

## Indicator metadata

# NHS Atlas of Variation in Healthcare for Children and Young People

Version 1.1

## Indicator themes

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## Resources

### 1: Rate of expenditure on child health community health services per head of population aged 0-17 years by PCT 2008/09

<b>Indicator:</b>	<b>Community child health spend</b>
Statistic:	Expenditure reported to Children's Services Mapping by PCT per head of population aged 0-17 years.
Time period:	Financial year 2008/09
Age group:	0-17 years (inclusive)
Description:	Expenditure reported to Children's Services Mapping by PCT per head of population aged 0-17 years
Data source:	Children's Services Mapping <a href="http://www.childrensmapping.org.uk/tables/profile-7/table-2129/struc-pct/year-2009/">http://www.childrensmapping.org.uk/tables/profile-7/table-2129/struc-pct/year-2009/</a> Compendium of Clinical and Health Indicators / Clinical and Health Outcomes
Numerator:	Expenditure reported to Children's Services Mapping by PCT per head of population aged 0-17 years for financial year 2008/09
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years 2008. PCT populations for quinary age groups 0-19 were apportioned to obtain population for ages 0-17 years
Methodology:	Crude rates Confidence intervals to be 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>
Produced by:	ChiMat Children's Services Mapping <a href="http://www.childrensmapping.org.uk/tables/profile-7/table-2129/struc-pct/year-2009/">http://www.childrensmapping.org.uk/tables/profile-7/table-2129/struc-pct/year-2009/</a> Compendium of Clinical and Health Indicators / Clinical and Health Outcomes
Date created:	September 2011

## Health Promotion and Disease Prevention

### 2: Percentage of immunisation completion for routine vaccinations against diphtheria, tetanus, pertussis, polio and Haemophilus influenzae type b (DTaP/IPV/Hib) at 2 years by PCT 2009/10

<b>Indicator:</b>	<b>Immunisation 5 in 1</b>
Statistic:	Percentage of completed immunisations at age 2 years
Time period:	Financial year 2009/10
Age group:	2 years
Description:	Immunisation completion for routine vaccinations against Diphtheria, Tetanus, Polio, Pertussis and Haemophilus influenzae type b at age 2 years
Data source:	The Health Protection Agency (HPA) Centre for Infections (Cfi) for information on childhood immunisation coverage at ages 1, 2 and 5 collected through the Cover of Vaccination Evaluated Rapidly (COVER) data collection for PCTs
Numerator:	Number of completed DtaP/IPV/Hib vaccinations at age 2 years
Denominator:	Number of children aged 2 years
Methodology:	Percentage Confidence intervals to be calculated using 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:	<a href="http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10">http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10</a>
Further notes:	Issues with some newly implemented Child Health Information Systems (CHISs) over recent years have affected COVER data quality. Although some Primary Care Trusts (PCTs) reported data quality issues in 2009-10, overall fewer issues have been identified. Some caution should, however, be exercised when comparing coverage figures over time as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccination coverage. While this issue will be more apparent at a local level, it will also have an impact on the national figures.
Produced by:	ChiMat
Date created:	September 2011

### 3: Percentage of immunisation completion for routine vaccinations against pneumococcal disease (PCV) at 2 years by PCT, 2009/10

<b>Indicator:</b>	<b>Immunisation PCV</b>
Statistic:	Percentage of completed immunisations at age 2 years
Time period:	Financial year 2009/10
Age group:	2 years
Description:	Immunisation completion for routine Pneumococcal Conjugate Vaccine at age 2 years
Data source:	The Health Protection Agency (HPA) Centre for Infections (Cfi) for information on childhood immunisation coverage at ages 1, 2 and 5 collected through the Cover of Vaccination Evaluated Rapidly (COVER) data collection for PCTs
Numerator:	Number of completed PCV vaccinations at age 2 years
Denominator:	Number of children aged 2 years
Methodology:	Percentage Confidence intervals to be calculated using 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:	<a href="http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10">http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10</a>
Further notes:	Issues with some newly implemented Child Health Information Systems (CHISs) over recent years have affected COVER data quality. Although some Primary Care Trusts (PCTs) reported data quality issues in 2009-10, overall fewer issues have been identified. Some caution should, however, be exercised when comparing coverage figures over time as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccination coverage. While this issue will be more apparent at a local level, it will also have an impact on the national figures.
Produced by:	ChiMat
Date created:	September 2011

