Indicator metadata

NHS Atlas of Variation for Diagnostics
Version 1.0

Indicator themes

01: Rate of magnetic resonance imaging (MRI) activity per 1,000 weighted population, by PCT, 2012/13

Indicator:	**Magnetic resonance imaging (MRI) activity**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of MRI activity per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	No. of MRI tests by PCT
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on MRI scans for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables.
	Numerator: Total MRI activity reported in England 2012/13.
	Denominator: Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

02: Rate of computed axial tomography (CT) activity per 1,000 weighted population, by PCT, 2012/13

Indicator:	**Computed axial tomography (CT) activity**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of CT activity per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	No. of CT tests by PCT
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on CT scans for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables.
	Numerator: Total CT activity reported in England 2012/13.
	Denominator: Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

03: Rate of non-obstetric ultrasound activity per 1,000 weighted population, by PCT, 2011/12

Indicator:	**Non-obstetric ultrasound activity**
Statistic:	Rate per weighted population
Time period:	2011/12
Age group:	All ages
Description:	Rate of non-obstetric ultrasound activity per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	No. of non-obstetric ultrasound tests by PCT
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on non-obstetric ultrasounds for the months in 2011-12 by a weighted population produced by the department of health (DH). These populations are the Hospital & Community Health Services (HCHS) population, that have been adjusted by age and sex as well as 'need' variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

04: Rate of positron emission tomography computed tomography (PET-CT) activity from independent

Indicator:	**PET-CT**
Statistic:	Crude rate per population
Time period:	2012/13
Age group:	All ages
Description:	Rate of PET-CT activity undertaken within primary care trusts per 10,000 population
Data source:	Alliance Medical Ltd and Inhealth Molecular Imaging providers of the Independent Sector Treatment Centre PET CT Contracts in the North and South of England
Numerator:	No. of PET-CT's recorded
Denominator:	Attribution dataset population (constrained to Office for National Statistics mid year estimates) for registered population within PCTs, 2011
Methodology:	The number of PET-CTs are divided by the attribution dataset population to provide a crude rate of activity. Where there is a record of 20 or less PET-CTs, these PCTs have been removed from the analysis due to issues of data completeness.
Further notes:	Data included here is not all activity within the country. The data in this indicator reflects activity conducted for the PCTs shown by the PET-CT South and North Independent Sector Treatment Centre contracts only. This data accounts for approximately 70% of NHS activity. Commissioners may hold contracts with other providers outside of the PET-CT South and North contracts and as such the data will not show the complete activity for each PCT area. As well as missing PET-CT activity, The Specialised Commissioning Groups (who are responsible for commissioning PET-CT services for a group of PCTs) may not have commissioned PET-CT activity accross all PCTs within their responsible area within 2011/12. Other PET-CT providers not included in the activity data can include: • private providers; • charitable organisations, who may not have the capacity to provide data; • NHS Trusts who also undertake private work (particularly in London)
Produced by:	Mike Saunders, Contract Manager, PET CT North. Jane Hubert, Contract Manager, PET CT South
Date created:	January 2013

05: Rate of dual-energy X-ray (DEXA) scan activity per 1,000 weighted population, by PCT, 2012/13

Indicator:	**Dual-energy X-ray (DEXA) scan activity**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of DEXA scan activity per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	No. of DEXA scan tests by PCT
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on DEXA scans for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. Numerator: Total DEXA activity reported in England 2012/13. Denominator: Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

06: Median time (minutes) from arrival in hospital to scan carried out for stroke patients, by hospital trust, October to December 2012

Indicator:	**Stroke - time to scan**
Statistic:	Median
Time period:	October to December 2012
Age group:	All ages
Description:	Median time to scan for patients admitted to hospital with a stroke, by hospital trust
Data source:	Stroke Improvement National Audit Programme
Numerator:	Median time (minutes) from time of arrival in hospital to scan. Patients aleady in hospital with stroke were excluded from the dataset.
Denominator:	n/a
Methodology:	All patients who elicit a response from the stroke team could be included on SINAP i.e. patients with a diagnosis of stroke, TIA or those admitted with suspected stroke but who subsequently turn out to have another diagnosis e.g. a seizure, tumour or migraine. Eligibility for inclusion in the quarterly reports was determined by the submission of a minimum number of 20 locked stroke records for patients admitted within that quarter. For this quarter 100 hospitals were included based on eligibility. The median times to scan were taken from 9,010 patient stroke records within these 100 hospitals as submitted to the SINAP database.
Source location:	http://www.rcplondon.ac.uk/sites/default/files/sinap_7th_quarterly_public_report_october_-_december_2012_admissions_0.xls
Further notes:	The Stroke Improvement National Audit Programme (SINAP) is a national clinical audit, which collected information from hospitals about stroke patient care in the first three days in hospital. SINAP was run by the RCP Stroke programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP). Data submission for SINAP has now ended. The new stroke audit, the Sentinel Stroke National Audit Programme (SSNAP), is now the single source of stroke data nationally. Only hospitals which directly admit acute stroke patients were eligible to participate in SINAP. It is estimated that 147 hospitals in England were eligible at the time period covered by this quarter report (October – December 2012)
Produced by:	SINAP - RCP Audit
Date created:	Published February 2013

07: Proportion (%) of stroke patients scanned within 1 hour of arrival in hospital, by hospital trust, October to December 2012

