the survey
Methodology:	Numerator divided by denominator expressed as a percentage.  This survey focused specifically on services for nephrostomy, embolization for general haemorrhage, embolisation for postpartum haemorrhage and endovascular interventions. Responses were received from 93 acute trusts out of a possible 156.  This number of responses provides enough data to describe the picture of interventional radiology provision across England in 2014 and to indicate how this has changed since 2013.
Source locations (1):	<a href="http://www.nhs.uk/media/2647301/nhsiq_irsurvey.pdf">http://www.nhs.uk/media/2647301/nhsiq_irsurvey.pdf</a>
Source locations (2):	<a href="http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzIOTjppaUt6cDI60m9vjrQ%3d">http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzIOTjppaUt6cDI60m9vjrQ%3d</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	NHS Improving Quality
Date created:	2014



**Map 13: Percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to embolisation for haemorrhage by strategic health authority**

<b>Indicator:</b>	<b>Embolisation for haemorrhage - 24 hour access</b>
Statistic:	Percentage
Time period (map):	2013
Time period (boxplot):	2013
Age group:	Not applicable
Description:	The percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to embolisation for haemorrhage by strategic health authority, 2013
Data source:	Interventional Radiology Survey October 2013 - A survey of English NHS trusts, NHS Improving Quality (NHSIQ). See link in 'Source locations (2)'.  Data extracted from an Excel 'Map tool' (IR Map Tool 2013 ver 2a.xlsm)
Coding scheme:	Not applicable
Numerator:	The number of NHS hospital trusts responding to the survey that stated they offered overall 24-hour access to nephrostomy
Denominator:	The number of NHS hospital trusts responding to the survey
Methodology:	Numerator divided by denominator expressed as a percentage.  This survey focused specifically on services for nephrostomy, embolization for general haemorrhage, embolisation for postpartum haemorrhage and endovascular interventions. Responses were received from 93 acute trusts out of a possible 156.  This number of responses provides enough data to describe the picture of interventional radiology provision across England in 2014 and to indicate how this has changed since 2013.
Source locations (1):	<a href="http://www.nhsiq.nhs.uk/media/2647301/nhsiq_irsurvey.pdf">http://www.nhsiq.nhs.uk/media/2647301/nhsiq_irsurvey.pdf</a>
Source locations (2):	<a href="http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d">http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBql7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	NHS Improving Quality
Date created:	2014

**Map 14: Percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to embolisation for post-partum haemorrhage by strategic health authority**

<b>Indicator:</b>	<b>Embolisation for postpartum haemorrhage - 24 hour access</b>
Statistic:	Percentage
Time period (map):	2013
Time period (boxplot):	2013
Age group:	Not applicable
Description:	The percentage of NHS hospital Trusts that had formal arrangements for 24-hour access to embolisation for post-partum haemorrhage by strategic health authority, 2013
Data source:	Interventional Radiology Survey October 2013 - A survey of English NHS trusts, NHS Improving Quality (NHSIQ). See link in 'Source locations (2)'.  Data extracted from an Excel 'Map tool' (IR Map Tool 2013 ver 2a.xlsm)
Coding scheme:	Not applicable
Numerator:	The number of NHS hospital trusts responding to the survey that stated they offered overall 24-hour access to nephrostomy
Denominator:	The number of NHS hospital trusts responding to the survey
Methodology:	Numerator divided by denominator expressed as a percentage.  This survey focused specifically on services for nephrostomy, embolization for general haemorrhage, embolisation for postpartum haemorrhage and endovascular interventions. Responses were received from 93 acute trusts out of a possible 156.  This number of responses provides enough data to describe the picture of interventional radiology provision across England in 2014 and to indicate how this has changed since 2013.
Source locations (1):	<a href="http://www.nhsiq.nhs.uk/media/2647301/nhsiq_irsurvey.pdf">http://www.nhsiq.nhs.uk/media/2647301/nhsiq_irsurvey.pdf</a>
Source locations (2):	<a href="http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBqI7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jIM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d">http://www.surveymonkey.com/r/?sm=0HqAt6cNwlvS0%2fQBqI7cY0%2bxfGeZdCLnt9mU1C%2fyrZQaXUqSv5aw308fmkMcbmtF9zTk%2bQiUZy06jIM6vVhvsrzlOTjppaUt6cDI60m9vjrQ%3d</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	NHS Improving Quality
Date created:	2014

## Map 15: Rate of dual-energy X-ray absorptiometry (DEXA) activity per weighted population by CCG

<b>Indicator:</b>	<b>Dual-energy X-ray (DEXA) scan activity</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of dual-energy X-ray absorptiometry (DEXA) activity per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
Coding scheme:	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England. Numerator OPCS4.7 codes: U13.1 Bone densitometry
Numerator:	The number of DEXA scans
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 16: Rate of colonoscopy procedures and flexible sigmoidoscopy procedures per population by CCG