### 4: Percentage of immunisation completion for routine vaccinations against measles, mumps and rubella (MMR) at 2 years by PCT, 2009/10

<b>Indicator:</b>	<b>Immunisation MMR</b>
Statistic:	Percentage of completed immunisations at age 2 years
Time period:	Financial year 2009/10
Age group:	2 years
Description:	Immunisation completion for routine vaccination against Measles, Mumps and Rubella at age 2 years
Data source:	The Health Protection Agency (HPA) Centre for Infections (Cfi) for information on childhood immunisation coverage at ages 1, 2 and 5 collected through the Cover of Vaccination Evaluated Rapidly (COVER) data collection for PCTs
Numerator:	Number of completed MMR vaccinations at age 2 years
Denominator:	Number of children aged 2 years
Methodology:	Percentage Confidence intervals to be calculated using 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:	<a href="http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10">http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation/nhs-immunisation-statistics-england-2009-10</a>
Further notes:	Issues with some newly implemented Child Health Information Systems (CHISs) over recent years have affected COVER data quality. Although some Primary Care Trusts (PCTs) reported data quality issues in 2009-10, overall fewer issues have been identified. Some caution should, however, be exercised when comparing coverage figures over time as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccination coverage. While this issue will be more apparent at a local level, it will also have an impact on the national figures.
Produced by:	ChiMat
Date created:	September 2011

## 5: Percentage of infants who are totally or partially breastfeeding at 6-8 weeks by PCT, 2010/11

<b>Indicator:</b>	<b>Breastfeeding at 6-8 weeks</b>
Statistic:	Infants totally or partially breastfed as percentage of all infants due a check
Time period:	Financial year 2010/11
Age group:	All ages
Description:	Infants totally or partially breastfed as percentage of all infants due a check
Data source:	Department of Health, Vital Signs Monitoring Return
Numerator:	Infants totally or partially breastfed. The number of infants being “totally” breastfed (defined as infants who are exclusively receiving breast milk at 6-8 weeks of age - that is, they are NOT receiving formula milk, any other liquids or food). The number of infants being “partially” breastfed (defined as infants who are currently receiving breast milk at 6-8 weeks of age and who are also receiving formula milk or any other liquids or food).
Denominator:	The number of infants due a 6–8 week check
Methodology:	Percentage Confidence intervals to be calculated using 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:	<a href="http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/index.htm">http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/index.htm</a>
Further notes:	Variation can occur depending on PCT submitted data
Produced by:	ChiMat
Date created:	September 2011

## Conditions of Neonates

### 6: Rate of perinatal mortality per all live births by PCT, 2007-2009

<b>Indicator:</b>	<b>Perinatal mortality</b>
Statistic:	Crude death rate per 1000 births
Time period:	Calendar years 2007-2009 (3 year aggregate)
Age group:	Stillbirths and deaths <7 days
Description:	Perinatal mortality rate per 1000 births
Data source:	Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base. The NHS Information Centre for health and social care
Numerator:	Stillbirths and deaths <7 days
Denominator:	All births (live + still)
Methodology:	Crude rate per 1000 births Confidence intervals to be 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:	<a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

**7: Proportion (%) of eligible premature babies tested for retinopathy of prematurity (ROP) within the recommended timeframe by PCT, 2009/10**

<b>Indicator:</b>	<b>Retinopathy of prematurity</b>
Statistic:	Percentage of eligible neonates screened in accordance with the RCPCH-BAPM guidelines
Time period:	2009/10
Age group:	0 years
Description:	Proportion (%) of eligible premature babies tested for retinopathy of prematurity (ROP) within the recommended timeframe
Data source:	National Neonatal Database held by NDAU
Numerator:	Number of eligible neonates receiving screening for retinopathy of prematurity (ROP) in accordance with the RCPCH-BAPM guidelines
Denominator:	Total eligible neonates ( $\leq 1500$ g birthweight or $\leq 31+6$ weeks gestational age who are admitted to neonatal specialist care in England and discharged home/ward or died after the end of the screening window as defined by RCPCH-BAPM guidelines May
Methodology:	Percentage of eligible neonates ( $\leq 31^{+6}$ weeks gestational age and/or $< 1501$ g birthweight ) receiving screening for retinopathy of prematurity (ROP) in accordance with the RCPCH-BAPM guidelines( May 2008 ). Babies born before or at $26^{+6}$ gestational age must have their first ROP screening at 30 to 31 weeks post menstrual age. Babies born between $27^{+0} - 31^{+6}$ or greater than 32 weeks gestational age but with birth weight lower than 1501g must be first screened between 4 – 5 weeks postnatal age.
Further notes:	Data coverage is 135 of the 170 neonatal units in England <a href="http://www.rcpch.ac.uk/sites/default/files/ROP%20Guideline%20-%20Jul08%20final.pdf">http://www.rcpch.ac.uk/sites/default/files/ROP%20Guideline%20-%20Jul08%20final.pdf</a>
Produced by:	Neonatal Data Analysis Unit (NDAU)
Date created:	August 2011