Indicator:	**Stroke - scan within 1 hour**
Statistic:	Median
Time period:	October to December 2012
Age group:	All ages
Description:	Proportion of stroke patients brain scanned within 1 hour of arrival at hospital
Data source:	Stroke Improvement National Audit Programme
Numerator:	Number of stroke patients brain scanned within 1 hour of arrival at hospital. If illogical timings are entered for a patient the standard is not met. For inpatients the time between onset and scan is used (if onset time is unknown for inpatients, the standard is not met).
Denominator:	The denominator includes all stroke patients from October to December 2012.
Methodology:	All patients who elicit a response from the stroke team could be included on SINAP i.e. patients with a diagnosis of stroke, TIA or those admitted with suspected stroke but who subsequently turn out to have another diagnosis e.g. a seizure, tumour or migraine. Eligibility for inclusion in the quarterly reports was determined by the submission of a minimum number of 20 locked stroke records for patients admitted within that quarter. For this quarter 100 hospitals were included based on eligibility.Proportions were calculated from all patients from 9,010 patient stroke records within these 100 hospitals as submitted to the SINAP database.
Source location:	http://www.rcplondon.ac.uk/sites/default/files/sinap_7th_quarterly_public_report_october_-_december_2012_admissions_0.xls
Further notes:	The Stroke Improvement National Audit Programme (SINAP) is a national clinical audit, which collected information from hospitals about stroke patient care in the first three days in hospital. SINAP was run by the RCP Stroke programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP). Data submission for SINAP has now ended. The new stroke audit, the Sentinel Stroke National Audit Programme (SSNAP), is now the single source of stroke data nationally. Only hospitals which directly admit acute stroke patients were eligible to participate in SINAP. It is estimated that 147 hospitals in England were eligible at the time period covered by this quarter report (October – December 2012)
Produced by:	SINAP - RCP Audit
Date created:	Published February 2013

08: Proportion (%) of stroke patients scanned within 24 hours of arrival in hospital, by hospital trust, October to December 2012

Indicator:	**Stroke - scan within 24 hours**
Statistic:	Median
Time period:	October to December 2012
Age group:	All ages
Description:	Proportion of stroke patients brain scanned within 24 hours of arrival at hospital
Data source:	Stroke Improvement National Audit Programme
Numerator:	Number of stroke patients brain scanned within 24 hours of arrival at hospital. If illogical timings are entered for a patient the standard is not met. For inpatients the time between onset and scan is used (if onset time is unknown for inpatients, the standard is not met).
Denominator:	The denominator includes all stroke patients from October to December 2012.
Methodology:	All patients who elicit a response from the stroke team could be included on SINAP i.e. patients with a diagnosis of stroke, TIA or those admitted with suspected stroke but who subsequently turn out to have another diagnosis e.g. a seizure, tumour or migraine. Eligibility for inclusion in the quarterly reports was determined by the submission of a minimum number of 20 locked stroke records for patients admitted within that quarter. For this quarter 100 hospitals were included based on eligibility.Proportions were calculated from all patients from 9,010 patient stroke records within these 100 hospitals as submitted to the SINAP database.
Source location:	http://www.rcplondon.ac.uk/sites/default/files/sinap_7th_quarterly_public_report_october_-_december_2012_admissions_0.xls
Further notes:	The Stroke Improvement National Audit Programme (SINAP) is a national clinical audit, which collected information from hospitals about stroke patient care in the first three days in hospital. SINAP was run by the RCP Stroke programme on behalf of the Intercollegiate Stroke Working Party (ICSWP) and commissioned by the Healthcare Quality Improvement Partnership (HQIP). Data submission for SINAP has now ended. The new stroke audit, the Sentinel Stroke National Audit Programme (SSNAP), is now the single source of stroke data nationally. Only hospitals which directly admit acute stroke patients were eligible to participate in SINAP. It is estimated that 147 hospitals in England were eligible at the time period covered by this quarter report (October – December 2012)
Produced by:	SINAP - RCP Audit
Date created:	Published February 2013

09: Median time (hours) to head computed axial tomography (CT) for patients admitted directly to hospital meeting NICE head injury guidelines by hospital 2012/13

Indicator:	**Time to CT - head injury**
Statistic:	Frequency of scan and time to scan.
Time period:	April 2012 – March 2013 admissions.
Age group:	All ages.
Description:	Frequency of scan and median hours to scan from hospital arrival, by hospital.
Data source:	The Trauma Audit and Research Network (TARN) database.
Coding scheme used:	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:	Number of patients in each injury group with a CT scan recorded.
Denominator:	Number of traumatically injured patients in each injury group admitted directly from the scene of the incident to a hospital where 10 or more CT scans with full dates and times are recorded.
Methodology:	The TARN database was queried using SQL Server 2008. 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.
Further Notes:	See http://www.aaam.org for details of the Abbreviated Injury Scale.
	See http://www.nice.org.uk/CG56 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 2013

10: Median time (hours) to pelvic computed axial tomography (CT) for patients admitted directly to hospital with pelvic injury by hospital 2012/13

