Public Health England

NHS RightCare

The 2nd Atlas of Variation in Risk Factors and Healthcare Liver Disease in England

Map 1a: Variation in rate of years of life lost in people aged 1 to 64 years from chronic liver disease including cirrhosis per population by CCG (2013-15)

Indicator:	**Years of life lost in people aged under 65**
Statistic:	Directly standardised rate per 10,000
Time period (map):	2013-15
Time period (boxplot):	2005-07 - 2013-15
Age group:	1- 64 years
Description	The directly standardised rate of years of life lost in people aged 1 - 64 from chronic liver disease including cirrhosis recorded as the underlying causes of death per 10,000 population by CCG of residence
Data source:	Numerator: Years of life lost and deaths from chronic liver disease including cirrhosis, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator ICD-10 codes 'K70', 'K73', 'K74' recorded as an underlying cause of death
Numerator:	Years of life lost from chronic liver disease including cirrhosis classified by underlying cause of death registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aged 1-64, Office for National Statistics (ONS).
Methodology:	The number of years of life lost is calculated by summing over ages 1 to 64 years the number of deaths at each age multiplied by the number of years of life remaining up to age 65 years. Infant deaths are omitted as they are mostly a result of causes specific to this age group and have different aetiologies to deaths later in life. The standardisation calculation has been performed using 5-year age bands and uses the 2013 European population as the reference standard. In each age band the number of deaths is weighted by the number of years of life remaining from the mid-point of the age band up to age 65 years. The number of deaths have been adjusted based on ONS Coding changes Counts of deaths for years up to and including 2013 have been adjusted where needed to take account of the IRIS ICD-10 coding change introduced in 2014, the detailed guidance on the implementation is available at http://www.ons.gov.uk/ons/rel/subnational-health3/impact-of-the-implementation-of-iris-software-for-icd-10-cause-of-death-coding-on-mortality-statistics/england-and-wales/stb-impact-of-the-implementation-of-iris.html?format=print Counts of deaths for years up to and including 2010 have been double adjusted by applying comparability ratios from both the 2011 coding change and the IRIS coding change where needed to take account of both the IRIS coding change and the ICD-10 coding change introduced in 2011. The detailed guidance on the 2011 implementation is available at http://www.ons.gov.uk/ons/guide-method/classifications/international-standard-classifications/icd-10-for-mortality/comparability-ratios/index.html Confidence intervals were calculated using Byars Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	https://indicators.hscic.gov.uk/webview/
Further notes (1):	Where the observed total number of deaths is less than 25, the rates have been suppressed as there are too few deaths to calculate directly standardised rates reliably.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 1b: Variation in rate of years of life lost in people aged 1 to 74 years from chronic liver disease including cirrhosis per population by CCG (2013-15)

Indicator:	**Years of life lost in people aged under 75**
Statistic:	Directly standardised rate per 10,000
Time period (map):	2013-15
Time period (boxplot):	2005-07 - 2013-15
Age group:	1- 74 years
Description	The directly standardised rate of years of life lost in people aged 1 - 74 from chronic liver disease including cirrhosis recorded as the underlying cause of death per 10,000 population by CCG of residence
Data source:	Numerator: Years of life lost and deaths from chronic liver disease including cirrhosis, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator ICD-10 codes 'K70', 'K73', 'K74' recorded as an underlying cause of death
Numerator:	Years of life lost from chronic liver disease including cirrhosis classified by underlying cause of death registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aged 1-74, Office for National Statistics (ONS).
Methodology:	The number of years of life lost is calculated by summing over ages 1 to 74 years the number of deaths at each age multiplied by the number of years of life remaining up to age 75 years. Infant deaths are omitted as they are mostly a result of causes specific to this age group and have different aetiologies to deaths later in life. The standardisation calculation has been performed using 5-year age bands and uses the 2013 European population as the reference standard. In each age band the number of deaths is weighted by the number of years of life remaining from the mid-point of the age band up to age 75 years. The number of deaths have been adjusted based on ONS Coding changes Counts of deaths for years up to and including 2013 have been adjusted where needed to take account of the IRIS ICD-10 coding change introduced in 2014, the detailed guidance on the implementation is available at http://www.ons.gov.uk/ons/rel/subnational-health3/impact-of-the-implementation-of-iris-software-for-icd-10-cause-of-death-coding-on-mortality-statistics/england-and-wales/stb-impact-of-the-implementation-of-iris.html?format=print Counts of deaths for years up to and including 2010 have been double adjusted by applying comparability ratios from both the 2011 coding change and the IRIS coding change where needed to take account of both the IRIS coding change and the ICD-10 coding change introduced in 2011. The detailed guidance on the 2011 implementation is available at http://www.ons.gov.uk/ons/guide-method/classifications/international-standard-classifications/icd-10-for-mortality/comparability-ratios/index.html Confidence intervals were calculated using Byars Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	https://indicators.hscic.gov.uk/webview/
Further notes (1):	Where the observed total number of deaths is less than 25, the rates have been suppressed as there are too few deaths to calculate directly standardised rates reliably.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 1c: Variation in mortality rate in people aged under 75 years from chronic liver disease including cirrhosis per population by CCG (2013-15)

Indicator:	**Chronic liver disease including cirrhosis mortality in people aged under 75**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2013-15
Time period (boxplot):	2005-07 - 2013-15
Age group:	0 - 74 years
Description	The directly standardised rate of mortality in people aged under 75 from chronic liver disease including cirrhosis recorded as the underlying cause of deaths per 100,000 population by CCG of residence
Data source:	Numerator: Number of deaths from chronic liver disease including cirrhosis, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator ICD-10 codes 'K70', 'K73', 'K74' recorded as an underlying cause of death
Numerator:	Number of deaths from chronic liver disease including cirrhosis classified by underlying cause of death registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aged under 75, Office for National Statistics (ONS).
Methodology:	The indicator is constructed as a directly standardised rate for all persons aged under 75 using the 2013 European population as the reference standard. Numerator data for each age band group are divided by the denominator population data for each age band group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area. The number of deaths have been adjusted based on ONS Coding changes Counts of deaths for years up to and including 2013 have been adjusted where needed to take account of the IRIS ICD-10 coding change introduced in 2014, the detailed guidance on the implementation is available at http://www.ons.gov.uk/ons/rel/subnational-health3/impact-of-the-implementation-of-iris-software-for-icd-10-cause-of-death-coding-on-mortality-statistics/england-and-wales/stb-impact-of-the-implementation-of-iris.html?format=print Counts of deaths for years up to and including 2010 have been double adjusted by applying comparability ratios from both the 2011 coding change and the IRIS coding change where needed to take account of both the IRIS coding change and the ICD-10 coding change introduced in 2011. The detailed guidance on the 2011 implementation is available at http://www.ons.gov.uk/ons/guide-method/classifications/international-standard-classifications/icd-10-for-mortality/comparability-ratios/index.html Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	https://indicators.hscic.gov.uk/webview/
Further notes (1):	Where the observed total number of deaths is less than 25, the rates have been suppressed as there are too few deaths to calculate directly standardised rates reliably.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 2: Variation in rate of admissions to hospital at least once for cirrhosis in people aged 18 years and over per population by CCG (2014/15)

Indicator:	**Hospital admissions for cirrhosis**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	18 years and over
Description	The directly standardised rate of admissions to hospital at least once for cirrhosis in people aged 18 and over per 100,000 population by CCG of residence
Data source:	Numerator: Number of completed admissions to hospital with cirrhosis, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: Population aged 18 and over, ONS 2011 Census based mid-year population estimates for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data).
Coding scheme	Cirrhosis: ICD-10 code 'K70' , K73', 'K74' in the main primary diagnosis position Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' First episode in admission: EPIORDER = '1' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2') STARTAGE BETWEEN 18 and 120
Numerator:	Number of admissions with a main diagnosis code of cirrhosis
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population aged 18 and over, for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data), Office for National Statistics (ONS)
Methodology:	The indicator is constructed as a directly standardised rate for all persons and all ages using the 2013 European population as the reference standard. Numerator data for each age group are divided by the denominator population data for each age group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Where the observed total number of deaths is less than 25, the rates have been suppressed as there are too few deaths to calculate directly standardised rates reliably.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 3: Variation in rate of hospital admissions for liver disease in children and young people aged 18 years and under per population by CCG (2010/11- 2014/15)