**8: Proportion (%) of full-term babies (37 weeks gestational age at birth) of all babies admitted to specialist neonatal care by PCT, 2010**

<b>Indicator:</b>	<b>Neonatal care admissions</b>
Statistic:	Percentage
Time period:	2010
Age group:	0 years
Description:	Proportion (%) of full-term babies (37 weeks gestational age at birth) of all babies admitted to specialist neonatal care
Data source:	National Neonatal Database held by NDAU
Numerator:	Number of full-term babies ( $\geq 37$ weeks gestational age at birth) admitted to specialist neonatal care in England
Denominator:	Total number of babies admitted to specialist neonatal care in England
Methodology:	Proportion of full term babies from all specialist admissions in National Neonatal Database
Further notes:	135/170 neonatal units in England. These are the units who contributed data to the National Neonatal Database for the full calendar year 2010. From 2011 we will have 162 neonatal units.
Produced by:	Neonatal Data Analysis Unit (NDAU)
Date created:	August 2011

**9: Emergency admissions of home births and re-admissions to hospital of babies within 14 days of being born per all live births by PCT, 2009/10**

<b>Indicator:</b>	<b>Neonatal readmissions</b>
Statistic:	Age specific rate per 1,000
Time period:	2009/10
Age group:	Aged 14 days and under
Description:	Emergency admissions <sup>1</sup> /re-admissions <sup>2</sup> to hospital of baby within 14 days of being born per all live births by PCT, 2009/10 1 Born at home; 2 Born in NHS hospital and non-NHS hospitals
Data source:	Hospital Episodes Statistics (HES) Office for National Statistics (ONS)
Numerator:	The sum of all first finished consultant episodes where the admission type indicates emergency and the age of baby is 14 days and under excluding where the neonatal level of care code is 1, 2 or 3 and the baby is admitted when the age in days is zero.
Denominator:	Number of live births for 2009/10
Methodology:	The number of emergency admissions were extracted for 2009/10 from HES using business objects and opened in excel. These admissions only include readmissions and admissions of babies born outside a hospital environment. For those babies born in hospital, there is no admission therefore there will be no emergency admission record. Babies subsequently admitted to 'special care baby units', will not be treated as new admissions. These admissions were then divided by the number of live births by PCT from the ONS births database to create a rate.
Produced by:	SEPHO
Date created:	August 2011

**10: Number of emergency hospital admissions for sickle cell disease (SCD) per individual patient aged 0-17 years by PCT, 2007/08-2009/10**

<b>Indicator:</b>	<b>Sickle Cell admissions</b>
Statistic:	Number of emergency hospital admissions per patient admitted for sickle cell disease aged 0-17 years
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Number of emergency hospital admissions per patient admitted for sickle cell disease aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES)
Coding scheme used:	ICD-10 D57, Episode number = 1, source of admission is not in 51, 52 or 53, admission method 21-28
Numerator:	Sum of number of first finished episodes for 2007/08-2009/10 for all persons aged 0-17 years with primary diagnosis ICD-10 codes D57, admission source not equal to 51,52 or 53, Episode number=1, admission method 21-28
Denominator:	Number of patients 2007/08-2009/10 aged 0-17 years with primary diagnosis ICD-10 codes D57, admission source not equal to 51,52 or 53 and Episode number=1, admission method 21-28
Methodology:	Crude rate Confidence intervals 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:	Hospital Episode Statistics (HES)
Further notes:	Small numbers may be an issue.
Produced by:	ChiMat
Date created:	September 2011