Indicator:	Time to CT - Pelvic
Statistic:	Frequency of scan and time to scan.
Time period:	April 2012 – March 2013 admissions.
Age group:	All ages.
Description:	Frequency of scan and median hours to scan from hospital arrival, by hospital.
Data source:	The Trauma Audit and Research Network (TARN) database.
Coding scheme used:	Abbreviated Injury Scale (AIS), 2005 version, 2008 update.
Codes used:	Patients with at least one pelvic injury with an AIS severity of 3 or higher. Codes used for selection are 856100, 856101, 856151, 856152, 856162, 856163, 856164, 856173, 856174, 856300, 856302, 856304, 856306, 856308 and 856310.
Numerator:	Number of patients in each injury group with a CT scan recorded.
Denominator:	Number of traumatically injured patients in each injury group admitted directly from the scene of the incident to a hospital where 10 or more CT scans with full dates and times are recorded.
Methodology:	The TARN database was queried using SQL Server 2008. 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.
Further Notes:	See http://www.aaam.org for details of the Abbreviated Injury Scale. See http://www.nice.org.uk/CG56 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 2013

11: Provision of endovascular aneurysm repair (EVAR) offered by interventional radiology services "within hours" by hospital Trust, November 2012

Indicator:	**Interventional radiology: EVAR**
Statistic:	Three category description
Time period:	November 2012
Age group:	All ages
Description:	Endovascular aneurysm repair (EVAR) offered by interventional radiology services within hours
Data source:	Survey of all Interventional Radiology Services in 2012, including ad-hoc updates
Numerator:	Self response to questionnaire on access to Interventional radiology services - EVAR 'within hours'
Denominator:	n/a
Methodology:	The data was collected via a questionnaire during the period March to May 2012. Ad hoc updates received by several organisations from this survey and results updated in November 2012. A similar survey was taken during 2011. If a trust has not returned a survey from March to May 2012 or updated results up to November 2012, and a previous survey was completed, then the status from the 2011 survey has been used. The status of services within hours for EVAR is self reported by individual trusts. Trusts self-assessed their status as Red, Amber or Green based on whether a formal on- call consultant rota and agreed formal pathway of care is in place.
Source location:	http://www.improvement.nhs.uk/diagnostics/InterventionalRadiology/IRServiceProvisionMap.aspx
Produced by:	NHS Improvement diagnostics team
Date created:	November 2012

12A: Rate of endovascular aneurysm repair (EVAR) procedures for abdominal aortic aneurysm (AAA) per population, by PCT, 2009/10–2011/12

Indicator:	**EVAR procedures**
Statistic:	Directly age standardised rates per 100,000
Time period:	2009/10–2011/12
Age group:	All ages
Description:	Directly age standardised rate of admissions where the procedure recorded was endovascular aneurysm repair, per population, by PCT, 2009/10–2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS4
Codes used:	Any procedure of EVAR: OPCS4 codes: 'O209', 'O204', 'O201', 'L266', 'L272', 'L275', 'O205', 'O202', 'L271', 'L276', 'L279', 'O208', 'O203', 'L267', 'L278', 'L194', 'L195', 'L196', 'L198', 'L199'
Numerator:	Numbers of admissions with a procedure code indicating an EVAR.
Denominator:	Mid year estimates of PCT population for 2009 and 2010 (estimates based on the 2001 census and 2010 population doubled to provide a 3 year coverage)
Methodology:	The total count of episodes from the inpatient admissions, as extracted from the Hospitals Episode Statistics database, where EVAR was recorded as any operation. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to PCT. Five year age specific rates (for admissions) for EVAR are calculated by dividing the numerator by the LSOA census based populations aggregated to PCT. The rate of events that would occur in the standard population is found by multiplying the 5-year age-specific rates of liver disease to the age structure of the standard population (in this case, the European standard population). These are summed and divided by the total European standard population to get a single standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	May 2013

12B: Rate of endovascular aneurysm repair (EVAR) procedures for abdominal aortic aneurysm (AAA) per population, by CCG, 2009/10–2011/12

Indicator:	**EVAR procedures**
Statistic:	Directly age standardised rates per 100,000
Time period:	2009/10–2011/12
Age group:	All ages
Description:	Directly age standardised rate of admissions where the procedure recorded was endovascular aneurysm repair, per population, by CCG, 2009/10–2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS4
Codes used:	Any procedure of EVAR: OPCS4 codes: 'O209', 'O204', 'O201', 'L266', 'L272', 'L275', 'O205', 'O202', 'L271', 'L276', 'L279', 'O208', 'O203', 'L267', 'L278'
Numerator:	Numbers of admissions with a procedure code indicating an EVAR.
Denominator:	Mid year estimates of CCG population for 2009 and 2010 (estimates based on the 2001 census and 2010 population doubled to provide a 3 year coverage), based on LSOA populations.
Methodology:	The total count of episodes from the inpatient admissions, as extracted from the Hospitals Episode Statistics database, where EVAR was recorded as any operation. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to CCG. Five year age specific rates (for admissions) for EVAR are calculated by dividing the numerator by the LSOA census based populations aggregated to CCG. The rate of events that would occur in the standard population is found by multiplying the 5-year age-specific rates of liver disease to the age structure of the standard population (in this case, the European standard population). These are summed and divided by the total European standard population to get a single standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	May 2013

13A: Proportion (%) of elective procedures for abdominal aortic aneurysm (AAA) that were EVAR, by PCT, 2009/10–2011/12