Indicator:	**Children's liver disease hospital admissions**
Statistic:	Crude rate per 100,000
Time period (map):	2010/11-14/15
Time period (boxplot):	2005/06-09/10 - 2010/11-14/15
Age group:	0 - 18 years
Description	The crude rate of persons aged 18 and under admitted to hospital with a diagnosis of liver disease per 100,000 population by CCG of residence
Data source:	Numerator: Number admissions for liver disease in children, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: Population aged 18 and under, ONS 2011 Census based mid-year population estimates aggregated to five year totals
Coding scheme	Admissions for patients with Liver Disease: ICD10 - ('B171','B180','B181','B182','E804','E805','E806','E807','E830','E831','E880','I820','K740','K746','K750','K760','K766','K768','K769','K830','K831','P591','P592','Q442','Q444','Q445','Q446','Q447','C22','B15','B16','I81','K71','K72') Within Under 18s (STARTAGE IN ('1','2','3','4','5','6','7','8','9','10','11','12','13','14','15','16','17','18') OR STARTAGE LIKE '7000', '7001','7002','7003','7004','7005','7006','7007') Finished admission episodes: EPIORDER = 1 and epistat = '3' Ordinary admissions: CLASSPAT IN ('1','2','5') England residents: MAIN.RESGOR between 'A' and 'K' Male and female admissions: SEX IN ('1','2')
Numerator:	Number of people aged 18 and under with a hospital admission and a record of liver disease
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population aged 0-18 years aggregated to a FIVE year total, Office for National Statistics (ONS)
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 4a: Variation in rate of alcohol-specific admissions in people of all ages per population by CCG (2015/16)

Indicator:	**Alcohol specific admissions in all persons**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2015/16
Time period (boxplot):	2005/06 - 2015/16
Age group:	All ages
Description	The directly standardised rate of persons admitted to hospital where the primary diagnosis or any of the secondary diagnoses contain one of the listed conditions specific to alcohol misuse per 100,000 population by CCG of residence
Data source:	Numerator: Number of admissions of people admitted for alcohol specific conditions, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved.
	Denominator: ONS 2011 Census based mid-year population estimates for persons for the respective years
Coding scheme	All Patients (SEX IN (1,2)) Wholly attributable : Alcohol Attributable Fraction = 1 Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' First episode in admission: EPIORDER = '1' England, No fixed abode and unknown residents: RESGOR ('A','B','D','E','F','G','H','J','K','U','Y')
Numerator:	Number of admissions for persons admitted to hospital for alcohol specific conditions
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population all ages, for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data), Office for National Statistics (ONS)
Methodology:	The indicator is constructed as a directly standardised rate for all persons and all ages using the 2013 European population as the reference standard. Numerator data for each group are divided by the denominator population data for each group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.lape.org.uk/downloads/Lape_guidance_and_methods.pdf
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 4b: Variation in rate of alcohol-specific admissions in men of all ages per population by CCG (2015/16)

Indicator:	**Alcohol specific admissions in men**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2015/16
Time period (boxplot):	2005/06 - 2015/16
Age group:	All ages
Description	The directly standardised rate of males admitted to hospital where the primary diagnosis or any of the secondary diagnoses contain one of the listed conditions specific to alcohol misuse per 100,000 population by CCG of residence
Data source:	Numerator: Number of admissions of men for alcohol specific conditions, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved._x000D_

Denominator: ONS 2011 Census based mid-year population estimates for males for the respective years |
| Coding scheme | Male Patients (SEX = 1)_x000D_
Wholly attributable : Alcohol Attributable Fraction = 1_x000D_
Ordinary admissions: CLASSPAT IN ('1', '2', '5')_x000D_
Finished Episodes: EPISTAT = '3'_x000D_
First episode in admission: EPIORDER = '1'_x000D_
England, No fixed abode and unknown residents: RESGOR ('A','B','D','E','F','G','H','J','K','U','Y') |
| Numerator: | Number of admissions for males admitted to hospital for alcohol specific conditions |
| Denominator: | ONS 2011 Census based mid-year population CCG estimates of resident male population all ages, for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data), Office for National Statistics (ONS) |
| Methodology: | The indicator is constructed as a directly standardised rate for all men of all ages using the 2013 European population as the reference standard._x000D_
Numerator data for each group are divided by the denominator population data for each group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area._x000D_
The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area._x000D_

Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance |
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.lape.org.uk/downloads/Lape_guidance_and_methods.pdf
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 4c: Variation in rate of alcohol-specific admissions in women of all ages per population by CCG (2015/16)

Indicator:	**Alcohol specific admissions in women**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2015/16
Time period (boxplot):	2005/06 - 2015/16
Age group:	All ages
Description	The directly standardised rate of females admitted to hospital where the primary diagnosis or any of the secondary diagnoses contain one of the listed conditions specific to alcohol misuse per 100,000 population by CCG of residence
Data source:	Numerator: Number of admissions of women for alcohol specific conditions, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: ONS 2011 Census based mid-year population estimates for females for the respective years
Coding scheme	Female Patients (SEX = 2) Wholly attributable : Alcohol Attributable Fraction = 1 Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' First episode in admission: EPIORDER = '1' England, No fixed abode and unknown residents: RESGOR ('A','B','D','E','F','G','H','J','K','U','Y')
Numerator:	Number of admissions for females admitted to hospital for alcohol specific conditions
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident female population all ages, for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data), Office for National Statistics (ONS)
Methodology:	The indicator is constructed as a directly standardised rate for all women of all ages using the 2013 European population as the reference standard. Numerator data for each group are divided by the denominator population data for each group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.lape.org.uk/downloads/Lape_guidance_and_methods.pdf
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 5: Variation in rate of alcohol-specific admissions in people aged under 18 years per population by CCG (2015/16)

Indicator:	**Alcohol specific admissions under 18 years**
Statistic:	Crude rate per 100,000
Time period (map):	2015/16
Time period (boxplot):	2005/06 - 2015/16
Age group:	0- 18 years
Description	The crude rate of persons aged under 18 years admitted to hospital where the primary diagnosis or any of the secondary diagnoses contain one of the listed conditions specific to alcohol misuse per 100,000 population by CCG of residence
Data source:	Numerator: Number of admissions for alcohol specific conditions, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: Population aged under 18, ONS 2011 Census based mid-year population estimates for the respective years.
Coding scheme	Patients under 18: STARTAGE BETWEEN 0 AND 17 Wholly attributable : Alcohol Attributable Fraction = 1 Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' First episode in admission: EPIORDER = '1' England, No fixed abode and unknown residents: RESGOR ('A','B','D','E','F','G','H','J','K','U','Y') Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of admissions for persons aged under 18 years admitted to hospital for alcohol specific conditions
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population aged under 18 years, for the first year of the financial HES year (e.g. 2013 MYE for 2013/14 HES data), Office for National Statistics (ONS)
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.lape.org.uk/downloads/Lape_guidance_and_methods.pdf
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 6: Variation in percentage of people aged 18 to 75 with alcohol use who completed structured treatment successfully and did not re-present to treatment within 6 months by upper-tier local authority (2015)

Indicator:	**Alcohol users that have left treatment successfully**
Statistic:	Percentage
Time period (map):	2015
Time period (boxplot):	2010 - 2015
Age group:	18 - 75 years
Description	The percentage of alcohol users aged 18 - 75 years that have left structured treatment successfully (free of alcohol dependence) who do not then re-present to treatment within 6 months from the total number of alcohol users in structured treatment in that year by upper-tier local authority of residence
Data source:	National Drug Treatment Monitoring System, Public Health England
Coding scheme	N/A
Numerator:	Number of adults aged 18 - 75 that successfully complete structured treatment for alcohol dependence in a year and who do not re-present to treatment within 6 months.
Denominator:	Total number of adults aged 18 - 75 in structured treatment for alcohol dependence in a year.
Methodology:	The numerator is divided by the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015/iid/92447/age/234/sex/4
Source locations (2):	https://www.ndtms.net/default.aspx
Source locations (3):	
Further notes (1):	Counts for City of London have been included in the Hackney total, counts for Isles of Scilly have been included in the Cornwall Unitary Authority total and counts for Rutland have been included in the Leicestershire total due to small numbers.
Further notes (2):	
Produced by:	National Drug Treatment Monitoring System, Public Health England
Date created:	01/10/2016

Map 7: Variation in rate of premises licensed to sell or supply alcohol per population aged 18 years and over by lower-tier local authority per population (2016)