**11: Percentage of children aged 0-15 years with Type 1 diabetes whose most recent HbA1c measurement was 10% (86 mmol/mol) or less by PCT, 1 January 2009 to 31 March 2010**

<b>Indicator:</b>	<b>Type 1 HbA1c &lt; 10</b>
Statistic:	Percentage
Time period:	2009/10
Age group:	All ages
Description:	Percentage of children aged 0-15 years with Type 1 diabetes with an HbA1c measurement taken in the 15 month audit period (1st January 2009 - 31st March 2010) in whom the last HbA1c is 10.0% or less (or equivalent test/reference range depending on local laboratory)
Data source:	National Diabetes Audit 2009/10, The NHS Information Centre for Health and Social Care
Numerator:	Number of children aged 0-15 years with Type 1 diabetes included in the 2009/10 National Diabetes Audit who had their HbA1c measured in the 15 month audit period and their last HbA1c was 10.0% or less (or equivalent test/reference range depending on local laboratory)
Denominator:	Number of children aged 0-15 years with Type 1 diabetes included in the 2009/10 National Diabetes Audit who had their HbA1c measured in the 15 month audit period
Methodology:	Numerator divided by denominator expressed as a percentage. Confidence intervals to be calculated using 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:	<a href="http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes">http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes</a> <a href="http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes/getting-started--how-to-participate/analyse-your-data-using-the-nda-toolkit--piano">http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes/getting-started--how-to-participate/analyse-your-data-using-the-nda-toolkit--piano</a>
Further notes:	The 2009/10 National Diabetes Audit (NDA) results are available to analyse using the NDA toolkit PIANO. The adult NDA Executive Summary 2009/10 and the NDA Paediatric Report 2009/10 are available on the NHS Information Centre (IC) website. The 2009/10 NDA Dashboard is due to come online in September 2011. <a href="http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/National_Diabetes_Audit_Executive_Summary_2009_2010.pdf">http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/National_Diabetes_Audit_Executive_Summary_2009_2010.pdf</a>
Produced by:	<a href="http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/NHSIC_National_Diabetes_Paediatric_Audit_Report_2009_2010.pdf">http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/NHSIC_National_Diabetes_Paediatric_Audit_Report_2009_2010.pdf</a>

**12: Percentage of children aged 0-15 years with previously diagnosed diabetes in the National Diabetes Audit (NDA) admitted to hospital for diabetic ketoacidosis five years prior to the end of the audit period by PCT, 1 January 2009 to 31 March 2010**

<b>Indicator:</b>	<b>Diabetic ketoacidosis admissions</b>
Statistic:	Percentage
Time period:	2009/10
Age group:	0-15 years
Description:	Percentage of children aged 0-15 years with diabetes included in the 2009/10 National Diabetes Audit who were admitted to hospital for diabetic ketoacidosis (ICD-10 E101, E111, E131, E141) in the 5 years prior to the audit period (1st January 2009 - 31st March 2010)
Data source:	National Diabetes Audit 2009/10, The NHS Information Centre for Health and Social Care
Codes used:	ICD-10 E101, E111, E131, E141
Numerator:	Number of children aged 0-15 years with diabetes included in the 2009/10 National Diabetes Audit who were admitted at least once to hospital for diabetic ketoacidosis in the five years prior to the audit period (1st January 2009-31st March 2010), excluding admissions for initial diabetes diagnosis.
Denominator:	Number of children aged 0-15 years with diabetes included in the 2009/10 National Diabetes Audit
Methodology:	Numerator divided by denominator expressed as a percentage. Confidence intervals to be calculated using 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:	<a href="http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes">http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes</a> <a href="http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes/getting-started--how-to-participate/analyse-your-data-using-the-nda-toolkit--piano">http://www.ic.nhs.uk/services/national-clinical-audit-support-programme-ncasp/diabetes/getting-started--how-to-participate/analyse-your-data-using-the-nda-toolkit--piano</a>
Further notes:	The 2009/10 National Diabetes Audit (NDA) results are available to analyse using the NDA toolkit PIANO. The adult NDA Executive Summary 2009/10 and the NDA Paediatric Report 2009/10 are available on the NHS Information Centre (IC) website. The 2009/10 NDA Dashboard is due to come online in September 2011. <a href="http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/National_Diabetes_Audit_Executive_Summary_2009_2010.pdf">http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/National_Diabetes_Audit_Executive_Summary_2009_2010.pdf</a> <a href="http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/NHSIC_National_Diabetes_Paediatric_Audit_Report_2009_2010.pdf">http://www.ic.nhs.uk/webfiles/Services/NCASP/Diabetes/200910%20annual%20report%20documents/NHSIC_National_Diabetes_Paediatric_Audit_Report_2009_2010.pdf</a>
Produced by:	The NHS Information Centre for Health and Social Care