Indicator:	**EVAR procedures**
Statistic:	Proportion (%)
Time period:	2009/10–2011/12
Age group:	All ages
Description:	Proportion (%) of all elective procedures for abdominal aortic aneurysm (AAA) that were recorded as EVAR, by PCT, 2009/10–2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS4
Codes used:	Any procedure for AAA: OPCS4 codes: 'O209', 'O204', 'O201', 'L266', 'L272', 'L275', 'O205', 'O202', 'L271', 'L276', 'L279', 'O208', 'O203', 'L267', 'L278', 'L194', 'L195', 'L196', 'L198', 'L199'
Numerator:	All elective admissions for AAA procedures where the procedure was recorded as an EVAR (L266,L267,L271,L272,L275,L276,L278,L279,O201,O202,O203,O204,O205,O208,O209)
Denominator:	All elective procedures where a procedure for AAA was recorded (both Open and EVAR).
Methodology:	The total count of episodes from the inpatient admissions, as extracted from the Hospitals Episode Statistics database, where any AAA procedures was recorded as any operation. National data (for England) was was extracted by lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to PCT. The proportion was calculated by divding all elective EVAR operations over all elective AAA procedures. 95% confidence Intervals were created around the rates using Wilsons method. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	May 2013

13B: Proportion (%) of elective procedures for abdominal aortic aneurysm (AAA) that were EVAR, by CCG, 2009/10–2011/12

Indicator:	EVAR procedures
Statistic:	Proportion (%)
Time period:	2009/10–2011/12
Age group:	All ages
Description:	Proportion (%) of all elective procedures for abdominal aortic aneurysm (AAA) that were recorded as EVAR, by CCG, 2009/10–2011/12
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Coding scheme used:	OPCS4
Codes used:	Any procedure for AAA: OPCS4 codes: 'O209', 'O204', 'O201', 'L266', 'L272', 'L275', 'O205', 'O202', 'L271', 'L276', 'L279', 'O208', 'O203', 'L267', 'L278', 'L194', 'L195', 'L196', 'L198', 'L199'
Numerator:	All elective admissions for AAA procedures where the procedure was recorded as an EVAR (L266,L267,L271,L272,L275,L276,L278,L279,O201,O202,O203,O204,O205,O208,O209)
Denominator:	All elective procedures where a procedure for AAA was recorded (both Open and EVAR).
Methodology:	The total count of episodes from the inpatient admissions, as extracted from the Hospitals Episode Statistics database, where any AAA procedures was recorded as any operation. National data (for England) was was extracted by lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to CCG. The proportion was calculated by divding all elective EVAR operations over all elective AAA procedures. 95% confidence Intervals were created around the rates using Wilsons method. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	May 2013

14: Uterine fibroid embolisation procedure offered by interventional radiology services within hours, by hospital trust, 2012

Indicator:	Interventional radiology: uterine fibroid embolisation
Statistic:	Three category description
Time period:	November 2012
Age group:	All ages
Description:	Uterine fibroid embolisation procedure offered by interventional radiology services 'within hours'
Data source:	Survey of all Interventional Radiology Services in 2012, including ad-hoc updates
Numerator:	Self response to questionnaire on access to Interventional radiology services - uterine fibroid embolisation procedure within hours
Denominator:	n/a
Methodology:	The data was collected via a questionnaire during the period March to May 2012. Ad hoc updates received by several organisations from this survey and results updated in November 2012. A similar survey was taken during 2011. If a trust has not returned a survey from March to May 2012 or updated results up to November 2012, and a previous survey was completed, then the status from the 2011 survey has been used. The status of services within hours for uterine fibroid embolisation is self reported by individual trusts. Trusts self-assessed their status as Red, Amber or Green based on whether a formal on- call consultant rota and agreed formal pathway of care is in place.
Source location:	http://www.improvement.nhs.uk/diagnostics/InterventionalRadiology/IRServiceProvisionMap.aspx
Produced by:	NHS Improvement diagnostics team
Date created:	November 2012

Endoscopy Services

15A: Rate of colonoscopy procedures and flexisigmoidoscopy procedures per 10,000 population, by PCT, 2011/12

Indicator:	**Colonoscopy & Flexisigmoidoscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for Colonoscopy & Flexisigmoidoscopy, adjusted for age, sex and deprivation per population, by PCT, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	Colonoscopy: H20-H22, G79 & G80 (except G802 unless with Y513) in the main or the first 3 secondary positions Flexisigmoidoscopy: H23 - H25
Numerator:	Numbers of admissions with a procedure code indicating a Colonoscopy or Flexisigmoidoscopy.
Denominator:	Mid year estimates of PCT population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each PCT population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed PCT count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

15B: Rate of colonoscopy procedures and flexisigmoidoscopy procedures per 10,000 population, by CCG, 2011/12

Indicator:	**Colonoscopy & Flexisigmoidoscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for Colonoscopy & Flexisigmoidoscopy, adjusted for age, sex and deprivation per population, by CCG, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	Colonoscopy: H20-H22, G79 & G80 (except G802 unless with Y513) in the main or the first 3 secondary positions Flexisigmoidoscopy: H23 - H25
Numerator:	Numbers of admissions with a procedure code indicating a Colonoscopy or Flexisigmoidoscopy.
Denominator:	Mid year estimates of CCG population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each CCG population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed CCG count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

16: Rate of computerised tomography (CT) colonoscopy procedures procedures per 10,000 population, by PCT, April 2012 to November 2012

