GIG CYMRU NHS WALES
Arsyllfa Iechyd Cyhoeddus Cymru
Public Health Wales Observatory

Health of Children and Young People

Technical Guide

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1 Introduction

This guide describes the methods, indicators, data sources and terms used in the Public Health Wales Observatory publication, *Health of Children and Young People in Wales*. It also provides definitions, notes for interpretation, and details of where to find further information. It is intended that this guide is used in conjunction with:

- The *Health of Children and Young People in Wales* report;
- The 22 local authority profiles, which provide summary information on key indicators;
- The online data files, providing downloadable tables, charts and maps from the report;
- The online PowerPoint files, which provide downloadable slides showing the charts and maps from the main report.

How to use this Technical Guide:

- Sections 2 and 3 contain guidance on how to interpret some of the maps and charts included in the *Health of Children and Young People in Wales* report and the 22 local authority profiles;
- Section 4 provides information on the evidence included in chapter 8 of the main report (Actions to improve health and well-being);
- Section 5 describes the indicators used in the report, in particular, their definitions and the caveats to be considered when interpreting the data. The order of this section is in line with the order of the indicators in *Health of Children and Young People in Wales* report;
- Section 6 describes the main sources of data used in the report, giving detail regarding their method of collection and associated caveats. This section is ordered alphabetically by data source;
- Section 7 provides a glossary of the terms used within the *Health of Children and Young People in Wales* report, the 22 local authority profiles and this technical guide.
- A list of acronyms is included in the Health of Children and Young People report.

In the electronic version of this guide, you can navigate the document by holding the 'Ctrl' key and left-clicking on a section of interest from the contents page.

The *Health of Children and Young People in Wales* report, the 22 local authority profiles, plus the supporting online data files, PowerPoint files and this technical guide, are available from www.publichealthwalesobservatory.wales.nhs.uk/childprofile

For further details, please contact us on publichealthwalesobservatory@wales.nhs.uk

2 Interpreting maps

Maps were produced using Lower Super Output Area (LSOA), Middle Super Output Area (MSOA), Upper Super Output Area (USOA) and Local Authority (LA) boundary files for Wales.

Lower Super Output Areas (LSOA) and Middle Super Output Areas (MSOA) were released by the Office for National Statistics (ONS) in 2004, and were created from the 2001 Census statistics. In contrast with administrative boundaries such as electoral divisions (wards), super output areas were created for the purpose of showing statistical data.

LSOAs and MSOAs were updated in October 2012 to take account of population changes as a result of the 2011 Census. This report presents maps at LSOA and MSOA level using both 2001 and 2011 Census boundaries.

There are 1,896 LSOAs and 413 MSOAs in Wales, based on 2001 Census boundaries. There are 1,909 LSOAs and 410 MSOAs in Wales, based on 2011 Census boundaries. LSOAs have an average population of 1,500 residents and MSOAs have an average population of 7,000 residents.

Upper Super Output Areas are geographically-defined areas used to show statistical information and have an average population of 30,000. Based on Census 2001, there are 94 USOAs in Wales. Unlike the LSOA and MSOA geographies, the USOAs in Wales were developed by the Local Government Data Unit (LGDU). Hence, they are an unofficial geography and there is currently no equivalent outside of Wales.

A detailed explanation of the changes that occurred in Wales can be found in Changes to Statistical Geographies in Wales, 2001 to 2011 published by Public Health Wales Observatory in February 2013.

The table below summarises the maps, the product they are included in, geography used and Census they are based on:

Product	Figure	Geography Used	Based on
Wales report	Figure 1.3	LSOA	Census 2011
Wales report	Figure 2.2	LSOA	Census 2001
Wales report	Figure 2.4	LSOA	Census 2001
Wales report	Figure 2.7	MSOA	Census 2011
Wales report	Figure 2.9	MSOA	Census 2011
Wales report	Figure 3.2	LSOA	Census 2011
Wales report	Figure 3.13	MSOA	Census 2001
Wales report	Figure 4.22	USOA	Census 2001
Wales report	Figure 5.2	MSOA	Census 2001
Wales report	Figure 6.13	LA	n/a
Wales report	Figure 6.16	USOA	Census 2001
Wales report	Figure 6.22	MSOA	Census 2001
LA profiles	Child deprivation	LSOA	Census 2001

Most of the maps listed above present data for equal range groups within Wales. This was achieved by taking the data at the respective geographical level (see example below at LSOA level) and splitting it into the required number of equally-sized subsets. For example, if the rate ranged from 10 to 20, the groups would be as follows: 10 to <12; 12 to <14; 14 to <16; 16 to <18; and 18 to 20. The maps were then created by shading each LSOA, MSOA, USOA or LA according to which group it fell into. This method aims to put areas with similar values within the same group; however, where there is little variation across Wales, the groups may be quite similar and the use of dark and light colours could make the variation seem greater than it really is.

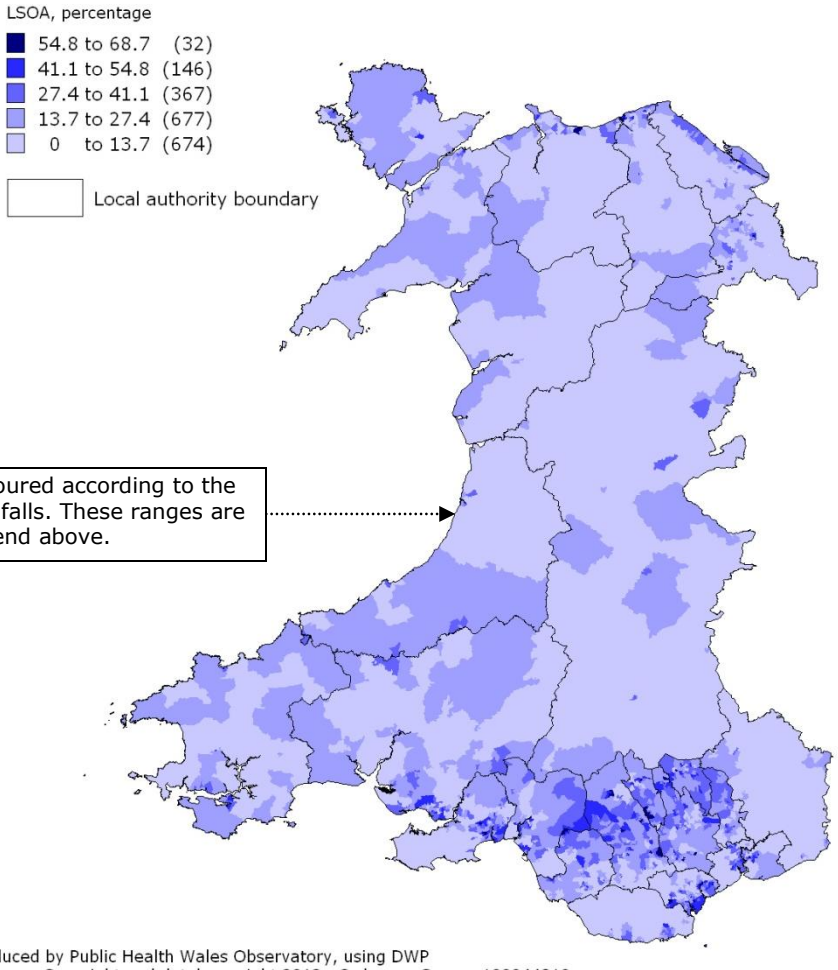
Figure 2.4 is the only map that uses equal counts, as opposed to equal ranges. See section 5.8 of this technical guide for further details.

Figure 3.2 is shown below with annotation to aid interpretation.

Figure **title** shows name of indicator and time period.

Figure 3.2 % of children living in poverty, persons aged under 20, 2010

This is the **legend**. Data are shown in equal ranges. The differences between the lowest and highest figures are split into five equal parts. Figures in brackets refer to the number of LSOAs that fall into that range.



Local authority **boundaries** are identified by this line.

Each LSOA is coloured according to the range in which it falls. These ranges are shown in the legend above.

Shows copyright statement and the data used. Copyright statement should not be removed when copying and pasting the map.

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3 Interpreting charts and tables

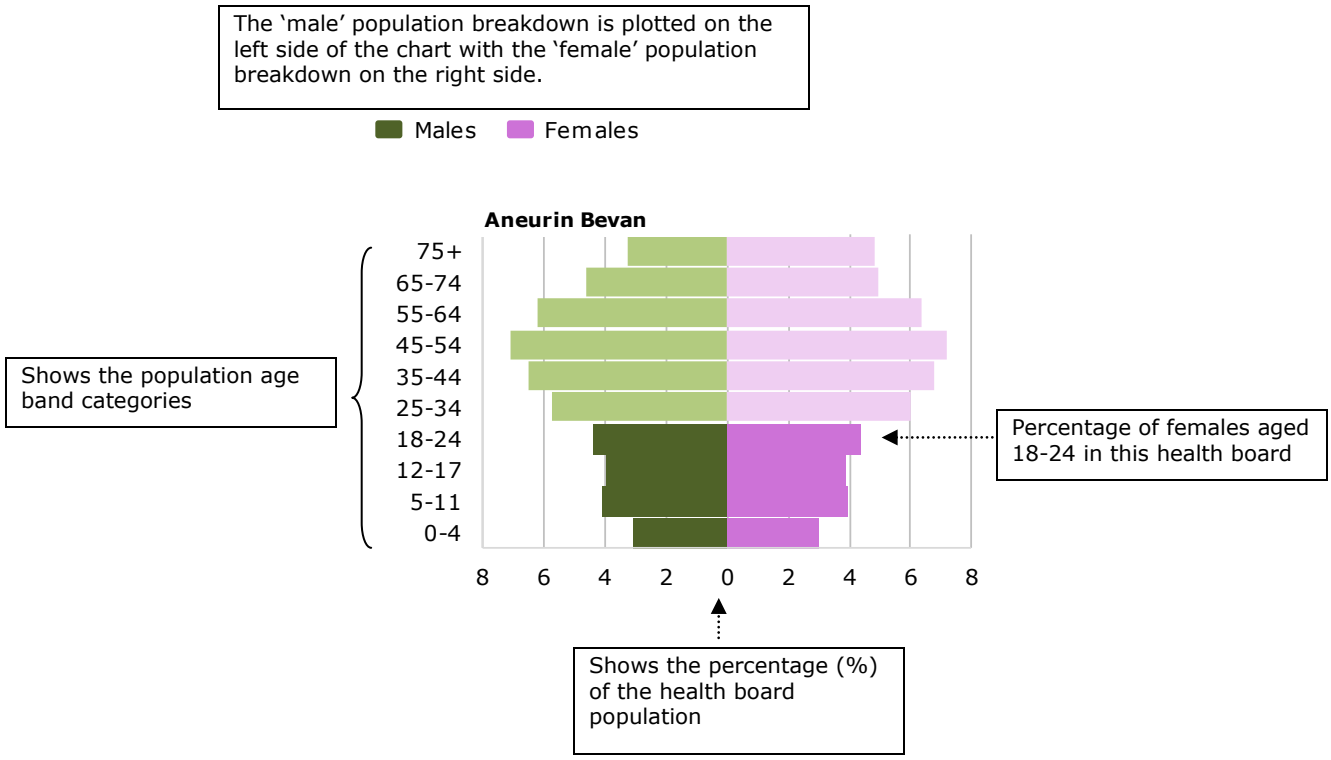
This section aids with the interpretation of some of the charts and tables contained in the *Health of Children and Young People in Wales report* and the 22 local authority summaries.

3.1 Interpreting charts

3.1.1 Population pyramids

The chart below is an excerpt from Figure 1.1 together with aids for interpretation. Further information on how this indicator was calculated is in section 5.1 of this technical guide.

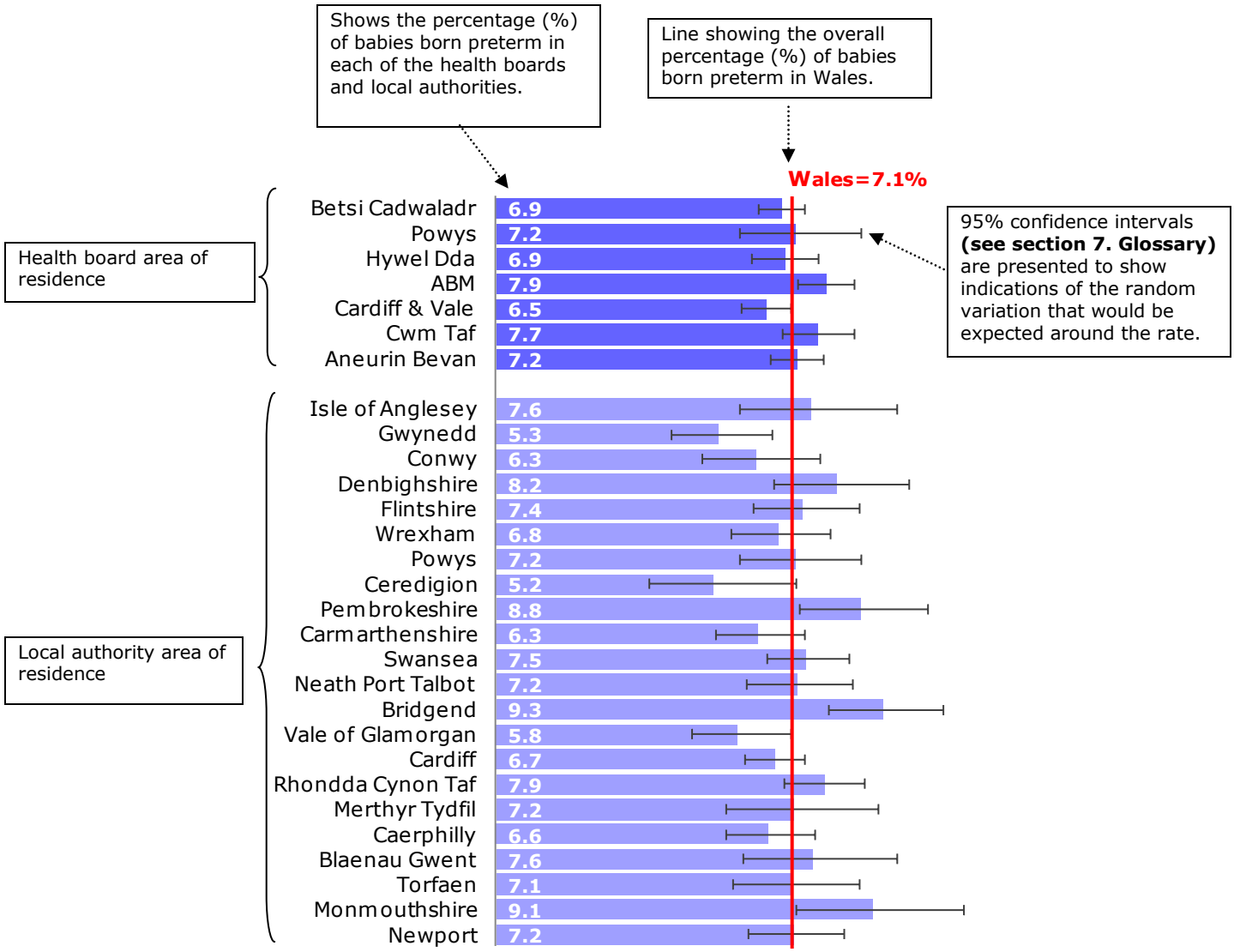
Figure 1.1 % of the population by age group, 2011



3.1.2 Bar charts

Figure 1.6 is shown below with annotation to aid interpretation. As Figure 1.6 below, all bar charts presented within the report are horizontal.

Figure 1.6 % of babies born preterm (<37 weeks gestation at birth), 2011



The inclusion of 95% confidence intervals around the local values, allow comparison with the Welsh average. If local confidence intervals include the Wales average, then the local value is not considered to be statistically significantly different. If the local confidence interval does not include the Wales average, then the local value is considered to be statistically significantly different. Deeming a local value as statistically significant suggests that there is only 5% chance of it being so different to the Wales average due to natural variation alone.

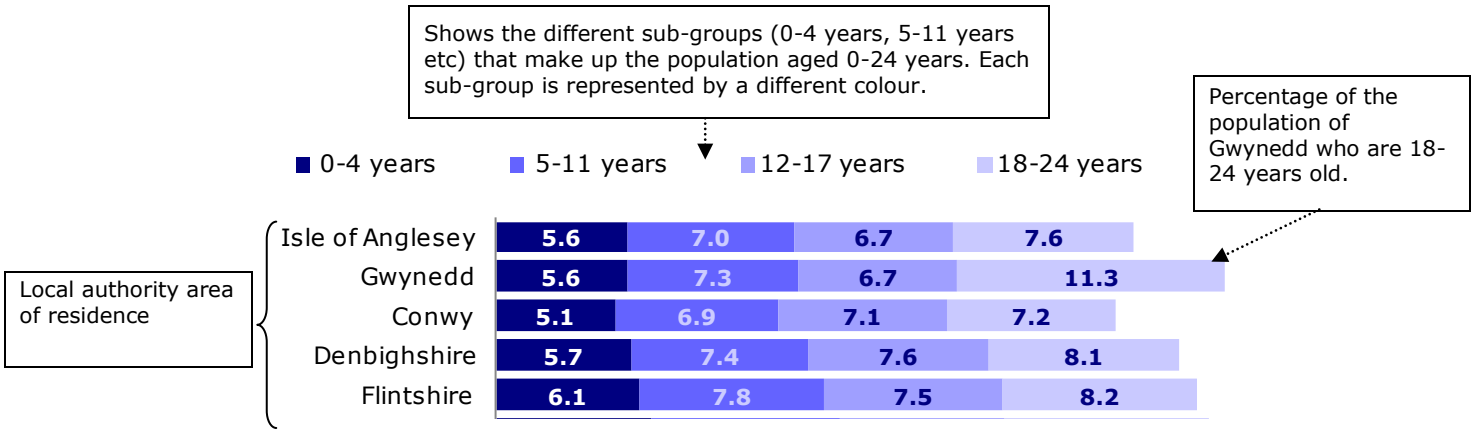
The vast majority of bar charts included in the Wales report are based on unrounded data. However, Figures 2.1, 3.6 and 3.14 were created using data rounded to the nearest 5. For further information, refer to the relevant section within the indicator chapter of this guide.

3.1.3 Stacked bar charts

Stacked bar charts are used to display information about the sub-groups that make up the different categories. The bars representing the sub-group are placed on top of each other (vertical bar chart), or next to each other (horizontal bar chart) to make a single bar. The overall height or length of the bar shows the total size of the category whilst different colours are used to indicate the relative contribution of the different sub-groups. All the stacked bar charts presented within the Wales report are horizontal.

The chart below is an excerpt from Figure 1.2b, together with aids for interpretation Further information on how this indicator was calculated is in section 5.1 of this technical guide.

Figure 1.2b % of population aged 0-24 by school age group, 2011



The data used to create the charts in the report, plus additional rates for health boards and local authorities, are available in Excel format on the Public Health Wales Observatory website at www.publichealthwalesobservatory.wales.nhs.uk/childprofile

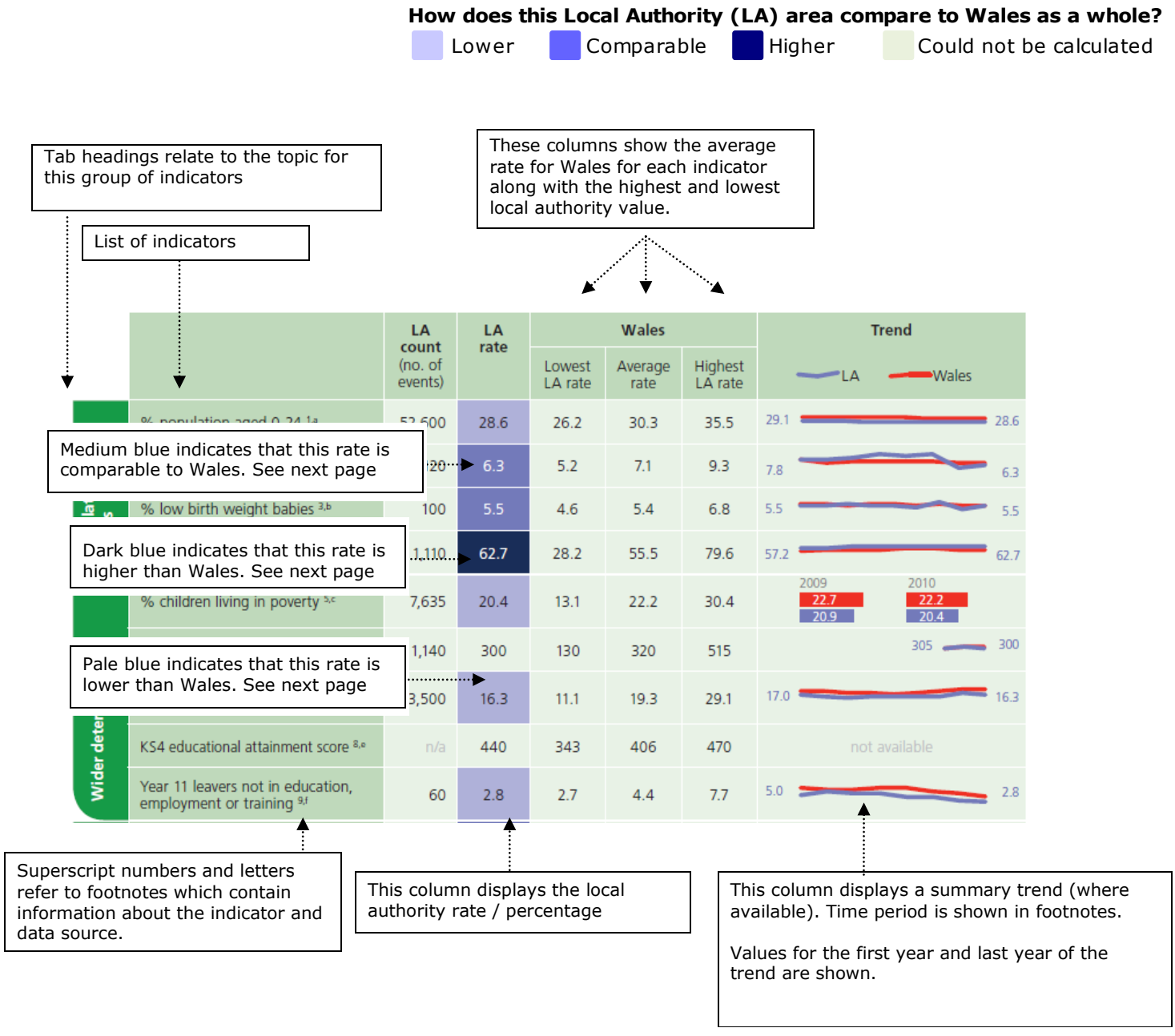
3.2 Interpreting tables

The following can be used to aid interpretation of the summary tables included in the local authority profiles. The summary table is used to provide a snapshot of selected indicators for the local authority, and enables the user to make comparisons between the local authority of interest and the Wales average.

The indicators presented in the 22 local authority profiles are taken from the main *Health of Children and Young People in Wales* report. There is only one exception to this: Child mortality rate (0-17 years).

The counts and rates for the local authority profile summary table are presented for the last year of trend unless otherwise stated. As with the main Wales report, the most recent data as at June 2013 is included.

- **Summary of health and well-being table included on page 2 of the 22 local authority profiles.**



In the summary table, pale blue and dark blue values represent results that are statistically significantly lower or higher respectively, compared to Wales. Medium blue represents results that are comparable to Wales (i.e. there is no significant difference).

It should be noted that for some indicators, such as % of babies breastfed at birth, a higher rate compared to Wales suggests the value is 'better' than the Wales average. In contrast a higher result for other indicators, such as teenage conception rates, suggest that the value is 'worse' than the Wales average.

As described in section 3.1.2, a statistically significant finding suggests that the difference between two values might not be due to chance.

It is important to note that whilst an indicator may show a 'better' result to Wales, this means that the result is significantly different to Wales, not that public health action is unnecessary. Statistical significance is not the same as public health importance.

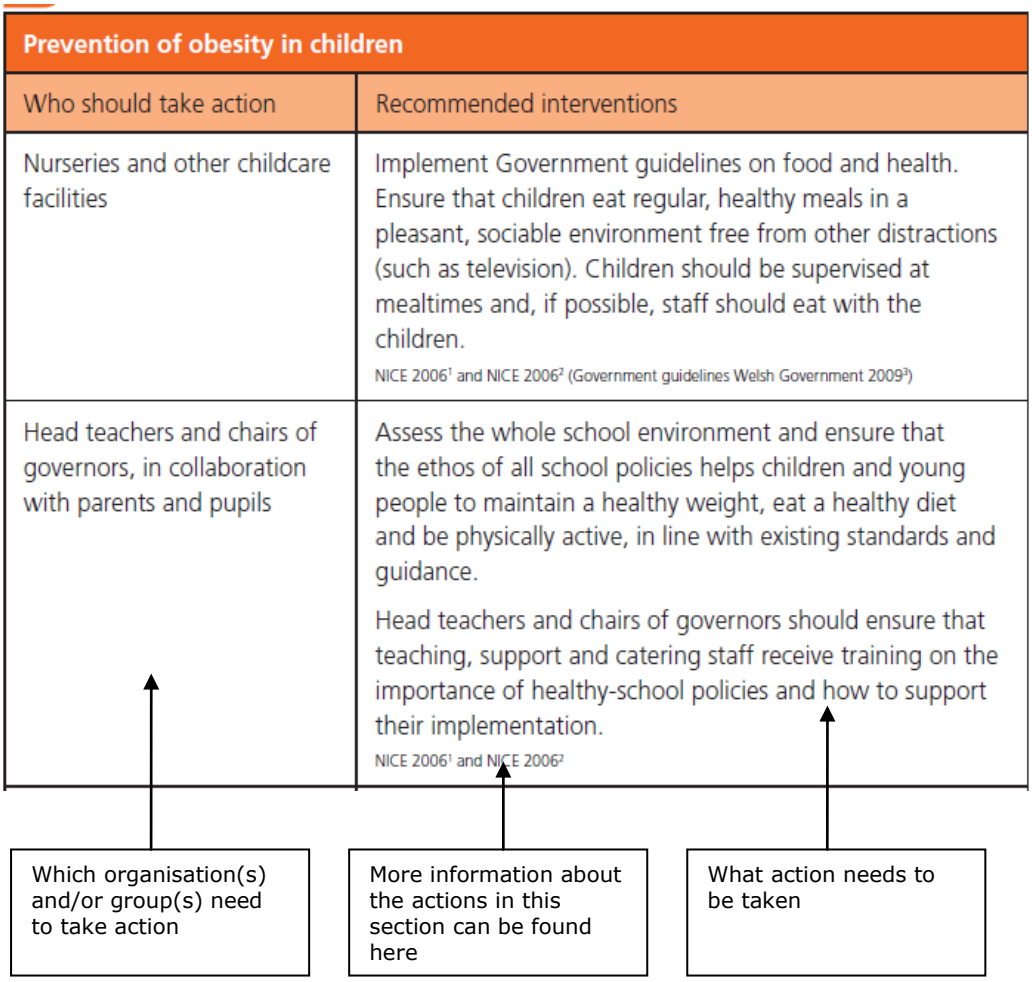
It is possible for two areas to have the same rate for an indicator whilst displaying a different significance result. This is because statistical significance is based on the confidence interval and the size of the confidence interval is largely dependent on the size of the population from which the events came. Generally speaking, rates based on smaller populations are likely to have wider confidence intervals.