## Mental disorders

### 13: Rate of inpatient admissions >3 days' duration in children per population aged 0-17 years for mental health disorders by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Mental health admissions</b>
Statistic:	DSR per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Inpatient admission rate per 100,000 population aged 0-17 years for mental health disorders with >3 days duration
Data source:	Admissions data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	ICD-10 Chapter F, Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged 0-17 years with primary diagnosis ICD-10 codes F00 to F99 and hospital length of stay > 3 days.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

## Problems of Learning Disability

### 14: Percentage of primary school children in state-funded schools with a statement of special educational needs (SEN) by local authority at January 2011

<b>Indicator:</b>	<b>Statement of special educational needs</b>
Statistic:	Percentage of primary school pupils with a statement of special educational needs
Time period:	Position at January 2011
Age group:	Primary school aged children
Description:	Percentage of primary school pupils with a statement of special educational needs
Data source:	Department for Education <a href="http://www.education.gov.uk/rsgateway/DB/SFR/s001007/index.shtml">http://www.education.gov.uk/rsgateway/DB/SFR/s001007/index.shtml</a>
Numerator:	State-funded primary schools (1)(2): Number of pupils with a statement of special educational needs (SEN), based on where the pupil attends school (3) (1) Includes middle schools as deemed. (2) Includes primary academies. (3) Includes pupils who are sole or dual main registrations.
Denominator:	Total number of pupils in state funded primary schools
Methodology:	Expressed as a percentage of the total number of pupils in state funded primary schools. Confidence intervals to be calculated using 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:	Department for Education <a href="http://www.education.gov.uk/rsgateway/DB/SFR/s001007/index.shtml">http://www.education.gov.uk/rsgateway/DB/SFR/s001007/index.shtml</a>
Further notes:	National and regional totals and total SEN across Local Authorities have been rounded to the nearest 10. There may be discrepancies between totals and the sum of constituent parts.
Produced by:	ChiMat
Date created:	September 2011

## Neurological Problems

### 15: Emergency admission rate for children with epilepsy per population aged 0-17 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Epilepsy admissions</b>
Statistic:	DSR per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Emergency admission rate for epilepsy per 100,000 population aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES)
Coding scheme used:	GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a> ICD-10 G40-G41, Admission method between 21 and 28, Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged 0-17 years with primary diagnosis ICD-10 codes G40 and JG41 and with an emergency admission method.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

### 16: Mean length of emergency inpatient stay (days) for children with epilepsy aged 0-17 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Epilepsy hospital stay</b>
Statistic:	Mean length of emergency inpatient stay in days for children admitted with epilepsy aged 0-17 years
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Mean length of emergency inpatient stay for epilepsy aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES)
Coding scheme used:	ICD-10 G40-G41, Admission method between 21 and 28, Episode number = 1, patient class = 1, source of admission is not in 51, 52 or 53
Numerator:	Sum of duration of hospital spells for first finished episodes (proxy for admissions) for inpatients 2007/08-2009/10 aged 0-17 years with primary diagnosis ICD-10 codes G40 and G41 and an emergency admission method.
Denominator:	Count of duration of hospital spells for first finished episodes for 2007/08-2009/10 for all persons aged 0-17 years with primary diagnosis ICD-10 G40-G41, Admission method between 21 and 28, Episode number = 1, patient class = 1, source of admission is not in 51, 52 or 53
Methodology:	Mean. Confidence intervals calculated using the normal approximation method
Source locations:	Hospital Episode Statistics (HES)
Produced by:	ChiMat
Date created:	September 2011