Indicator:	**Premises licensed to sell alcohol**
Statistic:	Crude rate per 1,000
Time period (map):	2016
Time period (boxplot):	2016
Age group:	N/A
Description	The crude rate of premises licensed to sell or supply alcohol per 1,000 population aged 18 and over by lower-tier local authority
Data source:	Numerator: Number of premised licenses, alcohol and late night refreshment licensing, England and Wales, 31 March 2016: supplementary tables at licensing authority area level, Alcohol Sales and Misuse, Home Office Denominator: ONS 2011 Census based mid-year population estimates.
Coding scheme	N/A
Numerator:	Number of premises licensed to sell or supply alcohol
Denominator:	ONS 2011 Census based mid-year population estimates. Local Authority estimates of resident population aged 18 and over, Office for National Statistics (ONS).
Methodology:	Numerator divided by population denominator expressed as a rate per 1,000. Data summed for all premise licences and club premise certificates from Table 2 of the Home Office data 'The Alcohol and late night refreshment licensing, England and Wales, 31 March 2016 supplementary tables' using the following fields: On*sales of alcohol only Off*sales of alcohol only Both on* and off* sales of alcohol On*sales or supply of alcohol only Both on* and off*sales or supply of alcohol *Where On sales refers to alcohol permitted to be sold and consumed on the premises, and Off sales where alcohol is permitted to be sold and consumed off the premises. Local authorities are not included where data has not been submitted in one of these fields to prevent undercounting and underestimating the number of licensed premises. Rates are calculated based on population aged 18 and over who are legible to purchase and or consume alcohol on a licenced premises. For the purposes of our analysis Licencing Authority have been taken a being coterminous to Local Authority. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	https://www.gov.uk/government/collections/alcohol-and-late-night-refreshment-licensing-england-and-wales-statistics
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	The published figures on alcohol and late night refreshment licensing are sourced from licensing authority's licensing records. The figures are always subject to the inaccuracies inherent in any large recording system and are not necessarily accurate to the last digit. In terms of the scope of the figures, licensing authorities are sometimes unable to provide returns; even when a return has been provided, licensing authorities may not always be able to report on all of the information requested.
Further notes (2):	Counts for City of London have been included in the Hackney total and counts for Isles of Scilly have been included in the Cornwall Unitary Authority total.
Produced by:	Public Health England
Date created:	01/11/2016

Map 8: Variation in rate of laboratory reports for confirmed hepatitis C per population by region (2015)

Indicator:	**Hepatitis C confirmed laboratory reports**
Statistic:	Crude rate per 100,000
Time period (map):	2015
Time period (boxplot):	2006 - 2015
Age group:	All ages
Description	Crude rate per 100,000 persons, all ages, who were tested positive for Hepatitis C and was recorded on the PHE labs reporting system, Second Gerneration Survaillance System (SGSS) by Government Office Region
Data source:	Numerator: Number of people with laboratory reports which tested positive for hepatitis C, Public Health England, Second Generation Surveillance System Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	N/A
Numerator:	Number of laboratory reports with confirmed Hepatitis C
Denominator:	ONS 2011 Census based mid-year population estimates. Government Office Region estimates of resident population, Office for National Statistics (ONS).
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000. Reports were assigned to a region according to i) the patient's place of residence ii) the postcode of the patient's registered GP practice, iii) the postcode of the source laboratory. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	https://www.gov.uk/government/collections/hepatitis-c-guidance-data-and-analysis
Source locations (2):	https://www.gov.uk/government/publications/laboratory-reports-of-hepatitis-a-and-c-2015
Source locations (3):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Further notes (1):	During 2015 laboratory reports of cases of hepatitis C intermittently failed to be uploaded to SGSS. The reasons for this are currently being investigated.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/07/2016

Map 9: Variation in estimated prevalence of injecting of opiate and/or crack cocaine in people aged 15 to 64 years per population by upper-tier local authority (2011/12)

Indicator:	**Injecting drug use**
Statistic:	Crude rate per 1,000
Time period (map):	2011/12
Time period (boxplot):	2009/10 - 2011/12
Age group:	15 - 64 years
Description	The crude rate of individuals aged 15-64 years who have injected drugs (opiates and/or crack cocaine), per 1,000 persons by upper-tier local authority of residence
Data source:	Numerator: Estimated number of injecting drug users, National Treatment Agency for Substance Misuse, Public Health England Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	N/A
Numerator:	Number of people who inject drugs (opiates and/or crack cocaine) aged 15-64 resident in each Local Authority
Denominator:	ONS 2011 Census based mid-year population estimates. Local Authority estimates of resident population aged 15 - 64, Office for National Statistics (ONS).
Methodology:	The local and national prevalence estimates shown in this indicator, are derived using two indirect measurement techniques: The capture-recapture method and the multiple indicator method was used to obtain opiate and/or crack use prevalence estimates. The capture-recapture method and the multiple indicator (MIM) method – these methods are described in detail in Hay et al., 2006 and Hay et al., 2007a. As with previous sweeps of the project, the first stage of the estimation process was to attempt to obtain capture-recapture (CRC) estimates for all Drug Action Teams (DAT) areas. These CRC estimates were then used as anchor points for a multiple indicator method (MIM) model which was used to provide estimates for those areas for which it had not proved possible to obtain a CRC estimate. The individuals covered by this study were people aged 15 to 64 and resident in each local authority area, and known to be using heroin, methadone, other opiate drugs, or crack cocaine. The detailed guidance on the prevalence estimates is available at http://www.nta.nhs.uk/facts-prevalence.aspx The confidence intervals presented are those published by the NTA, this method is outlined in Cormack, R. (1992) Interval estimation for mark-recapture studies of closed populations. Biometrics, 48, 567-576.
Source locations (1):	http://www.nta.nhs.uk/uploads/estimates-of-the-prevalence-of-opiate-use-and-or-crack-cocaine-use-2011-12.pdf
Source locations (2):	https://fingertips.phe.org.uk/profile/liver-disease/data#page/6/gid/8000063/pat/6/par/E12000004/ati/102/are/E06000015/iid/90883/age/182/sex/4
Source locations (3):	
Further notes (1):	Local Government changes came into effect on 1st April 2009. On that date Bedfordshire split into Bedford and Central Bedfordshire and Cheshire split into Cheshire East and Cheshire West and Chester. Estimates of the prevalence of injecting are provided for the old areas only. Cornwall and Isle of Scilly data are combined in the source data. It should be noted that the case definition focuses on the 'use' of opiates and/or crack cocaine rather than the 'misuse' of these drugs or addiction to either drug. The case definition does not include the use of cocaine in a powder form, the use of amphetamine, ecstasy or cannabis, or the injecting of drugs by people who do not use opiates or cocaine. All data refer to the financial year from 1st April 2011 to 31st March 2012. To derive age from date of birth, the individual's age on the 1st of October 2011 (the mid-point in the financial year 2011/12) was calculated and those who were under the age of 15 or over the age of 64 were excluded.
Further notes (2):	Significance calculations are only provided at a 95% confidence intervals, not 98.8% confidence intervals for this indicator.
Produced by:	Public Health England
Date created:	01/01/2013

Map 10: Variation in percentage of hepatitis C test uptake among people who inject drugs receiving drug treatment by upper-tier local authority (2015/16)

Indicator:	**Hepatitis C test uptake for those who inject drugs and are receiving treatment**
Statistic:	Percentage
Time period (map):	2015/16
Time period (boxplot):	2012/13 - 2015/16
Age group:	18 years and older
Description	The percentage of people aged 18 and over who have previously or currently inject drugs that are in substance misuse treatment and who have received a hepatitis C test by upper-tier local authority of residence
Data source:	Financial Year Submissions, National Drug Treatment Monitoring System, Public Health England
Coding scheme	N/A
Numerator:	Number of all individuals in structured drug treatment in each financial year, who currently or previously have injected drugs and received a hepatitis C test
Denominator:	Number of all individuals in structured drug treatment in each financial year, who currently or previously have injected drugs, who were eligible to receive a hepatitis C test
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Percentage of persons in structured drug treatment who currently or have previously injected drugs who received a hepatitis C test. Receipt of a hepatitis C test is determined by the presence of a hepatitis C test date or a flag that the person has been tested for hepatitis C in the current treatment journey in NDTMS. All individuals who currently or previously injected drugs are considered eligible unless they have a hepatitis C intervention status in the current treatment journey of 'assessed as not appropriate to offer'. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://fingertips.phe.org.uk/search/hepatitis%20C#page/6/gid/1/pat/6/par/E12000004/ati/102/are/E06000015/iid/90938/age/168/sex/4
Source locations (2):	https://www.ndtms.net/default.aspx
Source locations (3):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Further notes (1):	There may be a lag in a client getting a hepatitis C test. Clients with a missing hepatitis C intervention status are assumed to be eligible and clients with no information about receipt of a hep C test are assumed not to have had a test. Completion for these fields is very high nationally but this may differ at a Local Authority level. Care should therefore be taken when comparing Local Authorities to the national figure. Counts less than 5 are suppressed for disclosure control.
Further notes (2):	Counts for Isles of Scilly have been included in the Cornwall Unitary Authority total.
Produced by:	Public Health England (National Drug Treatment Monitoring System)
Date created:	01/01/2017

Map 11a: Variation in rate of hospital admissions for hepatitis C-related end-stage liver disease or hepatocellular carcinoma per population by Sustainability Transformation Partnerships (STP) (2012/13 - 2014/15)