<b>Indicator:</b>	<b>Colonoscopy and flexible sigmoidoscopy</b>
Statistic:	Indirectly age/sex/deprivation-standardised rate per 10,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 to 2014/15
Age group:	All ages
Description:	The indirectly age/sex/deprivation standardised rate of admission to hospital for colonoscopy and flexible-sigmoidoscopy per 10,000 population by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.  Denominator - Lower Super Output Area (LSOA) mid-year population estimates, Office for National Statistics.
Coding scheme:	Colonoscopy: H20-H22, G79 & G80 (except G80.2 unless with Y51.3) in the main or the first 3 secondary positions Flexisigmoidoscopy: H23 - H25  Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The observed number of inpatient admissions plus outpatient attendances for colonoscopy or flexible sigmoidoscopy.
Denominator:	The expected number of inpatient admissions plus outpatient attendances for colonoscopy or flexible sigmoidoscopy.
Methodology:	Numerator divided by denominator expressed as a rate per 10,000.  For each CCG, the denominator expected number of procedures is the sum of the products of the CCG mid-year population estimate and the England procedure rate, in each of the 190 sex (2 groups) by quinary ageband (19 groups) by IMD quintile (5 groups) strata.  The England procedure rate is the total number of procedures (inpatient plus outpatient) divided by the mid-year population estimate.  For both numerator and denominator, the CCG of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence level data. LSOA level numerator and denominator data is mapped to IMD quintiles using the LSOA IMD 2010 average score.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England, advised by the National Vascular Registry
Date created:	April 2016

## Map 17: Rate of computed tomography (CT) colonography procedures per weighted population by CCG

<b>Indicator:</b>	<b>CT colonography</b>
Statistic:	Rate per weighted 10,000 weighted population
Time period (map):	2014/15
Time period (boxplot):	2013/14 to 2014/15
Age group:	All ages
Description:	The rate of CT activity per 10,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Diagnostic Imaging Dataset (DID), NHS England Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Number of computerised tomography (CT) virtual Colonoscopy procedures defined by SNOMED codes 'Virtual computed tomography Colonoscopy (procedure) (418714002)' or 'Virtual CT Colonoscopy (procedure) (184911000000102)'. Numerator: The number of CT colography procedures Denominator: The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 10,000. Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/</a>
Source locations (2):	<a href="http://content.digital.nhs.uk/DID">http://content.digital.nhs.uk/DID</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 18: Rate of barium enema procedures per weighted population by CCG

<b>Indicator:</b>	<b>Barium enema activity</b>
Statistic:	Rate per weighted 100,000 weighted population
Time period (map):	2015/16
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of barium enema activity per 100,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England  Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.7 codes: U17.3 Barium swallow U17.4 Barium enema
Numerator:	The number of barium enema tests
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 100,000.  This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.  These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.  Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 19: Rate of gastroscopy (upper gastrointestinal endoscopy) procedures per population by CCG

<b>Indicator:</b>	<b>Gastroscopy</b>
Statistic:	Indirectly age/sex/deprivation-standardised rate per 10,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 to 2014/15
Age group:	All ages
Description:	The indirectly age/sex/deprivation standardised rate of admission to hospital for gastroscopy (upper gastrointestinal endoscopy) per 10,000 population by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.  Denominator - Lower Super Output Area (LSOA) mid-year population estimates, Office for National Statistics.
Coding scheme:	Gastroscopy (OGD): G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the main or the first 3 secondary positions  Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The observed number of inpatient admissions plus outpatient attendances for gastroscopy (OGD).
Denominator:	The expected number of inpatient admissions plus outpatient attendances for gastroscopy (OGD).
Methodology:	Numerator divided by denominator expressed as a rate per 10,000.  For each CCG, the denominator expected number of procedures is the sum of the products of the CCG mid-year population estimate and the England procedure rate, in each of the 190 sex (2 groups) by quinary ageband (19 groups) by IMD quintile (5 groups) strata.  The England procedure rate is the total number of procedures divided by the mid-year population estimate.  For both numerator and denominator, the CCG of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence level data. LSOA level numerator and denominator data is mapped to IMD quintiles using the LSOA IMD 2010 average score.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

**Map 20: Percentage of patients undergoing gastroscopy (upper gastrointestinal endoscopy) procedures aged under 55 years by CCG**

<b>Indicator:</b>	<b>Gastroscopy under 55 years</b>
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2005/06 to 2014/15
Age group:	0-54 years
Description:	The percentage of those patients undergoing gastroscopy (upper gastro-intestinal endoscopy) procedures who are aged 0-54 years by Clinical Commissioning Group (CCG) of residence 2014/15
Data source:	Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Coding scheme:	Gastroscopy: G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the primary procedure or the first 3 secondary positions  Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2') Admissions for patients under 55 years of age: STARTAGE < 55
Numerator:	The number of inpatient admissions plus outpatient attendances for gastroscopy (OGD) in persons aged 0-54 years.
Denominator:	The number of inpatient admissions plus outpatient attendances for gastroscopy (OGD)
Methodology:	Numerator divided by denominator expressed as a percentage.  For both numerator and denominator, the CCG of residence totals are derived by aggregating Lower Super Output Area (LSOA) of residence level data.  Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016