The 22 local authority profiles, along with the other documents that make up this profile are available from:
www.publichealthwalesobservatory.wales.nhs.uk/childprofile

4 Actions to improve health and well-being

Summary information on evidence based interventions is included in the *Health of Children and Young People in Wales* report. Efforts have focused around identifying evidenced based interventions to meet the priority outcomes set in *Our Healthy Future*, the Welsh Government strategic framework for public health. The evidence included relates primarily to multi-agency action to improve the health and well-being of children and young people. The sources used to determine interventions are limited to National Institute for Health and Clinical Effectiveness (NICE) guidance and systematic reviews from the Cochrane and Campbell Collaborations where these are more recent than, or differ in scope to, NICE guidance. Evidence as at March 2013 is included.

The diagram below is an excerpt from section 8.1 of the Actions to improve health and well-being chapter, together with aids for interpretation.



5 Indicators

5.1 *Population structure*

Which charts or tables display this information?	• Figures 1.1 to 1.3 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of population by age group (and sex for figure 1.1).
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 1.1: Percentage of population by age group and sex for Wales' health boards, using 2011 mid-year estimates. • Figures 1.2a and 1.2b: Percentage of population by age group, UK nations, Wales' health boards and local authorities in 2011. • Figure 1.3: Percentage of population aged 0-24 years by lower super output area (LSOA) in 2011.
Where does the data come from?	• Figures 1.1 and 1.3: Office for National Statistics (ONS) • Figure 1.2a and 1.2b: Office for National Statistics (ONS) for England and Wales, Wales health boards and local authorities; Northern Ireland Statistics and Research Agency (NISRA) and General Register Office for Scotland (GRO-Scotland)
Who does it measure?	• Figure 1.1: Male and female residents by age group (0-4, 5-11, 12-17, 18-24) in each health board and Wales • Figure 1.2a and 1.2b: Residents aged 0-24 years by school age groups (0-4, 5-11, 12-17, 18-24) • Figure 1.3: Residents aged 0-24 years
When does it measure it?	• 2011
What geographical areas does it cover?	• Figures 1.1: Wales, health boards • Figure 1.2a and 1.2b: UK nations, Wales' health boards and local authorities • Figure 1.3: 2011 LSOAs, Wales
How is it calculated?	• Figure 1.1: Count of the population in each area by age group and sex as a percentage of the total population. • Figures 1.2a, 1.2b, 1.3: Count of population in each age group as a percentage of the total population in each area.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The resident population of an area includes all people who usually live there, whatever their nationality.[1] • In figures 1.1 and 1.3, the data uses 2011 mid-year estimates based on the 2011 Census. • In figures 1.2a and 1.2b, data for England and Wales are MYEs based on the 2011 Census, data for Northern Ireland are from the 2011 Census and data for Scotland are MYEs based on the 2001 Census. (Figure 1.2a) • Due to the UK nations percentages being based on different time periods, the data should be used with caution as they are not directly comparable. (Figure 1.2a) • For further information about population estimates, see section 6.22 of this technical guide.

References	1. Office for National Statistics . *Topic guide to: Population Estimates – Technical Data* [Online]. 2011. Available at: www.statistics.gov.uk/hub/population/population-change/population-estimates

5.2 *Population change*

Which charts or tables display this information?	• Figure 1.4 in the *Health of Children and Young People in Wales* report
What is being measured?	Population change between 2002 and 2033.
How is this indicator defined?	The definitions used in the report for figure 1.4 are: • Resident population for 2002 to 2011 using mid-year estimates (as at 30th June each year) based on the 2011 Census have been used to represent past population trends. • Population projections for 2012 to 2033 based on the 2008 mid-year population estimates have been used to represent future population estimates.
Where does the data come from?	• Office for National Statistics (ONS)
Who does it measure?	• Residents aged 0-24 years
When does it measure it?	• 2002-2033
What geographical areas does it cover?	• Wales, health boards
How is it calculated?	• Population estimates are based on the births and deaths that occur, and an estimate of migration, since the last Census. • Population projections are calculated using assumptions about future trends in fertility, deaths and migration which are derived by analysing trends over the five years leading up to the projection base year. • Population estimates and projections are produced by the Office for National Statistics (ONS) using a well-established demographic approach called the cohort component method.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The resident population of an area includes all people who usually live there, whatever their nationality.[1] • The methodology used for population projections applies to the general population only. Special population types, including foreign and home Armed Forces, are dealt with separately and are assumed to remain static over the projection period.[2] • Population projections are calculated using trend-based assumptions they give an indication of what the future population might be if recent trends continue, and take no account of policy or development aims in areas.[3] • Data for 2002 to 2011 are MYEs based on the 2011

	Census. • Data for 2012 to 2033 are population projections based on 2008 mid-year population estimates. • For further information about population estimates and projections, see section 6.22 and 6.23 of this technical guide.
References	1. Office for National Statistics. *Topic guide to: Population Estimates – Technical Data* [Online]. 2011. Available at: www.statistics.gov.uk/hub/population/population-change/population-estimates 2. Office for National Statistics. *Topic guide to: Population Projections – Technical Data* [Online]. 2011. Available at: http://www.statistics.gov.uk/hub/population/population-change/population-projections/index.html 3. Office for National Statistics. *Topic guide to: Population Projections – Overview* [Online]. 2011. Available at: http://www.statistics.gov.uk/hub/population/population-change/population-projections/index.html

5.3 *Fertility*

Which charts or tables display this information?	• Figure 1.5 in the *Health of Children and Young People in Wales* report
What is being measured?	Total fertility rate by area of residence.
How is this indicator defined?	The total fertility rate (TFR) is the average number of live children a group of women would have if they experienced the age-specific fertility rates (ASFRs) for the calendar year in question throughout their childbearing lifespan.
Where does the data come from?	• Vital Statistics 1 returns, Office for National Statistics (ONS)
Who does it measure?	• Females aged 15-44 years
When does it measure it?	• 2011
What geographical areas does it cover?	• England and its regions, Wales, health boards and local authorities
How is it calculated?	• National TFRs are derived by summing single-year ASFRs over all ages within the childbearing lifespan.[1] TFRs at geographies below national level (regions, counties, unitary authorities and health authorities/boards) have been calculated by summing five-year ASFRs for all ages and then multiplying by five. This method gives more robust TFRs for areas with small populations.
How accurate and complete will the data be for this indicator? Are there any problems, notes	• The TFR takes account of the age and sex distribution of the population and can therefore be used to analyse trends over time. • The TFR provides a snapshot of the level of fertility in a particular year. Therefore, the Wales TFR of 1.9 in 2011 does

for interpretation or warnings with the data in relation to this indicator?	not mean that a woman now entering her child bearing years will have 1.9 children, since fertility rates are likely to change over time.[2] • For further information about Vital Statistics 1 returns, see section 6.30 of this technical guide.
References	1. Office for National Statistics. *Births Tables: Metadata 2011* [Online]. Summer 2012. Available at:http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/births-metadata.pdf 2. Office for National Statistics. *Frequently Asked Questions: births and fertility* [Online]. August 2011. Available at: http://www.ons.gov.uk/ons/rel/vsob1/parents--country-of-birth--england-and-wales/2010/faq-births-and-fertility.pdf

5.4 *Pre-term births*

Which charts or tables display this information?	• Figure 1.6 in the *Health of Children and Young People in Wales* report
What is being measured?	Percentage of babies born pre-term.
How is this indicator defined?	• Babies born <37 weeks gestation as a percentage of all live births for which gestational age is known.
Where does the data come from?	• National Community Child Health Database for Wales (NCCHD), NHS Wales Informatics Service (NWIS)[1]
Who does it measure?	• Babies live born in a given calendar year
When does it measure it?	• 2011 births
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of live births of gestational age between 20 and 36 weeks as a percentage of all live births.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• In 2011 there were 35,682 live births recorded on the NCCHD. Of these, the area of residence was not coded for 279 births (0.8%) and gestation was not stated for 160 births (0.4%). The area with the highest percentage of records for which the gestation was unknown was Monmouthshire (1.4%). • Gestational ages recorded as <20 weeks are not counted in the numerator.[2] However the number of births in this category is expected to be extremely low. • For further information about the NCCHD, see section 6.20 of this technical guide.
References	1. Welsh Government. Births in Wales, 2001-2011: Data from the National Community Child Health Database. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/topics/statistics/headlines/health2012/120724/;jsessionid=7E2DAE427864D216E752A9DEC10B4543?lang=en 2. Welsh Government. Live births to Welsh residents by Local

	Health Board and gestational age. Cardiff: Welsh Government; 2012. Available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/Community-Child-Health/LiveBirthsToWelshResidents-by-LocalHealthBoard-GestationalAge

5.5 *Low birth weight*

Which charts or tables display this information?	• Figure 1.7 in the *Health of Children and Young People in Wales* report
What is being measured?	Percentage of babies born with a low birth weight.
How is this indicator defined?	Babies born weighing less than 2500g as a percentage of all singleton live births for which birth weight is known.
Where does the data come from?	• National Community Child Health Database for Wales (NCCHD), NHS Wales Informatics Service (NWIS)[1]
Who does it measure?	• Singleton live born babies
When does it measure it?	• 2011 births
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of singleton live births weighing less than 2500g as a percentage of all singleton live births with a known birth weight.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• In 2011 there were 34,712 singleton live births recorded on the NCCHD. Of these, the area of residence was not coded for 255 births (1%) and birth weight was not known for 10 births (0.03%). The area with the highest percentage of records for which the birth weight was unknown was Bridgend (0.18%). • For further information about NCCHD, see section 6.20 of this technical guide. • For further information about the NCCHD, see section 6.20 of this technical guide.
References	1. Welsh Government. Births in Wales, 2001-2011: Data from the National Community Child Health Database. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/topics/statistics/headlines/health2012/120724/;jsessionid=7E2DAE427864D216E752A9DEC10B4543?lang=en

5.6 *Breastfeeding*

Which charts or tables display this information?	• Figure 1.8 in the *Health of Children and Young People in Wales* report
What is being measured?	Percentage of babies breastfed at birth where breastfeeding status is recorded.
How is this indicator defined?	Babies breastfed at birth as a percentage of all live births where breastfeeding status is recorded.
Where does the data come from?	• National Community Child Health Database for Wales (NCCHD), NHS Wales Informatics Service (NWIS)[1]
Who does it measure?	• Babies live born in a given calendar year
When does it measure it?	• 2011 births
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of babies breastfed at birth as a percentage of all live births where breastfeeding status is recorded.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• In 2011 there were 35,682 live births recorded on the NCCHD. Of these, the area of residence was not coded for 279 births (0.8%) and the breastfeeding status was not stated for 3,151 births (8.8%). The areas with the highest and lowest percentages of records for which breastfeeding status was not stated were Powys (29.4%) and Rhondda Cynon Taf (3.0%). • The definition of breastfeeding at birth is the method of feeding established at the time of discharge from maternity care. • For further information about the NCCHD, see section 6.20 of this technical guide.
References	1. Welsh Government. Births in Wales, 2001-2011: Data from the National Community Child Health Database. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/topics/statistics/headlines/health2012/120724/;jsessionid=7E2DAE427864D216E752A9DEC10B4543?lang=en

5.7 *Income/poverty*

Which charts or tables display this information?	• Figures 2.1 and 2.2 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of children living in poverty.
How is this indicator defined?	The percentage of children living in families in receipt of out of work (means-tested) benefits or in receipt of tax credits where their reported income is less than 60 per cent of the median income (£211 per week).[1]
Where does the data come from?	• Department for Work and Pensions (DWP)
Who does it measure?	• All persons aged under 20
When does it measure it?	• 31 August 2010
What geographical areas does it cover?	• Figure 2.1: Wales, health boards and local authorities • Figure 2.2: 2001 LSOAs, Wales
How is it calculated?	• Child Benefit records are matched to Income Support (IS) or Job Seekers Allowance (JSA) claimant records in DWP. The matched records are then transferred to HMRC and matched to the tax credits database in order to identify children in families in receipt of IS or JSA. These DWP paid families are then combined with the tax credits data to ensure that the measure covers all children in families in receipt of IS or JSA and that no family or child is counted twice or ignored.[1] • The following calculation was then used: $\frac{\text{Number of children living in families in receipt of CTC whose reported income is less than 60 per cent of the median income or in receipt of IS or (Income-Based) JSA}}{\text{Total number of children in the area.}}$[1] • Health board data were aggregated from local authority level data.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Data should be complete as the estimates are based on finalised awards tax credit data, and as such are derived from a full set of administrative records rather than a sample. DWP, IS and JSA records relate to August to be consistent with the tax credits and Child Benefit data. • Duplicate records may occur in the dataset due to administrative errors, data matching issues and family breakdown (where a separate claim begins before the other ends). Where possible, any duplicate records have been removed from the dataset. • Health board data have been aggregated from local authority data. Estimates have been rounded to the nearest 5 units, therefore aggregating the individual estimates may not sum the given totals for an area.
References	1. Department for Work and Pensions. Child Poverty Measure, 2010. [Online] Available at:

	http://webarchive.nationalarchives.gov.uk/20121103084242/http://www.hmrc.gov.uk/stats/personal-tax-credits/child-poverty-stats09-sept11.pdf

5.8 *Deprivation*

Which charts or tables display this information?	• Figures 2.3 and 2.4 in the *Health of Children and Young People in Wales* report
What is being measured?	The definitions for each figure in the report are as follows: • Figure 2.3: percentage of LSOAs in the most deprived tenth of deprivation. • Figure 2.4: Welsh Index of Multiple Deprivation (WIMD) 2011 Child Index map – national fifths of deprivation, using (national) equal count at LSOA.
How is this indicator defined?	• The WIMD 2011 Child Index is the official measure of relative deprivation at small areas in Wales for children. It provides a relative system of measurement and should not be confused with income poverty, as the child deprivation index is a wider concept. • The definitions for each domain are specified in the 'How is it calculated?' section.
Where does the data come from?	• Welsh Index of Multiple Deprivation: Child Index, produced by Welsh Government (WG)
Who does it measure?	• Children resident in Wales
When does it measure it?	• The Child Index of WIMD 2011 is derived from a variety of other indicators where data are extracted for earlier years.
What geographical areas does it cover?	• 2001 LSOAs, Wales
How is it calculated?	• Figure 2.3: The number of LSOAs in an area that are in the national most deprived tenth as a percentage of all LSOAs in that area. • Figure 2.4: The national fifth of deprivation that each LSOA is categorised into.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• As the data are designed to pull together a measure of relative deprivation for small areas for children, administrative datasets or Census data were used where administrative data was unavailable. • As ranks are provided relative deprivation can be derived. However this doesn't give an indication of how deprived an area might be compared to another area e.g. if an area has a score that is twice that of another area, then it doesn't mean that one area is twice as deprived as the other. • Data cannot be aggregated to higher areas. • For further information about WIMD (Child Index), see section 6.33 of this technical guide.

References	1. Welsh Government. *Welsh Index of Multiple Deprivation: Child Index 2011 Guidance on use*; 2012. Available at http://wales.gov.uk/docs/statistics/2011/110922wimdchild11guidanceen.pdf 2. Welsh Government. *WIMD Child Index 2011: Local authority analysis*; 2013. Available at: https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2011-Child-Index/WIMDChildIndex2011LocalAuthorityAnalysis

5.9 *Employment*

Which charts or tables display this information?	Figures 2.5 to 2.7 in the *Health of Children and Young People in Wales* report
What is being measured?	Employment measures in young people in Wales.
How is this indicator defined?	The report uses data from two different data sources to provide employment measures. The definitions for each figure in the report are as follows: • Figure 2.5: The percentage of children who left compulsory secondary education in the summer and by the end of October were known not to be in full or part-time education, employment or training (NEET).This includes those unavailable to work and those registered with careers companies as unemployed. • Figures 2.6 and 2.7: The percentage of all residents aged 16 to 24 years old who are unemployed (excluding students).[1]
Where does the data come from?	• Figure 2.5: Careers Wales • Figures 2.6 and 2.7: Census 2011, Office for National Statistics (ONS)
Who does it measure?	• Figure 2.5: All year 11 school leavers (the end of compulsory secondary education) in Wales • Figures 2.6 and 2.7: Residents aged 16 to 24 years old (excluding students)[2]
When does it measure it?	• Figure 2.5: As at 31st October 2011 • Figures 2.6 and 2.7: 2011
What geographical areas does it cover?	• Figure 2.5: Wales, health boards and local authorities • Figure 2.6: England and its regions, Wales, Welsh health boards and local authorities • Figure 2.7: 2011 MSOAs, Wales
How is it calculated?	• Figure 2.5: The number of children identified as NEET as a percentage of all year 11 children who left compulsory secondary education that summer. Confidence intervals were calculated using the Wilson Method for a proportion.[3] • Figures 2.6 and 2.7: The number of residents aged 16 to 24 who were classed as unemployed (excluding students) as a percentage of all residents aged 16 to 24 (excluding students).
How accurate and complete will the	• Figure 2.5: National figures may mask variances at the careers company, local authority and institution level across all

data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	cohorts. The national response rate for 2011 was 97.7%, with 1.1% not responding and 1.2% having left the area. The lowest LA response rate was in Bridgend (94.9%) where 3.1% failed to respond and 2.0% had left the area. • Figures 2.6 and 2.7: Ideally only full time students would be excluded from the analysis but we were unable to determine the number of full time students who were economically inactive so a decision was made to exclude all students. Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Office for National Statistics. *Final recommended questions for the 2011 Census in England and Wales: Labour Market.* Office for National Statistics Census Programme, 2010. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/question-and-content-recommendations/final-recommended-questions-2011---labour-market.pdf 2. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf 3. Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. *J Am Stat Assoc*, 22:209-212 cited in Altman D.G. et al (2000) *Statistics with Confidence (2nd edn)* BMJ Books: UK (page 46)

5.10 *Housing*

Which charts or tables display this information?	Figures 2.8 and 2.9 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of households with dependent children that have more than 1.5 persons per bedroom, by tenure type.
How is this indicator defined?	• The number of households with dependent children aged 0-15 years, or 16-18 years and in full time education, where there are more than 1.5 persons per bedroom, by tenure type. • A household is defined as one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area. A household must contain at least one person whose place of usual residence is at the address. A group of short-term residents living together is not classified as a household, neither is a group of people at an address where only visitors are staying.[1] • A dependent child is a person aged 0 – 15 in a household (whether or not in a family) or aged 16 – 18 in full-time education and living in a family with his or her parent(s). It does not include any children who have a spouse, partner or child living in the household.[1] • Tenure provides information about whether a household rents or owns the accommodation that it occupies and, if rented, combines this with information about the type of landlord who

	owns or manages the accommodation. ○ Tenure, Owned: Accommodation that is 'owned' includes accommodation that is either 'owned outright' or 'owned with a mortgage or loan'. ○ Tenure, Social rented: Accommodation that is 'social rented' includes accommodation that is rented from a council or local authority, or from a registered social landlord, housing association, housing co-operative or charitable trust. ○ Tenure, Private rented: Accommodation that is 'private rented' includes accommodation that is rented from a private landlord or letting agency, employer of a household member, relative or friend of a household member, or other non-social rented accommodation.
Where does the data come from?	• Census 2011: Office for National Statistics (ONS)
Who does it measure?	• The main population base for outputs from the 2011 Census is the usual resident population as at Census day, 27 March 2011. • For 2011 Census purposes, a usual resident of the UK is anyone who, on Census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.[2]
When does it measure it?	• 2011
What geographical areas does it cover?	• Figure 2.8: England and its regions, Wales, Wales health boards and local authorities • Figure 2.9: 2011 MSOAs, Wales
How is it calculated?	• The number of households with dependent children and more than 1.5 persons per bedroom as a percentage of all households with dependent children, by tenure type.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The data is taken from the 2011 Census and is the most recent source of data with universal population coverage. • The data are likely to be an accurate indicator of household composition at the time of collection. • Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Office for National Statistics. *2011 Census Glossary of Terms.* Office for National Statistics Census Programme, 2013. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/2011-census-definitions/2011-census-glossary.pdf 2. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf

5.11 *Lone parent families*

Which charts or tables display this information?	Figures 3.1 and 3.2 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of households which are lone parent households with dependent children.
How is this indicator defined?	• The number of lone parent households with dependent children as a percentage of all households. • A household is defined as one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area. A household must contain at least one person whose place of usual residence is at the address. A group of short-term residents living together is not classified as a household, and neither is a group of people at an address where only visitors are staying.[1] • A lone parent household is a household that comprises a lone parent family and no other person. This definition is used in most results from the 2011 Census. A lone parent family consists of a father or mother aged 16 to 74 with his or her child(ren) where the parent does not have a spouse, same-sex civil partner or partner in the household and the child(ren) do not have a spouse, same-sex civil partner or child in the household. A lone grandparent aged 16 to 74 with his or her grandchild(ren) are also considered a lone parent family if there are no children in the intervening generation present in the household (note that children of the grandparent may also be present if they are not parents or grandparents of the youngest generation).[1] • A dependent child is a person aged 0–15 in a household (whether or not in a family) or aged 16–18 in full-time education and living in a family with his or her parent(s). It does not include any children who have a spouse, partner or child living in the household.[1]
Where does the data come from?	• Census 2011: Office for National Statistics (ONS)
Who does it measure?	• The main population base for outputs from the 2011 Census is the usual resident population as at Census day 27 March 2011. • For 2011 Census purposes, a usual resident of the UK is anyone who, on census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.[2]
When does it measure it?	• 2011
What geographical areas does it cover?	• Figure 3.1: England and its regions, Wales, Wales health boards and local authorities. • Figure 3.2: 2011 LSOAs, Wales
How is it calculated?	• The number of lone parent households with dependent children where the lone parent is aged 16 to 74 as a percentage of all households.

How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The data is taken from the 2011 Census and is the most recent source of data with universal population coverage. • The data are likely to be an accurate indicator of household composition at the time of collection. • Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Office for National Statistics. *2011 Census Glossary of Terms.* Office for National Statistics Census Programme, 2013. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/2011-census-definitions/2011-census-glossary.pdf 2. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf

5.12 *Households with dependent children where one person has a long-term condition of disability*

Which charts or tables display this information?	Figure 3.3 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of households with dependent children where one person has a long term condition or disability.
How is this indicator defined?	• The number of households with dependent children where one person has a long term condition or disability, as a percentage of all households. • A household is defined as one person living alone, or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area. A household must contain at least one person whose place of usual residence is at the address. A group of short-term residents living together is not classified as a household, and neither is a group of people at an address where only visitors are staying.[1] • A long-term health problem or disability is one that limits a person's day-to-day activities, and has lasted, or is expected to last, at least 12 months. This includes problems that are related to old age. People were asked to assess whether their daily activities were limited a lot or a little by such a health problem, or whether their daily activities were not limited at all.[1] • A dependent child is a person aged 0–15 in a household (whether or not in a family) or aged 16–18 in full-time education and living in a family with his or her parent(s). It does not include any children who have a spouse, partner or child living in the household.[1]

Where does the data come from?	• Census 2011: Office for National Statistics (ONS)
Who does it measure?	• The main population base for outputs from the 2011 Census is the usual resident population as at Census day 27 March 2011. • For 2011 Census purposes, a usual resident of the UK is anyone who, on census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.[2]
When does it measure it?	• 2011
What geographical areas does it cover?	• Figure 3.3: England and its regions, Wales, Wales health boards and local authorities.
How is it calculated?	• The number of households with one person with a long term condition or disability with dependent children as a percentage of all households.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The data is taken from the 2011 Census and is the most recent source of data with universal population coverage. • The data are likely to be an accurate indicator of household composition at the time of collection. • Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Office for National Statistics. *2011 Census Glossary of Terms.* Office for National Statistics Census Programme, 2013. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/2011-census-definitions/2011-census-glossary.pdf 2. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf

5.13 *Child carers*

Which charts or tables display this information?	Figures 3.4 and 3.5 in the *Health of Children and Young People in Wales* report
What is being measured?	Figure 3.4: The percentage of usual residents aged 0 to 24 who provide unpaid care, by area of residence. Figure 3.5: The percentage of usual residents aged 0 to 24 who provide unpaid care, by sex and the amount of hours of care they provide per week (1 to 19 hours a week, 20 to 49 hours, 50 or more hours a week)
How is this indicator defined?	• The percentage of all usual residents aged 0 to 24 who provide one or more hours of unpaid care a week.