Indicator:	**CT Colonoscopy**
Statistic:	Crude rate per population
Time period:	April 2012 to November 2012
Age group:	All ages
Description:	Rate of CT Colonoscopy activity undertaken within primary care trusts per 10,000 population
Data source:	Numerator:Diagnostic Imaging Dataset, Health and Social Care Information Centre
	Denominator: Attribution Dataset, Health and Social Care Information Centre
Numerator:	No. of CT Colonoscopies recorded
Denominator:	Attribution dataset population (constrained to Office for National Statistics mid year estimates) for registered population within PCTs, 2011
Methodology:	Data for CT Colonoscopy was extracted from the DiD database using the following Imaging Codes NICIP short code: CVCOY
	Or
	SNOMED-CT: 418714002
	to determine the appropriate procedure. The patient's GP registation was used to determine which PCT was responsible for the patient and this information was aggregated to PCT level.
	The number of CT Colonoscopys are divided by the attribution dataset population to provide a crude rate of activity per registered population. Where there is a record of 10 or less CT Colonoscopys, these PCTs have been removed from the analysis due to issues of data completeness.
Further notes:	The Diagnostic Imaging Dataset (DID) is a new central collection of detailed information about diagnostic imaging tests carried out on NHS patients, to be extracted and submitted monthly. The dataset will capture information about referral source and patient type, details of the test (type of test and body site), demographic information such as GP registered practice, patient postcode, ethnicity, gender and date of birth, plus items about waiting times for each diagnostic imaging event, from time of test request through to time of reporting.
	At the time of data collection only eight months of data was available in the DiD system and there was missing data for some PCTs within England.
Produced by:	Department of Health
Date created:	April 2013

17: Rate of barium enema procedures per weighted population by PCT April–November 2012

Indicator:	**Barium Enema activity**
Statistic:	Rate per weighted population
Time period:	April–November 2012
Age group:	All ages
Description:	Rate of Barium eneman activity per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	No. of Barium Enema tests by PCT
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on Barium Enema scans for the months April to November in 2012 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. Numerator: Total Barium Enema activity reported in England April–November 2012. Denominator: Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

18A: Rate of gastroscopy (OGD) procedures per 10,000 population, by PCT, 2011/12

Indicator:	**Gastroscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for gastroscopy (OGD), adjusted for age, sex and deprivation per population, by PCT, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD).
Denominator:	Mid year estimates of PCT population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each PCT population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed PCT count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

18B: Rate of gastroscopy (OGD) procedures per 10,000 population, by CCG, 2011/12

Indicator:	**Gastroscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for gastroscopy (OGD), adjusted for age, sex and deprivation per population, by CCG, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD).
Denominator:	Mid year estimates of CCG population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each CCG population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed CCG count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

19A: Proportion (%) of patients undergoing gastroscopy (upper gastro-intestinal endoscopy) procedures who are aged under 55 years by PCT 2011/12

Indicator:	**Gastroscopy under 55yrs**
Statistic:	Proportion (%)
Time period:	2011/12
Age group:	Less than 55 years
Description:	Proportion (%) of patients undergoing gastroscopy (upper gastro-intestinal endoscopy) procedures who are aged under 55 years by PCT 2011/12
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Coding scheme used:	OPCS 4
Codes used:	G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD) for all people under 55 years.
Denominator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD) for all people.
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were aggregated to each PCT.
	The proportion was created by dividing the number of admissions aged less than 55 by the total admissions in the PCT population.
	95% confidence Intervals were created around the rates using Wilsons method. Further details on the method can be found at:
	http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

19B: Proportion (%) of patients undergoing gastroscopy (upper gastro-intestinal endoscopy) procedures who are aged under 55 years by CCG 2011/12

Indicator:	**Gastroscopy under 55yrs**
Statistic:	Proportion (%)
Time period:	2011/12
Age group:	Less than 55 years
Description:	Proportion (%) of patients undergoing gastroscopy (upper gastro-intestinal endoscopy) procedures who are aged under 55 years by CCG 2011/12
Data source:	Numerator and denominator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved.
Coding scheme used:	OPCS 4
Codes used:	G14-G17, G42-G44, G45 except G45.2, G46, G54-G55, G64 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD) for all people under 55 years.
Denominator:	Numbers of admissions with a procedure code indicating a gastroscopy (OGD) for all people.
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were aggregated to each CCG.
	The proportion was created by dividing the number of admissions aged less than 55 by the total admissions in the CCG population.
	95% confidence Intervals were created around the rates using Wilsons method. Further details on the method can be found at:
	http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

20A: Rate of capsule endoscopy procedures per 10,000 population, by PCT, 2011/12

Indicator:	**Capsule Endoscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for capsule endoscopy, adjusted for age, sex and deprivation per population, by PCT, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	Wireless capsule endoscopy (WCE) G80.2 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a capsule endoscopy.
Denominator:	Mid year estimates of PCT population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each PCT population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed PCT count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

20B: Rate of capsule endoscopy procedures per 10,000 population, by CCG, 2011/12

Indicator:	**Capsule Endoscopy**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for capsule endoscopy, adjusted for age, sex and deprivation per population, by CCG, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	Wireless capsule endoscopy (WCE) G80.2 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating a capsule endoscopy.
Denominator:	Mid year estimates of CCG population for 2010 (estimates based on the 2001 census)
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each CCG population to calculate an expected rate. CCG populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed CCG count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