## Map 21: Rate of capsule endoscopy procedures per population by CCG

<b>Indicator:</b>	<b>Capsule endoscopy</b>
Statistic:	Indirectly age/sex/deprivation-standardised rate per 10,000
Time period (map):	2014/15
Time period (boxplot):	2006/07 to 2014/15
Age group:	All ages
Description:	The indirectly age/sex/deprivation standardised rate of admission to hospital for endoscopy per 10,000 population by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
	Denominator - Lower Super Output Area (LSOA) mid-year population estimates, Office for National Statistics.
Coding scheme:	Wireless capsule endoscopy (WCE): G80.2 in the primary procedure or the first 3 secondary positions
	Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The observed number of inpatient admissions plus outpatient attendances for capsule endoscopy
Denominator:	The expected number of inpatient admissions plus outpatient attendances for capsule endoscopy
Methodology:	Numerator divided by denominator expressed as a rate per 10,000.
	For each CCG, the denominator expected number of procedures is the sum of the products of the CCG mid-year population estimate and the England procedure rate, in each of the 190 sex (2 groups) by quinary ageband (19 groups) by IMD quintile (5 groups) strata.
	The England procedure rate is the total number of procedures divided by the mid-year population estimate.
	For both numerator and denominator, the CCG of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence level data. LSOA level numerator and denominator data is mapped to IMD quintiles using the LSOA IMD 2010 average score.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

## Map 22: Rate of endoscopic ultrasound procedures per population by CCG

<b>Indicator:</b>	<b>Endoscopic ultrasound</b>
Statistic:	Indirectly age/sex/deprivation-standardised rate per 10,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 to 2014/15
Age group:	All ages
Description:	The indirectly age/sex/deprivation-standardised rate of admission to hospital for endoscopic ultrasound per 10,000 population by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
	Denominator - Lower Super Output Area (LSOA) mid-year population estimates, Office for National Statistics.
Coding scheme:	Endoscopic ultrasound: G45.2, J53, J74 in the main or the first 3 secondary positions
	Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The observed number of inpatient admissions plus outpatient attendances for endoscopic ultrasound
Denominator:	The expected number of inpatient admissions plus outpatient attendances for endoscopic ultrasound
Methodology:	Numerator divided by denominator expressed as a rate per 10,000.
	For each CCG, the denominator expected number of procedures is the sum of the products of the CCG mid-year population estimate and the England procedure rate, in each of the 190 sex (2 groups) by quinary ageband (19 groups) by IMD quintile (5 groups) strata.
	The England procedure rate is the total number of procedures divided by the mid-year population estimate.
	For both numerator and denominator, the CCG of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence level data. LSOA level numerator and denominator data is mapped to IMD quintiles using the LSOA IMD 2010 average score.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

**Map 23: Admission rate for children for upper and/or lower gastro-intestinal endoscopy per population aged 0-17 years by CCG**

<b>Indicator:</b>	<b>Paediatric endoscopy</b>
Statistic:	Directly age-standardised rate per 100,000
Time period (map):	2012/13-2014/15
Time period (boxplot):	2005/06-2007/08 to 2012/13-2014/15
Age group:	0-17 years
Description:	The directly age-standardised rate of admission to hospital for endoscopy in children aged 0-17 years per 100,000 population, by Clinical Commissioning Group (CCG) of residence, 2014/15
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.  Denominator - CCG mid-year population estimates, Office for National Statistics.
Coding scheme:	Numerator: OPCS4: Any procedure of upper and/or lower gastro-intestinal endoscopy: OPCS 4.7 codes: G16, G19, G45, G55, G65, G80, H20-H28  Ordinary admissions: CLASSPAT IN ('1', '2', '5') England residents: RESGOR BETWEEN 'A' AND 'K' Finished Episodes: EPISTAT = '3' Male and female admissions: SEX IN ('1', '2')
Numerator:	The number of admissions for lower gastro-intestinal endoscopy in children aged 0-17 years aggregated to three-year totals
Denominator:	2005 to 2014 mid-year population estimates (2011 Census based) aggregated to three-year totals.
Methodology:	The indicator is constructed as a directly standardised rate for persons aged 0-17 using the 2013 European population as the reference standard.  Numerator data for each ageband group are divided by the denominator population data for each ageband group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area.  The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area.  Populations (CCG and 2013 European Standard) aged 15-17 years were estimated by pro-rata apportioning of the population aged 15-19 years.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/hes">http://content.digital.nhs.uk/hes</a>
Source locations (2):	<a href="http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates">http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates</a>
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	January 2016

## Map 24: Rate of audiology assessments undertaken per weighted population by CCG

<b>Indicator:</b>	<b>Audiology assessments</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of audiology assessments undertaken per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England  Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.5 - 4.7 codes: U24.1 Pure tone audiometry U24.2 Balance assessment U24.3 Hearing assessment U24.8 Other specified diagnostic audiology U24.9 Unspecified diagnostic audiology
Numerator:	The number of audiology assessments
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.  This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.  These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.  Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 25: Rate of diagnostic sleep studies undertaken per weighted population by CCG