Indicator:	**Hepatitis C end stage liver disease or hepatocellular carcinoma hospital admissions**
Statistic:	Crude rate per 1,000,000
Time period (map):	2012/13-14/15
Time period (boxplot):	2005/06-07/08 - 2012/13-14/15
Age group:	All ages
Description	The crude rate of persons admitted to hospital for hepatitis C-related end-stage liver disease or hepatocellular carcinoma per 1,000,000 population by STP of residence
Data source:	Numerator: Number of unique persons with hepatitis C-related end-stage liver disease, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: ONS 2011 Census based mid-year population estimates aggregated to three year totals
Coding scheme	Patients with Hepatitis C: (ICD10 codes IN ('B171', 'B182')) with a mention of end-stage liver disease or hepatocellular carcinoma (ICD10: IN('C220','I850','K767','K729','K720','K721','K704') OR LIKE 'R18_') within 365 days of initial admission for Ordinary admissions (CLASSPAT IN ('1')) within finished episodes (a.EPISTAT = '3') within male and females (SEX IN ('1', '2'))
Numerator:	Number of unique patients (excluding regular attenders) admitted to hospital with a diagnosis in any Finished Completed Episode and in any Diagnosis field (not restricted to primary diagnosis) of: i) Hepatitis C, ICD10 codes B171 or B182; AND ii) a diagnosis of end stage liver disease, ICD10 codes I850, K704, K720, K721, K729, R18 OR Hepatocellular carcinoma, ICD10 code C220. Admissions have to be within 1 year of previous admission to be included. Patients are included and counted according to the financial year in which the episode ended, and are presented by Sustainability Transformation Plans, and aggregated into quinary age bands (0-4, 5-9,…, 85-89, 90+). Please note that a patient is counted once only at early time period where both Hep C and End stage liver disease are mentioned and patients can be included within each of the pooled period (this is not a count of admissions), BUT that patients may also have Hepatitis C and be included in the Hepatitis B indicator. Non-residents, or those patients whose normal place of residence cannot be ascertained as being in England, are excluded from the analyses.
Denominator:	ONS 2011 Census based mid-year population LSOA estimates of resident population aggregated to STP and to a three year total, Office for National Statistics (ONS)
Methodology:	Numerator divided by population denominator expressed as a rate per 1,000,000. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 11b: Variation in rate of mortality from hepatitis C-related end-stage liver disease or hepatocellular carcinoma per population by Sustainability Transformation Partnerships (STP) (2011-2015)

Indicator:	**Hepatitis C related end stage liver disease or hepatocellular carcinoma mortality**
Statistic:	Crude rate per 100,000
Time period (map):	2011-15
Time period (boxplot):	2005-09 - 2011-15
Age group:	All ages
Description	The crude rate of mortality from hepatitis C - related end-stage liver disease or hepatocellular carcinoma per population by STP of residence
Data source:	Numerator: Number of deaths from hepatitis C - related end-stage liver disease or hepatocellular carcinoma, registered in the respective calendar years, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator Any mention of ICD-10 code 'B171', 'B182' and any mention of 'C220', 'I850', 'K704', 'K720', 'K721', 'K729', 'K767', 'R18'
Numerator:	Number of deaths with any mention of hepatitis C end stage liver disease or hepatocellular carcinomas registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates. LSOA estimates of resident population aggregated to STPs, Office for National Statistics (ONS).
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000. For both numerator and denominator, the STP of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence data. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Counts less than 3 are suppressed for disclosure control.
Further notes (2):	End-stage liver disease definition definition used here is: presence of ascites, bleeding oesophageal varices, hepato-renal syndrome, hepatic encephalopathy, hepatic failure or hepatocellular carcinoma (HCC) It is likely that hepatitis C is under-recorded on death certificates and so these figures are likely to underestimate true mortality for hepatitis C-related end-stage liver disease .
Produced by:	Public Health England
Date created:	01/01/2017

Map 12: Variation in percentage of women who tested positive for hepatitis B in the NHS Infectious Diseases in Pregnancy Screening Programme by region (2015)

Indicator:	**Women receiving antenatal care screened positive for hepatitis B**
Statistic:	Percentage
Time period (map):	2015
Time period (boxplot):	2005 - 2015
Age group:	Women of childbearing age
Description	The percentage of pregnant women who were tested and screened positive for hepatitis B infection by government office region
Data source:	PHE National Antenatal Infections Screening Monitoring (NAISM) Programme and NHS Infectious Diseases in Pregnancy Screening (IDPS) Programme
Coding scheme	N/A
Numerator:	Number of women who screened positive for hepatitis B during antenatal screening which comprises: women newly diagnosed and those previously diagnosed and retested in this pregnancy.
Denominator:	Number of pregnant women tested for hepatitis B infection
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	https://www.gov.uk/government/publications/national-antenatal-infections-screening-monitoring-annual-data-tables
Source locations (2):	https://www.gov.uk/government/publications/analysing-antenatal-infections-national-data-methods
Source locations (3):	https://www.gov.uk/government/publications/antenatal-screening-for-infectious-diseases-in-england-summary-report-for-2012
Further notes (1):	Screening is offered and recommended to all pregnant women in England as part of the UK National Screening Committee's NHS Infectious Disease in Pregnancy Screening Programme. Data are collected at maternity unit or trust level on the number of pregnant women attending and booking for antenatal care; the number screened for each of the four infections and results of the screening tests, together with the number of women previously diagnosed with hepatitis B or HIV. These data are requested and collated by PHE's Field Epidemiology Teams with support from some Regional Antenatal and Newborn Screening Quality Assurance teams and sent to PHE's National Infections Service. As part of the data processing, data exclusions and adjustments were made. Therefore differences in the denominators may occur.
Further notes (2):	
Produced by:	PHE National Antenatal Infections Screening Monitoring (NAISM) Programme and NHS Infectious Diseases in Pregnancy Screening (IDPS) Programme
Date created:	13/01/2017

Map 13: Variation in percentage of infants immunised for hepatitis B by their first birthday who were born to mothers with persistent hepatitis B infection by upper-tier local authority (2015/16)

Indicator:	**Infants immunised for hepatitis B by their first birthday**
Statistic:	Percentage
Time period (map):	2015/16
Time period (boxplot):	2015/16
Age group:	1 year (at their first birthday)
Description	The percentage of infants at age 12 months who have received the complete course (3 doses) of hepatitis B vaccine within each reporting area from of all the eligible population as defined in the hepatitis B chapter of the immunisation against infectious diseases "Green Book" (have maternal Hepatitis B positive status).
Data source:	Cover of Vaccination Evaluated Rapidly (COVER) data collected by Public Health England (formerly by the Health Protection Agency). Available from PHOF.
Coding scheme	N/A
Numerator:	Number of children at age 12 months who have received the complete course (3 doses) of hepatitis B vaccine.
Denominator:	Eligible population as defined in the hepatitis B chapter of the immunisation against infectious diseases "Green Book" (have maternal Hep B positive status).
Methodology:	The numerator is divided by the denominator, expressed as a percentage.
	Given that some or all of the data required on infants born to hepatitis B positive mothers could not be supplied for a large number of LAs, it would be inadvisable to draw conclusions from these data. It should also be noted that no national or regional data have been published for this reason. Therefore data presented in the Atlas, is shown as 'data submitted' and 'data not available'.
Source locations (1):	http://www.phoutcomes.info/public-health-outcomes-framework#page/6/gid/1000043/pat/6/par/E12000004/ati/102/are/E06000015/iid/30301/age/30/sex/4
Source locations (2):	https://www.gov.uk/government/publications/infants-born-to-hepatitis-b-infected-mothers-immunisation-policy
Source locations (3):	http://content.digital.nhs.uk/catalogue/PUB18472
Further notes (1):	The data are reported at Local Authority (LA) level for the first time, therefore have been designated as Experimental Statistics. Following the introduction of universal antenatal testing for hepatitis B (HepB) in April 2000, PHE has been collecting coverage data on infants born to hepatitis B positive mothers at their first and second birthdays. Since April 2005, this data collection has been integrated into the routine COVER programme and has been a statutory requirement since 2006.
Further notes (2):	
Produced by:	COVER, Public Health England, NHS Digital
Date created:	01/07/2017

Map 14: Variation in rate of laboratory reports for acute or probable acute hepatitis B per population by region (2015)

Indicator:	**Hepatitis B laboratory reports**
Statistic:	Crude rate per 100,000
Time period (map):	2015
Time period (boxplot):	2008 - 2015
Age group:	All ages
Description	The crude rate of laboratory reports for acute or probable acute hepatitis B per 100,000 population by government office region
Data source:	Numerator: Number hepatitis B cases, Acute hepatitis B (England): annual report for 2015, Health Protection weekly report,Volume 10 Number 28, Public Health England
	Denominator: ONS 2011 Census based mid-year population estimates are mid 2013 population for 2008-2014 data and mid-2015 population for 2015 data as provided in source data.
Coding scheme	N/A
Numerator:	Number of acute or probable acute hepatitis B cases
Denominator:	ONS 2011 Census based mid-year population estimates. Government Office Region estimates of resident population, Office for National Statistics (ONS).
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000.
	The surveillance definition for acute hepatitis B is "HBsAg positive and anti-HBc IgM positive and abnormal liver function tests with a pattern consistent with acute viral hepatitis."
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	https://www.gov.uk/government/publications/hepatitis-b-annual-report-for-2013
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	In 2015, reporting of acute cases of hepatitis B from PHE Centres has continued to exceed the number reported from laboratories but the proportion of cases reported by both PHE Centres and laboratory systems is high at 59.1% (270/457), compared to 61% (296/489) of cases reported in 2014. This slight decrease in overlap may be due to the introduction of SGSS a new laboratory reporting system to replace LabBase that could on its initial stages of implementation compromise the quality of identifiers used for matching the data from both sources.
	There was nonetheless an overall improved matching over the years that could be explained given the introduction of statutory laboratory reporting in October 2010 and the continued decline in the proportion of cases of unknown status reported from laboratories. Combining data from both sources does minimise under ascertainment and improve the completeness of associated data for analysis. Interpretation of trends should be made with caution, but based on this combined data, the incidence of acute hepatitis B remains low. Given the improved quality and completeness of data provided in 2014/2015, it is likely that there has been a continued gradual decline in incidence since 2008 which has become more apparent in the more recent years.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/08/2016