21A: Rate of endoscopic ultrasound procedures per 10,000 population, by PCT, 2011/12

Indicator:	**Endoscopic ultrasound**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for endoscopic ultrasound, adjusted for age, sex and deprivation per population, by PCT, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	G45.2, J53, J74 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating an endoscopic ultrasound.
Denominator:	Mid year estimates of PCT population for 2010 (estimates based on the 2001 census).
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each PCT population to calculate an expected rate. PCT populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed PCT count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate.
	95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at:
	http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

21B: Rate of endoscopic ultrasound procedures per 10,000 population, by CCG, 2011/12

Indicator:	**Endoscopic ultrasound**
Statistic:	Indirectly standardised rate per 10,000
Time period:	2011/12
Age group:	All ages
Description:	Indirectly standardised rate of admissions for endoscopic ultrasound, adjusted for age, sex and deprivation per population, by CCG, 2011/12
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, 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 used:	OPCS 4
Codes used:	G45.2, J53, J74 in the main or the first 3 secondary positions
Numerator:	Numbers of admissions with a procedure code indicating an endoscopic ultrasound.
Denominator:	Mid year estimates of CCG population for 2010 (estimates based on the 2001 census).
Methodology:	The total count of episodes from the inpatient admissions were combined with the total number of outpatient attendances, as extracted from the Hospitals Episode Statistics database. National data (for England) was was extracted by age, sex and lower super output area (LSOA) of patient residence. The LSOA of hospital admissions were mapped to the index of multiple deprivation 2010 to derive a national quintile of deprivation. Data was aggregated by agegroup, sex and deprivation quintile and applied to each CCG population to calculate an expected rate. CCG populations were created by matching LSOAs to the IMD 2010 and aggregating by agegroup, sex and deprivation quintile. The total observed CCG count of admissions was divided by the expected rate and then multiplied by the crude rate of national admissions to calculate the indirectly standardised rate. 95% confidence Intervals were created around the rates using Byars approximation. Further details on the method can be found at: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	Public Health England
Date created:	November 2012

22A: Admission rate for children for upper and/or lower gastro-intestinal endoscopy per 100,000 population aged 0-17 years, by PCT, 2009/10-2011/12

Indicator:	**Paediatric endoscopy**
Statistic:	Directly Standardised Rate (DSR)
Time period:	3 year aggregate financial years 2008/09-2010/11
Age group:	0-17 years (inclusive)
Description:	Admission rate per 100,000 population aged 0-17 years for endoscopy procedures
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. Denominator - GP relevant populations, Health and Social Care Information Centre
Coding scheme used:	OPCS codes G16, G19, G45, G55, G65, G80, H20-H28
Numerator:	Admission episodes for 2008/09-20010/11 for all persons aged 0-17 years with primary procedure codes as listed above.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2008 to 2010. PCT populations for quinary age groups 0-19 were apportioned to obtain population for ages 0-17 years.
Methodology:	The indicator is constructed as a directly age standardised rate for persons age 0-17 years using the European population as the reference standard. Confidence intervals calculated using Byar's method: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	ChiMat (Public Health England)
Date published:	January 2013

22B: Admission rate for children for upper and/or lower gastro-intestinal endoscopy per 100,000 population aged 0-17 years, by CCG, 2009/10-2011/12

Indicator:	**Paediatric endoscopy**
Statistic:	Directly Standardised Rate (DSR)
Time period:	3 year aggregate financial years 2008/09-2010/11
Age group:	0-17 years (inclusive)
Description:	Admission rate per 100,000 population aged 0-17 years for endoscopy procedures
Data source:	Numerator - Hospital Episode Statistics, The Health and Social Care Information Centre. Copyright © 2013, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. Denominator - GP relevant populations, Health and Social Care Information Centre
Coding scheme used:	OPCS codes G16, G19, G45, G55, G65, G80, H20-H28
Numerator:	Admission episodes for 2008/09-20010/11 for all persons aged 0-17 years with primary procedure codes as listed above.
Denominator:	Mid year GP relevant population estimates by CCG, aged 0-17 years, 2008 to 2010. CCG populations for quinary age groups 0-19 were apportioned to obtain population for ages 0-17 years.
Methodology:	The indicator is constructed as a directly age standardised rate for persons age 0-17 years using the European population as the reference standard. Confidence intervals calculated using Byar's method: http://www.apho.org.uk/resource/item.aspx?RID=48457
Produced by:	ChiMat (Public Health England)
Date published:	January 2013

Physiological diagnostics services

23: Rate of audiology assessments undertaken per weighted population by PCT 2012/13

Indicator:	**Audiology Assessments**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of audiology assessments per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total Audiology assessments reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on audiology assessments for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

24: Mean time (days) from referral to assessment for hearing tests in newborns, by PCT, 2012

Indicator:	**Referral to assessment for newborn hearing screening**
Statistic:	Mean time (days)
Time period:	2012
Age group:	Newborn
Description:	Mean time in days from referral to assessment with 95% CI and % of referred who are assessed within 4 weeks, by PCT, 2012
Data source:	Neonatal Hearing Screening Programme (NHSP) programme centre (Professor Adrian Davis)
Coding scheme used:	NSC / NHSP agreed standard
Numerator:	Time from referral to assessment for all referrals (in days)
Denominator:	Number referred
Methodology:	Data are from NHSP programme centre screening management and reporting tool (SMART) devised in collaboration with Northgate Information Solutions
Source locations:	http://hearing.screening.nhs.uk/
Produced by:	Professor Adrian Davis & Jonathan Cox (Northgate)
Date created:	2013