<b>Indicator:</b>	<b>Sleep studies</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of diagnostic sleep studies undertaken per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.7 codes: A84.7 Sleep studies NEC (not elsewhere classified) U33.1 Polysomnography (Includes cardiopulmonary sleep studies)
Numerator:	The number of sleep studies
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 26: Percentage of patients with COPD with a record of FEV1 in the preceding 12 months by CCG

<b>Indicator:</b>	<b>COPD with record of FEV1</b>
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2012/13 to 2014/15
Age group:	All ages
Description:	The percentage of patients with COPD with a record of FEV1 in the previous 12 months (15 months in 2012/13 QOF)
Data source:	The Quality and Outcomes Framework 2012/13, 2013/14 and 2014/15. Copyright © 2016, re-used with the permission of the Health and Social Care Information Centre. All rights reserved.
Coding scheme:	Not applicable
Numerator:	2012/13 numerator - COPD10: The number of patients with COPD with a record of FEV1 in the preceding 15 months  2013/14 and 2014/15 numerator - COPD004: The number of patients with COPD with a record of FEV1 in the preceding 12 months
Denominator:	The number of patients with COPD as recorded by the Quality and Outcomes Framework, including 'excepted' patients
Methodology:	Numerator divided by denominator expressed as a percentage.  Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="http://content.digital.nhs.uk/catalogue/PUB18887">http://content.digital.nhs.uk/catalogue/PUB18887</a>
Source locations (2):	<a href="https://www.nice.org.uk/Media/Default/Standards-and-indicators/QOF%20Indicator%20Key%20documents/nm105-copd-guidance.pdf">https://www.nice.org.uk/Media/Default/Standards-and-indicators/QOF%20Indicator%20Key%20documents/nm105-copd-guidance.pdf</a>
Source locations (3):	
Further notes (1):	The Quality and Outcomes Framework (QOF) allows practices to exception-report (exclude) specific patients from data collected to calculate achievement scores. Patients can be exception-reported from individual indicators for various reasons, including 'not attending appointments' or 'treatment is judged to be inappropriate by the GP'. The patients that have been 'excepted' are included in this analysis. For background information on QOF exception reporting, and for notes on the way exception reporting rates are calculated, see the detailed notes in the technical annex in 'Source locations (1)'.
Further notes (2):	
Produced by:	Health & Social Care Information Centre (HSCIC)
Date created:	July 2016

## Map 27: Rate of urodynamic (pressures and flows) tests undertaken per weighted population by CCG

<b>Indicator:</b>	<b>Urodynamic tests</b>
Statistic:	Rate per weighted 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of urodynamic (pressures and flows) tests undertaken per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
Coding scheme:	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England. Numerator OPCS4.7 codes: U26.4 Urodynamics NEC (not elsewhere classified) M47.4 Urodynamic studies using catheter
Numerator:	The number of urodynamic (pressures and flows) tests
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

## Map 28: Rate of echocardiography activity undertaken per weighted population by CCG

<b>Indicator:</b>	<b>Echocardiography</b>
Statistic:	Rate per 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description:	The rate of echocardiography activity undertaken per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England  Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England.
Coding scheme:	Numerator OPCS4.7 codes: U20.1 Transthoracic echocardiography (TTE) U20.2 Transoesophageal echocardiography (TOE) U20.3 Intravascular echocardiography U20.4 Epicardial echocardiography U20.5 Stress echocardiography U20.6 Fetal echocardiography U20.8 Other specified diagnostic echocardiography U20.9 Unspecified diagnostic echocardiography K58.5 Transluminal intracardiac echocardiography
Numerator:	The number echocardiography tests
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.  This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.  These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.  Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.  Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016



## Map 29: Rate of peripheral neurophysiology tests undertaken per weighted population by CCG

<b>Indicator:</b>	<b>Peripheral neurophysiology</b>
Statistic:	Rate per 1,000 weighted population
Time period (map):	2016 January-March
Time period (boxplot):	2013 April-June to 2016 January-March
Age group:	All ages
Description	The rate of peripheral neurophysiology tests undertaken per 1,000 weighted population by Clinical Commissioning Group (CCG) of registration
Data source:	Numerator: Monthly Diagnostics Waiting times and Activity return (DM01), Unify2 data collection, NHS England
Coding scheme	Denominator: Clinical Commissioning Group 'need' weighted populations from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16, NHS England. Numerator OPCS4.7 codes: A84.2 Electromyography A84.3 Nerve conduction studies
Numerator:	The number of peripheral neurophysiology tests
Denominator:	The NHS England 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16
Methodology:	Numerator divided by denominator expressed as a rate per 1,000.
	This indicator is adjusted for 'need' by using a denominator that is the CCG registered population weighted for a combination of 'need' variables. This is the 'need' weighted population from the Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 produced by NHS England.
	These populations are provided for the three separate years 2013/14, 2014/15 and 2015/16. The 2013/14 'need' weighted populations are the October 2013 CCG registered populations adjusted for a combination of weights including the Hospital and Community Services (HCHS) need weighted populations, prescribing need weighted populations, the Market Forces Factor (MFF) index, the Emergency Ambulance Cost Adjustment (EACA) index and the all cause standardised mortality ratio (SMR) in persons aged 0-74 years. The MFF and the EACA are estimates of unavoidable cost differences between health care providers, based on their geographical location. The 2014/15 and 2015/16 'need' weighted populations are the 2013/14 'need' weighted populations uplifted for ONS population growth estimates for the respective years.
	Full details of the weighting calculations can be found in the Technical Guide to Clinical Commissioning Group and Area Team allocations 2014-15 and 2015-16 found at the link in 'Source locations (2)'. Details of the equivalent weighted populations for 2016/7 to 2020/21 (not used in this Atlas) can be found at the link in 'Source locations (3)'.
	Confidence intervals were calculated using Byar's Method. <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/">https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/</a>
Source locations (2):	<a href="https://www.england.nhs.uk/2014/03/allocations-tech-guide/">https://www.england.nhs.uk/2014/03/allocations-tech-guide/</a>
Source locations (3):	<a href="https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/">https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/</a>
Further notes (1):	
Further notes (2):	
Produced by:	NHS England
Date created:	April 2016