Where does the data come from?	• Census 2011: Office for National Statistics (ONS)
Who does it measure?	• A person is a provider of unpaid care if they look after or give help or support to family members, friends, neighbours or others because of long-term physical or mental ill health or disability, or problems related to old age. This does not include any activities as part of paid employment.[1] • No distinction is made about whether any care that a person provides is within their own household or outside of the household, so no explicit link can be made about whether the care provided is for a person within the household who has poor general health or a long-term health problem or disability.[1] • For 2011 Census purposes, a usual resident of the UK is anyone who, on census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.[2]
When does it measure it?	• 2011
What geographical areas does it cover?	• Figure 3.4: England and its regions, Wales, Wales health boards and local authorities. • Figure 3.5: Wales
How is it calculated?	• The number of residents aged 0 to 24 who provide unpaid care as a percentage of all residents aged 0 to 24.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The data is taken from the 2011 Census and is the most recent source of data with universal population coverage. • The data are likely to be an accurate indicator of household composition at the time of collection. • Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Office for National Statistics. *2011 Census Glossary of Terms.* Office for National Statistics Census Programme, 2013. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/2011-census-definitions/2011-census-glossary.pdf 2. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf

5.14 *Looked after children*

Which charts or tables display this information?	• Figures 3.6 to 3.8 in the *Health of Children and Young People in Wales* report
What is being	• Figure 3.6: The number of children who are looked after by the local authority in foster placements.

measured?	• Figure 3.7: The number of children on the Child Protection Register as a rate per 10,000 population at the end of March 2012.[1] • Figure 3.8: The number of children in need as a rate per 10,000 population at the end of March 2012.
How is this indicator defined?	• Figure 3.6: 'Looked after' is the term used in the Children Act 1989 to describe all children who are the subject of a care order, or who are provided with accommodation on a voluntary basis for more than 24 hours. The data presented in the Wales report excludes children who are looked after in short term placements. • Figure 3.7: Each social services department holds a central child protection register. These registers contain information on all children in the area who are considered to be suffering from, or are likely to suffer, significant harm. Not all children listed on the register have been abused. Some will have been registered because it was considered there was a likelihood of future abuse. Further information can be found in the Welsh Government Statistical Bulletin for Local Authority Child Protection Registers 2011: http://wales.gov.uk/topics/statistics/headlines/health2011/111123/?lang=en • Figure 3.8: Children in need, as recorded in the Children In Need (CIN) census are defined as those who receive social services from their local authorities, including children looked after by local authorities, and who had an open case with a local authority on the CIN census date of 31 March that had been open for at least three months.[2] ○ The CIN census covers all children receiving support which is financed from children's social services budgets, including those supported in their families or independently, and children on the child protection register and looked after children. Children receiving respite care should be included in the count of children in need. ○ Further information can be found in the Welsh Government Statistical Bulletin for Wales Children in Need Census 2012 at: http://wales.gov.uk/docs/statistics/2013/130227-wales-children-need-census-2012-en.pdf
Where does the data come from?	• Figure 3.6: Children's Services data (Welsh Government). Anonymised individual child level data derived from SSDA903 data collection is extracted from local authority administrative systems and returned electronically to the Data Collection team within the Welsh Government using an online secure data transfer system called 'AFON'. • Figure 3.7 Children's Services Data (Welsh Government) . The data is supplied to the Data Collection team within the Welsh Government by the 22 local authorities in Wales on form PM1. The form collects information on education, referrals, assessments and social services provided to children by Welsh local authorities. • Figure 3.8: Children in Need (CIN) Census, Welsh Government (WG). The CIN Census collected individual records on all children in need, including those looked after by a local

	authority.
Who does it measure?	• Figure 3.6: Males and females aged 0-4, 5-9, 10-15 and 16-17. • Figure 3.7: Persons aged 0-17. • Figure 3.8: Persons aged 0-17 (excluding unborn children).
When does it measure it?	• Figure 3.6: 2003-2012 • Figure 3.7: 31st March 2012 • Figure 3.8: 31st March 2012
What geographical areas does it cover?	• Figure 3.6: Wales • Figures 3.7 and 3.8: Wales, health boards, local authorities
How is it calculated?	• Figure 3.6: Counts of children looked after by the local authority were presented. See section 'Where does the data come from?' for more information. • Figure 3.7: The number of children aged 0-17 on the Child Protection Register as a rate per 10,000 population using the 2011 mid-year population estimates. 95% confidence intervals were calculated using the Wilson method for confidence interval of a single proportion.[2] • Figure 3.8: The number of children in need aged 0-17 as a rate per 10,000 population using the 2011 mid-year population estimates. 95% confidence intervals were calculated using the Wilson method for confidence interval of a single proportion.[2]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Figure 3.6: Looked after children- the AFON system applies an extensive series of validation checks to ensure that the information provided uses the correct codes and is internally consistent. • Figure 3.7: Child Protection Registers - data is shown is for 0-18 year olds but most data for 16-18 year olds is suppressed due to small numbers. • Figure 3.7: Child Protection Registers - an extensive series of validation checks are applied to the PM1 form to ensure that the information provided is accurate and consistent. Further information on quality and methods can be found in the Quality Report at: http://wales.gov.uk/topics/statistics/publications/socialservicesquality/?lang=en. • Figure 3.8: CIN census - for 18 local authorities data for unborn children has been suppressed. Therefore, the data shown in the Wales report exclude these children for all local authorities and Wales. • Figure 3.8: CIN census - the number of children in need included in the CIN census is less than the total number of children receiving services. The number of children included in the CIN census, because they had a case open for 3 months, represents about 76% of the total number of children in need on 31st March 2011 recorded in other statistical data collections. • Further information on CIN and Children's Services data can be found in sections 6.7 and 6.8 of this technical guide.

References	1. Children's Services Data, Children on Child Protection Register [online]. Cardiff: Welsh Government; 2011. Available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Service-Provision/ChildrenOnChildProtectionRegister-by-LocalAuthority-CategoryOfAbuse-AgeGroup 2. Children in Need Census data [online] Cardiff: Welsh Government; 2011. Available at: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-in-Need/ChildrenInNeed-by-LocalAuthority-AgeGroup 3. Altman D.G. et al (2000) Statistics with Confidence (2nd edn) BMJ Books: UK (page 67 & 221) 4.Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. *J Am Stat Assoc,* 22:209-212 cited in Altman D.G. et al (2000) *Statistics with Confidence (2nd edn)* BMJ Books: UK (page 46)

5.15 *Free school meals*

Which charts or tables display this information?	Figure 3.9 in the *Health of Children and Young People in Wales* report.
What is being measured?	The percentage of children eligible for free school meals.
How is this indicator defined?	• Pupils are eligible for free school meals if their families are in receipt of Income Support or Income Based Jobseeker's Allowance.[1] Free schools meals are awarded where the parent or pupil meets the eligibility criteria and a request has been made by, or on behalf of, the parent for free school meals.
Where does the data come from?	• Pupil Level Annual School Census (PLASC), Welsh Government (WG)
Who does it measure?	• Pupils aged 5-15
When does it measure it?	• Academic year 2011/12 (as at January)
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of pupils eligible for free school meals as a percentage of the total number of pupils.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The Welsh Government has made available to all local authorities, an online electronic eligibility checking system (ECS) which allows a claimant's eligibility to be checked using date of birth and national insurance number. Where the ECS is not used, claimants must provide proof of benefits and renew their claim annually.[2] • Due to the movement of pupils between the school census date in January and the assessment period, full coverage of free school meal eligibility are not available for all pupils. Therefore, the national figures may not match those published in other statistical releases.

	• PLASC data from schools is submitted through DEWi which is a secure online data transfer system. Various stages of data validation are carried out throughout the process to ensure a high quality of data. • The Welsh Government works closely with schools and local authorities in order to ensure all data are validated before tables are published. • For further information about PLASC, see section 6.27 of this technical guide
References	1. Achievement and Entitlement to Free School Meals in Wales, 2011 [Online] Available at: http://wales.gov.uk/docs/statistics/2012/120315sb222012en.pdf 2. Free school meals, 2012 [Online] Available at: http://wales.gov.uk/topics/educationandskills/schoolshome/foodanddrink/freeschoolmeals/?lang=en#named1

5.16 *Truancy*

Which charts or tables display this information?	Figures 3.10 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of half day sessions missed due to unauthorised absences.
How is this indicator defined?	• The absenteeism information relates largely to pupils of compulsory school age (ages 5 to 15 at the beginning of the academic year) at schools that responded to the attendance data collection survey. However, absenteeism information for a small number of schools may include all pupils regardless of age (e.g. including reception classes). • An unauthorised absence is defined as an absence without permission from a teacher or other authorised representative of the school and includes late arrivals after the closure of registration and any absence where a satisfactory explanation has not been provided.
Where does the data come from?	• Attendance data collection survey, Welsh Government (WG)
Who does it measure?	• Pupils aged 5-15
When does it measure it?	• Academic year 2010/11 (as at January)
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of half-day sessions missed due to unauthorised absence as a percentage of the total number of half-day sessions in each area.
How accurate and complete will the data be for this indicator? Are there any problems, notes	• Absenteeism data for special and independent schools have not been included in the LEA figures, but have been included, where provided, in the Wales figures. • The Welsh Government works closely with schools and local

for interpretation or warnings with the data in relation to this indicator?	authorities in order to ensure all data are validated before tables are published. • For further information, see section 6.26 of this technical guide.
References	1. Unauthorised absence, 2011 [Online] Available at: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Schools-and-Teachers/Absenteeism

5.17 *Statement of need*

Which charts or tables display this information?	Figure 3.11 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of pupils aged 5-15 years with a statement of special educational need.
How is this indicator defined?	• The number and percentage of pupils aged 5-15 years for whom the Authority maintains a statement of special educational needs under Part IV of the Education Act 1996. A statement may be issued by the LA after assessment of a child's needs. Pupils aged 5 can, on rare occasions, still be in Nursery schools. However, the numbers are so small they have been excluded from the 5 to 15 data. • A statement of special educational need is a formal document detailing a child's learning difficulties and the help that can be given. If a child needs help beyond what their teachers can provide, a 'statement of special educational needs' will ensure that they get the right help. A statement is only necessary if the school is unable to meet a child's needs on its own.
Where does the data come from?	• Pupil Level Annual School Census (PLASC), Welsh Government (WG)
Who does it measure?	• Pupils aged 5-15 years
When does it measure it?	• Academic year 2010/11 (as at January)
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The total number of pupils aged 5-15 years with a statement of special educational need as a percentage of all pupils aged 5-15 years.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The total number of pupils aged 5-15 are those who attend schools within that local authority and not the population aged 5-15 living in that local authority. The pupil numbers and the MYE population for each local authority differ slightly. • PLASC data from schools is submitted through DEWi which is a secure online data transfer system. Various stages of data validation are carried out throughout the process to ensure a high quality of data. • The Welsh Government works closely with schools and local authorities in order to ensure all data are validated before tables are published. • For further information about PLASC, see section 6.27 of this technical guide.

References	1. Statement of educational need, 2011 [Online] Available at: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census/Local-Authorities/Special-Educational-Needs/NumberOfPrimarySchoolPupilsWithSEN-by-LocalAuthority-SENProvision

5.18 *Educational attainment*

Which charts or tables display this information?	Figures 3.12 and 3.13 in the *Health of Children and Young People in Wales* report
What is being measured?	Key stage 4 educational attainment mean scores.
How is this indicator defined?	• This represents the average wider points score (educational attainment) of pupils aged 15 at the beginning of the academic year (31st August), measured by external examinations – all approved qualifications are included.[1]
Where does the data come from?	• Pupil Level Annual School Census (PLASC), Welsh Government (WG). These data also form part of the Welsh Index of Multiple Deprivation (WIMD) education domain.[2]
Who does it measure?	• Persons aged 15 as at the beginning of the academic year (31st August), including Welsh pupils in English schools
When does it measure it?	• 2009-2011 based on data from 2009/10- 2011/12 academic years.
What geographical areas does it cover?	• Figure 3.12: Wales and local authorities • Figure 3.13: 2001 MSOAs, Wales
How is it calculated?	• A points based system allocates scores for each grade for all approved qualifications (including GCSE, BTECs and NVQs) taken by children in the final year of compulsory secondary education.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The data should be complete however in 2008, the Key Stage 4 point scoring system was changed to include other equivalent qualifications that are not GCSEs. • The data are related to the area of residence of pupils and not the location of schools. Therefore it is possible that a school within an MSOA will exhibit a different wider points score to that of the residents of the MSOA. • For further information about PLASC, see section 6.27 of this technical guide.
References	1. Welsh Government. Examination Results in Wales, 2010/11. [Online] Available at: http://wales.gov.uk/docs/statistics/2011/111130sdr2212011en.pdf 2. Welsh Government. Welsh Index of Multiple Deprivation 2011: Summary Report. Cardiff: Welsh Government; 2011. Available at: http://wales.gov.uk/topics/statistics/publications/wimd11summary/?lang=en

5.19 *Higher Education*

Which charts or tables display this information?	Figure 3.14 in the *Health of Children and Young People in Wales* report
What is being measured?	The number of Welsh domiciled students going on to UK Higher Education Institutions, first year undergraduates 2004/05 and 2011/12 as a percentage of the population in each age-group, by sex.
How is this indicator defined?	• Higher education students are those on programmes of study for which the level of instruction is above that of level 3 of the National Qualifications Framework. • The data shown include students studying for a first degree, HND, HNC, DipHE, CertHE, foundation courses at level 4 and 5, post-degree diplomas and certificates at undergraduate level, professional qualifications at undergraduate level and other undergraduate diplomas and certificates including post-registration health and social care courses.
Where does the data come from?	• Higher Education Statistics Authority (HESA)[1] Student Record supplied Welsh Government (WG); HESA is the official agency for the collection, analysis and dissemination of quantitative information about higher education
Who does it measure?	• Young people aged 16-17; 18; 19 and 20-24 years
When does it measure it?	• 2004-2011: based on date from the 2004/05-2011/12 academic years
What geographical areas does it cover?	• Wales
How is it calculated?	• The total number of first year undergraduates in each age group as a percentage of the total population in each age group, by sex.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Data are supplied by Higher Education Institutions to HESA and are subject to an extensive quality assurance process. • All figures have been rounded to the nearest five to minimise the risk of unwanted disclosure of personal data. Where figures have been rounded there may also be an apparent discrepancy between the sum of the constituent items and the total. • There are many different types of qualifications for which a higher education student may study (see list above) and 'undergraduate' is used as an umbrella term for all of these qualifications. Care should be taken when defining the term 'undergraduate'. • Further information on HESA can be found in section 6.16 of this technical guide.
References	1. Higher Education Statistics Authority website. Available at: http://www.hesa.ac.uk/

5.20 *Healthy eating*

Which charts or tables display this information?	Figures 4.1 to 4.3 in the *Health of Children and Young People in Wales* report
What is being measured?	Healthy eating in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.1: percentage of children who report eating at least one piece of fruit daily.[1] • Figure 4.2: percentage of children who report eating vegetables daily.[1] • Figure 4.3: percentage of young adults who reported eating five or more portions of fruit and vegetables the previous day.
Where does the data come from?	The report uses data from two different data sources to provide healthy eating estimates. • Figure 4.1 and 4.2: Health Behaviour in School-aged Children (HBSC) survey: Welsh Government/World Health Organization • Figure 4.3: Welsh Health Survey (WHS), Welsh Government (WG) and mid-year estimates (MYE), Office for National Statistics (ONS)
Who does it measure?	• Figure 4.1 and 4.2: males and females aged 11-16 • Figure 4.3: persons aged 16-24
When does it measure it?	• Figure 4.1 and 4.2: 2009/10 • Figure 4.3: 2008-2011
What geographical areas does it cover?	• Figure 4.1 and 4.2: lowest and highest prevalence of the 43 countries and regions in the World Health Organization (WHO), European Regions and North America, England, Scotland, Ireland (Eire), Wales and Wales health boards. • Figure 4.3: Wales and health boards.
How is it calculated?	• The percentage of children responding to the HBSC or WHS questionnaire according to the definitions above. • 95% confidence intervals were calculated using the default method used by STATA for survey data.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Healthy eating figures from HBSC and WHS are based on self reported data, that is, the surveys rely on the respondent's honesty when reporting their eating behaviour. Self-reported prevalence of healthy eating may be prone to respondent bias.[2] i.e. people may overestimate or underestimate their behaviour to give a more favourable response. • Interpretation may have been difficult in relation to these questions, as although guidance as to portion size was provided for respondents, it may still be difficult to determine portion size for fruit and vegetables in composite foods e.g. apple pie, stew etc. • Further information is available in the documents referenced below[1,2] and in sections 6.15 and 6.32 of this technical guide.
References	1. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/

	healthbehaviours/?lang=en 2. Miller TM and Abdel-Maksoud MF et al. Effect of social approval bias on self-reported fruit and vegetable consumption: a randomized control trial. Nutrition Journal 2008; 7:18. Available at: http://www.nutritionj.com/content/7/1/18

5.21 *Physical activity*

Which charts or tables display this information?	Figures 4.4 to 4.5 in the *Health of Children and Young People in Wales* report
What is being measured?	Physical activity in children and young people in Wales.
How is this indicator defined?	The report provides two physical activity estimates. The definitions for each figure in the report are as follows: • Figure 4.4: percentage of children aged 4-15 who reported undertaking physical activity for an hour or more every day. • Figure 4.5: percentage of young adults who reported undertaking at least 30 minutes of moderate or vigorous physical activity on 5 or more days.
Where does the data come from?	• Welsh Health Survey (WHS), Welsh Government (WG) and mid -year estimates (MYE), Office for National Statistics (ONS)
Who does it measure?	• Figure 4.4: children aged 4-15 • Figure 4.5: persons aged 16-24
When does it measure it?	• Figure 4.4: 2007-2011 • Figure 4.5: 2008-2011
What geographical areas does it cover?	• Wales and health boards
How is it calculated?	• Figure 4.4: the total number of children who undertook at least one hour or more of physical activity per day was divided by the total population and then multiplied by 100 to give the percentage. • Figure 4.5: the total number of people reporting 30 minutes of physical activity on 5 or more days was divided by the total population and then multiplied by 100 to give the percentage. • 95% confidence intervals were calculated using the default method used by STATA for survey data.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Different age groups have different guided activity; the age groups included in the report don't match any specific guidance. The Welsh Government's physical activity guidelines for the specific age groups are available: http://wales.gov.uk/topics/health/cmo/publications/annual/start/?lang=en • Physical activity information is self-reported and may therefore be subject to respondent bias[1] where some people may overestimate their behaviour to give a more favourable response. • There may be misclassification e.g. some housework may be 'moderate' rather than 'light'.

	• For further information about the accuracy of this survey, see section 6.32 of this technical guide.
References	1. Adams SA *et al*. The Effect of Social Desirability and Social Approval on Self-Reports of Physical Activity. *American Journal of Epidemiology* 2005; 161 (4):389-398. Available at: http://aje.oxfordjournals.org/cgi/content/full/161/4/389

5.22 *Overweight and obese*

Which charts or tables display this information?	Figures 4.6 to 4.9 in the *Health of Children and Young People in Wales* report
What is being measured?	Prevalence of overweight and obesity amongst children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.6: percentage of children aged 4-5 who are overweight or obese. • Figure 4.7: percentage of persons aged 11-16 who are overweight or obese. • Figure 4.8: percentage of persons aged 11-16 who are overweight or obese, stratified by Family Affluence Scale (FAS). • Figure 4.9: percentage of persons aged 16-24 who are overweight (BMI 25 or greater) or obese (BMI 30 or greater).
Where does the data come from?	The report uses data from three different data sources to provide estimates of the percentage of children and young people who are overweight or obese. • Figure 4.6: Child Measurement Programme (CMP), NWIS • Figure 4.7 and 4.8: Health Behaviour in School-aged Children (HBSC) survey: Welsh Government/World Health Organization. • Figure 4.9: Welsh Health Survey (WHS), Welsh Government (WG) and mid-year estimates (MYE), Office for National Statistics (ONS).
Who does it measure?	• Figure 4.6: males and females aged 4-5 • Figure 4.7 and 4.8: males and females aged 11-16 (a small number of young people had reached their 16th birthday prior to fieldwork) • Figure 4.9: persons aged 16-24
When does it measure it?	• Figure 4.6: 2011/12 • Figure 4.7 and 4.8: 2009/10 • Figure 4.9: 2008-2011
What geographical areas does it cover?	• Figure 4.6: Wales, health boards and local authorities. • Figure 4.7: lowest and highest prevalence of the 43 countries and regions in the World Health Organization (WHO), European Regions and North America, England, Scotland, Ireland (Eire), and Wales. • Figure 4.8: Wales • Figure 4.9: Wales and health boards.

How is it calculated?	• The Body Mass Index (BMI) is calculated as weight in kilograms (kg) divided by height (m^2). • Figure 4.6: Prevalence rates were calculated by assigning each record to an age and sex-specific BMI centile via transformed BMI z-scores using the British 1990 growth reference (UK90), from the method proposed by Cole et al (1995).[1] • Figure 4.7 and 4.8: each respondent's BMI was classified into underweight, normal weight, overweight, and very overweight using the age and gender adjusted international BMI standards for young people adopted by the International Obesity Taskforce (IOTF), called the IOTF BMI cut-off points. • Respondents who did not provide a response are excluded for consistency with previous HBSC reporting. • Figure 4.8: The HBSC Family Affluence Scale (FAS) measure is based on a set of questions on the material conditions of the households in which young people live. The questions are straightforward and cover car ownership bedroom occupancy holidays and home computers.[2] • Further information is available in section 6.15 of this technical guide and from http://www.euro.who.int/__data/assets/pdf_file/0009/167283/E96444_part3.pdf. • Figure 4.9: Respondents were asked to report their height and weight. BMI was calculated for all respondents with valid height and weight measurements, excluding pregnant women. The total number of people who are overweight or obese was divided by the total population and then multiplied by 100 to give the percentage. • 95% confidence intervals were calculated using the default method used by STATA for survey data.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• BMI was calculated for all respondents with valid height and weight measurements, data from the Welsh Health Survey (figure 4.9), excludes pregnant women. Figure 4.6: • The Child Measurement Programme was implemented in reception year across Wales for the first time during the 2011/12 academic year. As the programme was under development during this period, this first year is regarded as a transitional year. • For further details see section 6.6 of this technical guide. Figures 4.7 and 4.8: • Approximately half of children in Wales and 30% or more of

	children in many countries internationally did not give a valid answer to this question. Analysis is based on those giving valid responses to both the height and weight questions. • Benefits of the FAS measure include the low percentage of missing responses from young people and its cross-national comparability. • For further information about the accuracy and completeness of this survey, see section 6.15 of this technical guide. Figure 4.9: • BMI does not distinguish between mass due to body fat and mass due to muscular physique, nor does it take account of the distribution of fat. • Height and weight are self-reported and may therefore be subject to respondent bias where some people may underestimate or overestimate their height and weight.[3] • Ethnicity may affect BMI. • For further details see section 6.32 of this technical guide.
References	1. Cole, T.J. et al (1995) *Body mass index reference curves for the UK*. Archives of Disease in Childhood, 73: 25-9. Cited in Dinsdale H, Ridler C, Ells L J. *A simple guide to classifying body mass index in children*. Oxford: National Obesity Observatory, 2011. 2. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. (2008) *Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale*. Social Science and Medicine. 2008 Mar, 66(6):1429-36. 3. Gorber SC et al. A comparison of direct vs. self-report measures for assessing height, weight and body mass index: a systematic review. *Obesity reviews* 2007; 8:307-326. Available at: http://www3.interscience.wiley.com/journal/117981349/abstract?CRETRY=1&SRETRY=0

5.23 *Tobacco*

Which charts or tables display this information?	Figures 4.10 and 4.11 in the *Health of Children and Young People in Wales* report
What is being measured?	Smoking prevalence in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.10: percentage of children and young people who report to be smokers stratified by Family Affluence Scale (FAS) and age group. • Figure 4.11: percentage of survey respondents reporting to smoke daily or occasionally.
Where does the data come from?	The report uses data from two different sources to estimate smoking prevalence. • Figure 4.10: Health Behaviour in School aged Children (HSBC)

	and Welsh Government (WG) • Figure 4.11: Welsh Health Survey (WHS): Welsh Government and (ONS) 2011 mid-year estimates (MYE)
Who does it measure?	• Figure 4.10: males and females aged 11-16 (a small number of young people had reached their 16th birthday prior to fieldwork) • Figure 4.11: Wales residents aged 16-24
When does it measure it?	• Figure 4.10: 2009/10 • Figure 4.11: 2008 to 2011
What geographical areas does it cover?	• Figure 4.10: Wales • Figure 4.11: Wales and health boards.
How is it calculated?	Figure 4.10: • The percentage of respondents to the HBSC survey who reported smoking at least once a week. • The HBSC Family Affluence Scale (FAS) measure is based on a set of questions on the material conditions of the households in which young people live. The questions are non-sensitive straightforward and cover car ownership and overcrowding (measured through bedroom occupancy) holidays and home computers.[1] Further information about HBSC and the FAS is available in section 6.15 of this technical guide. Figure 4.11: • The percentage of adults reporting in the Welsh Health Survey smoking daily or occasionally. • WHS data are weighted to adjust for non-response to the survey. Further information is available in the document referenced below[3] and in section 6.32 of this technical guide.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	Figure 4.10: • The countries shown represent a selection of those submitting data to the international study. These were selected to illustrate the range of values and how Wales compares. • Smoking figures from the HBSC survey are based on self-reported data, that is, the survey relies on the respondent's honesty when reporting their smoking status. There may be systematic bias if some types of children are less likely to be honest about their smoking status than others, for example across age groups or socio-economic classifications. Children may fear reporting themselves as smokers, in case parents or teachers find out. The overall estimate of prevalence is therefore likely to be an underestimate rather than an overestimate of the true percentage of young people who smoke. • Benefits of the FAS measure include the low percentage of missing responses from young people and its cross-national comparability. • Details about the accuracy and completeness of the HBSC survey can be found in section 6.15 of this technical guide. Figure 4.11: • Smoking figures from the WHS are based on self-reported data i.e. the surveys rely on the respondent's honesty when

	reporting their smoking status. There may be systematic bias if some groups are less likely to be honest about their smoking status than others e.g. across socio-economic classifications. This is unlikely to have a large impact on the results. However, the overall estimate of prevalence is more likely to be an underestimate rather than an overestimate of the true percentage of people who smoke, since people may prefer not to report themselves as smokers due its perceived social acceptability. • For further information about the accuracy of the WHS see section 6.32 of this technical guide. • The 95 per cent confidence intervals are indications of the natural variation that would be expected around a rate. See section 7 (glossary) of this technical guide for more information.
References	1. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. (2008) *Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale*. Social Science and Medicine. 2008 Mar, 66(6):1429-36. 2. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en 3. Sadler et al. *Welsh Health Survey 2011 Technical Report.* National Centre for Social Research; 2012. Available at http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

5.24 *Alcohol*

Which charts or tables display this information?	Figures 4.12 to 4.14 in the *Health of Children and Young People in Wales* report
What is being measured?	Alcohol consumption in young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.12: percentage of children and young people who report drinking at least one alcoholic beverage weekly.[1] • Figure 4.13: percentage of children and young people who report drinking at least one alcoholic beverage weekly stratified by Family Affluence Scale (FAS) and age group.[2] • Figure 4.14: percentage of young adults who reported drinking above the recommended guidelines on at least one day in the previous week.[3,4] The department of health guidelines about sensible drinking are that men should not drink more than 3-4 units of alcohol per day, and women should not drink more than 2-3 units.[3]
Where does the data come from?	The report uses data from two different data sources to provide alcohol consumption estimates. • Figure 4.12 and 4.13: Health Behaviour in School-aged

	Children (HBSC) survey: Welsh Government/World Health Organization • Figure 4.14: Welsh Health Survey (WHS), Welsh Government (WG)
Who does it measure?	• Figure 4.12 and 4.13: males and females aged 11-16 (a small number had reached their 16th birthday prior to fieldwork) • Figure 4.14: persons aged 16-24
When does it measure it?	• Figures 4.12 and 4.13: 2009/10 • Figure 4.14: 2008-2011
What geographical areas does it cover?	• Figures 4.12 and 4.13: Lowest and highest prevalence of the 43 countries and regions in the World Health Organization (WHO), European Regions and North America, England, Scotland, Ireland (Eire), Wales and Wales health boards. • Figure 4.14: Wales and health boards.
How is it calculated?	• The percentage of children responding to the HBSC or WHS questionnaire according to the definitions above. • Further information about the FAS can be found in section 6.15 of this technical guide. • Figure 4.14: 95% confidence intervals were calculated using the default method used by STATA for survey data.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Alcohol consumption figures from HBSC and WHS are based on self reported data that is, the surveys rely on the respondent's honesty, when reporting their alcohol consumption. Self-reported prevalence of alcohol consumption may be prone to respondent bias.[3] i.e. people may overestimate or underestimate their behaviour to give a more favourable response. • Data from the Welsh Health Survey only reflects the week before the survey, whereas binge drinking may depend on events that do not occur weekly e.g. birthday celebrations. It may also be difficult to estimate the amount of alcohol poured without a measure. • For further information about the accuracy of these surveys, see sections 6.15 and 6.32 of this technical guide.
References	1. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en 2. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. (2008) *Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale*. Social Science and Medicine. 2008 Mar, 66(6):1429-36. 3. Department of Health: Alcohol Misuse. Available at: http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthimprovement/Alcoholmisuse/index.htm 4. Goddard E. Obtaining information about drinking through surveys of the general population. Methodology series no.24. Newport: ONS; 2001. Available at: http://www.ons.gov.uk/ons/guide-method/method-quality/specific/gss-methodology-series/gss-methodology-series--24--obtaining-information-about-drinking-through-

	surveys-of-the-general-population.pdf

5.25 *Substance misuse*

Which charts or tables display this information?	Figures 4.15 to 4.18 in the *Health of Children and Young People in Wales* report
What is being measured?	Substance misuse in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.15: percentage of children and young people aged 11-16 who report using any illicit drug in the last year.[1] • Figure 4.16: the percentage of children and young people aged 11-16 who report using any drug in the last year stratified by Family Affluence Scale (FAS) and age group.[2] • Figure 4.17: number of referrals for substance misuse, persons aged 0-24, Wales, 2008/09 – 2011/12.[3] • Figure 4.18: referrals for substance misuse, persons aged 0-24, incidence rate per 100,000, 2011/12.[3]
Where does the data come from?	The report uses data from two different data sources to provide substance misuse estimates. • Figure 4.15 and Figure 4.16: Health Behaviour in School-aged Children (HBSC) survey: Welsh Government/World Health Organization • Figure 4.17 and Figure 4.18: The Welsh National Database for Substance Misuse (WNDSM), NHS Wales Informatics Service (NWIS)
Who does it measure?	• Figure 4.15 and Figure 4.16: males and females aged 11-16 • Figure 4.17 and Figure 4.18: males and females aged 24 and under
When does it measure it?	• Figure 4.15 and Figure 4.16: 2009/10 • Figure 4.17: 2008/09 – 2011/12 • Figure 4.18: 2011/12
What geographical areas does it cover?	• Figure 4.15: Wales and health boards (International data is not available for this indicator) • Figure 4.16 and 4.17: Wales • Figure 4.18: Wales, health boards and local authorities
How is it calculated?	• Figures 4.15 and 4.16: the percentage of children responding to the survey according to the definitions above. • Further information is available in the document referenced below[1] and in section 6.15 of this technical guide. • Figures 4.17 and 4.18: the number of referrals for drugs misuse includes illegal drugs, misuse of legal prescriptions and over the counter medicines and solvent abuse (figure 4.17). The incidence rates are calculated by reducing the number of multiple attendees to produce the number of individuals referred (figure 4.18). Individuals with an unspecified main substance are allocated in the ratio 60:40 between alcohol and drugs. The incidence rate is presented per 100,000 persons based in ONS 2010 mid-year estimates. • Further information on methodology used in this report can be found in the 2011/12 annual report[3] and in section 6.35 of this technical guide.