25: Rate of sleep studies undertaken per weighted population by PCT 2012/13

Indicator:	**Sleep studies**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of sleep studies per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total sleep studies reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on sleep studies for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

26: Percentage of patients with COPD with a record of FEV$_1$ in the previous 15 months by PCT (QOF COPD10 with exception-reported patients included) 2011/12

Indicator:	**COPD with record of FEV$_1$**
Statistic:	Percentage
Time period:	2011/12
Age group:	All ages
Description:	The percentage of patients with COPD with a record of FEV$_1$ in the previous 15 months
Data source:	Quality and Outcomes Framework 2011/12
Numerator:	The number of patients with COPD with a record of FEV$_1$ in the previous 15 months as recorded by the Quality and Outcomes Framework
Denominator:	Total number of patients with COPD as recorded by the Quality and Outcomes Framework
Methodology:	Numerator divided by denominator expressed as a percentage
Further notes:	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 statistical bulletin in QOF exception reporting.
Produced by:	The NHS Information Centre for Health and Social Care
Date created:	August 2013

27: Rate of urodynamic (pressures and flows) tests undertaken per weighted population by PCT 2012/13

Indicator:	**Urodynamic tests**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of urodynamic (pressures and flows) tests per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total urodynamic tests reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on urodynamic tests for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

28: Rate of echocardiography activity undertaken per weighted population by PCT 2012/13

Indicator:	**Echocardiography activity**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of echocardiography activity tests per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total echocardiography activity reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on echocardiography for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

29: Rate of diagnostic invasive electrophysiology activity undertaken per weighted population by PCT 2012/13

Indicator:	**Diagnostic invasive electrophysiology activity**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of diagnostic invasive electrophysiology activity tests per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total diagnostic invasive electrophysiology activity reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on diagnostic invasive electrophysiology for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

30: Rate of peripheral neurophysiology tests undertaken per weighted population by PCT 2012/13

Indicator:	**Peripheral neurophysiology tests**
Statistic:	Rate per weighted population
Time period:	2012/13
Age group:	All ages
Description:	Rate of peripheral neurophysiology tests tests per 1000 weighted population by PCT
Data source:	Monthly Diagnostic data DM01 (DH), DH adjusted populations
Numerator:	Total peripheral neurophysiology tests reported in England by PCT, 2012/13
Denominator:	Hospital & Community Health Services (HCHS) population, 2010/11 that has been adjusted by age and sex as well as 'need' variables.
Methodology:	The indicator is indirectly standardised by dividing all activity reported on peripheral neurophysiology tests for the months in 2012-13 by a weighted population produced by the department of health (DH). These populations are weighted for age, sex and need variables. The HCHS is modelled (by Brunel University) under 5 services for acute, mental health, maternity & HIV care. They includes things such as disability living allowance, income deprivation, distance to services and many others.
Further notes:	Data quality and completeness of activity data should be good. However, given that data are only collected at an aggregate level (i.e. total counts by PCT/provider), it is not possible to do detailed standardisation to remove the effect of different population compositions. For example, in populations that are older or more deprived on average, we might expect higher levels of activity, which ideally would be corrected for.
Produced by:	NHS England
Date created:	May 2013

Pathology Services

31-67: Estimated annual rate of use of tests ordered by GPs per 1,000 practice population, by PCT, 2012

Indicator:	**GP test orders**
Statistic:	Crude rate
Time period:	The data was collected during a 23 day period in May / June 2012 and has been multiplied up to an annual rate
Age group:	All age groups
Description:	Estimated rate of tests per 1,000 overall population within a PCT.
Tests:	The tests extracted include: TSH, T4free, T3free, Thyroid, CA125, PSA, Lithium, Carbamazepine, Valproate, Digoxin, Phenytoin, Blood glucose fasting, Blood glucose (2h), HBA1c IFCC, Rheumatoid, RAST, Cholesterol, Triglycerides, HDL cholesterol, Troponin, BNP, Haemoglobin, Vitamin B12, Folate, Folate RBC, Ferritin, Calcium, Vitamin D, PTH, Serum creatinine, eGFR, Urine protein-creatinine, ALT, Creatine kinase, Urate, ACR, Calprotectin
Data source:	The data has been gathered from the live e-Reporting pathology Messaging Implementation Programme (PMIP) feed. The data has been gathered under information governance control by DH and Connecting for Health and is only available anonymised and aggregated at PCT
Numerator:	Numbers of Laboratory tests per year requested by GPs in primary care
Denominator:	Aggregate populations of GPs within PCT boundaries
Methodology:	Pathology messages to primary care were intercepted for a period of 23 days in June 2012. These were pseudonymised and processed to provide details of the compliance with the PMIP Pathology Bounded Code List (PBCL) and Laboratory Standard Representation (LSR) for codes and units of measure (UoM). In total, 1.8 million messages containing samples of 38 million test results for approximately 3 million patients on 1029 tests from 152 NHS laboratory PMIP sources were analysed. The test reporting rates were aggregated by PCTs, multiplied up to annual rates and converted to rates per 1,000 patients present in the PCT localities. Where appropriate rates were calculated for the prevalence of specific diseases from aggregate 2011 QOF registers.
Source locations:	
Further notes:	The data has been gathered from the live e-Reporting pathology Messaging Implementation Programme (PMIP) feed as part of an audit of the data quality within the messages. The data for this Atlas was obtained as part of a data quality audit and subject to strict governance protocols. The data indicates wide variation in test usage. The reason for these are numerous e.g. different clinical practice, variations in test availability either because of local laboratory policy or funding restrictions.
Produced by:	Dr R Jones (University of Leeds) on behalf of the National Laboratory Medicine Catalogue (NLMC) Governance Board of the Royal College of Surgeons.
Date created:	July 2012