**Map 30: Percentage coverage for initial screening tests for men aged 65 years in the NHS abdominal aortic aneurysm (AAA) screening programme by CCG**

<b>Indicator:</b>	<b>Abdominal aortic aneurysm screening coverage</b>
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2013/14 to 2014/15
Age group:	Men aged 65 years
Description	<p>The percentage coverage for initial screening tests for men aged 65 years and over in the NHS abdominal aortic aneurysm (AAA) screening programme by Clinical Commissioning Group (CCG) of registration, 2014/15</p> <p>The proportion of men eligible for abdominal aortic aneurysm screening who are conclusively tested (have a conclusive scan result). Eligible men is the total number of men in their 65th year excluding any who die or move out of the area of responsibility for the local screening service before screening can be offered.</p>
Data source:	NHS abdominal aortic aneurysm (AAA) programme, Public Health England
Coding scheme	Not applicable
Numerator:	The number of men eligible for abdominal aortic aneurysm screening (see denominator) who have a conclusive scan result
Denominator:	The number of eligible men which is men in their 65th year to whom the local screening service propose that a screening encounter/event during the reporting period should be offered. When calculated annually, this indicator must report all eligible men in their 65th year, excluding any who die or move out of the area of responsibility for the local screening service before screening can be offered.
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/abdominal-aortic-aneurysm">https://www.gov.uk/topic/population-screening-programmes/abdominal-aortic-aneurysm</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/aaa-screening-supporting-documents">https://www.gov.uk/government/collections/aaa-screening-supporting-documents</a>
Source locations (3):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Further notes (1):	NHS Screening Programmes, Key Performance Indicators for Screening, 2016/17. AA2: Abdominal aortic aneurysm screening - coverage of initial screen
	Performance thresholds. Acceptable level: $\geq 75.0\%$ . Achievable level: $\geq 85.0\%$
Further notes (2):	<a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
Produced by:	Public Health England
Date created:	April 2016

**Map 31: Percentage of eligible people aged 60-74 years with a screening test result recorded in the previous 2.5 years from the NHS bowel cancer screening programme (NHS BCSP) by upper-tier local authority**

<b>Indicator:</b>	<b>Bowel cancer screening</b>
Statistic:	Percentage
Time period (map):	As at 31st March 2015
Time period (boxplot):	2015 to 2015
Age group:	60-74 years
Description:	The percentage of eligible people aged 60-74 years with a screening test result recorded in the previous 2.5 years from the NHS bowel cancer screening programme (NHS BCSP) by upper-tier local authority of residence, 31st March 2015
Data source:	Health and Social Care Information Centre (Open Exeter) via the Public Health Outcomes Framework
Coding scheme:	Not applicable
Numerator:	Number of people aged 60–74 resident in the area (determined by postcode of residence) with a screening test result recorded in the previous 2.5 years
Denominator:	Number of people aged 60–74 resident in the area (determined by postcode of residence) who are eligible for bowel screening at a given point in time. People are excluded from the eligible population if they have no functioning colon (eg following bowel surgery) or if they make an informed decision to opt out of the programme.
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/bowel">https://www.gov.uk/topic/population-screening-programmes/bowel</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Source locations (3):	<a href="http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91720/age/280/sex/4">http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91720/age/280/sex/4</a>
Further notes (1):	This indicator gives screening coverage by local authority of residence. This is not the same as the indicators published by the Health and Social Care Information Centre (HSCIC), which are for primary care organisations on a registered population basis. The England total is slightly different from the England total published by HSCIC. HSCICs figures are sourced differently, being aggregated from returns from all primary care organisations, and include patients registered with the PCOs, wherever they live. The indicator excludes people outside the target age range for the screening programme who may self-refer for screening.
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

**Map 32: Percentage of eligible women aged 53-70 years screened adequately within the previous three years in the NHS breast screening programme (NHS BSP) by upper-tier local authority**