How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Figures 4.15 and 4.16:
	  ○ Drug figures from the HBSC survey are based on self-reported data, that is, the survey relies on the respondent's honesty when reporting their drug use. There may be systematic bias if some types of children are less likely to be honest about their drug use than others, for example across age groups or socio-economic classifications. Children may also fear reporting themselves as drug users, in case parents or teachers find out. The overall estimate of prevalence is therefore likely to be an underestimate rather than an overestimate of the true percentage of young people who use drugs.
	  ○ The HBSC health board data in this report is based on data collected from 11-16 year olds and not just from 11, 13 and 15 year olds. In the last two surveys, data have been collected form years 8 and 10 (largely 12 and 14 year olds) these are included in the national report but not the international analyses.
	  ○ Benefits of the FAS measure include the low percentage of missing responses from young people and its cross-national comparability.
	  ○ For further information about the about the accuracy of the HBSC survey, see section 6.15 of this technical guide.
	• Figures 4.17 and 4.18:
	  ○ This data only relates to people presenting to substance misuse treatment services and may therefore only constitute a percentage of all those misusing substances. These numbers will therefore underestimate the true extent of substance misuse.
	  ○ For further information about the about the accuracy of the WNSMD, see section 6.35 of this technical guide.

References	1. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at: http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en 2. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. (2008) *Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale*. Social Science and Medicine. 2008 Mar, 66(6):1429-36 3. Substance misuse in Wales 2011-12 [Online] Available at: http://wales.gov.uk/docs/phhs/publications/121227substanceen.pdf

5.26 *Sexually transmitted infections*

Which charts or tables display this information?	Figures 4.19 and 4.20 in the *Health of Children and Young People in Wales* report
What is being measured?	Sexually transmitted infections in young people in Wales.

How is this indicator defined?	The report includes two separate indicators for sexually transmitted infections. The definitions for each figure in the report are as follows: • Figure 4.19: tests for gonorrhoea and chlamydia in persons aged 15-24 by area of residence, rate per 1,000 population. • Figure 4.20: new episodes of chlamydia and gonorrhoea reported to GUM clinics, Wales, 2001-2011.
Where does the data come from?	• Figure 4.19: GUM clinic data reported through the Sexual Health in Wales Surveillance Scheme (SWS), Public Health Wales CDSC (numerator) • Figure 4.20: GUM clinic returns of KC60/SHHAPT forms and data reported through SWS, Public Health Wales CDSC (numerator) • Figure 4.19 and 4.20: Office for National Statistics (ONS), mid-year population estimates (denominator)
Who does it measure?	• 15-24 year olds
When does it measure it?	• Figure 4.19: 2011 (chlamydia); 2007-2011 (gonorrhoea) • Figure 4.20: 2001-2011
What geographical areas does it cover?	• GUM clinics in Wales
How is it calculated?	• The number of tests, diagnosis and incidence rates of chlamydia and gonorrhoea were provided by CDSC using the following codes: KC60 codes: C4a, C4c for uncomplicated chlamydia B1, B2 for uncomplicated gonorrhoea SHHAPT codes: C4 for chlamydia B for gonorrhoea • Figure 4.19: rates are calculated by dividing the number of tests by the corresponding population estimates and the value is then multiplied by 100,000 to give the rate per 100,000 of the population. The number of positive tests was divided by the total number of tests and then multiplied by 100 to give the percentage positive tests. • Figure 4.20: rates are calculated by dividing the number of diagnoses by the corresponding population estimates and the value is then multiplied by 100,000 to give the rate per 100,000 of the population.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Clinics in Carmarthenshire and Pembrokeshire do not currently submit data to SWS. • Latest data can be incomplete due to delays in diagnosis coding by clinics. • Completeness of reporting of the local authority of residence is variable across clinics in Wales so numbers/rates by local authority of residence may under-represent the true number/rate. • Integration of GUM and contraceptive services has resulted in

	more screening for STIs occurring in community-based sexual health clinics. The activities of these clinics are not yet included in the KC60 data. • Data taken from SWS have been imputed to account for incomplete data from clinics (figure 4.20 only). • 2011 data from SWS includes SHAPPT data from clinics in Carmarthenshire and Pembrokeshire which do not currently submit data to SWS (figure 4.20 only). • For further information about the about the accuracy of KC60/SHHAPT and SWS, see sections 6.18 and 6.28 respectively of this technical guide.

5.27 *Teenage conceptions*

Which charts or tables display this information?	Figures 4.21 to 4.23 in the *Health of Children and Young People in Wales* report
What is being measured?	Teenage conceptions in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 4.21 and 4.22: Rates of conceptions in females aged under 16 and under 18 (teenage conception rates). • Figure 4.23: Rate of conceptions in females aged under 16 years by fifths of deprivation.
Where does the data come from?	• Figures 4.21 and 4.22: conceptions data and mid-year population estimates, Office for National Statistics (ONS) • Figure 4.23: conceptions data; Office for National Statistics (ONS), Welsh Index of Multiple Deprivation (WIMD) 2011: Welsh Government (WG)
Who does it measure?	• Figure 4.21: Females aged under 16 and under 18 • Figure 4.22: Females aged under 18 • Figure 4.23: Females aged under 16
When does it measure it?	• Figure 4.21: 2011 • Figure 4.22: 2007-2011 • Figure 4.23: 2006-2010
What geographical areas does it cover?	• Figure 4.21: England and its regions, Wales, Wales health boards and local authorities • Figure 4.22: 2001 USOAs, Wales • Figure 4.23: Wales
How is it calculated?	Figure 4.21 and 4.22: • Number of conceptions to teenage girls under 16 and under 18 years divided by female population aged 13-15 and 15-17 respectively multiplied by 1,000 giving a rate per 1,000 women. • Confidence intervals were calculated using a method proposed by Altman D.G. et al.[1] • If the number of conceptions were greater than 100, 95% confidence intervals are calculated using a normal approximation to the Poisson distribution.[1]

	• If the number of conceptions were less than 100, 95% confidence intervals are calculated using the Poisson distribution.[1] Figure 4.23: • Conceptions data by fifths of deprivation was provided by ONS whereby for each fifth of deprivation the number of conceptions to teenage girls under 16 was divided by female population aged 13-15 in the corresponding fifth and multiplied by 1,000 giving a rate per 1,000 women. 95% confidence intervals are calculated using a normal approximation to the poisson distribution.[1] • Fifths of deprivation are calculated by ranking the LSOA in descending order according to the WIMD score based on income and employment domains only to reflect material deprivation. The LSOAs are then split into five equal (or as close to equal) groups to produce fifths. • The original data from ONS has 1 = most deprived and 5 = least deprived. During the calculation process this was reversed so that 1 = least deprived and 5 = most deprived.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Conception statistics do not include miscarriages or illegal abortions. • Recording data relating to births and legal abortions is mandatory; therefore data are expected to be of a high level of quality and completeness. • Conception rates for figure 4.21 have been calculated using mid-year population estimates based on the 2011 Census. Conception rates for 2002 to 2010 have also been re-calculated using Census 2011 mid-year estimates and therefore may differ from previously published figures. • In figure 4.22, 2011 mid-year population estimates by USOA have not yet been released; therefore 2010 mid-year population estimates have been used as a proxy for 2011. • The 95 per cent confidence intervals are indications of the natural variation that would be expected around a rate. See section 6.2 of this technical guide for more information. • For further information about WIMD, see section 6.33 of this technical guide. • For further information about conceptions data, see section 6.24 of this technical guide.
References	1. Altman D.G. et al (2000) *Statistics with confidence*. BMJ books: UK 2. Office of National Statistics. *Conception Statistics. Conceptions for women resident in England and Wales, 2011*. Newport: ONS; 2011. Available at: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-294336 3. Office for National Statistics. Conception Statistics: Metadata February 2013. Newport: ONS; 2013.

5.28 *Abortions*

Which charts or tables display this information?	Figures 4.24 and 4.25 in the *Health of Children and Young People in Wales* report
What is being measured?	• The number and crude rate per 1,000 of legal abortions in England, Wales and Wales health boards.
How is this indicator defined?	• Figure 4.24: rate of legal abortions in females aged under 18, 18-19 and 20-24 in Wales and its health boards. • Figure 4.25: rate of legal abortions in females aged under 18, 18-19 and 20-24 in England and Wales.
Where does the data come from?	• Figure 4.24: Department of Health (DH) and mid-year estimates (MYE); Office for National Statistics (ONS) • Figure 4.25: Department of Health (DH)
Who does it measure?	• Figures 4.24 and 4.25: Legal abortions in females aged under 18 years, 18-19 years and 20-24 years
When does it measure it?	• Figure 4.24: 2011 • Figure 4.25: 2003-2011
What geographical areas does it cover?	• Figure 4.24: Wales and health boards • Figure 4.25: England and Wales
How is it calculated?	• Abortion rates are based on the proceeding year's mid-year population estimates. For example, 2011 rates are based on the 2010 mid-year population estimates. • Rates for under 18 years, 18-19 years and 20-24 years are based on female populations 15-17 years, 18-19 years and 20-24 years respectively. • Confidence intervals were calculated using a method proposed by Altman D.G. et al.[1]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Recording data relating to legal abortions is mandatory; therefore data are expected to be of a high level of quality and completeness. • It is impossible to determine the extent of illegal abortions, for example by women using drugs bought off the internet. However, given the steady rise of legal abortions since 1968, and the improvements in access to abortion it can be assumed that the vast majority of abortions carried out in England and Wales today are legal ones. • For further information see section 6.11 of this technical guide.
References	1. Altman D.G. et al (2000) Statistics with confidence. BMJ books: UK 2. Department of Health. Abortion Statistics, England and Wales: 2011. [Online] Available at: http://webarchive.nationalarchives.gov.uk/20130402145952/http:/media.dh.gov.uk/network/261/files/2012/05/commentary1.pdf

5.29 *Immunisations*

Which charts or tables display this information?	Figures 5.1 to 5.5 in the *Health of Children and Young People in Wales* report
What is being measured?	Coverage of immunisations in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figures 5.1 to 5.3: percentage of 4 year old children residing in Welsh Health Boards as at 31/12/2012, who reached their fourth birthday between 01/01/2012 and 31/12/2012 and who were up to date with their routine immunisations by that birthday. i.e. children recorded as having received: - four in one pre-school booster (against diphtheria, tetanus, pertussis and polio) - final dose of pneumococcal conjugate vaccine - HibMenC booster (against Haemophilus influenzae type B and Meningococcal group C disease) - second dose of MMR vaccine (against measles, mumps and rubella). • Figure 5.4: percentage of 16 year olds who were health board residents on 31/12/2012 and have received a complete 2 dose course of MMR by their 16th birthday. • Figure 5.5: percentage of resident girls in 20012/13 school year 9 who have received a complete 3 dose course of HPV.
Where does the data come from?	• Public Health Wales Communicable Disease Surveillance Centre (CDSC) and Vaccine Preventable Disease Programme (VPDP), who calculate vaccine coverage using data from National Community Child Health Database (NCCHD) which is maintained by NHS Wales Information Service (NWIS).
Who does it measure?	• Figures 5.1 to 5.3: Welsh resident children reaching their 4th birthday in 2012 • Figure 5.4: Welsh resident children reaching their 16th birthday in 2012 • Figure 5.5: Welsh resident girls in the 2012/13 School Year 9 (reaching their 14th birthday between 01/09/2012 and 31/08/2013)
When does it measure it?	• Figures 5.1 to 5.4: 2012 • Figure 5.5: 2012/13
What geographical areas does it cover?	• Figures 5.1, 5.4 and 5.5: Wales, health boards and local authorities • Figures 5.2: 2001 MSOAs, Wales • Figure 5.3: Wales
How is it calculated?	• Coverage figures for figures 5.1 to 5.3 in this report were calculated as the number of children who were living and health board residents as at 31/12/2012, reaching 4 years of age during 2012 who had received all their routine immunisations, divided by the total number of children who were living and health board residents as at 31/12/2012, reaching 4 years of age during 2012, expressed as a percentage.

	• For the deprivation analysis (figure 5.3), data is linked to WIMD 2011 on lower super output area of residence to determine the national fifths of deprivation. The percentage of children up to date with their immunisations within each fifth is then calculated for each health board. • Coverage figures for figure 5.4 in this report were calculated as the number of individuals who were living and health board residents as at 31/12/2012, reaching 16 years of age during 2012 who had been immunised by that birthday, divided by the total number of individuals who were living and health board residents as at 31/12/2012, reaching 16 years of age during 2012, expressed as a percentage. Area of residence could not be determined for 263 Welsh resident children. Wales figures include Welsh resident children whose area of residence is unknown. • Coverage figures for figure 5.5 in this report were calculated as the number of girls reaching their 14th birthday between 01/09/2012 and 31/08/2013 who received a complete 3 dose course of HPV, divided by the total number of girls reaching their 14th birthday between 01/09/2012 and 31/08/2013, expressed as a percentage.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• For further information about VPDP, see section 6.29 of this technical guide. • For further information about NCCHD, see section 6.20 of this technical guide. • For further information about WIMD, see section 6.33 of this technical guide.

5.30 *Newborn Hearing Screening Wales*

Which charts or tables display this information?	Figure 5.6 in the *Health of Children and Young People in Wales* report
What is being measured?	The percentage of eligible newborn babies who entered the newborn hearing screening programme and those then referred for a hearing assessment in the financial year 1st April 2011 to 31st March 2012.
How is this indicator defined?	• Percentage of eligible and suitable newborn babies who enter the newborn hearing screening programme regardless of whether the baby was born at home or in a hospital.
Where does the data come from?	• Newborn Hearing Screening Wales (NBHSW) Annual Report
Who does it measure?	• Newborn babies
When does it measure it?	• Newborn babies born between 1st April 2011 and 31st March 2012
What geographical areas does it cover?	• Wales and health boards

How is it calculated?	• When calculating newborn hearing uptake, Newborn Hearing Screening Wales (NBHSW) only use newborns where consent was given and testing took place as a percentage of those babies who are eligible or suitable for screening. The following are excluded and reasons for ineligibility include: ○ Screened elsewhere ○ Remained unwell beyond 46 weeks gestation ○ Medical decision ○ Baby living outside Wales ○ Baby living out of area ○ Baby moved in aged over 6 weeks ○ Baby died ○ Unknown The reasons for unsuitability include: ○ Age under 36 weeks ○ Baby unwell ○ Other ○ Unknown (Personal communication with Information Manager, Screening division)
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The NBHSW dataset is part of the Child Health System managed by the NHS Wales Informatics Service (NWIS). • The data is based on birth notifications by midwives and babies, born outside Wales, who moved into Wales and registered with a GP who had not undergone a hearing screening. • The data is thought to be almost 100% accurate. However, the data has not been validated. • For further information about NBHSW, see section 6.21 of this technical guide.
References	1. Newborn Hearing Screening Wales website, Annual reports available from: http://www.wales.nhs.uk/sitesplus/980/page/54172

5.31 *Health and Life satisfaction*

Which charts or tables display this information?	Figures 6.1 to 6.4 in the *Health of Children and Young People in Wales* report
What is being measured?	General health and life satisfaction in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 6.1: percentage of persons aged 11-16 who rated their health as excellent or good, 2009/10.[1,2] • Figure 6.2: percentage of persons aged 11-16 rating their health as excellent or good, stratified by Family Affluence Scale (FAS), age and sex, Wales, 2009/10.[1,2] Further information about the FAS can be found in section 6.15 of this technical guide. • Figure 6.3: percentage of persons aged 11-16 scoring six or

	higher on self rated quality of life, 2009/10. [1,2] • Figure 6.4: percentage of males and females aged 0-24 with a long-term health problem or disability, 2011.[3,4] A long-term health problem or disability is one that limits a person's day-to-day activities, and has lasted or is expected to last, at least 12 months. People were asked to assess whether their daily activities were limited a lot or a little by such a health problem, or whether their daily activities were not limited at all.[1] This indicator combines the two categories of daily activities limited a lot to get the total number of young people with a long-term health problem or disability.
Where does the data come from?	The report uses data from two different data sources to provide measures of general health and life satisfaction. • Figures 6.1, 6.2 and 6.3: Health Behaviour in School-aged Children (HBSC) survey: Welsh Government (WG) and World Health Organisation (WHO) • Figure 6.4: Census 2011: Office for National Statistics (ONS)
Who does it measure?	• Figures 6.1, 6.2 and 6.3: Males and females aged 11 to 16 (a small number of young people had reached their 16th birthday prior to fieldwork) • Figure 6.4: Males and females aged 0-24 years
When does it measure it?	• Figures 6.1, 6.2 and 6.3: 2009/10 • Figure 6.4: 2011
What geographical areas does it cover?	• Figures 6.1, 6.2 and 6.3: Lowest and highest prevalence of the 43 countries and regions in the World Health Organisation (WHO) European Regions and North America, England, Scotland, Ireland (Eire), Wales and Wales health boards. • Figure 6.4: England and its regions, Wales, Welsh health boards and local authorities.
How is it calculated?	• Figures 6.1, 6.2 and 6.3: The percentage of children responding to the HBSC survey according to the definitions above. Further information is available in the documents referenced below. [1,2] • Figure 6.4: The number of females and males aged 0-24 with a long-term health problem or disability that limits their daily activities a little or a lot as a percentage of all households.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Figures 6.1, 6.2 and 6.3: The countries shown in figures 6.1 to 6.3 represent a selection of those submitting data to the international study. These were selected to illustrate the range of values and how Wales compares both to the other UK nations and internationally. o Figures from the HBSC survey are based on self-reported data. There may be systematic bias if some types of children are less likely to be honest compared to others, for example across age groups or socio-economic classifications. o Details about the accuracy and completeness of the HBSC survey can be found in the data source section 6.15 of this technical guide. • Figure 6.4: The data is taken from the 2011 Census and is the most recent source of data with universal population coverage. o The data are likely to be an accurate indicator of

	household composition at the time of collection. ○ Further information on Census 2011 can be found in section 6.5 of this technical guide.
References	1. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en 2. Currie C, Molcho M, Boyce W, Holstein B, Torsheim T, Richter M. (2008) *Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale*. Social Science and Medicine. 2008 Mar, 66(6):1429-36. 3. Office for National Statistics. *2011 Census Glossary of Terms.* Office for National Statistics Census Programme, 2013. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/2011-census-data/2011-first-release/2011-census-definitions/2011-census-glossary.pdf 4. Office for National Statistics. *Final population definitions for the 2011 Census.* Office for National Statistics Census Programme, 2009. Available at: http://www.ons.gov.uk/ons/guide-method/census/2011/the-2011-census/2011-census-questionnaire-content/final-population-definitions-for-the-2011-census.pdf

5.32 *Bullying and Friendship*

Which charts or tables display this information?	Figures 6.5 and 6.6 in the *Health of Children and Young People in Wales* report
What is being measured?	Bullying and friendship in children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 6.5: percentage of children and young people who report at least three same sex friends. Survey respondents were asked how many close friends of each gender they currently had. The indicator reported is the percentage with three or more close friends of the same gender.[1] • Figure 6.6: percentage of children and young people reporting being bullied in the last couple of months. Survey respondents were asked if they had been bullied at school in the last few months, and if so how often if happened. The results presented here include all children who have been bullied at least once in the last few months.[1]
Where does the data come from?	• Health Behaviour in School-aged Children (HBSC) survey: Welsh Government (WG) and World Health Organisation (WHO)
Who does it measure?	• Males and females aged 11 to 16
When does it measure it?	• 2009/10

What geographical areas does it cover?	• Lowest and highest prevalence of the 43 countries and regions in the World Health Organisation (WHO) European Regions and North America, England, Scotland, Ireland (Eire), Wales and Wales health boards.
How is it calculated?	• The percentage of children responding to the HBSC survey according to the definitions above. • Respondents who did not provide a response are excluded for consistency with previous HBSC reporting. • Further information is available in the document[1] referenced below and in section 6.15 of this technical guide.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The countries shown in figures 6.5 and 6.6 represent a selection of those submitting data to the international study. These were selected to illustrate the range of values and how Wales compares both to the other UK nations and internationally. • Figures from the HBSC survey are based on self-reported data. There may be systematic bias if some types of children are less likely to be honest compared to others, for example across age groups or socio-economic classifications. • For further information about the accuracy and completeness of the HBSC survey, see section 6.15 of this technical guide.
References	1. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en

5.33 *Eating disorders*

Which charts or tables display this information?	Figure 6.7 in the *Health of Children and Young People in Wales* report
What is being measured?	Hospital admissions for persons aged 12-24 with a primary diagnosis of eating disorder.
How is this indicator defined?	• Age specific rate of hospital admissions per 100,000 populations for persons aged 12-24 admitted with a primary diagnosis of eating disorder.
Where does the data come from?	• Patient Episode Database Wales (PEDW), NHS Wales Informatics Service (NWIS); Mid-year population estimates (MYE), Office for National Statistics (ONS)
Who does it measure?	• Welsh residents aged 12-24 years
When does it measure it?	• 2002-2011
What geographical areas does it cover?	• Wales
How is it calculated?	• The number of hospital admissions for persons aged 12-24 admitted with a primary diagnosis of eating disorder as a rate per 100,000 population aged 12-24. • Eating disorder admissions are defined as those with a primary

	diagnosis of ICD-10 F50. • Persons aged 12-24 who were admitted to hospital with a primary diagnosis of eating disorder from 2002 to 2011 were counted. • Patients are only counted once per calendar year so repeat admissions are not included in this analysis. • 2002 to 2011 mid-year population estimates for persons aged 12 to 24 years have been used as the denominator; these were used to calculate the age-specific rate per 100,000 persons. • 95% confidence intervals were calculated using a normal approximation to the Poisson distribution.[1]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• A small number of records were excluded where the age was unknown as well as a small number with a patient classification other than inpatient. • 95% confidence intervals are presented to give indications of the natural variation that would be expected around a rate. • For further information about PEDW and MYEs, see sections 6.25 and 6.22 of this technical guide.
References	1. Altman D.G. et al. 2000. *Statistics with Confidence* (2nd edn) BMJ Books: UK

5.34 *Mental health disorders*

Which charts or tables display this information?	Figure 6.8 in the *Health of Children and Young People in Wales* report
What is being measured?	Estimated number of persons aged 5-16 with any mental health disorder
How is this indicator defined?	• Prevalence rates as per Green, H et al (2004)[1] were applied to the 2011 mid-year population estimates for persons aged 5-16 to calculate the estimated number of children and young people with any mental health disorder • Prevalence rates are based on the ICD-10 Classification of Mental and Behavioural Disorders with strict impairment criteria.
Where does the data come from?	• Office for National Statistics (ONS)[1]
Who does it measure?	• Persons aged 5-16
When does it measure it?	• 2011
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• 2004 prevalence rates for any mental health disorder in persons aged 5-16 were applied to the 2011 mid-year population estimates to determine the estimated number of people with a mental health disorder in Welsh health boards

	and local authorities. • For the 5-16 year age-group, prevalence was calculated as follows: prevalence x ((5-14 years population) + (0.4 x 15-19 years population)). This is the same method applied in the CAMHS needs assessment.[2] • 95% confidence intervals were calculated using a method proposed by Wilson (1927).[3]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Population estimates are rounded to the nearest 10. • Prevalence estimates from 2004 have been applied to the 2011 population estimates and can therefore only be used as a proxy for estimating mental health disorders in the current population. • Both estimated counts of the population and estimated counts of people with mental health disorders should be rounded where quoted, since quoting estimates implies a level of accuracy which this analysis cannot guarantee. • For further information about this data source, see section 6.19 of this technical guide.
References	1. Green, H et al (2004) *Mental health of children and young people in Great Britain, 2004*. Available at: http://www.esds.ac.uk/doc/5269/mrdoc/pdf/5269technicalreport.pdf 2. CAMHS needs assessment, 2011. Available at: http://atlas.chimat.org.uk/IAS/metadata/view/indicatorinstance?id=10753&norefer=true 3. Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. J Am Stat Assoc, 22:209-212 cited in Altman D.G. et al (2000) Statistics with Confidence (2nd edn) BMJ Books: UK (page 46)