Genetic testing

68: Rate of overall genetic test reporting undertaken per population by NHS area team 2011/12

Indicator:	**Overall Genetic testing**
Statistic:	Directly age standardised rates per 100,000 (with 95% confidence intervals)
Time period:	April 2011- March 2012
Age group:	All ages
Description:	Directly age standardised test report rates per 100,000 population for all activity that met the inclusion criteria, by NHS local area teams in the United Kingdom, 2011/12
Data source:	UKGTN member laboratories
Numerator:	Number of genetic test reports by 5 year age band (0, 1-4, 5-9, 10-14, …,85+)
Denominator:	ONS mid year population estimates 2011, by 5 year age band (0, 1-4, 5-9, 10-14, …,85+)
Methodology:	The UK Genetic Testing Network collected data on all eligible genetic test reports issued by its member molecular genetic laboratories for the period 1 April 2011 to 31 March 2012. Exclusion criteria were necessary to ensure valid comparison of genetic test report activity between areas. The data included genetic test reports for molecular genetic tests for a range of inherited genetic conditions. Tests for all ages were included. Data were received from all the regional NHS molecular genetic laboratories in England. Individual test reports that included a resident postcode were collected and put in a database. Resident geographies were derived from resident postcodes using August 2012 postcode directory. The number of test reports were aggregated by PCTs and aggregated further by 27 area teams in England. The number of test reports were extracted by 5 year age band as numerator. ONS mid year population estimates 2011, by 5 year age band (unrounded) were used as denominator. Directly standardised rates were calculated using the European standard population. Confidence intervals were calculated using Byars method: http://www.apho.org.uk/resource/item.aspx?RID=48457
Source locations:	http://nww.nchod.nhs.uk/NCHOD/compendium.nsf/($All)/678E3CE3707A15C5802577FB0030CBCB/$File/09A_054DRT0074_08_V1.xls?OpenElement http://nww.nchod.nhs.uk/NCHOD/compendium.nsf/($All)/A6D72ECAA5885CA1802577FB0030CFEF/$File/10A_158DRT0074_08_V1.xls?OpenElement
Further notes:	There is some data missing where laboratories did not have a resident postcode or NHS/CHI number. Some data is surpressed to protect the confidentiality of individuals.
Produced by:	UKGTN & London Health Observatory
Date published:	01/10/2013

69: Rate of breast cancer test reporting undertaken in women aged 15 years and over per population by NHS area team 2011/12

Indicator:	**Breast cancer tests**
Statistic:	Directly age standardised rates per 100,000 (with 95% confidence intervals)
Time period:	April 2011- March 2012
Age group:	Women aged 15 and over
Description:	Directly age standardised test report rates per 100,000 women aged 15 or over, by NHS local area teams in the United Kingdom, 2011/12
Data source:	UKGTN member laboratories
Numerator:	Number of breast cancer test reports by 5 year age band (15-19, 20-24, 25-29, …,85+)
Denominator:	ONS mid year population estimates 2011, by 5 year age band (15-19, 20-24, 25-29, …,85+)
Methodology:	The UK Genetic Testing Network collected data on all eligible genetic test reports issued by its member molecular genetic laboratories for the period 1 April 2011 to 31 March 2012. Exclusion criteria were necessary to ensure valid comparison of genetic test report activity between areas. The data included genetic test reports for molecular genetic tests for a range of inherited genetic conditions. Tests for all ages were included. Data were received from all the regional NHS molecular genetic laboratories in England.Individual breast cancer test reports that include customers resident postcode were collected and put in a database. Resident geographies were derived from customers postcode using August 2012 postcode directory. The number of test reports were aggregated by PCTs and aggregated further by 27 area teams in England. The number of test reports were extracted by 5 year age band as numerator. ONS mid year population estimates 2011, by 5 year age band (unrounded) were used as denominator. Directly standardised rates were calculated using the European standard population. Confidence intervals were calculated using Byars method: http://www.apho.org.uk/resource/item.aspx?RID=48457
Source locations:	http://nww.nchod.nhs.uk/NCHOD/compendium.nsf/($All)/678E3CE3707A15C5802577FB0030CBCB/$File/09A_054DRT0074_08_V1.xls?OpenElement http://nww.nchod.nhs.uk/NCHOD/compendium.nsf/($All)/A6D72ECAA5885CA1802577FB0030CFEF/$File/10A_158DRT0074_08_V1.xls?OpenElement
Further notes:	There is some data missing where laboratories did not have a resident postcode or NHS/CHI number. Some data is surpressed to protect the confidentiality of individuals.
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