<b>Indicator:</b>	<b>Breast screening</b>
Statistic:	Percentage
Time period (map):	As at 31st March 2015
Time period (boxplot):	2010 to 2015
Age group:	Women aged 53-70 years
Description:	The percentage of eligible women aged 53-70 years screened adequately within the previous three years in the NHS breast screening programme (NHS BSP) by upper-tier local authority, 31st March 2015
Data source:	Health and Social Care Information Centre (Open Exeter) via the Public Health Outcomes Framework
Coding scheme:	Not applicable
Numerator:	Number of women aged 53–70 resident in the area (determined by postcode of residence) with a screening test result recorded in the previous three years.
Denominator:	Number of women aged 53–70 resident in the area (determined by postcode of residence) who are eligible for breast screening at a given point in time.
Methodology:	<p>Women ineligible for screening, and thus not included in the coverage figures, are those whose recall has been ceased for clinical reasons (eg due to previous bilateral mastectomy).</p> <p>Numerator divided by denominator expressed as a percentage.</p> <p>Confidence intervals were calculated using the Wilson Score Method  <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a></p>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/breast">https://www.gov.uk/topic/population-screening-programmes/breast</a>
Source locations (2):	<a href="http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/22001/age/225/sex/2">http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/22001/age/225/sex/2</a>
Source locations (3):	
Further notes (1):	<p>This indicator gives screening coverage by local authority of residence. This is not the same as the indicators published by the Health and Social Care Information Centre (HSCIC), which are for primary care organisations on a registered population basis. The England total is slightly different from the England total published by HSCIC. HSCICs figures are sourced differently, being aggregated from returns from all primary care organisations, and include patients registered with the PCOs, wherever they live.</p> <p>The indicator excludes people outside the target age range for the screening programme who may self-refer for screening.</p>
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

**Map 33: Percentage of eligible women aged 25-64 years screened adequately in the NHS cervical screening programme (NHS CSP) by upper-tier local authority**

<b>Indicator:</b>	<b>Cervical screening</b>
Statistic:	Percentage
Time period (map):	As at 31st March 2015
Time period (boxplot):	2010 to 2015
Age group:	Women aged 25-64 years
Description:	The percentage of eligible women aged 25-64 years screened adequately in the NHS cervical screening programme (NHS CSP) by upper-tier local authority of residence, 31st March 2015
Data source:	Health and Social Care Information Centre (Open Exeter) via the Public Health Outcomes Framework
Coding scheme:	Not applicable
Numerator:	The number of women aged 25-49 resident in the area (determined by postcode of residence) with an adequate screening test in the previous 3.5 years plus the number of women aged 50-64 resident in the area with an adequate screening test in the previous 5.5 years
Denominator:	Number of women aged 25–64 resident in the area (determined by postcode of residence) who are eligible for cervical screening at a given point in time.
	Women ineligible for screening, and thus not included in the numerator or denominator of the coverage calculation, are those whose recall has been ceased for clinical reasons (most commonly due to hysterectomy).
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/cervical">https://www.gov.uk/topic/population-screening-programmes/cervical</a>
Source locations (2):	<a href="http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/22002/age/167/sex/2">http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/22002/age/167/sex/2</a>
Source locations (3):	
Further notes (1):	This indicator gives screening coverage by local authority of residence. This is not the same as the indicators published by the Health and Social Care Information Centre (HSCIC), which are for primary care organisations on a registered population basis. The England total is slightly different from the England total published by HSCIC. HSCICs figures are sourced differently, being aggregated from returns from all primary care organisations, and include patients registered with the PCOs, wherever they live. The indicator excludes people outside the target age range for the screening programme who may self-refer for screening.
Further notes (2):	
Produced by:	Public Health England
Date created:	April 2016

**Map 34: Percentage of babies eligible for testing in the NHS newborn blood spot (NBS) screening programme who had a conclusive result recorded on the Child Health Information System (CHIS) within an effective timeframe by CCG**