5.35 *Chronic conditions register (asthma)*

Which charts or tables display this information?	Figure 6.9 in the *Health of Children and Young People in Wales* report
What is being measured?	Chronic condition registers (asthma).
How is this indicator defined?	• The percentage patients aged under 25 on the primary care chronic conditions register with asthma.
Where does the data come from?	• Audit+: NHS Wales Informatics Service (NWIS)
Who does it measure?	• Persons ages under 25 registered with GP practices
When does it measure it?	• February 2012
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• The number of patients aged under 25 on the chronic conditions register with asthma as a percentage of the total

	number of registered patients aged under 25. • 95% confidence intervals were calculated using a method proposed by Wilson (1927).[1]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The figures only report on diagnosed cases of chronic conditions. There will be a certain number of undiagnosed cases within all practice populations, which therefore means the prevalence measures are more likely to be underestimates of the "true" prevalence of conditions. • Numbers on disease registers will vary depending on the demographic structure of the registered population, skills and priorities of the practice, coding habits of the practice and organisational constraints such as communications from partners who have input into the care of the practices patients. • The data on the chronic conditions were collected in line with 2009/10 guidance[2]. • There are known issues that affect the accuracy and completeness of Audit+ data. One issue is the fact that not all practices submit data to Audit+. • For further information about Audit+, see section 6.3 of this technical guide.
References	1. Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. *J Am Stat Assoc,* 22:209-212 cited in Altman D.G. et al (2000) *Statistics with Confidence (2nd edn)* BMJ Books: UK (page 46) 2. NHS Employers and British Medical Association: Quality and Outcomes Framework guidance for GMS contract 2009/10. London: NHS Employers and BMA; 2009 http://www.nhsemployers.org/aboutus/publications/documents/qof_guidance_2009_final.pdf

5.36 *Cancer incidence*

Which charts or tables display this information?	Figures 6.10 to 6.12 in the *Health of Children and Young People in Wales* report
What is being measured?	Figure 6.10: Incidence of cancer for persons aged 0-24 in Wales, 2007-2011 Figure 6.11: Incidence of cancer by site for persons aged 0-24 in Wales, 1998-2011 Figure 6.12: Incidence of cancer by age group (0-4, 5-11, 12-17, 18-24) and sex in Wales, 1998-2011
How is this indicator defined?	• Cancer incidence is based on the annual number of new cancer cases in persons aged 0-24 years using ICD codes C00-C96 excluding C44.
Where does the data come from?	• Figures 6.10, 6.11 and 6.12: Welsh Cancer Intelligence and Surveillance Unit (WCISU), Public Health Wales and ONS mid-year population estimates.
Who does it measure?	• Figures 6.10 and 6.11: Wales residents aged 0-24 • Figure 6.12: Wales residents aged 0-24 and by educational age group (0-4, 5-11, 12-17, 18-24)
When does it	• Figure 6.10: 2007 to 2011

measure it?	• Figures 6.11 and 6.12: 1998 to 2011
What geographical areas does it cover?	• Figure 6.10: Wales, health boards • Figures 6.11 and 6.12: Wales
How is it calculated?	• Figure 6.10: The number of cases of cancer in children and young people as a rate per population. Crude rate: total cases registered per year as a percentage of the total population quoted per 100,000 population. European age standardised rate: per 100,000 population is calculated by applying age specific rates for Wales to the relevant standard. 95% confidence intervals calculated using a method proposed by Dobson et al (1991).[1] • Figures 6.11 and 6.12: Age specific rate: the number of cases of cancer in children and young people as a rate per 1 million population for that age group.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• WCISU collects data about occurrences of cancer in Welsh residents via direct or indirect submissions from Welsh hospitals. The use of multiple sources of data means that information relating to the same cancer incidence is received, and this enhances data quality as different data items are brought together to form a single record.[2] • The 95 per cent confidence intervals are indications of the natural variation that would be expected around a rate. See glossary for more information. • For further information about the accuracy of WCISU, see section 6.31 of this technical guide.
References	1. Dobson A.J. et al (1991) Confidence intervals for weighted sums of Poisson parameters. Stat Med 10(3):457-462. 2. WCISU. *Annual Publication No SA12/01 Cancer incidence in Wales 2006-2010.* Public Health Wales; 2012. Available at http://www.wales.nhs.uk/sites3/Documents/242/incpub2012.pdf

5.37 *Congenital anomalies*

Which charts or tables display this information?	Figures 6.13 and 6.14 in the *Health of Children and Young People in Wales* report
What is being measured?	Figure 6.13: Rate of congenital anomalies by local authority. Figure 6.14: Cases of congenital anomalies and survival to their 5th birthday by anomaly type along with prevalence of the anomaly at 5th birthday.

How is this indicator defined?	• Figure 6.13: Gross case rate per 10,000 total births using the EUROCAT definition of all anomalies.
	• Figure 6.14: Probability of survival to age 1 and to age 5 for each anomaly.
	  ○ The chosen anomalies along with their ICD 10 codes are as follows:
	  – Spina bifida (Q05)
	  – Hydrocephaly (Q03)
	  – Hypoplastic left heart syndrome (HLHS) (Q23.4)
	  – Transposition (Q20.3)

	– Cystic fibrosis (E84, excluding E84.11) – Gastroschisis (Q79.3) – Diaphragmatic hernia (Q79.0) – Down syndrome (Q90) – Turner syndrome (Q96) ○ Prevalence at 5th birthday was presented as a rate per 10,000 population for each anomaly.
Where does the data come from?	• Figure 6.13: Congenital Anomaly Register and Information Service (CARIS); Annual District Birth Extract (ADBE) • Figure 6.14: Congenital Anomaly Register and Information Service (CARIS); Office for National Statistics (ONS), mid-year population estimates.
Who does it measure?	• Figure 6.13: All babies with a congenital anomaly • Figure 6.14: Live born babies with a congenital anomaly
When does it measure it?	• Figure 6.13: 1998-2011 (year end of pregnancy) • Figure 6.14: 1998-2011 (year of end of pregnancy) for survival; 1998-2006 for prevalence rate numerator and 2003-2011 for prevalence rate denominator
What geographical areas does it cover?	• Figure 6.13: Wales local authorities • Figure 6.14: Wales
How is it calculated?	Figure 6.13: ○ Total cases with anomalies satisfying the EUROCAT definition by local authority area of residence were identified from CARIS. (EUROCAT definition for all anomalies is defined in the following report: http://www.eurocat-network.eu/content/EUROCAT-Guide-1.3.pdf) ○ Total births by local authority of residence was extracted from ADBE which includes live births and still births. ○ Total cases was divided by total births for each local authority and then multiplied by 10,000 to give the rate per 10,000 total births. Figure 6.14: ○ Total cases and the number of live born babies in the period were identified from CARIS for each anomaly type. ○ Survival probabilities were calculated using the Kaplan-Meier method in STATA 12. Risk time was defined as the difference between the date of end of pregnancy and date of death. Where date of death was null risk time was calculated as the difference between the date of end of pregnancy and 30th June 2012 (the last assessment of date of death prior to the data being extracted from CARIS). ○ Survival probabilities are calculated over the full data and evaluated at the indicated times (1 year and 5 years). ○ Prevalence at 5th birthday was calculated for each anomaly type by dividing the number of live born cases born between 1998 and 2006 and surviving to age 5 years by the total population of 5 year olds in the period

	2003 to 2011. The number was then multiplied by 10,000 to give a rate per 10,000 population.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• CARIS is a live database so data is continuously being updated when new information is received and therefore recently reported data may be different from that reported previously. • It is a legal requirement to register a birth and so the ADBE provides a reliable and complete data source. • For further information about CARIS, see section 6.9 of this technical guide. • For further information about ADBE, see section 6.1 of this technical guide • Further information about EUROCAT can be found on the website: http://www.eurocat-network.eu/

5.38 *Dental health*

Which charts or tables display this information?	Figures 6.15 to 6.17 in the *Health of Children and Young People in Wales* report
What is being measured?	Dental health in children and young people in Wales.
How is this indicator defined?	The report uses data from two different data sources to provide dental health estimates. The definitions for each figure in the report are as follows: • Figures 6.15 and 6.16: average number of teeth per child which were either decayed missing or filled (dmft).[1] • Figure 6.17: percentage of persons aged 11-16 who reported brushing their teeth more than once a day.[2]
Where does the data come from?	• Figures 6.15 and 6.16: Welsh Oral Health Information Unit (WOHIU) • Figure 6.17: Health Behaviour in School-aged Children (HBSC) survey: Welsh Government (WG) and World Health Organization (WHO)
Who does it measure?	• Figures 6.15 and 6.16: Persons aged 5 years in state primary schools • Figure 6.17: Males and females aged 11 to 16
When does it measure it?	• Figures 6.15 and 6.16: 2011/12 • Figure 6.17: 2009/10
What geographical areas does it cover?	• Figure 6.15: Wales, health boards and local authorities • Figure 6.16: 2001 USOAs, Wales • Figure 6.17: Lowest and highest prevalence of the 43 countries and regions in the World Health Organisation (WHO) European Regions and North America, England, Scotland, Ireland (Eire), Wales and Wales health boards.
How is it calculated?	• Figures 6.15 and 6.16: The average number of dmft in children in this survey was calculated using British Association for the Study of Community Dentistry (BASCD) guidelines. More detailed information on how the indicator is calculated is available in the document reference below (p27-35).[1]

	• Figure 6.17: The percentage of children responding to the HBSC survey who reported brushing their teeth more than once a day. Respondents who did not provide a response are excluded for consistency with previous HBSC reporting.

How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• WOHIU: Dental examiners and recorders attend training to ensure standardisation of procedures. Data cleansing and analysis is undertaken by the Welsh Oral Health Information Unit to ensure a common method is used. Data undergo a three way data handling process to ensure continued data quality. The 2011/12 survey examined 7,734 pupils out of a sample of 10,961 pupils giving an examination rate of 70.6%. In figure 6.16, the USOA data presented are aggregations of raw data - they are not weighted to take account of varying participation rates and differences in USOA 5 year old population size. They are therefore only to be used as a guide for planning.
	  ○ For further information about the Welsh Dental Survey, see section 6.36 of this technical guide.
	• HBSC: The countries shown represent a selection of those submitting data to the international study. These were selected to illustrate the range of values and how Wales compares both to the other UK nations and internationally.
	  ○ Figures from the HBSC survey are based on self-reported data, that is, the survey relies on the respondent's honesty. There may be systematic bias if some children are less likely to be honest compared to others, for example across age groups or socio-economic classifications.
	  ○ For further information about the accuracy of the HBSC survey see section 6.15 of this technical guide.

References	1. Welsh Oral Health Information Unit. *2011/2012 Dental Survey Protocol. Epidemiological survey of school year 1(5-year-old) children in Wales.* Available at http://www.cardiff.ac.uk/dentl/resources/Dental%20Survey%20Protocol%205yr%201112-0c.doc 2. Welsh Assembly Government Social Research, 2011. *Health Behaviour in School-Aged Children: initial findings from the 2009/10 survey in Wales*; 2011. Available at http://wales.gov.uk/about/aboutresearch/social/latestresearch/healthbehaviours/?lang=en 3. Welsh Oral Health Information Unit. *Picture of Oral Health 2012. Dental Epidemiological Survey of 5 year olds 2011/12.* Cardiff: Cardiff University; 2006. Available at http://www.cardiff.ac.uk/dentl/resources/online-data%20report.xlsx

5.39 *Emergency attendance*

Which charts or tables display this information?	Figures 6.18 to 6.20 in the *Health of Children and Young People in Wales* report
What is being measured?	Children and young people aged 0-24 who have attended emergency departments in Wales.
How is this indicator defined?	• Figure 6.18: The rate per 1,000 of all attendances to emergency departments in Wales by Welsh residents, by age group and sex. Individuals are counted more than once if they had multiple attendances to emergency departments. • Figure 6.19: Repeat attendances to emergency departments by persons aged 0-24. Repeat attendances are within a year following an attendance to emergency departments in 2011. • Figure 6.20: The rate per 1,000 of emergency department attendees by age, sex and number of attendances. Attendees with repeat attendances are within a year following an attendance to emergency departments in 2011.
Where does the data come from?	• Emergency Department Data Set (EDDS), NHS Wales Informatics Service (NWIS)
Who does it measure?	• Welsh residents aged 0-24 attending Welsh emergency departments
When does it measure it?	• 2011
What geographical areas does it cover?	• Wales
How is it calculated?	• Figure 6.18: The number of emergency department attendances by Welsh resident males and females aged 0-24 as a rate per 1,000 population aged 0-24. • Figure 6.19: The number of persons aged 0-24 by frequency of attendance at emergency departments as a percentage of the total number of people who attended emergency departments. • Figure 6.20: The number of emergency department attendees aged 0-24 by age group, sex and frequency of attendance as a rate per 1,000 population.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Data recording practices may vary, especially in some of the minor A&E and Minor Injury Units which could account for some local differences. • The EDDS does not capture information relating to Welsh residents attending emergency departments in hospital in England. • Figure 6.19: There are 30,932 records with an invalid person key and therefore repeat attendances for these individuals could not be determined. These records have been excluded from the final analysis. In addition to this, there are 29 attendances with an invalid sex, which have also been excluded. The totals for males and females will therefore not match the totals for persons. • For further information about the accuracy of EDDS, see section 6.14 of this technical guide.

5.40 *Emergency hospital admissions*

Which charts or tables display this information?	Figures 6.21 to 6.25 in the *Health of Children and Young People in Wales* report
What is being measured?	Emergency hospital admissions for children and young people in Wales.
How is this indicator defined?	The definitions for each figure in the report are as follows: • Figure 6.21: rate of emergency admissions per 1,000 persons aged 0-24. • Figure 6.22: rate of emergency admissions per 1,000 persons aged 0-24 by MSOA. • Figure 6.23: rate of emergency admissions per 1,000 persons aged 0-24 by deprivation fifth. • Figure 6.24: emergency admissions by main cause for persons aged 0-24. • Figure 6.25: rate of hospital admissions per 100,000 persons aged 0-24 for assault, self-harm and unintentional injuries.
Where does the data come from?	• Figures 6.21, 6.22, 6.24 and 6.25: Patient Episode Database Wales (PEDW), NHS Wales Informatics Service (NWIS); mid-year population estimates (MYE), Office for National Statistics (ONS) • Figure 6.23: Welsh Index of Multiple Deprivation (WIMD) 2011 (WG); PEDW (NWIS); MYE (ONS)
Who does it measure?	• Figures 6.21 to 6.24: persons aged 0-24 • Figure 6.25: males and females aged 0-24
When does it measure it?	• Figures 6.21 to 6.24: 2011 • Figure 6.25: 2002-2011
What geographical areas does it cover?	• Figure 6.21: Wales, health boards and local authorities • Figure 6.22: 2001 MSOAs, Wales • Figure 6.23 to 6.25: Wales
How is it calculated?	Figures 6.21 to 6.24: • All admitting episodes were counted where the patient had an emergency admission during 2011. This includes emergency transfers. Patients will be counted more than once if they had multiple admissions during the same year. • Records with an unknown LA of residence have been excluded from the analyses. • 2010 mid-year population estimates have been used as a proxy for 2011 as 2011 MYEs at SOA level have not yet been released by the ONS and were used to calculate the European age-standardised rates (EASRs) per 1,000 persons in figures 6.21 to 6.23. Figure 6.25: • All admitting episodes were counted where there was any mention of injury in the diagnostic record. • The following ICD-10 codes were used to identify injuries:

	V01 – X59, Y85 – Y869 (Unintentional injury) X60 – X84, Y870 (Self-harm) X85 – Y09, Y871 (Assault) • Records with an unknown LA of residence have been excluded from the analyses. • 95% confidence intervals were calculated using a method proposed by Dobson et al (1991).[1]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Figures 6.21 to 6.24: a small number of records were excluded where the age or admission method were unknown as well as a small number with a patient classification other than inpatient. • Figures 6.22 and 6.23: 1,536 admissions could not be assigned to an LSOA due to missing or invalid geographical information in PEDW. These have been excluded from the breakdown but included in the Wales total. • 95% confidence intervals are presented to give indications of the natural variation that would be expected around a rate. • Figure 6.25: A small number of records were excluded where the age or sex was unknown. • For further information about the accuracy of PEDW, see section 6.25 of this technical guide.
References	1. Dobson A.J. et al (1991) Confidence intervals for weighted sums of Poisson parameters. Stat Med 10(3):457-462.

5.41 *Child pedestrian injuries*

Which charts or tables display this information?	Figure 6.26 in the *Health of Children and Young People in Wales* report
What is being measured?	Hospital admissions due to pedestrian injuries for children aged 5-14 by fifth of deprivation.
How is this indicator defined?	• Rate per 100,000 of hospital admissions due to pedestrian injuries for children aged 5-14 by fifth of deprivation.
Where does the data come from?	• Patient Episode Database for Wales (PEDW) (NHS Wales Informatics Service); Welsh Index of Multiple Deprivation (WIMD) 2011 (Welsh Government); mid-year population estimates (MYE), Office for National Statistics (ONS)
Who does it measure?	• Children aged 5-14
When does it measure it?	• 2006-2010
What geographical areas does it cover?	• Wales
How is it calculated?	• The number of admissions for pedestrian injuries (ICD-10 codes V01-V09) in children aged 5-14 as a rate per 100,000 population aged 5-14, by fifth of deprivation. • Rates per 100,000 population were calculated using counts of

	child pedestrian injuries for children aged 5-14 by Welsh Index of Multiple (WIMD)[1] fifth of deprivation(2011) based on income and employment domains only to reflect material deprivation. • 95% confidence intervals were calculated using a method adapted from Woodward (Woodward M (1999)).[2]
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• Due to the nature of admissions for child pedestrian injuries, numbers can be small and therefore influenced by random variation. Caution should be used when interpreting rates, confidence intervals have been included to assist with this. • For further information on PEDW and WIMD see section 6.25 and 6.33 of this technical guide.
References	1. Welsh Government. Welsh Index of Multiple Deprivation: 2012. Available at http://wales.gov.uk/topics/statistics/theme/wimd/?lang=en 2. Woodward M (1999) Epidemiology: study design and data analysis. Chapman & Hall/CRC, Boca Raton. pp 107-11 and pp137-140.

5.42 *Road traffic casualties*

Which charts or tables display this information?	Figures 6.27 to 6.28 in the *Health of Children and Young People in Wales* report
What is being measured?	Number of road traffic casualties aged 25 and under by age-group, sex and casualty type.
How is this indicator defined?	• Figure 6.27: The number of casualties from road traffic accidents who were aged 25 and under by age-group and sex. • Figure 6.28: The number of casualties from road traffic accidents who were aged 25 and under by sex and casualty type (driver/rider, passenger, pedestrian).
Where does the data come from?	• Department for Transport (STATS19)
Who does it measure?	• Males & females aged 25 and under
When does it measure it?	• 2005-2011
What geographical areas does it cover?	• Wales
How is it calculated?	• Count of casualties aged 25 and under by age-group, sex and casualty type (driver/rider, passenger, pedestrian).
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to	• These statistics only include accidents that occur on public roads that are reported to the police. Accidents on private roads, in car parks or where there were no human casualties are not included in this data.[1] • Very few, if any, fatal accidents are not reported to the police although it is known that a considerable percentage of non-fatal injury accidents are not reported as hospital, survey and

this indicator?	compensation claims data all indicate a higher number of casualties than are reported. The STATS19 data does therefore not provide a complete record of all injury accidents. Despite this, they remain the most detailed, complete and reliable single source of information on road casualties, in particular for monitoring trends over time.[2] • For further information about STATS19, see section 6.12 of this technical guide.
References	1. Department for Transport. Brief guide to road accidents and safety data: Great Britain. 2012. Available at: http://data.dft.gov.uk/road-accidents-safety-data/Brief-guide-to%20road-accidents-and-safety-data.doc 2. Department for Transport. Transport Statistics notes and guidance: Road accident and safety. Available at: https://www.gov.uk/transport-statistics-notes-and-guidance-road-accident-and-safety

5.43 *Stillbirth, perinatal, neonatal and infant mortality*

Which charts or tables display this information?	Figures 7.1 to 7.3 in the *Health of Children and Young People in Wales* report
What is being measured?	Still birth and perinatal mortality rates per 1,000 births. Neonatal and infant mortality rates per 1,000 live births.
How is this indicator defined?	• Figure 7.1: Stillbirths are defined as babies born dead after 24 weeks of pregnancy. • Figure 7.1: Perinatal mortality is defined as stillbirths plus deaths within the first 7 days of life. • Figure 7.2: Neonatal mortality is defined as deaths within the first 28 days of life. • Figures 7.2 and 7.3: Infant mortality is defined as deaths within the first year of life.
Where does the data come from?	• Figures 7.1, 7.2, 7.3: Annual District Death Extract (ADDE): Office for National Statistics (ONS); Public Health Mortality File (PHMF): Office for National Statistics (ONS); Annual District Birth Extract (ADBE): Office for National Statistics (ONS) • Figure 7.3: ADBE, ADDE (ONS); Welsh Index of Multiple Deprivation 2011 (WIMD): Welsh Government (WG).
Who does it measure?	All births to Wales residents
When does it measure it?	• Figure 7.1: 2007-11 • Figure 7.2: 2002-11 • Figure 7.3: 2006-2010
What geographical areas does it cover?	• Figures 7.1, 7.2: Wales, health boards & local authorities • Figure 7.3: WIMD fifths
How is it calculated?	Births and deaths were extracted for each level of geography from the ADDE, PHMF and ADBE, and calculations then carried out as per the below formulae. Using methods proposed by Wilson[1] (for stillbirth rate) and Altman et al[2] (for perinatal, neonatal and infant

	mortality rates), 95 per cent confidence intervals were also added to the rates. **Stillbirth rate:** $\frac{\text{Stillbirths}}{\text{Live births + stillbirths}} \times 1{,}000$ **Perinatal mortality rate:** $\frac{\text{Stillbirths + deaths within first 7 days of life}}{\text{Live births + stillbirths}} \times 1{,}000$ **Neonatal mortality rate:** $\frac{\text{Deaths within first 28 days of life}}{\text{Live births}} \times 1{,}000$ **Infant mortality rate:** $\frac{\text{Deaths within first year of life}}{\text{Live births}} \times 1{,}000$
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• All births and deaths were extracted based on year of occurrence, in keeping with ONS practice.[3] However, the ADDE is a registration-based database (i.e. the 2011 ADDE comprises deaths registered up to the end of 2011), so the PHMF was also used to identify further small numbers of deaths occurring during the period (e.g. 2007-11) but registered in 2012 or 2013. Infant deaths may have been missed if occurring in 2011 and not yet appearing in the registration database at the point of analysis (July 2013), but it would be rare for such a long time lag between the occurrence and registration of a death. • Deprivation fifths were created by ranking all 2001 Lower Super Output Areas in Wales (n=1896) by their WIMD score, then inserting four cut-points to create five groups of increasing deprivation. These are numbered from 1 (least deprived) to 5 (most deprived). • Figure 7.1 (stillbirths and perinatal mortality) includes late terminations (>=24 weeks). • For further information about the ADDE, PHMF and ADBE, see sections 6.1 and 6.2 of this technical guide.
References	1. Wilson, E.B. 1927. Probable inference, the law of succession, and statistical inference. *J Am Stat Assoc, 22:209-212* cited in Altman D.G. et al (2000) *Statistics with Confidence* (2nd edn) BMJ Books: UK 2. Altman D.G. et al. 2000. *Statistics with Confidence* (2nd edn) BMJ Books: UK 3. Office for National Statistics. 2013. *Child Mortality Statistics Metadata.* Available at: http://www.ons.gov.uk/ons/rel/vsob1/child-mortality-statistics--childhood--infant-and-perinatal/2011/index.html

5.44 *Causes of death*

Which charts or tables display this information?	Figure 7.4 in the *Health of Children and Young People in Wales* report
What is being measured?	Causes of death in children and young people by age-group, sex and cause.

How is this indicator defined?	• The annual average count of deaths for the main causes of death by ICD-10 chapter (see list below) by age-group and sex
	  ○ Injury/poisioning
	  ○ Perinatal conditions
	  ○ Congenital malformations
	  ○ Nervous system
	  ○ Abnormal finding and ill-defined conditions
	  ○ Other

Where does the data come from?	• Annual District Death Extract (ADDE): Office for National Statistics (ONS)
Who does it measure?	• Males, females; ages 0-4, 5-11, 12-17, 18-24.
When does it measure it?	• 2007-2011
What geographical areas does it cover?	• Wales
How is it calculated?	• The total count of deaths occurring between 2007-2011 by age group, sex and cause, divided by 5, to give an annual average count of deaths. • Counts of deaths registered between 2007 and 2011 were extracted from the ADDE (ONS) by cause. Underlying cause of death was used to identify each cause.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The registration of death is mandatory in the UK, so the dataset should be a near complete record of mortality. Mortality counts from the ADDE were based on the underlying cause of death for which there is nearly 100 per cent coverage on the mortality register. • Cause-specific mortality data may be affected by variation in the completion of underlying cause on the death certificate, but this is unlikely to systematically bias the results. • For further information about the accuracy of ADDE, see section 6.2 of this technical guide.