## Problems of Hearing

### 17: Mean time from referral to assessment for hearing tests in newborns by PCT, 2010

<b>Indicator:</b>	<b>Hearing test referrals</b>
Statistic:	Mean time from referral to assessment with 95% CI and % of referred who are assessed within 4 weeks with CI
Time period:	2010
Age group:	Newborn
Description:	Mean and percent over each PCT
Data source:	NHSP programme centre (Professor Adrian Davis)
Coding scheme used:	NSC / NHSP agreed standard
Numerator:	Number of children referred for assessment / N assessed within 4 weeks
Denominator:	N/A & number referred
Methodology:	Data are from NHSP programme centre screening management and reporting tool (SMART) devised in collaboration with Northgate Information Solutions
Source locations:	<a href="http://hearing.screening.nhs.uk/">http://hearing.screening.nhs.uk/</a>
Produced by:	Professor Adrian Davis & Jonathan Cox (Northgate)
Date created:	2011.00

### 18: Rate of aural ventilation tube (grommet) insertion in children per population aged 0-17 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Grommets</b>
Statistic:	Directly Standardised Rate (DSR) per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Admission rate for grommet surgery per 100,000 population aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	OPCS4 D151 and D152, Episode number = 1
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged 0-17 years with primary procedure codes D151 and D152.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

## Problems of the Respiratory System

### 19: Emergency admission rate for children with asthma per population aged 0-17 years by PCT,

<b>Indicator:</b>	<b>Asthma admissions</b>
Statistic:	DSR per 100,000 (with 95% confidence intervals)
Time period:	Financial year 2009/10
Age group:	0-17 years (inclusive)
Description:	Emergency admission rate for asthma per 100,000 population aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	ICD-10 J45-J46, Admission method between 21 and 28 , Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	First finished episodes (proxy for admissions) for 2009/10 for all persons aged 0-17 years with primary diagnosis ICD-10 codes J45 and J46 and with an emergency admission method.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2009. 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 to be 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> Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

### 20: Rate of admissions for bronchiolitis in children per population under 2 years of age by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Bronchiolitis admissions</b>
Statistic:	DSR per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-1 years (inclusive)
Description:	Admission rate for bronchiolitis per 100,000 population aged under 2 years
Data source:	Admissions data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	ICD-10 J21, Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged under 2 years with primary diagnosis ICD-10 codes J21.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-1 years, 2007 to 2009. PCT populations for quinary age groups 0-4 were apportioned to obtain population for ages 0-1 years
Methodology:	The indicator is constructed as a directly age standardised rate for persons age 0-1 years using the European population as the reference standard. Confidence intervals to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

## 21: Mean length of stay (days) for bronchiolitis in children under 2 years of age by PCT, 2007/08-200

<b>Indicator:</b>	<b>Bronchiolitis hospital stay</b>
Statistic:	Mean duration of hospital spell for bronchiolitis aged under 2 years
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-1 years (inclusive)
Description:	Mean duration of inpatient hospital spell with primary diagnosis of bronchiolitis aged under 2 years
Data source:	Admissions data from Hospital Episode Statistics (HES)
Coding scheme used:	ICD-10 J21, Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	Sum of duration of hospital spells for first finished episodes for 2007/08-2009/10 for all persons aged under 2 years with primary diagnosis ICD code J21, admission source not equal to 51,52 or 53 and Episode number=1, patient class is not day case
Denominator:	Count of duration of hospital spells for first finished episodes for 2007/08-2009/10 for all persons aged under 2 years with primary diagnosis ICD code J21, admission source not equal to 51,52 or 53 and Episode number=1, patient class is not day case
Methodology:	Confidence intervals calculated using the normal approximation method
Source locations:	Hospital Episode Statistics (HES)
Produced by:	ChiMat
Date created:	September 2011

## 22: Rate of elective tonsillectomy in children per population aged 0-17 years by PCT, 2007/08-

<b>Indicator:</b>	<b>Tonsillectomy</b>
Statistic:	Directly Standardised Rate (DSR) per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Elective admission rate for tonsillectomy per 100,000 population aged 0-17 years
Data source:	Admissions data from Hospital Episode Statistics (HES)
Coding scheme used:	GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a> OPCS4 F341-F346, F348-F349, Episode number = 1, admission method 11-13
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged 0-17 years with primary procedure codes F341-F346, F348-F349 and with an elective admission method.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