<b>Indicator:</b>	<b>Newborn blood spot screening coverage</b>
Statistic:	Percentage
Time period (map):	2015 July-September
Time period (boxplot):	2014 April-June to 2015 July-September
Age group:	Under 1 year
Description:	<p>The percentage of babies registered within the CCG both at birth and on the last day of the reporting period who are eligible for testing in the NHS newborn blood spot (NBS) screening programme, who had a conclusive result recorded on the Child Health Information System (CHIS) within an effective timeframe by Clinical Commissioning Group (CCG) of registration, 2015 July-September</p> <p>Phenylketonuria (PKU) is used as a proxy for all tests and an 'effective timeframe' is where a conclusive result for PKU is recorded on the CHIS by 17 days of age.</p> <p>Prior to 2015 testing was conducted for five conditions, extended screening (an additional 4 conditions) started on the 1 Jan 2015.</p>
Data source:	NHS newborn blood spot (NBS) screening programme, Public Health England
Coding scheme:	Not applicable
Numerator:	The number of eligible babies for whom a conclusive screening result for PKU was available within an effective timeframe.
Denominator:	Total number of babies born within the reporting period, excluding any baby who died before the age of 8 days. For the purposes of this indicator, the cohort includes only babies for whom the CCG were responsible at birth and are still responsible on the day of report. The 'effective timeframe' is that a conclusive result for PKU is recorded on the CHIS by 17 days of age. A conclusive result for PKU is one of the following newborn screening status codes: 04 (not suspected), 07 (not suspected - other disorders follow up); 08 (suspected)
Methodology:	Numerator divided by denominator expressed as a percentage.
Source locations (1):	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (2):	<a href="https://www.gov.uk/topic/population-screening-programmes/newborn-blood-spot">https://www.gov.uk/topic/population-screening-programmes/newborn-blood-spot</a>
Source locations (3):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a> <a href="http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91323/age/2/sex/4">http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91323/age/2/sex/4</a>
Further notes (1):	<p>This KPI does not measure babies born who change responsible CCG since birth or move in from abroad during the reporting period (movers in), even though these babies are eligible for screening and will continue to be monitored through data collection by the NBS programme, along with coverage for all 9 tests.</p> <p>NHS Screening Programmes, Key Performance Indicators for Screening, 2014/15. NB1: Newborn blood spot screening - coverage</p> <p>Performance thresholds. Acceptable level: <math>\geq 95.0\%</math>. Achievable level: <math>\geq 99.9\%</math></p> <p>Area figures for this indicator are based on the total submissions within a financial year.</p>
Further notes (2):	<a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
Produced by:	Public Health England
Date created:	April 2016

**Map 35: Percentage of babies who required a repeat test due to an avoidable failure in the sampling process during the NHS newborn blood spot (NBS) screening programme by maternity service**

<b>Indicator:</b>	<b>Newborn blood spot screening – avoidable repeat tests</b>
Statistic:	Percentage
Time period (map):	2015 July-September
Time period (boxplot):	2014 April-June to 2015 July-September
Age group:	Under 1 year
Description:	The percentage of babies from whom it is necessary to take a repeat blood sample due to an avoidable failure in the sampling process during the NHS newborn blood spot (NBS) screening programme by NHS Trust, 2015 July-September
Data source:	NHS newborn blood spot (NBS) screening programme, Public Health England
Coding scheme:	Not applicable
Numerator:	The number of repeat (second or subsequent) samples requested by the laboratory during the reporting period because the previous sample was: (1) taken when the baby was too young (on or before day 4, where day 0 is the date of birth) (2) insufficient (for example, 4 blood spots did not soak through to the back of the card) (3) unsuitable (for example, on an expired blood spot card, contaminated, in transit for more than 14 days, anti-coagulated sample and baby's NHS number and/or other details not accurately recorded on the blood spot card)
Denominator:	The number of initial blood samples received in the laboratory during the reporting period as part of the newborn blood spot screening programme.
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/newborn-blood-spot">https://www.gov.uk/topic/population-screening-programmes/newborn-blood-spot</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Source locations (3):	
Further notes (1):	NHS Screening Programmes, Key Performance Indicators for Screening, 2014/15. NB2: Newborn blood spot screening – avoidable repeat tests
	Performance thresholds: Acceptable level: $\leq 2.0\%$ , Achievable level: $\leq 0.5\%$
Further notes (2):	<a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
Produced by:	Public Health England
Date created:	April 2016

**Map 36: Percentage of referred babies who had an audiological assessment within four weeks of the decision to refer or by 44 weeks' gestational age by CCG**

<b>Indicator:</b>	<b>Newborn hearing – timely assessment for screen referrals</b>
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2013/14 to 2014/15
Age group:	Under 1 year
Description	<p>The percentage of referred babies receiving an audiological assessment within four weeks of the decision to refer or by 44 weeks' gestational age by Clinical Commissioning Group (CCG) of registration, 2014/15</p> <p>Referred babies are those babies with a no clear response result in one or both ears or other result that require an immediate onward referral.</p>
Data source:	NHS newborn hearing screening programme (NHSP), Public Health England
Coding scheme	Not applicable
Numerator:	The number of babies from the denominator who attend an appointment within the required timescale of either within 4 weeks of screen completion or by 44 weeks gestational age.
Denominator:	<p>The number of babies who receive a no clear response result in one or both ears or other result that requires an immediate onward referral for audiological assessment. Within the national software solution for newborn hearing screening it is defined as the following 'screening outcomes':</p> <p>(1) no clear response – bilateral referral, unilateral referral  (2) incomplete – baby/equipment reason, equipment malfunction, equipment not available, baby unsettled  (3) incomplete – screening contraindicated</p> <p>Corrected age is used for babies born at &lt;40 weeks gestation</p>
Methodology:	<p>Numerator divided by denominator expressed as a percentage.</p> <p>Confidence intervals were calculated using the Wilson Score Method  <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a></p>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/newborn-hearing">https://www.gov.uk/topic/population-screening-programmes/newborn-hearing</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Source locations (3):	<a href="http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91324/age/2/sex/4">http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/91324/age/2/sex/4</a>
Further notes (1):	<p>NHS Screening Programmes, Key Performance Indicators for Screening, 2014/15. NH2: Newborn hearing – timely assessment for screen referrals</p> <p>Performance thresholds: Acceptable level: ≥ 90.0%, Achievable level: = 100.0%</p>
Further notes (2):	<a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
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**Map 37: Percentage of women tested in the NHS antenatal sickle cell and thalassaemia screening programme with a conclusive result by 10 weeks' gestation by maternity service**