5.45 *Mortality trends*

Which charts or tables display this information?	Figure 7.5: Mortality from selected causes of death, persons aged 0-24 years, Wales, EASR per 100,000, 2002-2011
What is being measured?	Trend in mortality for persons aged 0 to 24 years from specific underlying causes of death.
How is this indicator	The European age-standardised rate (EASR) for deaths with an

defined?	underlying cause of death of: • Certain conditions originating in the perinatal period (perinatal conditions) (ICD-10 codes P00-P96) • Congenital malformations, deformations and chromosomal abnormalities (Congenital malformations) (ICD-10 codes Q00-Q99) • External causes of morbidity and mortality (injury & poisoning) (ICD-10 codes V01-Y98, including U509 – Coroner's verdict pending)
Where does the data come from?	• Annual District Death Extract (ADDE): Office for National Statistics (ONS); Mid-year population estimates: Office for National Statistics (ONS)
Who does it measure?	• Persons aged 0-24
When does it measure it?	• 2002-2011
What geographical areas does it cover?	• Wales
How is it calculated?	• Counts of deaths registered for each year between 2002 and 2011 were extracted from the ADDE (ONS) by 5-year age bands from 0 to 24 years and where the underlying cause of death was in the above list of ICD-10 codes. • Rates of mortality were calculated using mid-year population estimates. These rates were directly age-standardised using the European standardised population for 0 to 24 year olds. This is to adjust for the effect of age in comparison between areas. • Results are presented as European age-standardised rates (EASR) per 100,000 population.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• The registration of death is mandatory in the UK, so the dataset should be a near complete record of mortality. Mortality counts from the ADDE were based on the underlying cause of death for which there is nearly 100 per cent coverage on the mortality register. • Cause-specific mortality data may be affected by variation in the completion of underlying cause on the death certificate, but this is unlikely to systematically bias the results. • For further information about the ADDE, see section 6.2 of this technical guide.

5.46 *Road traffic crashes*

Which charts or tables display this information?	Figures 7.6 in the *Health of Children and Young People in Wales* report
What is being measured?	Transport accident mortality.
How is this indicator defined?	• Road traffic accident mortality rates per 100,000 population in persons aged 0-24

Where does the data come from?	• Numerator: Annual District Death Extract (ADDE), Office for National Statistics (ONS) • Denominator: Mid-year population estimates, Office for National Statistics (ONS)
Who does it measure?	• Persons aged 0 to 24 years
When does it measure it?	• 2002-2011
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• Counts of deaths due to transport accidents in persons aged 0 to 24 and registered in the period 2002-2011 were extracted from ADDE (ONS) by area of residence. Transport accidents were counted where the underlying cause of death was ICD-10 code V01 to V99. • Population estimates for persons aged 0 to 24 by area of residence were calculated for the period 2002-2011. • The number of transport accident deaths for each area was then divided by the corresponding population estimates for the period and multiplied by 100,000 to produce the rates per 100,000 population. • Using a method proposed by Dobson et al[2], 95 per cent confidence intervals were also added to the rates.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• It is a legal requirement to register a death and so the ADDE provides a reliable and complete data source. • Cause of death is based on the medical certificate of cause of death. This is completed by the certifying doctor for about three quarters of deaths and by a coroner for the remainder. Most of the deaths certified by a coroner do not involve an inquest or any suspicion of violence, but are referred to the coroner because they were sudden and unexpected, or because there was no doctor in attendance during the deceased's last illness. There will be a long delay in registering a small number of deaths for which a coroner's ruling. • Differences in doctor training and knowledge could lead to variations in coding practices between areas[1]. • The 95 per cent confidence intervals are indications of the natural variation that would be expected around a rate. See section 7 (glossary) for more information. • For further information about the ADDE and population estimates, see section 6.2 and 6.22 of this technical guide.
References	1. Office for National Statistics. *Mortality Statistics: Deaths registered in England and Wales (Series DR), 2010*. Newport: ONS 2011. Available at: http://www.ons.gov.uk/ons/rel/vsob1/mortality-statistics--deaths-registered-in-england-and-wales--series-dr-/2011/stb-deaths-registered-in-england-and-wales-in-2011-by-cause.html 2. Dobson AJ et al. Confidence intervals for weighted sums of Poisson parameters. *Stat Med* 1991;10(3):457-462.

5.47 *Suicide*

Which charts or tables display this information?	Figure 7.7 in the *Health of Children and Young People in Wales* report
What is being measured?	Suicide mortality.
How is this indicator defined?	• Suicide mortality rates per 100,000 population in persons aged 15-24.
Where does the data come from?	• Numerator: Annual District Death Extract (ADDE), Office for National Statistics (ONS) • Denominator: Mid-year population estimates, Office for National Statistics (ONS)
Who does it measure?	• Persons aged 15-24 years
When does it measure it?	• 2002-2011
What geographical areas does it cover?	• Wales, health boards and local authorities
How is it calculated?	• Counts of deaths from suicide in persons aged 15-24 and registered in the period 2002-2011 were extracted from ADDE (ONS) by area of residence. Suicides were counted where the underlying cause of death was (ICD-10 code): o Intentional self-harm (X60-X84) o Event of undetermined intent (Y10-Y34), but excluding Y33.9 before 2007 since it included those with 'coroner's verdict pending' as well as 'open verdict'. As they could not be distinguished, all deaths with Y33.9 needed to be excluded. • Population estimates for persons aged 15 to 24 by area of residence were calculated for the period 2002-2011. • The number of suicides for each area was then divided by the corresponding population estimates for the period and multiplied by 100,000 to produce the rates per 100,000 population.
How accurate and complete will the data be for this indicator? Are there any problems, notes for interpretation or warnings with the data in relation to this indicator?	• It is a legal requirement to register a death and so the ADDE provides a reliable and complete data source. • Cause of death is based on the medical certificate of cause of death. This is completed by the certifying doctor for about three quarters of deaths and by a coroner for the remainder. Most of the deaths certified by a coroner do not involve an inquest or any suspicion of violence, but are referred to the coroner because they were sudden and unexpected, or because there was no doctor in attendance during the deceased's last illness. There will be a long delay in registering a small number of deaths for which a coroner's ruling. • Differences in doctor training and knowledge could lead to variations in coding practices between areas.[1] • For further information about ADDE and population estimates, see section 6.2 and 6.22 of this technical guide.

References	1. Office for National Statistics. *Mortality Statistics: Deaths registered in England and Wales (Series DR), 2010*. Newport: ONS 2011. Available at: http://www.ons.gov.uk/ons/rel/vsob1/mortality-statistics--deaths-registered-in-england-and-wales--series-dr-/2011/stb-deaths-registered-in-england-and-wales-in-2011-by-cause.html

6 Main data sources

6.1 *Annual District Births Extract*

What does the data tell you?	• The Annual District Birth Extract (ADBE) is a dataset containing details of each registered birth in Wales.
How are the data collected?	• The Annual District Births Extract (ADBE) is a database supplied to Public Health Wales on an annual basis by the Office for National Statistics (ONS) and is based on details from the birth certificate released by local Registrars.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• It is a legal requirement to register a birth and so the ADBE provides a reliable and complete data source. • There have at times been data quality concerns regarding birth weight in some areas but these are not widespread.
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	Office for National Statistics website: http://www.ons.gov.uk/ons/index.html Summary data are available from: • The Office for National Statistics website: http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Live+Births+and+Stillbirths • The Welsh Assembly Government website: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Births-Deaths-and-Conceptions/Births

6.2 *Annual District Death Extract / Public Health Mortality File*

What does the data tell you?	• The Annual District Death Extract (ADDE) is a dataset containing details of each registered death in Wales or Welsh resident. • The Public Health Mortality File (PHMF) is a dataset containing each individual death occurring within the specified area (Wales in this case) that is registered within a particular month.
How are the data collected?	• Individual records for death registrations are sent on a weekly basis from the Registrars' offices across England and Wales to the Office for National Statistics (ONS). The ONS collates and validates the data. The data are based on the underlying cause of death e.g. if an individual dies from pneumonia but had been made vulnerable to that disease by end-stage cancer, then cancer (rather than pneumonia) is recorded as the underlying cause of death.[1]

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• It is a legal requirement to register a death and so the ADDE and PHMF provide a reliable and complete data source. • Cause of death is based on the medical certificate of cause of death. This is completed by the certifying doctor for about three quarters of deaths and by a coroner for the remainder. Most of the deaths certified by a coroner do not involve an inquest or any suspicion of violence, but are referred to the coroner because they were sudden and unexpected, or because there was no doctor in attendance during the deceased's last illness. There will be a long delay in registering a small number of deaths for which a coroner's ruling. • Differences in doctor training and knowledge could lead to variations in coding practices between areas.[2] • The PHMF is supplied on a monthly basis. There is normally a lag time of around three to four months between a death being registered and then appearing in the dataset accessed by the Public Health Wales Observatory.
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	Summary data are available from: • The Office for National Statistics website: http://www.statistics.gov.uk/hub/health-social-care/health-of-the-population/causes-of-death/index.html • The Welsh Assembly Government website: https://statswales.wales.gov.uk/Catalogue/
References	1. Rooney C, Smith S. Implementation of ICD-10 for mortality data in England and Wales from January 2001. *Health Statistics Quarterly* 2000; 8:41-69. Available at: http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--8--winter-2000/implementation-of-icd-10-for-mortality-data-in-england-and-wales-from-january-2001.pdf 2. Office for National Statistics. *Mortality Statistics: Deaths registered in England and Wales (Series DR), 2010*. Newport: ONS 2011. Available at: http://www.ons.gov.uk/ons/rel/vsob1/mortality-statistics--deaths-registered-in-england-and-wales--series-dr-/2011/stb-deaths-registered-in-england-and-wales-in-2011-by-cause.html

6.3 *Audit+*

What does the data tell you?	• Provides a count of patients with the identified chronic conditions by age-group and sex. • The chronic conditions are defined in the same way as the General Medical Service Quality & Outcomes Framework (QOF).
How are the data collected?	• Audit+ is a centrally funded analysis tool which is available to GP practices in Wales. More can be found in the GP Clinical System strategy for Wales (Section 7 Data quality)[1]: Audit+ provides practices with a number of tools that allow them to manage their patient registers as defined in an audit specification. These tools allow the practices to browse patients and easily identify those that require attention, to graphically view any patient treatment and outcome targets that may have been set for a specified

	audit, along with other internal uses. The extracted data is locally analysed at each practice and then the aggregated results of those analyses are sent to a central NHS Wales repository and presented in the web based system AuditWeb.[1]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Audit+ is non-mandatory which enables a GP practice to choose whether or not to use this analysis tool. • Audit+ is installed in excess of 95% of GP practices on a voluntary basis. Data is extracted weekly, however the general return rate is around 90%, therefore data completeness may vary depending on which practices have submitted at the time of extraction. • The data is provided at aggregated level rather than patient level which means it is not possible to identify those who appear on more than one register. • QOF data is primarily used to monitor GP practice performance against their contract; secondary use of data should be interpreted with caution. • QOF prevalence represents prevalence of the diagnosed condition as captured by GP information systems and the QOF algorithms. Guidance on this can be found at: http://www.wales.nhs.uk/sites3/page.cfm?orgid=480&pid=6063 • The data was captured in line with 2009/10 guidance: http://www.nhsemployers.org/aboutus/publications/documents/qof_guidance_2009_final.pdf • Some conditions are not overtly apparent to the patient or clinician and there may be some clinical uncertainties in specifically diagnosing these types of condition e.g. hypertension or diabetes. • In addition, it is important to understand the environment and constraints under which the data was captured. The QOF data recording specifications are consistent and practices must comply in order to receive remuneration under the GMS contract requirements. Practices do vary to some extent in their coding and recording, and their data reflects the priorities, needs, specialisms, capacity, skills of the whole practice, the nature of the balance of services between primary and secondary care and the communication of information relating to the care of patients. The comparative analysis of practice or health board level QOF achievement may also be inappropriate without taking account of the underlying social and demographic characteristics of the populations concerned. The delivery of services will be related, for example, to population age/sex, ethnicity or deprivation characteristics that are not included in the QOF data collection processes. • Due to these issues there may well be some significant variation in the percentage of patients on register with a selected chronic condition between individual practices within a cluster.
Who manages the data?	The data is managed by the Primary Care Informatics program within NHS Wales Informatics Service (NWIS).
Where can you get hold of the data?	• Audit+ data can only be obtained by request to NWIS: http://www.wales.nhs.uk/sitesplus/956/home • The number of patients on QOF registers is available by GP practice on the Welsh Government web pages: Welsh

	Government | General Medical Services Contract: Quality and Outcomes Framework Statistics, 2011-12
References	1. Welsh Government. General Medical Services Contract: Quality and Outcomes Framework Statistics for Wales, 2011-12. Cardiff: WG; 2012. Available at: http://wales.gov.uk/docs/statistics/2012/120927sdr1642012en.pdf 2. NHS Wales Informatics Service: GP Clinical System strategy for Wales (Section 7 Data Quality). Cardiff: 2010. Available at: http://www.wales.nhs.uk/sitesplus/documents/956/GP%20Clinical%20Systems%20Strategy.pdf

6.4 *Careers Wales*

What does the data tell you?	• Careers Wales provide information on the destinations of Year 11 and Year 13 students upon completion of their qualifications.
How are the data collected?	• Data are collected from the annual survey of school leavers. The data was collected on 31st October 2011 by the six regional careers companies.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• National figures may mask variances at careers company, local authority and institution level across all cohorts. • The national response rate for 2011 was 97.7%, with 1.1% not responding and 1.2% having left the area. The lowest LA response rate was in Bridgend (94.9%) where 3.1% failed to respond and 2.0% had left the area.
Who manages the data?	Careers Wales on behalf of the National Assembly for Wales
Where can you get hold of the data?	The data can be accessed via StatsWales: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Post-16-Education-and-Training/Lifelong-Learning/Pupil-Destinations/DestinationsOfYear11PupilsFromSchools-by-LocalAuthority-Year

6.5 *Census 2011*

What does the data tell you?	• The Census provides a comprehensive picture of the population of England and Wales. It provides key information on health, housing, employment, transport and ethnicity and it takes place every 10 years.
How are the data collected?	• The latest census for England and Wales took place on 27th March 2011. • The 2011 Census was distributed to every household in England and Wales in the form of a questionnaire and asked 56 questions in total. • For Wales, there was a Welsh and English language version of the questionnaire which contained an additional question about the Welsh language.

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The 2011 Census is a complete source of health status data with universal population coverage. • The data are likely to be an accurate indicator of general health status at the time of collection. • It is inevitable that some people will be missed in the Census however ONS have developed statistical techniques to measure the level of undercount, which also provides an assessment of the characteristics of individuals and households missed.
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	ONS website as follows: http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/index.html

6.6 *Child Measurement Programme*

What does the data tell you?	• The percentage of children aged 4-5 years who are overweight or obese in 2011/12.

How are the data collected?	• The 2011/12 cohort of children included all children resident in Wales, born between 1 September 2006 and 31 August 2007 and who were attending a school in Wales, including maintained and independent schools. Children were identified through local child health system reports supplemented by school lists.
	• All measures were taken during academic year 2011/12 (with the exception of Powys where some measurements were taken up to 31st October 2012).
	• Height and weight measurements were recorded to the nearest 0.1 kg and 0.1cm respectively.
	• Child health staff entered these data and other relevant related information e.g. day of the measurement or withdrawal from the Child Measurement Programme, from paper records into the local child health information system (CCH2000).
	• Relevant information from each of the local child health systems was uploaded into the central database called the National Community Child Health Database (NCCHD), held by NHS Wales Informatics Service (NWIS). The data for the 2011/12 cohort, including the height and weight measurements collected for the CMP programme for Wales was extracted for analysis.
	• Records were included in the 2011/12 CMP for Wales if they meet all of the following criteria:
	  ○ Date of birth was between 1st September 2006 and 31st August 2007 inclusive.
	  ○ Resident in Wales
	  ○ Gender was stated
	  ○ School code was included, unless stated as not a Welsh school within the descriptive text field
	  ○ Had both a height and weight measurement that were taken in a school
	  ○ Did not have an extreme height or weight measurement (+/- seven standard deviations, or <10kg for low weight measure)

	○ Did not indicate consent withdrawn from participation in programme. ○ Had measurements taken during the 2011/12 school year (with the exception of Powys) • Body Mass Index (BMI) was calculated as weight in kilograms/height in metres squared (kg/m^2). Prevalence rates were calculated by assigning each record to an age and sex-specific BMI centile via transformed BMI z-score using the British 1990 growth reference (UK90), from the method proposed by Cole et al (1995). The zanthro function in STATA was used to calculate BMI z-scores according to the UK90 and utilising age in days, together with gender and BMI value (Vidmar et al, 2004). The BMI z-scores are used to determine the BMI centile in order to assign each record to one of the following weight categories: ○ Underweight: less than but not including 2^{nd} centile ○ Healthy weight: 2^{nd} centile up to but not including 85^{th} centile ○ Overweight but not obese: 85^{th} centile up to and not including 95^{th} centile ○ Obese: 95^{th} centile and above • This use of these thresholds is in accordance with the recommendations of the Scientific Advisory Committee on Nutrition and the Royal College of Paediatrics and Child Health (SACN, RCPH, 2012).
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Small numbers (0-4 year olds) have been suppressed to avoid potential identification of individuals. • The Child Measurement Programme was implemented in reception year across Wales for the first time during the 2011/12 academic year. As the programme was under development during this period, this first year is regarded as a transitional year. • Not in place for this transitional year, but now established for subsequent years, are: ○ finalised versions of standards and guidelines; ○ training of all staff; ○ a dedicated data collection system (Child Measurement Programme module within the CCH2000). • There were two notable data collection issues during this transitional year. Due to staff recruitment issues, it was agreed that some children in the Powys Teaching Health Board area would be measured and their data recorded at the beginning of the following academic year (2012/13). • Not all data from Flintshire are included. Due to a local issue, some data were not entered into systems in time. This has had an impcat on the reported participation for Flintshire.
Who manages the data?	NHS Wales Informatics Service (NWIS)
Where can you get hold of the data?	NHS Wales Informatics Service (NWIS)
References	1. Keys, A. et al (1972) Indices of relative weight and obesity. Journal of Chronic Diseases, 25:329-343. 2. Cole, T.J. et al (1995) Body mass index reference curves for the

	UK. Archives of Disease in Childhood, 73: 25-9. Cited in Dinsdale H, Ridler C, Ells L J. A simple guide to classifying body mass index in children. Oxford: National Obesity Observatory, 2011. 3. Wilson, E.B. (1927) Probable inference, the law of succession, and statistical inference. J Am Stat Assoc, 22:209-212. Cited in Altman D.G. Et al (2000) Statistics with Confidence (2nd edn) BMJ Books: UK (page 46) 4. Altman D.G. et al (2000) Statistics with Confidence (2nd edn) BMJ Books: UK (page 46) 5. Vidmar S, Carlin J, Hesketh K, and ColeT. (2004).Standardizing anthropometric measures in children and adolescents with new functions for egen. *The Stata Journal*, 4 :50-5. 6. SACN, RCPH. (2012). Consideration of issues around the use of BMI centile thresholds for defining underweight, overweight and obesity in children aged 2-18 years in the UK. [Online]. Available at:http://www.sacn.gov.uk/pdfs/sacnrcpch_position_statement_bmi_thresholds.pdf

6.7 *Children in Need Census*

What does the data tell you?	The Children in need (CIN) Census records the numbers of children in need defined as those who receive social services from their local authorities, including children looked after by local authorities and who had a case open for at least 3 months at the census date of 31 March 2011.
How are the data collected?	• The CIN Census covers all children receiving support which is financed from children's social services budgets, including those supported in their families or independently, and children on the child protection register. • An individual return is required for each child in need and local authorities generally derive these data from local authority case recording systems. • The data presented in this report focuses on young people aged between 0 and 17 years of age. However, the dataset also includes unborn children and children aged 18 to 20 years of age and 21 and over. • The purpose of the Census is to collect data that measures the characteristics and attributes of children in need who receive social services from their local authorities, including children looked after by local authorities. The Census has focused particularly on data about the reason that children receive help from social services departments; parental capacity; and on the health and education outcomes for each child.[1]

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• For disclosure reasons, the data is rounded to the nearest five, where figures have been rounded there may also be an apparent discrepancy between the sum of the constituent items and the total. • The number of children in need included in the CIN Census is less than the total number of children in need receiving services .The number of children included in the CIN Census, because they had a case open for 3 months, represents about 76% of the total number of children in need on 31st March 2011 recorded in other statistical data collections. • Looked after children are included in the CIN Census England, however the data items collected differ from those collected in Wales. • The statistics are published as experimental statistics and do not display the National Statistics logo as they are still being evaluated and remain subject to further testing in terms of their volatility and ability to meet customer needs. The results should be treated with caution as some local authorities were unable to report complete information.
Who manages the data?	Welsh Government (Knowledge and Analytical Service)
Where can you get hold of the data?	Rounded data are published via StatsWales: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-in-Need and in the annual publication Social Services Statistics Wales: http://wales.gov.uk/docs/statistics/2013/130227-social-services-statistics-wales-2011-12-publication-en.pdf
References	1. Wales Children in Need Census 2011. Cardiff: Welsh Government; 2011. Available at: http://wales.gov.uk/topics/statistics/headlines/health2012/1202293/?lang=en

6.8 *Children's Services Data*

What does the data tell you?	Data for Children's Services is supplied to the Welsh Government by local authorities and show various aspects of services for children. In this profile, this includes children 'looked after' (figure 3.6) by the local authority who are adopted or fostered and children who are on the Child Protection Register. • The Children Act 1989 came into effect on 14 October 1991. This Act brought private and public law relating to children together into a single framework. 'Looked after' is the term used in the Act to describe all children who are the subject of a care order, or who are provided with accommodation on a voluntary basis for more than 24 hours. A care order may only be made by a court. Children who are 'looked after' include: ○ Children who are subject to an interim or full care order; ○ Children who are subject to police protection, an emergency protection or child protection order; ○ Children remanded or committed to local authority accommodation or made the subject of a residence requirement of a supervision order in criminal proceedings;

	○ Children transferred to local authority accommodation under the provisions of the Police and Criminal Evidence Act 1984; ○ Children accommodated in community homes, having been sentenced under Section 53 of the Children and Young Persons Act 1933. ○ Many of the children who cease to be looked after at the age of 18 continue to receive support from a local authority under Section 24 of the Children Act 1989.
How are the data collected?	• Anonymised individual child level data derived from SSDA903 data collection is extracted from local authority administrative from local authority administrative systems and returned electronically to the Data Collection team within the Welsh Government using an online secure data transfer system called 'AFON'. The AFON system applies an extensive series of validation checks to ensure that the information provided uses the correct codes and is internally consistent.[1] • The data shows the numbers of children 'looked after' by the local authority who are adopted or fostered or on the Child Protection Register during the year ending 31 March. • There are a few specific returns in relation to 'looked after children' including SSDA 903 and PM1 (education data).
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• For disclosure reasons, the data is rounded to the nearest five. • Although the AFON system validates entries, there is no validation at local authority level. Therefore, this does not allow for the omission of an entry. • The numbers of older children who are adopted or fostered is lower than in the younger age groups, this may have some bearing on the calculated percentages.
Who manages the data?	Welsh Government (Knowledge and Analytical Service)
Where can you get hold of the data?	Data are published via StatsWales: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-Looked-After Social Services Annual Report: http://wales.gov.uk/docs/statistics/2013/130227-social-services-statistics-wales-2011-12-publication-en.pdf
References	1. Guidance notes for the completion of SSDA 903 records: Children looked after by local authorities in Wales, March 2011 – March 2012. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/docs/statistics/2012/120410lookedafternotesen.pdf

6.9 *Congenital Anomaly Register and Information Service*

What does the data tell you?	Congenital Anomaly Register and Information Service (CARIS) collects information about any foetus and baby who has or is suspected of having a congenital anomaly and whose mother is normally resident in Wales at the time of birth / end of pregnancy. The anomaly must be a defect which was present at the end of pregnancy, regardless of when it was detected.

How are the data collected?	CARIS uses a multiple source reporting system with over 100 individuals/agencies regularly sending information. There are three main routes by which CARIS receives data: • **CARIS warning card** (intranet only) - used by clinical staff to let CARIS know of a potential case. They are commonly used antenatally to flag up a suspected case before pregnancy has ended. Community health staff also use the warning cards for initial reporting of cases identified postnatally. • **CARIS reporting form** - represents all the clinical data collected by CARIS on any baby or foetus. It would normally be filled in by clinical staff once the pregnancy has ended and there is reasonable evidence of at least one congenital anomaly. • **Reports from specialist sources and databases** - involves detailed diagnostic data and is extremely useful to CARIS, both in improving the quality of information on known cases and in helping identify new ones. All maternity units and most community trusts have a nominated co-ordinator that is able to supply CARIS cards and forms. They also help with completing the forms and retrieving notes. In many units the initial CARIS card is sent to the co-ordinator before being sent to the CARIS office so that the co-ordinator has a record of what anomalies are present in their unit. In the CARIS office data are collated, information is coded and quality is carefully checked. Anomalies are coded using the Extension of the International Classification of Diseases and Related Health Conditions (ICD-10), Royal College of Paediatrics and Child Health 1995. Data is collected in line with the Data Protection Act 1998 and CARIS also has support of section 251 of the Health and Social Care Act 2006 to collect data without the need for informed consent.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• CARIS is a live database so data is continuously being updated when new information is received and therefore recently reported data may be different from that reported previously. • In the CARIS office data undergoes a series of validation and checking procedures before it is entered onto the database by well trained data support clerks. Data relating to diagnosis, medication and occupation are coded and diagnosis are checked against the CARIS exclusion list. • Rates of antenatal detection are improving in Wales. However, CARIS recognises that across Wales there are significant differences between local authorities in reported rates of anomalies. Swansea and Neath Port Talbot have traditionally shown higher rates, a reflection of the excellent reporting in these areas. Differentiating high rates due to good reporting from genuinely higher rates in the occurrence of anomalies is an issue.[1] • CARIS is an active member of the British Isles Network of Congenital Anomaly Registers (BINOCAR) and a coding framework has been developed to help achieve consistency in coding of congenital anomalies across the UK.

	• Each year the Public Health Wales Observatory performs rigorous quality checks on the data.
Who manages the data?	CARIS is based at Singleton Hospital, Swansea and from the 1st October 2009 CARIS merged into the Public Health Wales NHS Trust, who assumes responsibility for functions and services of the register.
Where can you get hold of the data?	CARIS publish annual reports and supporting data tables on the web. The register also hosts annual meetings in North and South Wales for health professionals involved with or interested in congenital anomalies. Contact details for CARIS can be found on their website: http://www.caris.wales.nhs.uk/contact-us
References	1. Congenital Anomaly Register and Information Service for Wales (CARIS) (2008) CARIS review: 10 years of reporting.... Swansea; CARIS.