Map 15a: Variation in rate of hospital admissions for hepatitis B-related end-stage liver disease or hepatocellular carcinoma per population by Sustainability Transformation Partnerships (STP) (2012/13 - 2014/15)

Indicator:	**Hepatitis B end stage liver disease or hepatocellular carcinoma hospital admissions**
Statistic:	Crude rate per 1,000,000
Time period (map):	2012/13-14/15
Time period (boxplot):	2005/06-07/08 - 2012/13-14/15
Age group:	All ages
Description	The crude rate of persons admitted to hospital for hepatitis B-related end-stage liver disease or hepatocellular carcinoma per 1,000,000 population by STP of residence
Data source:	Numerator: Number of unique persons with hepatitis B-related end-stage liver disease, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved.
	Denominator: ONS 2011 Census based mid-year population estimates aggregated to three year totals
Coding scheme	Patients with hepatitis B: (ICD10 codes ('B180', 'B181','B16'))
	with a mention of end-stage liver disease or hepatocellular carcinoma (ICD10: IN('C220','I850','K767','K729','K720','K721','K704') OR LIKE 'R18_') within 365 days of initial admission for Ordinary admissions (CLASSPAT IN ('1'))
	within finished episodes (a.EPISTAT = '3')
	within male and females (SEX IN ('1', '2'))
Numerator:	Number of unique patients (excluding regular attenders) admitted to hospital with a diagnosis in any Finished Completed Episode and in any Diagnosis field (not restricted to primary diagnosis) of: i) Hepatitis B, ICD10 codes B16 (any 4th digit) or B180 or B181; AND ii) a diagnosis of end stage liver disease, ICD10 codes I850, K767, K704, K720, K721, K729, R18 OR Hepatocellular carcinoma, ICD10 code C220. Admissions have to be within 1 year of previous admission to be included. Patients are included and counted according to the financial year in which the episode ended, and are presented by Local Authority of residence aggregated into quinary age bands (0-4, 5-9,…, 85-89, 90+). Please note that a patient is counted once only at early time period where both Hep B and End stage liver disease are mentioned and patients can be included within each of the pooled period (this is not a count of admissions), BUT that patients may also have Hepatitis C and be included in the Hepatitis C indicator. Non-residents, or those patients whose normal place of residence cannot be ascertained as being in England, are excluded from the analyses.
Denominator:	ONS 2011 Census based mid-year population LSOA estimates of resident population aggregated to STP and to a three year total, Office for National Statistics (ONS)
Methodology:	Numerator divided by population denominator expressed as a rate per 1,000,000.
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 15b: Variation in mortality rate from hepatitis B-related end-stage liver disease or hepatocellular carcinoma per population by Sustainability Transformation Partnerships (STP) (2011-2015)

Indicator:	**Hepatitis B related end stage liver disease or hepatocellular carcinoma mortality**
Statistic:	Crude rate per 100,000
Time period (map):	2011-15
Time period (boxplot):	2005-09 - 2011-15
Age group:	All ages
Description	The crude rate of mortality from hepatitis B - related end-stage liver disease or hepatocellular carcinoma per population by STP of residence
Data source:	Numerator: Number of deaths from hepatitis B - related end-stage liver disease or hepatocellular carcinoma, registered in the respective calendar years, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator Any mention of ICD-10 code 'B160', 'B161', 'B162','B169','B180', 'B181' and any mention of 'C220', 'I850', 'K704', 'K720', 'K721', 'K729', 'K767', 'R18'
Numerator:	Number of deaths with any mention of hepatitis B end stage liver disease or hepatocellular carcinomas registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates. LSOA estimates of resident population aggregated to STPs, Office for National Statistics (ONS).
Methodology:	Numerator divided by population denominator expressed as a rate per 100,000. For both numerator and denominator, the STP of residence totals were derived by aggregating Lower Super Output Area (LSOA) of residence data. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Counts less than 3 are suppressed for disclosure control.
Further notes (2):	End-stage liver disease definition used here is: presence of ascites, bleeding oesophageal varices, hepato-renal syndrome, hepatic encephalopathy, hepatic failure or hepatocellular carcinoma (HCC) It is likely that hepatitis B is under-recorded on death certificates and so these figures are likely to underestimate true mortality for hepatitis B-related end-stage liver disease .
Produced by:	Public Health England
Date created:	01/01/2017

Map 16a: Variation in percentage of children in school reception year classified as overweight or obese by lower-tier local authority (2015/16)

Indicator:	**Overweight/Obese reception children**
Statistic:	Percentage
Time period (map):	2015/16
Time period (boxplot):	2006/07 - 2015/16
Age group:	4 - 5 years
Description	The percentage of children in school reception year classified as overweight or obese by lower-tier local authority of residence
Data source:	NHS Digital, Lifestyle Statistics / Public Health England, Children, Young People and families NCMP Dataset
Coding scheme	N/A
Numerator:	Number of children in Reception (aged 4-5 years) classified as overweight or obese in the academic year. Children are classified as overweight (including obese) if their BMI is on or above the 85th centile of the British 1990 growth reference (UK90) according to age and sex.
Denominator:	Number of children in Reception (aged 4-5 years) measured in the National Child Measurement Programme (NCMP) attending participating state maintained schools in England.
Methodology:	The numerator is divided my the denominator, expressed as a percentage.
	England totals include all children in state-maintained schools, with a valid height and weight measurement, including those with an unknown residency.
	Local authority and GOR geographies are derived from the postcode of child residency; only children with valid geographical coding (postcode of residence) have been included in this analysis. The proportion of records with such coding has increased over the years of the NCMP. In 2006/07 (the first year of the NCMP) around 57% of child records included valid postcode of residence. This increased to 95% in 2007/08, and to over 99% in 2008/09 and subsequent years. Data have only been provided for local authorities, in instances where 80% or more of the records submitted by that local authority had a postcode recorded.
	Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/ncmp
Source locations (2):	http://fingertips.phe.org.uk/search/obesity#page/6/gid/1/pat/6/par/E12000004/ati/102/are/E06000015/iid/20601/age/200/sex/4
Source locations (3):	
Further notes (1):	The data presented only includes children participating in the NCMP in state maintained schools, any measurements taken at independent and special schools are excluded from the analysis.
	There is the potential for error in the collection, collation and interpretation of the data (bias may be introduced due to poor response rates and selective opt out of larger children which it is not possible to control for).
Further notes (2):	Counts for City of London have been included in the Hackney total and counts for Isles of Scilly have been included in the Cornwall Unitary Authority total.
Produced by:	NHS Digital NCMP
Date created:	01/11/2016

Map 16b: Variation in percentage of children in school year 6 classified as overweight or obese by lower-tier local authority (2015/16)

Indicator:	**Overweight/obese year 6 children**
Statistic:	Percentage
Time period (map):	2015/16
Time period (boxplot):	2006/07 - 2015/16
Age group:	10 -11 years
Description	The percentage of children in school year 6 classified as overweight or obese by lower-tier local authority of residence
Data source:	NHS Digital, Lifestyle Statistics / Public Health England, Children, Young People and families NCMP Dataset
Coding scheme	N/A
Numerator:	Number of children in Year 6 (aged 10-11 years) classified as overweight or obese in the academic year. Children are classified as overweight (including obese) if their BMI is on or above the 85th centile of the British 1990 growth reference (UK90) according to age and sex.
Denominator:	Number of children in Year 6 (aged 10-11 years) measured in the National Child Measurement Programme (NCMP) attending participating state maintained schools in England.
Methodology:	The numerator is divided my the denominator, expressed as a percentage.
	England totals include all children in state-maintained schools, with a valid height and weight measurement, including those with an unknown residency.
	Local authority and GOR geographies are derived from the postcode of child residency; only children with valid geographical coding (postcode of residence) have been included in this analysis. The proportion of records with such coding has increased over the years of the NCMP. In 2006/07 (the first year of the NCMP) around 57% of child records included valid postcode of residence. This increased to 95% in 2007/08, and to over 99% in 2008/09 and subsequent years. Data have only been provided for local authorities, in instances where 80% or more of the records submitted by that local authority had a postcode recorded.
	Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/ncmp
Source locations (2):	http://fingertips.phe.org.uk/search/obesity#page/6/gid/1/pat/6/par/E12000004/ati/102/are/E06000015/iid/20602/age/201/sex/4
Source locations (3):	
Further notes (1):	The data presented only includes children participating in the NCMP in state maintained schools, any measurements taken at independent and special schools are excluded from the analysis.
	There is the potential for error in the collection, collation and interpretation of the data (bias may be introduced due to poor response rates and selective opt out of larger children which it is not possible to control for).
Further notes (2):	Counts for City of London have been included in the Hackney total and counts for Isles of Scilly have been included in the Cornwall Unitary Authority total.
Produced by:	NHS Digital NCMP
Date created:	01/11/2016