<b>Indicator:</b>	<b>Antenatal sickle cell and thalassaemia screening – timeliness of test</b>
Statistic:	Percentage
Time period (map):	2015 July-September
Time period (boxplot):	2013 April-June to 2015 July-September
Age group:	All ages
Description:	The percentage of women tested in the NHS antenatal sickle cell and thalassaemia screening programme with a conclusive result by 10 weeks' (10 weeks and 0 days) gestation by Maternity Service, 2015 July-September.
Data source:	NHS sickle cell and thalassaemia (SCT) screening programme, Public Health England
Coding scheme:	Not applicable
Numerator:	The number of women having antenatal sickle cell and thalassaemia screening for whom a conclusive screening result is available by 10 weeks' gestation.
	This is the total number of pregnant women for whom a sample was received at the laboratory and for whom an antenatal sickle cell and thalassaemia screening result was available (though not necessarily communicated to the woman) by 10 weeks (70 days) gestation. In areas with low prevalence of sickle cell disease, this may include women at low risk of sickle cell disease for whom haemoglobinopathy analysis (for example, high performance liquid chromatography) has not been indicated by the family origin questionnaire (FOQ).
	Calculation of gestation age, such as 10 weeks, may be based on last menstrual cycle; there is no requirement to recalculate gestation age by ultrasound scan where this occurs after screening.
Denominator:	The number of pregnant women for whom an antenatal sickle cell and thalassaemia screening sample was received at the laboratory during the reporting period as part of the antenatal screening programme.
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/sickle-cell-thalassaemia">https://www.gov.uk/topic/population-screening-programmes/sickle-cell-thalassaemia</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Source locations (3):	<a href="https://www.gov.uk/government/publications/sickle-cell-and-thalassaemia-screening-data-trends-and-performance-analysis">https://www.gov.uk/government/publications/sickle-cell-and-thalassaemia-screening-data-trends-and-performance-analysis</a>
Further notes (1):	NHS Screening Programmes, Key Performance Indicators for Screening, 2014/15. ST2: Antenatal sickle cell and thalassaemia screening - timeliness of test
Further notes (2):	Performance thresholds. Acceptable level: $\geq 50.0\%$ , Achievable level: $\geq 75.0\%$ . <a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
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**Map 38: Percentage of samples in the NHS antenatal sickle cell and thalassaemia screening programme submitted to the laboratory with a completed family origin questionnaire (FOQ) by maternity service**

<b>Indicator:</b>	<b>Antenatal sickle cell and thalassaemia screening – completion of FOQ</b>
Statistic:	Percentage
Time period (map):	2015 July-September
Time period (boxplot):	2013 April-June to 2015 July-September
Age group:	All ages
Description:	The percentage of samples in the NHS antenatal sickle cell and thalassaemia screening programme submitted to the laboratory with a completed family origin questionnaire (FOQ) by Maternity Service, 2015 July-September
Data source:	NHS sickle cell and thalassaemia (SCT) screening programme, Public Health England
Coding scheme:	Not applicable
Numerator:	The number of antenatal sickle cell and thalassaemia samples received by the laboratory during the reporting period with a completed FOQ.
Denominator:	The number of antenatal sickle cell and thalassaemia samples received by the laboratory during the reporting period.
	A completed FOQ must use the national template, and must be fully completed (including at least one box for the mother and one box for the father ticked; 'declined to answer' or 'don't know' are allowable) or returned with the 'decline' box ticked. FOQs that are not attached with the sample or in electronic format, attached but not completed ('decline' box not ticked) or inconclusive cannot be regarded as a completed FOQ.
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using the Wilson Score Method <a href="http://www.apho.org.uk/resource/item.aspx?RID=48457">http://www.apho.org.uk/resource/item.aspx?RID=48457</a>
Source locations (1):	<a href="https://www.gov.uk/topic/population-screening-programmes/sickle-cell-thalassaemia">https://www.gov.uk/topic/population-screening-programmes/sickle-cell-thalassaemia</a>
Source locations (2):	<a href="https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting">https://www.gov.uk/government/collections/nhs-screening-programmes-national-data-reporting</a>
Source locations (3):	<a href="https://www.gov.uk/government/publications/sickle-cell-and-thalassaemia-screening-data-trends-and-performance-analysis">https://www.gov.uk/government/publications/sickle-cell-and-thalassaemia-screening-data-trends-and-performance-analysis</a>
Further notes (1):	NHS Screening Programmes, Key Performance Indicators for Screening, 2014/15. ST3: Antenatal sickle cell and thalassaemia screening – completion of FOQ
	Performance thresholds. Acceptable level: ≥ 90.0% Achievable level: ≥ 95.0%.
Further notes (2):	<a href="https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions">https://www.gov.uk/government/publications/nhs-population-screening-reporting-data-definitions</a>
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