6.10 *Department for Work and Pensions*

What does the data tell you?	• The number and percentage of children living in poverty by health board and local authority
How are the data collected?	• Parents in receipt of Income Support (IS), Job Seekers Allowance (JSA), Employment and Support Allowance (ESA) and Pension Credit (PC) are paid their child support through Child Tax Credit (CTC). Those parents not in receipt of IS, JSA, ESA or PC and some parents whose claim for IS or JSA precedes April 2003 are paid a dependent child allowance via the DWP. • As the child poverty indicator requires a complete picture of children in families in receipt of IS or JSA, DWP data relating to IS or JSA is also needed. • Child Benefit records are matched to IS or JSA claimant records in DWP. The matched records are then transferred to HMRC and matched to the tax credits database in order to identify children in families in receipt of IS or JSA. These DWP paid families are then combined with the tax credits data to ensure that the measure covers all children in families in receipt of IS or JSA and that no family or child is counted twice or ignored.[1]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Data should be complete as the estimates are based on finalised awards tax credit data, and as such are derived from a full set of administrative records rather than a sample. DWP, IS and JSA records relate to August to be consistent with the tax credits and Child Benefit data. • Duplicate records may occur in the dataset due to administrative errors, data matching issues and family breakdown (where a separate claim begins before the other ends). Where possible, any duplicate records have been removed from the dataset. • Health board data have been aggregated from local authority data. Estimates have been rounded to the nearest 5 units therefore aggregating the individual estimates may not sum the given totals for an area.
Who manages the data?	Department for Work and Pensions

Where can you get hold of the data?	The data can be accessed via the HMRC website: http://www.hmrc.gov.uk/statistics/child-poverty-stats.htm#1
References	1. Department for Work and Pensions. Child Poverty Measure, 2010. [Online] Available at: http://www.hmrc.gov.uk/statistics/child-poverty/measure.pdf

6.11 *Department of Health*

What does the data tell you?	• The number and rates of legal abortions in England and Wales per year, by age, 2003-2011
How are the data collected?	• The Abortion Act 1967 permits termination of pregnancy by a registered medical practitioner subject to certain conditions. Legal requirements apply to the certification and notification of abortion procedures. Within the terms of the Abortion Act, only a registered practitioner can terminate a pregnancy. • The doctor taking responsibility for the procedure is legally required to notify the Chief Medical Officer (CMO) of the abortion within 14 days of the termination, whether carried out in the NHS or an approved independent sector place and whether or not the woman is a UK resident.[1] • Registered practitioners must submit an abortion notification form (HSA4) for every abortion they carry out. The Department of Health (DH) checks these forms to ensure that: its best practice guidance is followed and that abortions data comply with the National Statistic's code of practice.[1] Further details are available on the DH website.[2]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Recording data relating to legal abortions is mandatory; therefore data are expected to be of a high level of quality and completeness. • The Department of Health use a thorough process for inspecting and recording information received on the forms in order to monitor compliance with the legislation and the extent to which best practice guidance from the Department of Health is followed. Selected forms are scrutinised by a medical practitioner who may request further detail from the patient's medical record via the terminating doctor. • The Data Protection Act 1998 places a statutory obligation on the Department of Health to ensure that the statistics that they release on abortions do not relate to a living individual who can be identified from those data alone or in conjunction with other available information, unless the conditions laid out in the Act are met.
Who manages the data?	Department of Health (DH)
Where can you get hold of the data?	• Abortion statistics for England and Wales published between 2002 and 2010 can be accessed via the national archives web site: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/index.htm • Abortion statistics for England and Wales for 2011 can be accessed via the Department of Health website:

	https://www.gov.uk/government/statistical-data-sets/abortion-statistics-england-and-wales-2011
References	1. Department of Health. Abortion Statistics, England and Wales: 2011. Available at: http://webarchive.nationalarchives.gov.uk/20130402145952/http:/media.dh.gov.uk/network/261/files/2012/05/commentary1.pdf 2. Department of Health website. Available at: http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publichealth/Healthimprovement/Sexualhealth/Sexualhealthgeneralinformation/DH_4063863

6.12 *Department of Transport (STATS19)*

What does the data tell you?	The STATS19 data contains information relating to road traffic accidents involving personal injury that are reported to the police. Data collected includes date and location of the accident, number of vehicles involved and the number of subsequent casualties.
How are the data collected?	• Data on road traffic accidents involving personal injury are reported to the Department for Transport by the police via the STATS19 system.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• These statistics only include accidents that occur on public roads that are reported to the police. Accidents on private roads, in car parks or where there were no human casualties are not included in this data.[1] • Very few, if any, fatal accidents are not reported to the police although it is known that a considerable percentage of non-fatal injury accidents are not reported as hospital, survey and compensation claims data all indicate a higher number of casualties than are reported. The STATS19 data does therefore not provide a complete record of all injury accidents. Despite this, they remain the most detailed, complete and reliable single source of information on road casualties, in particular for monitoring trends over time.[2]
Who manages the data?	Department for Transport
Where can you get hold of the data?	Data for 2005-2011 can be downloaded from the Department for Transport website: http://data.gov.uk/dataset/road-accidents-safety-data
References	1. Department for Transport. Brief guide to road accidents and safety data: Great Britain. 2012. Available at: 2. http://data.dft.gov.uk/road-accidents-safety-data/Brief-guide-to%20road-accidents-and-safety-data.doc 3. Department for Transport. Transport Statistics notes and guidance: Road accident and safety. Available at: https://www.gov.uk/transport-statistics-notes-and-guidance-road-accident-and-safety

6.13 *Education attendance data*

What does the data tell you?	• The number and percentage of half-day sessions missed due to unauthorised absence for children aged 5-15 years in maintained primary schools and maintained and special secondary schools.
How are the data collected?	• The Welsh Government collects attendance data from maintained primary schools (compulsory school age 5 to 10) and maintained and special secondary schools (compulsory school age 11 to 15).
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Data are collated into an electronic return by each school and submitted to the Welsh Government through DEWi, a secure online data transfer system developed by the Welsh Government. • The Welsh Government works closely with schools and local authorities in order to ensure all data are validated before tables are published. • Information for a small number of primary schools may include all pupils regardless of age (e.g. reception classes).
Who manages the data?	Welsh Government (WG)
Where can you get hold of the data?	Data is available from StatsWales: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Schools-and-Teachers/Absenteeism

6.14 *Emergency Department Dataset*

What does the data tell you?	• The Emergency Department Data Set for Wales captures all activity at Accident & Emergency Departments and Minor Injury Units in NHS Wales hospitals. Whilst all attendances, irrespective of residence, are recorded, Wales residents attending emergency departments in hospitals in England are not included.
How are the data collected?	• The data are collected and coded at each hospital. The records are then electronically transferred to the NHS Wales Informatics Service (NWIS), where they are validated and merged into the main database. • Diagnoses, investigations and treatment are coded using broad categories. Further details can be accessed at: http://www.datadictionary.wales.nhs.uk/default.htm?turl=WordDocuments%2Fnhswalesdatadictionaryversion30.htm
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• EDDS should be a complete record of all emergency department activity in NHS Wales hospitals. Major (24-hour, consultant led) Emergency Departments started submitting information from April 2009 and all other hospitals providing emergency care facilities have been submitting data since April 2012. • Whilst these data should represent 100% of the attendances, not all units were able to submit data from the 1st April 2009. Therefore for the earlier time periods, the data may not be complete. • The Health Boards conduct some validation checks before submitting the data and NWIS conduct some validation checks when loading the data. These checks relate to the validity rather than the accuracy of the data though inconsistencies are also

	evaluated. • Analyses produced using EDDS should be interpreted with a degree of caution, considering the potential for minor data errors and uncertain diagnoses. • Data recording practices may vary, especially in some of the minor A&E and Minor Injury Units which could account for some local differences. • The EDDS does not capture information relating to Welsh residents attending emergency departments in hospitals in England.
Who manages the data?	NHS Wales Informatics Service (NWIS)
Where can you get hold of the data?	NWIS publish EDDS waiting time analyses here: http://www.infoandstats.wales.nhs.uk/page.cfm?orgid=869&pid=62956 Contact details for the NWIS can be found on their website: http://www.wales.nhs.uk/sitesplus/956/home

6.15 *Health Behaviour in School-aged Children*

What does the data tell you?	• The Health Behaviour in School-aged Children (HBSC) survey is a cross-national research study conducted in collaboration with the World Health Organisation (WHO) Regional Office for Europe.[1] • There is a lack of systematic data collection systems in relation to young people aged 11-15 years in most member states of the WHO European region. HBSC goes some way to filling this gap. • It aims to provide a key insight into, and increase our understanding of young people's health and well-being, health behaviours and their social context.[1] • The information presented in this report is based on the most recent 2009/10 HBSC survey. • The Family Affluence Scale (FAS) measure is based on a set of questions on the material condition s of the households in which children and young people live. The questions are non-sensitive straightforward and cover car ownership and overcrowding (measured through bedroom occupancy) holidays and home computers.[2]
How are the data collected?	• HBSC was initiated in 1982 by researchers from three countries. It was subsequently adopted by the WHO as a collaborative study. There are now 43 participating countries and regions.[1] • The first cross-national survey was conducted in 1983/84, the second in 1985/86. Since then data collection has been carried out every four years using a common research protocol. • The most recent survey, the eighth in the series, was conducted in 2009/10[2], and included 39 countries across Europe and North America. • In the main, fieldwork took place between October 2009 and May 2010. Internationally more than 200,000 young people took part in the survey and approximately 1,500 respondents in each age group were targeted in each country. Pupils were sampled from schools and/or school classes and data were collected by self-administered questionnaire.[2]

	• The HBSC health board data in this report is based on data collected from 11, 12, 13, 14 and 15 year olds (although labelled as 11-16 year olds as there were a small number having reached their 16th birthday prior to fieldwork). • International data is based on 11, 13 and 15 year olds only (school years 7, 9 and 11). This is because in the last two surveys, data have also been collected from years 8 and 10 (largely 12 and 14 year olds) these are included in the national report but not the international analyses. • Further information is available from: http://www.euro.who.int/__data/assets/pdf_file/0009/167283/E96444_part3.pdf
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• In 2009/10, a survey of around 9,200 secondary school children in Wales (years 7 to 11) was carried out through interviewer administered paper self-completion sessions in classroom lessons. The response rate for schools was 61 per cent, with 91 per cent of individual pupils responding. From this survey, answers from children in years 7, 9 and 11 (around 5,500 in total) were then submitted to the international study for consistency with the age groups used therein. Further information on the margin of error applicable to the survey results can be found in the document referenced below.[3] • The Wales 2009/10 survey was designed to report results at the national rather than health board level. The health board estimates presented in this report should therefore be interpreted with some caution as they are based on 11, 12, 13, 14 and 15 year olds (although labelled as 11-16 year olds as there were a small number having reached their 16th birthday prior to fieldwork). • Two types of weights were applied to the survey data presented in the Wales health board report: *design weights* were applied to correct for different probabilities of being selected to answer the survey; *non-response weights* were applied to correct for different levels of response among particular groups[3], although this does not have a major impact on the results. Data presented in the international report are unweighted. • The questionnaire is developed in English and is subsequently translated into national and sub-national languages. Specific guidance is provided for translators on the underlying concepts being addressed. Questionnaires are then translated back into English for checking but it is important to acknowledge that some cross-national variation in the way that students understand certain terms may remain.[2] The methodological development of the HBSC survey, and work to maintain quality standards are also described.[4] • The survey is based on a sample rather than the whole population of secondary school children aged 11-16 years old in Wales and, therefore, care must be taken when interpreting the results. • As results are self-reported, some of the findings may be over- or under-estimates. • There may be some systematic bias as pupils who were absent on the day of the survey were not followed up.

Who manages the data?	International HBSC research network
Where can you get hold of the data?	• HBSC publications are available at http://www.hbsc.org/ • Wales data for HBSC 2009/10 report available at: http://wales.gov.uk/docs/caecd/research/110328healthbehaviouren.pdf
References	1. Health Behaviour in School-aged Children [online]. 2012. Available at: http://www.hbsc.org/about/index.html 2. Currie C et al. eds. *Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 survey.* Copenhagen: WHO Regional Office for Europe, 2012. Available at: http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf 3. Welsh Assembly Government. *Health Behaviour in School-aged Children: initial findings from the 2009/10 survey in Wales*. Cardiff: WG; 2011. Available at: http://wales.gov.uk/docs/caecd/research/110328healthbehaviouren.pdf 4. Roberts C, Freeman J, Samdal O, Schnohr CW, de Looze ME, Nic Gabhainn S, Iannotti R, Rasmussen M and the International HBSC Study Group (2009) *The Health Behaviour in Schoolaged Children (HBSC) study: methodological developments and current tensions*. International Journal of Public Health, 54, S140-150

6.16 *Higher Education Statistics Agency*

What does the data tell you?	The Higher Education Statistics Agency (HESA)[1] provides information taken from the student record. Data include the number of Welsh domiciled students going on to UK Higher Education Institutions (HEI) as first year undergraduates between 2004/05 and 2011/12.
How are the data collected?	• Data are supplied by HEIs to HESA via a secure web-based transfer system created and maintained by HESA.

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Data are subject to validation and an extensive quality assurance process. Therefore, the data are considered to be robust
	• All figures have been rounded to the nearest five to minimise the risk of unwanted disclosure of personal data. Where figures have been rounded there may also be an apparent discrepancy between the sum of the constituent items and the total.
	• There are many different types of qualifications for which a higher education student may study and 'undergraduate' is used as an umbrella term for all of these qualifications:
	  ○ first degree
	  ○ HND
	  ○ HNC
	  ○ DipHE
	  ○ CertHE

	○ foundation courses at level 4 and 5 ○ post-degree diplomas and certificates at undergraduate level ○ professional qualifications at undergraduate level ○ other undergraduate diplomas and certificates including post-registration health and social care courses Therefore, care should be taken when defining the term 'undergraduate'.
Who manages the data?	Higher Education Statistics Agency (HESA)
Where can you get hold of the data?	Data were supplied by StatsWales (Welsh Government) and can be accessed: https://statswales.wales.gov.uk/v/MoD
References	1. Higher Education Statistics Authority website. Available at: http://www.hesa.ac.uk/

6.17 *Homelessness Data Collection, Welsh Government*

What does the data tell you?	• The information is collected in order to establish the number and type of households that were accepted as homeless by a local authority during the period and the reasons why these households are homeless.
How are the data collected?	• Quarterly homelessness statistical return completed by local authorities in Wales.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Includes households with dependent children looked after by grandparents or other non-parental guardians. • Breakdowns by family type are only available annually from 2011-12. • This data covers numbers of households not persons. • Homelessness data may be subject to seasonal variations. • All the figures are rounded independently to the nearest 5 to protect the identity of individuals. As a result, there may be a difference between the sum of the constituent items and the total. An asterisk is shown when the data item is disclosive or not sufficiently robust for publication.
Who manages the data?	Welsh Government
Where can you get hold of the data?	• Data can be downloaded from StatsWales as follows: https://statswales.wales.gov.uk/Catalogue/Housing/Homelessness/Temporary-Accommodation/HouseholdsAccommodatedTemporarily-by-AccommodationType-HouseholdType • Further information can be obtained from the Welsh Government website: http://wales.gov.uk/topics/statistics/theme/housing/homeless/?skip=1&lang=en

6.18 *KC60/SHHAPT Data*

What does the data tell you?	• Episodes of sexually transmitted infections diagnosed at genito-urinary medicine (GUM) clinics. The information presented in this profile focuses on chlamydia and gonorrhoea.
How are the data collected?	• Diagnostic statistics submitted by GUM clinics in Wales are collated by Public Health Wales CDSC on behalf of the Welsh Assembly Government. • Prior to April 2011 returns of data to CDSC Wales from GUM clinics were done using the KC60 form. From 01 July 2011, KC60 diagnosis coding was replaced by SHHAPT coding (see below). • Data from GUM clinics and laboratories in Wales are now submitted electronically to Public Health Wales CDSC and reported through the Sexual Health in Wales Surveillance Scheme (SWS)
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• A new set of codes - Sexual Health and HIV Activity Property Type (SHHAPT) codes were introduced in Wales from 1st July 2011 which replaced KC60 codes. These codes are used to code diagnoses and services provided by GUM clinic services. • SHHAPT codes have been simplified so when analysing trends old and new codes need to be examined to ensure that they are comparable for the condition of interest.
Who manages the data?	Public Health Wales Communicable Disease Surveillance Centre (CDSC)
Where can you get hold of the data?	• Public Health Wales Health Protection Division website contains surveillance data for STIs and Sexual health reports for Wales: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=27685 • Information can be requested from CDSC and an email address is provided on their website: http://www.wales.nhs.uk/sites3/page.cfm?orgId=457&pid=25313

6.19 *Mental Health Data Source*

What does the data tell you?	• This survey examines the characteristics and behaviour patterns of children and young people with mental disorders in Great Britain.
How are the data collected?	• The survey population consisted of children and young people aged 5-16, living in private households in Great Britain. • The sample was drawn from Child Benefit Records held by the Child Benefit Centre (CBC). Information was collected on 76% of the children approached, resulting in 7,977 achieved interviews. • Fieldwork for the survey took place between March and June 2004 • Prevalence rates are based on the ICD-10 Classification of Mental and Behavioural Disorders with strict impairment criteria. • The assessment of mental disorder was based on both structured and open-ended questions. This included information gathered from parents, teachers and the young people themselves (if aged 11-16)

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Prevalence estimates published in this survey are almost 10 years old and should be used with caution when applied to current population estimates. • UK prevalence rates have been applied to the Welsh population. The extent to which mental health prevalence in Wales varies from the estimated UK prevalence is unknown. As such, these estimated counts should be used with caution. • Population estimates are rounded to the nearest 10.
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	The survey results can be found here:http://www.esds.ac.uk/doc/5269/mrdoc/pdf/5269technicalreport.pdf
References	1. Green, H et al (2004) *Mental health of children and young people in Great Britain, 2004*. Available at:http://www.esds.ac.uk/doc/5269/mrdoc/pdf/5269technicalreport.pdf

6.20 *National Community Child Health Database*

What does the data tell you?	The National Community Child Health Database (NCCHD) includes details relating to maternal and child health related indicators such as births, immunisation screening and safeguarding of children.
How are the data collected?	• Each of the 7 health boards in Wales has a Child Health System database which they manage locally. Anonymised records for all children born, resident or treated in Wales and born after 1987 are collated from each of the local databases each quarter to create the NCCHD.[1,2]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The NCCHD birth figures are not meant to replace the Office for National Statistics (ONS) birth registration statistics which are the official births statistics for Wales. The NCCHD is usually used when the indicators are not available from the ONS dataset e.g. breastfeeding and gestation.[2] • Some key indicators are not useable from this source, primarily due to issues with completeness e.g. details of delivery (e.g. onset of labour, method of delivery) and mothers' characteristics (e.g. whether the mother smokes) are incomplete. NWIS are working with the health boards to try to resolve this issue.[2] • The NCCHD is refreshed from local reports and so relies on notifications of immunisations given being returned to local Child Health Offices and entered onto their database.
Who manages the data?	NHS Wales Informatics Service (NWIS)
Where can you get hold of the data?	• Data from the NCCHD are published via Stats Wales: https://statswales.wales.gov.uk/Search?Query=ncchd and Health Maps Wales: http://www.healthmapswales.wales.nhs.uk/IAS • Immunisation statistics which are calculated using NCCHD are published on the Public Health Wales Health Protection website: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=54144

References	1. Welsh Government. Births in Wales, 2001-2011: Data from the National Community Child Health Database. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/topics/statistics/headlines/health2012/120724/;jsessionid=7E2DAE427864D216E752A9DEC10B4543?lang=en 2. Welsh Government. Birth Statistics from the National Community Child Health Database (NCCHD) Quality Report. Cardiff: Welsh Government; 2012. Available at: http://wales.gov.uk/topics/statistics/publications/birthsquality/?lang=en

6.21 *Newborn Hearing Screening Wales Programme*

What does the data tell you?	The percentage of eligible newborn babies who enter the newborn hearing screening programme (i.e. consented and tested) in Wales and its health boards in the financial year 1st April 2011 – 31st March 2012.
How are the data collected?	• The dataset used by Newborn Hearing Screening Wales (NHBSW) is based on birth notifications by midwives and babies, born outside Wales, who moved into Wales and registered with a GP who had not undergone a hearing screening. • The Community Child Health System (CCH 2000) provides NHBSW with this real-time demographic information. The CCH is managed by NHS Wales Informatics Services (NWIS).[1]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	The data is thought to be almost 100% accurate. However, the data have not been validated.
Who manages the data?	NHS Wales Informatics Services (NWIS)
Where can you get hold of the data?	Newborn Hearing Screening Wales, Annual report 2012: http://www.wales.nhs.uk/sitesplus/documents/980/Final%20version%20NBHSW%20report%202012withHIBdata%20%284%29.pdf
References	1. NHS Wales Informatics Services website (NWIS). Available at: http://www.wales.nhs.uk/nwis/page/52630

6.22 *Office for National Statistics – population estimates*

What does the data tell you?	• Mid-year population estimates (as at 30th June each year) provide an estimate of the resident population of an area. • The analysis presented in this profile uses population estimates for 2011.
How are the data collected?	Population estimates are based on births, deaths and an estimate of migration since the last Census. They are produced using a well-

	established demographic approach called the cohort component method by the Office for National Statistics (ONS). In simple terms, population estimates are calculated by: • Taking the previous years' population estimate • Taking out special population groups • Ageing every person by one year • Adding births and subtracting deaths • Allowing for inward and outward migration • Re-adding the special population groups.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The estimated resident population of an area includes all people who usually live there, whatever their nationality.[1] Members of the UK and non-UK armed forces stationed in the UK are included.[1] UK forces stationed outside the UK are excluded.[1] • Students are taken to be resident at their term time address.[1] • The estimates include long term international migrants (defined as somebody who changes his or her country of usual residence for a period of at least one year).[1] The estimates do not include short term migrants (people who come to or leave the UK for less than a year).[1] The census and therefore mid-year population estimates are thought to underestimate the population in some areas e.g. areas of multi-occupancy housing. • Mid-year population estimates are occasionally revised, for example following a Census or a change in methodology. They also take into account boundary changes. • Full guidance on the methodology used by ONS to calculate population estimates can be accessed at: www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/pop-ests/index.html • Data for England and Wales are MYEs based on the 2011 Census. • Data for Northern Ireland is taken directly from the 2011 Census. • Data for Scotland are MYEs based on the 2001 Census.
Who manages the data?	Office for National Statistics (ONS) manage data for England and Wales; Northern Ireland Statistics and Research Agency (NISRA) manage data for Northern Ireland and General Register Office Scotland (GRO-Scotland) for Scotland.
Where can you get hold of the data?	• Office for National Statistics website (England and Wales data):http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-274670 • Northern Ireland Statistics and Research Agency website: http://www.ninis2.nisra.gov.uk/public/Theme.aspx?themeNumber=136&themeName=Census+2011 • General Register Office Scotland website: http://www.gro-scotland.gov.uk/files2/stats/population-estimates/mid-2011/j22829707.htm
References	1. Office for National Statistics. *Topic guide to: Population Estimates – Technical Data* [Online]. 2011. Available at: www.statistics.gov.uk/hub/population/population-change/population-estimates

6.23 *Office for National Statistics – population projections*

What does the data tell you?	• Population projections provide an estimate of the resident population of an area for successive years from the projection base year. • The analysis presented in this profile uses population projections based on the 2008 mid-year estimates.
How are the data collected?	• Population projections are calculated using assumptions about future levels of fertility, deaths and migration which are derived by analysing trends over the five years leading up to the projection base year. They are produced using a well-established demographic approach called the cohort component method by the Office for National Statistics (ONS) which can be summarised as follows: ○ Population (year x) + Births (between years x and y) – Deaths (between years x and y) + In-Migrants (between years x and y) – Out-Migrants (between years x and y) = Population (year y).[1]
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The numbers of births, deaths and migrants are calculated using the assumptions of fertility, mortality and migration which are determined by a mixture of trend observation and extrapolation, and consideration of expert opinion, with actual data included in the calculation for the first year of the projection.[1] • This methodology applies to the general population only. Special population types, including foreign and home Armed Forces, are dealt with separately and are assumed to remain static over the projection period.[1] • Since the projections are calculated using trend-based assumptions they give an indication of what the future population might be if recent trends continue, and take no account of policy or development aims in areas.[2] • The Census and therefore mid-year population estimates are thought to underestimate the population in some areas e.g. areas of multi-occupancy housing. • The projection base year estimates are based on the resident population of an area which includes all people who usually live there, whatever their nationality.[3] • Full guidance on the methodology used by ONS to calculate population projections can be accessed at: http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/population-projections/index.html
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	Data is available on StatsWales and can be accessed at: https://statswales.wales.gov.uk/Catalogue/Population-and-Migration/Population/Projections/Local-Authority/2008-Based
References	1. Office for National Statistics. *Topic guide to: Population Projections – Technical Data* [Online]. 2011. Available at: http://www.statistics.gov.uk/hub/population/population-change/population-projections/index.html

	2. Office for National Statistics. *Topic guide to: Population Projections – Overview* [Online]. 2011. Available at: http://www.statistics.gov.uk/hub/population/population-change/population-projections/index.html 3. Office for National Statistics. *Topic guide to: Population Estimates – Technical Data* [Online]. 2011. Available at: www.statistics.gov.uk/hub/population/population-change/population-estimates

6.24 *Office for National Statistics – teenage conceptions*

What does the data tell you?	• Conceptions data bring together records of birth registrations and abortions. They include all pregnancies of women usually resident in England and Wales.
How are the data collected?	• Data are collected through the mandatory recording of births and legal abortions. • The registration of life events is carried out by the Local Registration Service in partnership with the General Register Office and information is passed on to the Office for National Statistics (ONS). Most information on live births and still births is supplied by one or both parents. For stillbirths, details are supplied on a certificate or notification by a doctor or midwife.[1] • Information on abortions is derived from notifications supplied under the Abortion Act 1967. These are sent by registered practitioners to the Chief Medical Officer for Wales.[1] • Maternities which result in one or more live births or stillbirths are only counted once. • Date of conception is estimated by subtracting the gestation period from the baby's date of birth or date of termination.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Conception statistics do not include miscarriages or illegal abortions, therefore the actual number of teenage conceptions may be underestimated. It is estimated that one in five pregnancies will end in miscarriage. Recording data relating to births and legal abortions is mandatory; therefore data are expected to be of a high level of quality and completeness. • It is impossible to determine the extent of illegal abortions, for example by women using drugs bought off the internet. However, given the steady rise of legal abortions since 1968, and the improvements in access to abortion it can be assumed that the vast majority of abortions carried out in England and Wales today are legal ones. • Data displaying conceptions cannot be used to disclose information on abortions. Therefore, for conceptions leading to abortions, counts less than ten and rates based on fewer than ten events are suppressed. To protect the confidentiality of conceptions data, all counts lower than five, and all rates based on fewer than five events are also suppressed. • Small numbers of events are more prone to random variation, meaning that rates could substantially change from one period to another by chance alone.