Map 17: Variation in percentage of adults aged 16 and over classified as obese (body mass index ≥30 kg/m2) by lower-tier local authority (2013-2015)

Indicator:	**Adult obesity**
Statistic:	Percentage
Time period (map):	2013-15
Time period (boxplot):	2012-14 - 2013-15
Age group:	16 years and older
Description	The percentage of adults aged 16 and over who are self-reported as obese (body mass index ≥30kg/m2) by lower-tier local authority of residence
Data source:	Active People Survey, Sport England
Coding scheme	N/A
Numerator:	Number of adults with a BMI classified as obese, calculated from the adjusted height and weight variables. Data are from APS7 quarter 2 to APS10 quarter 1 (mid-Jan to mid-Jan of the relevant years). Adults are defined as obese if their body mass index (BMI) is greater than or equal to 30kg/m2.
Denominator:	Number of adults with valid height and weight recorded. Data are from APS7 quarter 2 to APS10 quarter 1 (mid-Jan to mid-Jan of the relevant years).
Methodology:	Questions on self-reported height and weight were added to the Active People Survey (APS) for the first time from January 2012 to provide data for monitoring excess weight in adults at local authority level for the Public Health Outcomes Framework (PHOF).
	It is known that adults tend to underestimate their weight and overestimate their height when providing self-reported measurements and the amount to which this occurs can differ between population groups. Therefore prevalence of excess weight (overweight including obese) calculated from self-reported data is likely to produce lower estimates than prevalence calculated from measured data.
	To assess the accuracy of the self-reported height and weight, data from the APS were compared with measured height and weight data from the Health Survey for England (HSE) 2009-2013. Similar analysis was performed using the 2011 HSE data where both self-report and measured height and weight were collected from the same individuals. These analyses found that the differences between self-reported and measured height and weight vary in a systematic way, primarily as a function of age and sex. This systematic variation can be described by formulas, which have been used to adjust self-reported height and weight measurements at an individual level to estimate the likely actual height and weight of those individuals.
	The self-reported height and weight values for individuals have been multiplied by the appropriate adjustment factor for that age and sex to obtain an estimate of the true height and weight of that individual. Whilst these will not be precise at an individual level, at a population level they act to bring the APS data much more closely into line with the actual measures, such as those described by the HSE.
	A normal approximation method was used to calculate the confidence intervals. This is in line with the method used with other published APS data. All confidence limits are based on the reported unweighted sample denominator.
Source locations (1):	http://www.sportengland.org/research/
Source locations (2):	http://webarchive.nationalarchives.gov.uk/20170110165409/https://www.noo.org.uk/visualisation
Source locations (3):	
Further notes (1):	The accuracy of self-reported height and weight may change over time. Therefore work is ongoing to ensure an appropriate adjustment factor to ensure the data continue provide a robust estimate of the prevalence of excess weight at local authority level.
Further notes (2):	
Produced by:	Active People Survey, Sport England
Date created:	01/01/2017

Map 18: Variation in percentage of people aged 6 months to 65 years with chronic liver disease who have received the influenza vaccine by NHS Area Team (2015/16)

Indicator:	**Flu vaccination under 65 years with chronic liver disease**
Statistic:	Percentage
Time period (map):	2015/16
Time period (boxplot):	2015/16
Age group:	6 months - 64 years
Description	The percentage of people aged 6 months to 64 years that have chronic liver disease and have been given the flu vaccine by NHS Area Team of registration
Data source:	ImmForm website: Registered Patient GP practice data, Influenza Immunisation Vaccine Uptake Monitoring Programme, PHE
Coding scheme	N/A
Numerator:	Number of people aged 6 months to 64 years registered with a GP and are diagnosed with chronic liver disease that have been administered the influenza vaccine
Denominator:	Number of people aged 6 months to 64 years registered with a GP and are diagnosed with chronic liver disease
Methodology:	The numerator is divided by the denominator, expressed as a percentage. All figures are derived from data as extracted from records on GP systems or as submitted by GP practices or Area Teams and CCGs. Chronic liver disease defined as cirrhosis, biliary atresia and chronic hepatitis. The data collection comprised of: • all data are cumulative on influenza vaccinations administered during this period and were collected from all GPs in England in four retrospective monthly surveys. A weekly sentinel survey from GPs, using an automated XML bulk upload or web service only. This allows almost 'real time' monitoring of the programme at a national level from week ending 6 September 2015 to week ending 31 January 2016 • four monthly surveys from all practices (ie automatic and manual submissions) on vaccinations up to end October, end November, end December and end January (with collection starting from November 2015 through to February 2016), to provide more complete data Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	https://www.gov.uk/government/publications/seasonal-influenza-vaccine-uptake-gp-patient-survey-data-
Source locations (2):	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448823/FluImmunisationLetter 2014_accessible.pdf
Source locations (3):	
Further notes (1):	It is important to note that influenza vaccine uptake data is only a snapshot of the registered GP patients vaccinated at the time of data extraction/end of the data collection. These data will, therefore, not include patients who have received the vaccine but have subsequently died, who have since moved, patients changing clinical status (ie 'joining' or 'leaving' a clinical risk group), patients changing carer status and 'temporary' patients who may have received the vaccine but were not registered on the date of data extraction. 96.9% of GP practices responded. There is a gradual increase of influenza vaccinations being done outside GP settings.
Further notes (2):	This season the number of patients vaccinated in a school, pharmacy and other healthcare setting was also recorded. However it is important to note that recording of vaccinations given in another healthcare setting outside of the GP practice does not come under an existing information standard, therefore location recording can be varied amongst GP practices and GP IT suppliers. In 2015 to 2016 community pharmacies were commissioned to administer influenza vaccinations to those aged 65 and over and any patient aged 18 to under 65 in a clinical risk group.
Produced by:	Public Health England
Date created:	01/11/2016

Map 19a: Variation in rate of hospital admissions where the primary diagnosis is paracetamol overdose per population by CCG (2013/14 - 2014/15)

Indicator:	**Paracetamol overdose hospital admissions**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2013/14-14/15
Time period (boxplot):	2005/06-06/07 - 2013/14-14/15
Age group:	All ages
Description	The directly standardised rate of persons admitted to hospital where the diagnosis includes a paracetamol overdose per 100,000 population by CCG of residence
Data source:	Numerator: Number admissions where diagnosis includes paracetamol, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: ONS 2011 Census based mid-year population estimates aggregated to three year totals
Coding scheme	Paracetamol: ICD-10 codes 'T391' in the main primary diagnosis position Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' First episode in admission: EPIORDER = '1' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of persons admitted to hospital where the primary diagnosis includes a paracetamol overdose
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population to a three year total, Office for National Statistics (ONS)
Methodology:	The indicator is constructed as a directly standardised rate for all persons and all ages using the 2013 European population as the reference standard. Numerator data for each age group are divided by the denominator population data for each age group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Indicator based on first non-elective admission episodes in a spell to avoid counting the same people more than once, although individuals may be counted more than once if they are admitted more than once at different times if they take more than one paracetamol overdose.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 19b: Variation in percentage of deaths from paracetamol poisoning per hospital admissions for paracetamol overdose by region (2012-2014)

Indicator:	**Paracetamol poisoning mortality**
Statistic:	Percentage
Time period (map):	2012-14
Time period (boxplot):	2005-07 - 2012-14
Age group:	All ages
Description	The percentage of drug-related deaths with a mention of paracetamol of all hospital admissions where the diagnosis includes a paracetamol overdose by Government Office Region
Data source:	Numerator: Number of drug-related deaths with a mention of paracetamol, Mortality team, Life Events and Population Sources Division, Office for National Statistics
	Denominator: Number admissions where primary diagnosis includes paracetamol, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved.
Coding scheme	Numerator: ICD-10 codes used to define deaths related to drug poisoning F11–F16, F18–F19, X40–X44, X60–X64, X85, Y10–Y14 and a mention of paracetamol
	Denominator
	Paracetamol: ICD-10 codes 'T391' in the main primary diagnosis position
	Ordinary admissions: CLASSPAT IN ('1', '2', '5')
	Finished Episodes: EPISTAT = '3'
	First episode in admission: EPIORDER = '1'
	England residents: RESGOR BETWEEN 'A' AND 'K'
	Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of drug-related deaths where paracetamol was mentioned on the death certificate
Denominator:	Number of persons admitted to hospital where the primary diagnosis includes a paracetamol overdose
Methodology:	Numerator divided by denominator expressed as a percentage.
	Confidence intervals were calculated using Byar's Method. https://fingertips.phe.org.uk/profile/guidance
	Deaths were included where the underlying cause was drug-related and the paracetamol was mentioned on the death certificate. ONS used a textual searches of coroners' reports for mentions of compounds containing paracetamol, rather than relying upon ICD10 cause of death coding.
	As an external cause, Paracetamol Overdose would not be classified as the primary cause of death. *ONS carried out the original collection and collation of the mortality data but bear no responsibility for their future analysis or interpretation
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	http://content.digital.nhs.uk/hes
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/06/2017