## Problems of the Gastro-Intestinal System

### 23: Admission rate for children for upper and/or lower gastro-intestinal endoscopy per population aged 0-17 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Paediatric endoscopy</b>
Statistic:	Directly Standardised Rate (DSR) per 100,000 population aged 0-17 years
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Admission rate per 100,000 population aged 0-17 years for endoscopy procedures
Data source:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	OPCS codes G16, G19, G45, G55, G65, G80, H20-H28, Episode number = 1
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 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, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

### 24: Emergency admission rate for inflammatory bowel disease (IBD) in children per population aged 0-17 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>IBD admissions</b>
Statistic:	Directly Standardised Rate (DSR) per 100,000 (with 95% confidence intervals)
Time period:	3 year aggregate financial years 2007/08-2009/10
Age group:	0-17 years (inclusive)
Description:	Emergency admission rate per 100,000 population aged 0-17 years for inflammatory bowel disease exacerbations
Data source:	Admissions data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Coding scheme used:	ICD-10 codes K50- K52, Admission method between 21 and 28, Episode number = 1, source of admission is not in 51, 52 or 53
Numerator:	First finished episodes (proxy for admissions) for 2007/08-2009/10 for all persons aged 0-17 years with primary diagnosis K50 to K52 with an emergency admission
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-17 years, 2007 to 2009. 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 to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Produced by:	ChiMat
Date created:	September 2011

## Problems of the Genito-Urinary System

### 25: Proportion (%) of elective orchidopexy procedures performed before the age of 2 years by PCT, 2007/08-2009/10

<b>Indicator:</b>	<b>Orchidopexy</b>
Statistic:	Percentage
Time period:	2007/08 - 2009/10
Age group:	All ages
Description:	Proportion (%) of all elective orchidopexy procedures performed before the age of 2 years
Data source:	Hospital Episodes Statistics (HES)
Coding scheme used:	OPCS codes N08 and N09
Numerator:	A count of all normal and day case finished consultant episodes where the admission type indicates elective and the age of baby is under 2 years.
Denominator:	A count of all normal and day case finished consultant episodes where the admission type indicates elective.
Methodology:	The episode level data were extracted for 2007/08 - 2009/10 from HES using business objects and opened in excel. These admissions were then split by age and the count of those aged under 2 years were divided by the total by PCT.
Produced by:	SEPHO
Date created:	August 2011

## Emergency Care

### 26: Rate of accident and emergency (A&E) attendances per population under 5 years by PCT, 2009/10

<b>Indicator:</b>	<b>A&amp;E attendances</b>
Statistic:	Directly Standardised Rate (DSR) per 1,000 population aged 0-4 years
Time period:	Financial year 2009/10
Age group:	0-4 years (inclusive)
Description:	A&E attendance rate per 1,000 population aged 0-4 years
Data source:	A&E data from Hospital Episode Statistics (HES) GP relevant population from the Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Numerator:	A&E attendances for 2009/10 for all persons aged 0-4 years.
Denominator:	Mid year GP relevant population estimates by PCT, aged 0-4 years, 2009.
Methodology:	The indicator is constructed as a directly age standardised rate for persons age 0-4 years using the European population as the reference standard. Confidence intervals to be 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:	Hospital Episode Statistics (HES) Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base <a href="http://www.nchod.nhs.uk">www.nchod.nhs.uk</a>
Further notes:	A&E data is still classified as "experimental statistics" as the data quality can vary by provider unit. Some providers do not submit A&E data to HES
Produced by:	ChiMat
Date created:	September 2011

## End-of-Life Care

### 27: Percentage of all deaths that occur in hospital for children aged 0-17 years with life-limiting conditions by PCT, 2005-2009

<b>Indicator:</b>	<b>Deaths in hospital</b>
Statistic:	Percentage
Time period:	2005-2009
Age group:	0-17 years (inclusive)
Description:	Percentage of all deaths which occur in hospital for children with life-limiting conditions
Data source:	Office for National Statistics (ONS) annual deaths tables
Numerator:	Number of deaths which occur in hospital for children with life-limiting conditions
Denominator:	Number of deaths for children with life-limiting conditions
Methodology:	Numerator divided by the denominator, expressed as a percentage. Confidence intervals to be calculated using 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>
Further notes:	Small numbers may be an issue in interpretation.
Produced by:	ChiMat
Date created:	September 2011