	• Conception rates for 2011 have been calculated using mid-year population estimates based on the 2011 Census. Conception rates for 2002 to 2010 have also been re-calculated using Census 2011 mid-year estimates and therefore may differ from previously published figures.
Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	The Office for National Statistics publish annual and quarterly teenage conceptions data on their website.
References	1. Office of National Statistics. *Conception Statistics. Conceptions for women resident in England and Wales, 2011*. Newport: ONS; 2011. Available at: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-294336

6.25 *Patient Episode Database for Wales*

What does the data tell you?	• Patient Episode Database for Wales (PEDW) comprises records of all episodes of inpatient and day case activity in NHS Wales hospitals. Hospital activity for Welsh residents treated in other UK nations (primarily England) is also included.
How are the data collected?	• The data are collected and coded at each hospital. The records are then electronically transferred to NWIS, where they are validated and merged into the main database.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Postcodes are provided for the large majority of records. The postcodes are used to assign the local authority and health board areas of residence for each record. • The data held in PEDW is of interest to public health services since it can provide information regarding both health service utilisation and also be used as a proxy for incidence and prevalence of disease. However, since PEDW was created to track hospital activity from the point of view of payments for services, rather than epidemiological analysis, the use of PEDW for public health work is not straightforward. For example: - Counts will vary depending on the question being asked e.g. the number of diagnoses fields used i.e. primary only or all fields, will answer different questions around service utilisation or prevalence. - There are a number of different 'currencies' that can be counted in PEDW, such as episodes, admissions, discharges, patients and potential limitations associated with the use of each of these, their choice is dependent on the question being asked. - There are different admission methods, ranging from emergency to elective, to a combination of both. • Coding practices vary, which makes regional variations more difficult to interpret. The validation process led by the Corporate Health Improvement Programme and implemented by NWIS is aiming to address some of these inconsistencies. • Outpatient activity is not included in this dataset
Who manages the data?	NHS Wales Informatics Service (NWIS)

Where can you get hold of the data?	• Annual PEDW data tables are published here: http://www.infoandstats.wales.nhs.uk/page.cfm?pid=41010&orgid=869 • Health Maps Wales is an online tool produced by NWIS which presents a range of information, including hospital admissions data from PEDW: http://www.infoandstats.wales.nhs.uk/page.cfm?orgid=869&pid=40976 • Contact details for NHS Wales Informatics Service can be found on their website: http://www.wales.nhs.uk/nwis/page/52504

6.26 *Pupil Attendance Data Collection*

What does the data tell you?	• The number and percentage of half-day sessions missed due to unauthorised absence for children aged 5-15 years in maintained primary schools and maintained and special secondary schools.
How are the data collected?	• The Welsh Government collects attendance data from maintained primary schools (compulsory school age 5 to 10) and maintained and special secondary schools (compulsory school age 11 to 15).
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Data are collated into an electronic return by each school and submitted to the Welsh Government through DEWi, a secure online data transfer system developed by the Welsh Government. • The Welsh Government works closely with schools and local authorities in order to ensure all data are validated before tables are published. • Information for a small number of primary schools may include all pupils regardless of age (e.g. including reception classes).
Who manages the data?	Welsh Government (WG)
Where can you get hold of the data?	Data is available from StatsWales: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Schools-and-Teachers/Absenteeism

6.27 *Pupil Level Annual School Census*

What does the data tell you?	• The Pupil Level Annual School Census (PLASC) collects information about each school and their pupils. This includes number and age of pupils in each school, ethnicity, educational attainment and school meal provision.
How are the data collected?	• PLASC is an electronic collection of pupil and school level data provided by all maintained sector primary, secondary, nursery and special schools in January each year. Throughout the year, schools record data on their Management Information System (MIS). This data is collated in January each year to produce an electronic PLASC return which is submitted to the Welsh Government using a secure data transfer system (DEWi).

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• DEWi is a secure online system and various stages of data validation are carried out throughout the process of submitting data to DEWi to ensure a high quality of data. • The Welsh Government works closely with schools and local authorities in order to ensure all data are validated before tables are published.
Who manages the data?	Welsh Government
Where can you get hold of the data?	• Data is available from StatsWales: https://statswales.wales.gov.uk/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census • Further information relating to PLASC is available from: http://wales.gov.uk/topics/educationandskills/schoolshome/schooldata/ims/datacollections/pupillevelannualschoolcensus/?lang=en

6.28 *Sexual Health in Wales Surveillance Scheme (SWS)*

What does the data tell you?	• Episodes of sexually transmitted infections diagnosed at genito-urinary medicine (GUM) clinics. The information presented in this profile focuses on chlamydia and gonorrhoea.
How are the data collected?	• Diagnostic statistics submitted by GUM clinics in Wales are collated by Public Health Wales CDSC on behalf of the Welsh Assembly Government. • Prior to April 2011 returns of data to CDSC Wales from GUM clinics was done using the KC60 form. From 1st July 2011, KC60 diagnosis coding was replaced by SHHAPT coding. • Data from GUM clinics and laboratories in Wales are now submitted electronically to Public Health Wales CDSC and reported through the Sexual Health in Wales Surveillance Scheme (SWS).
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• A new set of codes - Sexual Health and HIV Activity Property Type (SHHAPT) codes were introduced in Wales from 1 July 2011 which replaced KC60 codes. These codes are used to code diagnoses and services provided by genitourinary medicine clinic services. • SHHAPT codes have been simplified so when analysing trends old and new codes need to be examined to ensure that they are comparable for the condition of interest.
Who manages the data?	Public Health Wales Communicable Disease Surveillance Centre (CDSC)
Where can you get hold of the data?	Public Health Wales Health Protection Division website contains surveillance data for STIs and Sexual health reports for Wales: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=27685 Information can be requested from CDSC and an email address is provided on their website: http://www.wales.nhs.uk/sites3/page.cfm?orgId=457&pid=25313 surveillance.requests@wales.nhs.uk

6.29 *Vaccine Preventable Disease Programme*

What does the data tell you?	• Immunisation coverage statistics using data from the National Community Child Health Database (NCCHD).
How are the data collected?	• The National Community Child Health Database contains data from all health board regional child health databases. • It is maintained and refreshed by NHS Wales Informatics Service (NWIS) on a quarterly basis. NWIS forward individual level data relating to childhood immunisation to Public Health Wales Communicable Disease Surveillance Centre (CDSC) and VPDP who calculate immunisation coverage statistics in a systematic way to enable monitoring of long term trends.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The NCCHD is refreshed each quarter from health board regional child health databases in Wales. Immunisation data contained within health board child health databases relied on timely notification by healthcare professionals of immunisations given to children. Failure of healthcare professionals to notify their health board child health office when immunisations have been given could result in underestimation of vaccination coverage. This is likely to be more of an issue for opportunistic immunisations which have not been scheduled by the child health system. • Coverage data is calculated on the basis of area of residence. Some children may reside within one HB area, but may receive immunisations from GPs or school nursing services in neighbouring areas. This should be kept in mind when interpreting coverage statistics.
Who manages the data?	NWIS maintain the NCCHD and send individual level data relating to childhood immunisation to Public Health Wales CDSC and VPDP. The CDSC and VPDP calculate the immunisation coverage statistics.
Where can you get hold of the data?	Coverage data for all routine childhood immunisations can be accessed from the Public Health Wales Health Protection internet site: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=54144

6.30 *Vital Statistics 1*

What does the data tell you?	• Provides a summary of annual data on vital statistics for population, births, deaths, fertility and mortality rates by region for England and Wales.
How are the data collected?	• Guidance and methodology used for the various data sources are available at: http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/index.html.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Quality and information reports are available at: http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/population/index.html

Who manages the data?	Office for National Statistics (ONS)
Where can you get hold of the data?	Vital statistics data is available on the ONS website at: http://www.ons.gov.uk/ons/datasets-and-tables/index.html?pageSize=50&sortBy=none&sortDirection=none&newquery=vital+statistics&content-type=Reference+table&content-type=Dataset

6.31 *Welsh Cancer Intelligence and Surveillance Unit*

What does the data tell you?	• WCISU is the National Cancer Registry for Wales and its primary role is to record, store and report on all cancer incidence, survival and mortality for the resident population of Wales wherever they are treated.
How are the data collected?	• WCISU collects data about occurrences of cancer in Welsh residents via direct or indirect submissions from Welsh hospitals. Data sources currently include LHBs and Trusts, Pathology laboratories, ONS, the NHS Central Register and the National Strategic Tracing service. The current electronic database holds in the region of 686,000 records, dating back to 1972.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The use of multiple data sources helps to ensure that not only do few cases escape the net but also that the quality of the data is enhanced because every item relating to the patient is brought together in a single file.[1] • Quality checks are run on incoming data to identify any quality issues. Discrepancies between data sources are investigated to ensure data quality.[2] • The software used for cancer registration has embedded rules based on National and International principles and methods to ensure the consistency of data and that WCISU's data is comparable with output by other countries. • The quality of information produced by WCISU is maintained by involving all staff in ensuring data quality at every point in the process. • The unit employs Data Validation Officers who visit hospitals in Wales to ensure that data held on the WCISU database accurately reflects information in the medical record.[1]
Who manages the data?	The data is managed by WCISU which is part of Public Health Wales NHS Trust.
Where can you get hold of the data?	WCISU routinely publish a variety of reports including cancer incidence, mortality survival and prevalence in Wales. An incidence publication is produced annually with various occasional reports published throughout the year. A detailed report is published every three years. These publications and information about the WCISU information request and analysis service are available from the WCISU website at: http://www.wales.nhs.uk/sites3/home.cfm?orgid=242
References	1. WCISU. *Cancer in Wales, 1995-2009: A comprehensive report.* Public Health Wales; 2011. Available at http://www.wales.nhs.uk/sites3/Documents/242/1%20Introduction.pdf 2. WCISU. *Annual Publication No SA12/01 Cancer incidence in Wales*

	2006-2010. Public Health Wales; 2012. Available at http://www.wales.nhs.uk/sites3/Documents/242/incpub2012.pdf

6.32 *Welsh Health Survey*

What does the data tell you?	• The Welsh Health Survey provides information about the health of people living in Wales, the way they use health services and their health related lifestyle.
	• The information presented in the *Children and Young People in Wales* report relates to Welsh Health Survey data taken between:
	  ○ 2007 and 2011 for children aged 4-15
	  ○ 2008 and 2011 for young adults aged 16-24.

How are the data collected?	• The adult survey was established in 2003 and runs all year round. The information relating to children has been collected since 2007. • It is based on a representative sample of people living in private households in Wales, selected using a random sample from the Post Office's Postcode Address File.[1] • Families with children aged under 16 are eligible for the child elements of the survey. In households with three or more children, two children are selected at random to avoid respondent burden. Information is collected on households through a short interview and on individuals through a self-completion questionnaire. One of three age-specific questionnaires are used for children. Two are designed for parents to complete on behalf of children aged 0-3 and 4-12. A third questionnaire is given to children aged 13-15 to complete on their own behalf. Adults (aged 16+) complete their own questionnaire. • At each household, all adults and a maximum of two children are eligible for inclusion in the survey. • A sample of around 15,000 adults and 3,000 children is aimed for per year, to include a minimum of 600 adults from each local authority area.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• The Welsh Health Survey is the most comprehensive survey into the health of the population across Wales. However, as with all surveys of a sample of the population it is subject to sampling error i.e. the difference between the estimates derived from the sample and the true population values. • The Welsh Health Survey achieves high response rates e.g. in 2011 78% of eligible households took part and self-completion questionnaires were obtained for 83% of adults and 79% of children in participating households. For young people aged 16-24 the response rate was 72%.[2] • Survey data is usually presented at a Wales level. Combining data from more than one year can allow results to be presented at a lower level (e.g. age group, geography) by improving the precision of the estimates due to the larger sample size used. • As the survey is based on self-reported data, the results are prone to respondent bias i.e. people may under or over estimate their behaviour to give a more favourable response. • The survey results are weighted to ensure that the age and sex distribution of the responding sample matches that of the population of Wales. • The Postcode Address File covers more than 99% of private

	households in Wales; the small percentage of people not covered by the Postcode Address File, for example those living in institutions, were not covered by the Welsh Health Survey. The Welsh Health Survey therefore does not include adults living in institutional settings such as care homes or nursing homes etc. • In general terms whereas non-responding adults were more likely than those who responded to be described as having good general health the converse is true for children i.e. children who responded to the survey were more likely to be described as having good general health than non-responding children.[2]
Who manages the data?	The data is owned and managed by the Welsh Government. NatCen Social Research (www.natcen.ac.uk) conducts the survey on behalf of the Welsh Government.
Where can you get hold of the data?	Welsh Health Survey results are available at: http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en
References	1. Welsh Government. Welsh Health Survey Quality Report. Cardiff: WG; 2011. Available at: http://wales.gov.uk/docs/statistics/2012/120116healthqualityen.pdf 2. Sadler et al. *Welsh Health Survey 2011 Technical Report.* National Centre for Social Research; 2012. Available at http://wales.gov.uk/topics/statistics/theme/health/health-survey/results/?lang=en

6.33 *Welsh Index of Multiple Deprivation 2011*

What does the data tell you?	• The Welsh Index of Multiple Deprivation (WIMD) is the official measure of relative deprivation at small area level in Wales.[1] • WIMD is made up of eight separate domains of deprivation: income; employment; health; education; housing; access to services; environment; and community safety. • WIMD is used to give an overall deprivation rank for each of the 1,896 lower super output areas (LSOA) in Wales and to give ranks for the separate deprivation domains for each of the LSOAs. • The 2011 version of WIMD is used in the *Health of Children and Young People in Wales* report.
How are the data collected?	• Deprivation ranks are calculated for each LSOA in Wales. One area has a higher deprivation rank than another if a larger percentage of its population is classed as deprived. The most deprived area is ranked as one and the least deprived area is ranked as 1,896. • Each of the eight domains is based on a range of different indicators. The domains indices are weighted and combined into an overall index of multiple deprivation. Income and employment are classed as the most important indicators and are given the biggest weighting in the overall index. • To obtain deprivation fifths, geographical areas are ranked from highest to lowest by the deprivation rank and then split into five equal groups, ranging from least deprived to most deprived fifth.

How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Not everyone living in a deprived area is deprived and not all deprived people live in deprived areas. An area itself is not deprived, it is the circumstances and lifestyle of people who are living there that affects its deprivation ranks. • The WIMD cannot tell you how much more deprived one LSOA is than another. If one area is ranked as the 100th most deprived and another area as the 300th most deprived, you cannot say that one area is three times more deprived than the other. • Deprivation ranks cannot be compared with scores from a previous index. • The WIMD ranks cannot be compared with those from deprivation indices of other UK countries. • There are no official Local Authority scores. • WIMD is an ecological measure whereas individuals within an area (LSOA in this instance) may vary. • The overall WIMD index includes a health measure and so it can be argued that assessing health experiences against WIMD can have a circular effect. • Unlike measures of material deprivation some of the factors do not relate directly to material deprivation e.g. access to services. • It is important to note that low deprivation does not equate to affluence.
Who manages the data?	Welsh Government's Statistical Directorate and the Local Government Data Unit (Wales)
Where can you get hold of the data?	The Welsh Government website is available at: http://wales.gov.uk/topics/statistics/theme/wimd/wimd2011/;jsessionid=vtp9PtQGt7KVnyjQBKmBbGF57R2yPK1f3FVCvyb6c5c9PdTdct2j!-587213559?lang=en
References	1. Welsh Government. *Welsh Index of Multiple Deprivation 2011: Technical Report*. Cardiff: WG; 2011. Available at: http://wales.gov.uk/docs/statistics/2011/111222wimd11techen.pdf

6.34 *Welsh Index of Multiple Deprivation: Child Index*

What does the data tell you?	• The Welsh Index of Multiple Deprivation (WIMD): Child Index is the official measure of relative deprivation at small area level in Wales for children.[1] • The indicators included in the Child Index are focussed on the child population and the types of deprivation which might be expected to affect them. • The Child Index was developed as a tool to identify and understand deprivation in children in Wales, so that funding, policy, and programmes can be effectively focussed on children in the most disadvantaged communities.[1] • The 2011 version of WIMD: Child Index is used in the *Health of Children and Young People in Wales* report.
How are the data collected?	• The Child Index is produced as a set of ranks, calculated for each of the 1896 lower super output areas (LSOAs), with a rank of 1 assigned to the most deprived area. • The Child Index has three main components: 1. the Child Index itself, which has a set of ranks; 2. the ranks of the seven types of deprivation, or domains, from which the Child Index is constructed; and

	3. the underlying indicators, which are directly measurable, and which are combined to create the domain ranks. Many, but not all, of the indicators are produced as rates. The units depend on what is been measured. • The Index is constructed from a weighted sum of the deprivation score for each domain. The weights reflect the importance of the domain as an aspect of deprivation, and the quality of the indicators available for that domain. • The domains and their weights for the Child Index 2011 are: income (35.3%), health (17.1%), education (17.1%), geographical access to services (12.2%), community safety (6.1%), physical environment (6.1%) and housing (6.1%). • The indicators used for the Child Index 2011 are: **income:** percentage of child population in income-related benefits households; **health:** limiting long term illness, low birth weight; **education:** Key stage 2, 3 and 4 point scores averages, secondary and primary school absence rates; **geographical access to services**: journey time to library, leisure centre, primary school, secondary school; **community safety**: adult offenders, youth offenders, police recorded crime rates for violent crime, criminal damage, burglary and theft; **physical environment:** air quality, air emissions, flood risk, proximity to waste and industrial sites; **housing**: overcrowding, central heating.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• As the data are designed to pull together a measure of relative deprivation at small area level for children, administrative and Census data is largely used to derive the Child Index. • As ranks are provided relative deprivation can be derived however, this doesn't give an indication of how deprived an area might be compared to another area. For example, if an area has a score that is twice that of another area, then it doesn't mean that one area is twice as deprived as the other. • Data cannot be aggregated to higher areas.
Who manages the data?	Welsh Government
Where can you get hold of the data?	Data can be downloaded from StatsWales as follows: https://statswales.wales.gov.uk/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2011-Child-Index
References	1. Welsh Government. *Welsh Index of Multiple Deprivation: Child Index 2011 Guidance on use*; 2012. Available at http://wales.gov.uk/docs/statistics/2011/110922wimdchild11guidanceen.pdf

6.35 *Welsh National Database for Substance Misuse*

What does the data tell you?	• The database contains information on all referrals to treatment agencies for substance misuse in Wales. A new record is opened for each client, which records information such as date of birth, gender, which substances are used and past habits and also records the client's progress over the course of the treatment.
How are the data collected?	• A record is opened for all individuals referred to treatment agencies in Wales for substance misuse and the details are then entered onto the database.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• This data only relates to people presenting to substance misuse treatment services and may therefore only constitute a percentage of all those misusing substances. These numbers will therefore underestimate the true extent of substance misuse. • The WNDSM is a dynamic database and amendments are often made to past records as further information is submitted by agencies and therefore data presented here may not be directly comparable with the annual reports. • Some agencies are unable to report on all fields and so care should be exercised when looking at geographical differences across Wales. • Clients are categorised by 'main substance' which means that many clients receiving treatment for alcohol may also be receiving treatment for drugs and vice versa. • Referral data for the Abertawe Bro Morgannwg University area will be lower due to the fact that they are reporting on a client based system instead of a referral based system. Work is ongoing to ensure that this data is consistently reported across Wales in future years.
Who manages the data?	NHS Wales Informatics Service (NWIS)
Where can you get hold of the data?	• Data can be accessed via the StatsWales website: https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/Substance-Misuse • The annual reports for substance misuse can be found on the Welsh Government website: http://wales.gov.uk/topics/housingandcommunity/safety/substancemisuse/stats/?lang=en

6.36 *Welsh Oral Health Information Unit*

What does the data tell you?	Provides information on the oral health of children aged 5 years (School Year 1) across Wales.
How are the data collected?	• Data are collected via a survey of children from School Year 1 (aged 5-6). The children are randomly selected from school registers/lists. Historically, the survey has aimed to randomly select 70 subjects from each Dental Planning Area so that, after allowing for absenteeism and refusals, at least 50 subjects should be examined in each Dental Planning Area. • Where Dental Planning Areas contain less than 70 children in the 5-yr-old group, all children will be examined. • There are 161 Dental Planning Areas in Wales. Dental Planning Areas are based around local communities and vary in size. Characteristics such as location of dentists and the population they served were originally used to help map out Dental Planning Areas in the 1990s. They were also defined upon what people felt communities to be. With the exception of North Wales, Dental Planning Areas constitute aggregations of electoral wards (as at 1991). • "Positive" parental consent was used in 2007/08 and 2011/12. • Dental examinations take place in the school and non clinical data are collected by a questionnaire sent to parents of children in the sample.
How accurate and complete will the data be? Are there any problems, notes for interpretation or warnings with the data?	• Dental examiners and recorders attend training and calibration to ensure standardisation of procedures across Wales and the UK. • Data cleansing and analysis is undertaken by the Welsh Oral Health Information Unit to ensure a common method is used. Data undergo a three way data handling process to ensure continued data quality. • The 2011/12 survey examined 7,734 pupils out of a sample of 10,961 pupils giving an examination rate of 70.6%.
Who manages the data?	Public Health Wales develop the survey protocol and arrange the training and calibration exercise. Data are collated by health boards in Wales and submitted to the Welsh Oral Health Information Unit, Cardiff University for data cleaning analysis and report preparation.
Where can you get hold of the data?	Cardiff University School of Dentistry website available at: http://www.cardiff.ac.uk/dentl/research/themes/appliedclinicalresearch/epidemiology/oralhealth/index.html

7 Glossary

Age-standardised rate

- Age standardisation allows comparison of rates across different populations while taking account of the different age structures of those populations. Failure to take account of differing age structures can be very misleading when comparing rates in different populations. For example, in an area with a high proportion of older people, one would expect more people to die than in an area with a low proportion of older people. Without age standardisation, it would be difficult to compare the death rates in two such areas.

Body Mass Index (BMI)

- BMI is a measurement of a person's weight, compared to their height. BMI is calculated as weight (in kilograms) divided by the height squared (in metres). Adults with a BMI of 25 or more are categorised as overweight and adults with a BMI of 30 or more are categorised as obese. See section 4.22 for more information about the measures used for overweight and obese in children and young people.

Confidence intervals (CIs)

- Many of the charts in *Health of Children and Young People in Wales* report contain confidence intervals. Confidence intervals (CIs) are indications of the natural variation that would be expected around a rate and they should be considered when assessing or interpreting a rate. The size of the confidence interval is largely dependent on the size of the population from which the events came. Generally speaking, rates based on small populations are likely to have wider CIs. Conversely, rates based on large populations are likely to have narrower CIs. In this document 95% CIs are used. This represents a range of values that we can be 95% confident contains the 'true' underlying rate.

Census

- The Census provides a count of all people and households within a defined area; here it is undertaken for England and Wales with simultaneous censuses in Scotland and Northern Ireland. The Census gathers information on population, health, housing, employment, transport and ethnicity. In England and Wales it is undertaken every 10 years with the most recent census conducted in 2011. See section 6.5 for more information.

European age-standardised rate

- The European age-standardised rate represents the overall rate you would get if the population had the same age-structure as a theoretical standard European population (direct age-standardisation). In order to calculate this we apply the rates which occur in each age band to the new (standard) population structure. The measure only allows for comparison between rates which have been standardised; it is not a proportion or risk of an event occurring and does not, of itself, involve a comparison with rates across Europe. See *age-standardised rate* for further details.

Emergency admissions

- Unplanned admissions to hospital, including emergency transfers. Patients are counted more than once if they have multiple admissions during the same year.

Fifths of deprivation

- Geographical areas are ranked from highest to lowest by deprivation score, using the Welsh Index of Multiple Deprivation, and then split into five groups of similar size, ranging from least deprived to most deprived fifth.

Family Affluent Scale (FAS)

- FAS measures young people's socio economic status (SES). It is based on a set of questions on the material conditions of the households in which they live, including car ownership, bedroom occupancy, holidays and home computers. Young people are classified according to the summed score of the items, with the overall score being recorded to give values of low, middle and high family affluence.

Infant deaths

- Defined as deaths occurring within the first year of life. See section 5.42 for more information.

Limiting Long-term health problem (LLTI)

- A limiting long-term health problem or disability is one that limits a person's day-to-day activities and has lasted, or is expected to last, at least 12 months

Lower Super Output Area (LSOA)

- Defined geographical area based on Census output areas with an average of 1,500 persons per LSOA. Based on Census 2001, there are 1,896 LSOAs in Wales. There are 1,909 LSOAs in Wales, based on Census 2011. The number of LSOAs varies widely between health boards.

Mid-year estimates

- Annual estimates of the resident population produced by the Office for National Statistics, based on the Census and taking into account population change (births, deaths and migration). See section 6.22 for more information.

Middle Super Output Area (MSOA)

- Defined geographical area based on Census output areas with an average of 7,000 persons per MSOA. Based on Census 2001, there are 413 MSOAs in Wales. There are 410 MSOAs in Wales, based on Census 2011. The number of MSOAs varies between health boards.

Neonatal deaths

- Defined as deaths within the first 28 days of life. See section 5.42 for more information.

Public Health Wales NHS Trust

- Public Health Wales was established as an NHS Trust on 1 October 2009. The Trust incorporates the functions and services previously provided by the National Public Health Service for Wales, the Wales Centre for Health, the Welsh Cancer Intelligence and Surveillance Unit and Screening Services Wales.

Perinatal deaths

Defined as stillbirths plus deaths in the first week of life (i.e. under 7 days). See section 5.42 for more information.

Statistical significance

- The online spreadsheets supporting the *Health of Children and Young People in Wales* report show whether or not local authority and health board rates are statistically significantly different from the overall Wales rate. A result may be deemed statistically significant if it is considered unlikely to have occurred by chance alone. The basis for such judgements is a predetermined and arbitrary cut-off, usually taken as 5% or 0.05. In some circumstances this cut–off may be lowered to 1%, for example where there is a greater need for certainty over the safety of a drug or procedure. In this document, a rate is described as statistically significant if its 95% CI does not cross the Wales rate. Statistical significance is not the same as public health significance. A result may have public health significance whilst not being statistically significant and vice versa.

Still births

- Defined as late foetal deaths i.e. from 24 weeks of gestation. I.e. Babies born dead after 24 weeks of pregnancy. See section 5.42 for more information.

Truancy

- An unauthorised absence is defined as an absence without permission from a teacher or other authorised representative of the school. It includes late arrivals after the closure of registration and any absence where a satisfactory explanation has not been provided. See section 5.15 for more information.

Upper Super Output Area (USOA)

- Defined geographical area based on Census output areas with an average of around 30,000 persons per USOA. Based on Census 2001, there are 94 USOAs in Wales, and the number of USOAs varies between health boards.

Welsh Index of Multiple Deprivation (WIMD)

- WIMD is a measure of multiple deprivation at lower super output area level. A WIMD deprivation score is calculated using eight domains i.e. income, employment, health, education, access to services, housing, physical environment and community safety.