Map 20: Variation in mortality rate in people aged under 75 years due to hepatocellular carcinoma per population by Sustainability Transformation Partnerships (STP) (2011-2015)

Indicator:	**Hepatocellular carcinoma mortality in people aged under 75**
Statistic:	Directly standardised rate per 100,000
Time period (map):	2011-15
Time period (boxplot):	2005-09 - 2011-15
Age group:	0 - 74 years
Description	The directly standardised rate of mortality in people aged under 75 from hepatocellular carcinoma per 100,000 population by STP of residence
Data source:	Numerator: Number of deaths from hepatocellular carcinoma classified by underlying cause of death, registered in the respective calendar years, Office for National Statistics: Public Health England Annual Births and Mortality Extracts
	Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years.
Coding scheme	Numerator ICD-10 code 'C22.0' recorded as an underlying cause of death
Numerator:	Number of deaths from hepatocellular carcinoma classified by underlying cause of death registered in the respective calendar years
Denominator:	ONS 2011 Census based mid-year population estimates aged under 75 years. LSOA estimates of resident population aggregated to STPs, Office for National Statistics (ONS).
Methodology:	The indicator is constructed as a directly standardised rate for all persons and all ages using the 2013 European population as the reference standard. Numerator data for each group are divided by the denominator population data for each group respectively to give age-specific rates for the area. These age-specific rates are multiplied by the standard population for each group respectively and summed across all groups to give the age-adjusted count for the area. The age-adjusted count is divided by the total standard population for the whole age range included in the indicator, and multiplied by 100,000 to give the age-standardised rate for the area.

The number of deaths have been adjusted based on ONS Coding changes
Counts of deaths for years up to and including 2013 have been adjusted where needed to take account of the IRIS ICD-10 coding change introduced in 2014, the detailed guidance on the implementation is available at http://www.ons.gov.uk/ons/rel/subnational-health3/impact-of-the-implementation-of-iris-software-for-icd-10-cause-of-death-coding-on-mortality-statistics/england-and-wales/stb-impact-of-the-implementation-of-iris.html?format=print
Counts of deaths for years up to and including 2010 have been double adjusted by applying comparability ratios from both the 2011 coding change and the IRIS coding change where needed to take account of both the IRIS coding change and the ICD-10 coding change introduced in 2011. The detailed guidance on the 2011 implementation is available at http://www.ons.gov.uk/ons/guide-method/classifications/international-standard-classifications/icd-10-for-mortality/comparability-ratios/index.html

For both numerator and denominator, the STP of residence quinary age band totals were derived by aggregating Lower Super Output Area (LSOA) of residence quinary age band data.

Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance |
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Where the observed total number of deaths is less than 25, the rates have been suppressed as there are too few deaths to calculate directly standardised rates reliably.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 21: Variation in percentage of people aged 15 years and over with hepatocellular carcinoma that have had treatment with curative intent (liver transplantation, major liver resection or ablation) by region (2010-2014)

Indicator:	**Hepatocellular carcinoma treatment with curative intent**
Statistic:	Percentage
Time period (map):	2010-14
Time period (boxplot):	2010-14
Age group:	15 years and over
Description	The percentage of people aged 15 years and over with hepatocellular carcinoma that have had treatment
Data source:	National Cancer Registration and Analysis Service, Public Health England
Coding scheme	Liver cell carcinoma 'C22.0' OPCS4 procedure codes: 'J02.1', 'J02.2', 'J02.3', 'J02.4', 'J02.6', 'J02.7', 'J02.8', 'J02.9', J01.1-5, J018, J019, J03.3, J03.4, J08.3, J12.4, J12.5, J12.6, J12.7
Numerator:	Number of people with liver cell carcinoma who have had treatment with curative intent (liver transplant, major liver resection or ablation) within 6 months of diagnosis
Denominator:	Number of people with liver cell carcinoma as recorded on the Cancer Analysis System
Methodology:	The resection percentage was calculated by dividing the number of cases with a matched treatment in HES data (the numerator), by the total number of cases recorded on CAS for a given sex and Government Office Regions (GOR) combination (the denominator). Cancer registrations records for all liver cancer tumours diagnosed in England during 2010-2014 were extracted from the PHE Cancer Analysis System (CAS) 2014. These records were linked to hospital episode statistics (HES) data from NHS Digital. The records of children aged 0-14 years were excluded from the analysis as the number of cases in this age group is very low, their cancer types often differ from adult cancers and can be subject to different and more complex treatments and pathways. Cancer registrations based solely on the cause of death statement of the death certificate were also excluded: death certificate only (DCO) cases were, by definition, not diagnosed prior to death and would thus not have been considered for treatment. The analysis excludes * Death Certificate Only: records based solely on cause of death statement of death certificate Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://www.ncras.nhs.uk/
Source locations (2):	http://content.digital.nhs.uk/hes
Source locations (3):	
Further notes (1):	Treatment with curative intent has been defined with lead clinicians as transplant, resection and ablation procedures which would be carried out for a cancer patient which would attempt to be curative in outcome. In terms of data, a procedure was considered to be a match of any agreed OPCS4 procedure code in the Admitted Patient Care HES dataset (up to 31st Jan 2016) to a case in CAS. To avoid missing out on procedures due to date discrepancies between HES and CAS, procedure dates up to one month prior to the date of diagnosis and 6 months after diagnosis were taken into account.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/06/2016

Map 22: Variation in rate of liver transplants from all donors per population by CCG (2010/11 - 2014/15)

Indicator:	**Liver transplants from all donors**
Statistic:	Crude rate per 1,000,000
Time period (map):	2010/11-14/15
Time period (boxplot):	2010/11-14/15 - 2010/11-14/15
Age group:	All ages
Description	The crude rate of liver transplants from all donors per 1,000,000 population by CCG of residence
Data source:	Numerator: Number of liver transplants, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: ONS 2011 Census based mid-year population estimates, aggregates to five year totals.
Coding scheme	Transplantation of liver procedure with OPCS4.6 - 'J01' Ordinary admissions: CLASSPAT IN ('1', '2', '5') Finished Episodes: EPISTAT = '3' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of surgical transplants of the liver from all donors
Denominator:	ONS 2011 Census based mid-year population CCG estimates of resident population aggregated to a five year total, Office for National Statistics (ONS)
Methodology:	Numerator divided by population denominator expressed as a rate per 1,000,000. Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 23a: Variation in rate of organ donation from deceased donors per population by Strategic Health Authority (2014/15)

Indicator:	**Organ donation from deceased donors**
Statistic:	Crude rate per 1,000,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	All ages
Description	The crude rate of organ donation from deceased donors per 1,000,000 population by strategic health authority
Data source:	Numerator: Number of organ donations from deceased donors, NHS Blood and Transplant
	Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years aggregated to SHA.
Coding scheme	N/A
Numerator:	Number of organ donations from deceased donors
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aggregated to SHAs, Office for National Statistics (ONS).
Methodology:	The numbers of organ donations were taken from the UKTR database held by NHS Blood and Transplant.
	The numerator (the number of organ donations in the year) is divided by the denominator (the sum of the mid-year population estimates for the same year) and multiplied by 1,000,000. Estimates for SHAs were derived from aggregating CCG. Where there where the CCG is split over more than one SHA, the SHA has been allocated on a alphabetical basis in line with data handling by NHSBT. (NHS Tameside and Glossop was allocated to East Midlands SHA rather than North West SHA, NHS North East Hampshire and Farnham CCG was allocated to South Central rather than South East Coast).
	Population figures used throughout this report are correct for the year the data relates to. The NHS BT report uses all years at mid-2014 estimates based on ONS 2013.
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://www.odt.nhs.uk/pdf/activity-report/activity_report_2015_16.pdf
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.nhsbt.nhs.uk/
Further notes (1):	The UK definition of an organ donor is any donor from whom at least one organ has been retrieved with the intention to transplant. Organs retrieved solely for research purposes have not been counted in this Activity Report.
	Organ donation has been recorded to reflect the number of organs retrieved. For example, if both lungs were retrieved, two lungs are recorded even if they were both used in one transplant. Similarly, if one liver is donated, one liver is recorded even if it results in two or more transplants.
Further notes (2):	
Produced by:	NHS Blood and Transplant / Public Health England
Date created:	01/01/2017

Map 23b: Variation in rate of liver donation from deceased donors per population by Strategic Health Authority (2014/15)

Indicator:	**Liver donation from deceased donors**
Statistic:	Crude rate per 1,000,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	All ages
Description	The crude rate of liver donation from deceased donors per 1,000,000 population by strategic health authority
Data source:	Numerator: Number of liver donations from deceased donors, NHS Blood and Transplant
	Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years aggregated to SHA.
Coding scheme	N/A
Numerator:	Number of liver donations from deceased donors
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aggregated to SHAs, Office for National Statistics (ONS).
Methodology:	The numbers of liver donations were taken from the UKTR database held by NHS Blood and Transplant.
	The numerator (the number of organ donations in the year) is divided by the denominator (the sum of the mid-year population estimates for the same year) and multiplied by 1,000,000. Estimates for SHAs were derived from aggregating CCG. Where there where the CCG is split over more than one SHA, the SHA has been allocated on a alphabetical basis in line with data handling by NHSBT. (NHS Tameside and Glossop was allocated to East Midlands SHA rather than North West SHA, NHS North East Hampshire and Farnham CCG was allocated to South Central rather than South East Coast).
	Population figures used throughout this report are correct for the year the data relates to. The NHS BT report uses all years at mid-2014 estimates based on ONS 2013.
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://www.odt.nhs.uk/pdf/activity-report/activity_report_2015_16.pdf
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.nhsbt.nhs.uk/
Further notes (1):	The UK definition of an organ donor is any donor from whom at least one organ has been retrieved with the intention to transplant. Organs retrieved solely for research purposes have not been counted in this Activity Report.
	Organ donation has been recorded to reflect the number of organs retrieved. For example, if both lungs were retrieved, two lungs are recorded even if they were both used in one transplant. Similarly, if one liver is donated, one liver is recorded even if it results in two or more transplants.
Further notes (2):	
Produced by:	NHS Blood and Transplant / Public Health England
Date created:	01/01/2017

Map 24: Variation in rate of liver transplants from deceased donors per population by Strategic Health Authority (2014/15)

Indicator:	**Liver transplants from deceased donors**
Statistic:	Crude rate per 1,000,000
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	All ages
Description	The crude rate of liver transplants from deceased donors per 1,000,000 population by strategic health authority
Data source:	Numerator: Number of liver transplants from deceased donors, NHS Blood and Transplant
	Denominator: ONS 2011 Census based mid-year population estimates for the respective calendar years aggregated to SHA.
Coding scheme	N/A
Numerator:	Number of liver transplants from deceased donors
Denominator:	ONS 2011 Census based mid-year population estimates. CCG estimates of resident population aggregated to SHAs, Office for National Statistics (ONS).
Methodology:	The numbers of liver transplants were taken from the UKTR database held by NHS Blood and Transplant.
	The numerator (the number of organ donations in the year) is divided by the denominator (the sum of the mid-year population estimates for the same year) and multiplied by 1,000,000. Estimates for SHAs were derived from aggregating CCG. Where there where the CCG is split over more than one SHA, the SHA has been allocated on a alphabetical basis in line with data handling by NHSBT. (NHS Tameside and Glossop was allocated to East Midlands SHA rather than North West SHA, NHS North East Hampshire and Farnham CCG was allocated to South Central rather than South East Coast).
	Population figures used throughout this report are correct for the year the data relates to. The NHS BT report uses all years at mid-2014 estimates based on ONS 2013.
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://www.odt.nhs.uk/pdf/activity-report/activity_report_2015_16.pdf
Source locations (2):	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates
Source locations (3):	http://www.nhsbt.nhs.uk/
Further notes (1):	The UK definition of an organ donor is any donor from whom at least one organ has been retrieved with the intention to transplant. Organs retrieved solely for research purposes have not been counted in this Activity Report.
	Organ donation has been recorded to reflect the number of organs retrieved. For example, if both lungs were retrieved, two lungs are recorded even if they were both used in one transplant. Similarly, if one liver is donated, one liver is recorded even if it results in two or more transplants.
Further notes (2):	
Produced by:	NHS Blood and Transplant / Public Health England
Date created:	01/01/2017

Map 25: Variation in percentage of admissions for oesophageal varices procedure that were emergency admissions by CCG (2014/15)

Indicator:	**Oesophageal varices procedure emergency hospital admissions**
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	All ages
Description	The percentage of admissions for oesophageal varices procedure that are emergency admissions by CCG of residence
Data source:	Numerator: Number of oesophageal varices procedure that are emergency admissions, HES NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: Number of oesophageal varices procedure that are emergency or elective, HES NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved.
Coding scheme	Numerator Oesophageal varices procedure with OPCS4.6 - 'G434','G437','G104','G108' Ordinary admissions: CLASSPAT IN ('1', '2', '5') First episode in admission: EPIORDER = '1' Finished Episodes: EPISTAT = '3' Emergency admissions: ADMIMETH = '2*' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2') Denominator Oesophageal varices procedure with OPCS4.6 - 'G434','G437','G104','G108' Ordinary admissions: CLASSPAT IN ('1', '2', '5') First episode in admission: EPIORDER = '1' Finished Episodes: EPISTAT = '3' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of oesophageal varices procedures that are emergency admissions
Denominator:	Number of oesophageal varices procedures that are emergency or elective admissions
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control guidelines.
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 26: Variation in percentage of admissions for paracentesis procedure that were emergency admissions by CCG (2014/15)

Indicator:	**Paracentesis emergency hospital admissions**
Statistic:	Percentage
Time period (map):	2014/15
Time period (boxplot):	2005/06 - 2014/15
Age group:	All ages
Description	The percentage of admissions for paracentesis procedure that are emergency admissions by CCG of residence
Data source:	Numerator: Number of paracentesis procedures that are emergency admissions, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved. Denominator: Number of paracentesis procedures that are emergency or elective, Hospital Episode Statistics, NHS Digital. Copyright © 2016, Re-used with the permission of NHS Digital. All rights reserved.
Coding scheme	Numerator Paracentesis procedure with OPCS4.6 - 'T461', 'T462' Diagnosis code 'K70' - 'K77' Ordinary admissions: CLASSPAT IN ('1', '2', '5') First episode in admission: EPIORDER = '1' Finished Episodes: EPISTAT = '3' Emergency admissions: ADMIMETH = '2*' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2') Denominator Paracentesis procedure with OPCS4.6 - 'T461', 'T462' Diagnosis code 'K70' AND 'K77' Ordinary admissions: CLASSPAT IN ('1', '2', '5') First episode in admission: EPIORDER = '1' Finished Episodes: EPISTAT = '3' England residents: RESGOR BETWEEN 'A' AND 'K' Male and female admissions: SEX IN ('1', '2')
Numerator:	Number of paracentesis procedures that are emergency admissions for people with a diagnosis code of alcoholic liver disease or Liver disorders in diseases classified elsewhere
Denominator:	Number of paracentesis procedures that are emergency or elective admissions for people with a diagnosis code of alcoholic liver disease or Liver disorders in diseases classified elsewhere
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/hes
Source locations (2):	
Source locations (3):	
Further notes (1):	Small numbers between 1 and 5 have been suppressed in accordance with HES disclosure control
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 27a: Variation in mean number of bed-days per liver disease patient admitted to hospital in the last year of life by Strategic Clinical Network (SCN) (2015)

Indicator:	**Bed days in the last year life**
Statistic:	Average number of bed days per patient
Time period (map):	2015
Time period (boxplot):	2015
Age group:	All ages
Description	The average number of bed days per person with a record of liver disease who had been admitted to hospital in their last year of life by strategic clinical network of residence
Data source:	Numerator: The number of persons admitted into hospital in their last year of life, Linked HES-ONS database, Office of National Statistics
	Denominator: The number of days that the person with liver disease spent in hospital (spell duration), Linked HES-ONS database, Office of National Statistics
Coding scheme	Cause of death ICD-10 codes; B15-B19,C22,I81,I85, K70, K71-K77, T864
	LSOAs in England looked up to SCN
	EPISTAT =3
	CLASSPAT in (1,2,5)
	Admission date and date of death is <366
	CAUSE OF NEONATAL DEATH is null
	SUBSEQUENT_ACTIVITY_FLAG is null
	Spell duration is not null
	Date of registration = 2015
	Mean number of bed days = number of people / total spell durations
Numerator:	Number of days that the person with liver disease spent in hospital (spell duration)
Denominator:	Number of persons admitted into hospital in their last year of life
Methodology:	The numerator is divided by the denominator
	Confidence intervals were calculated using Byar's Method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/article/2677/Linked-HES-ONS-mortality-data
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 27b: Variation in percentage of liver disease patients who died without being admitted to hospital in the last year of life by Strategic Clinical Network (SCN) (2015)

Indicator:	**No hospital admissions in the last year of life**
Statistic:	Percentage
Time period (map):	2015
Time period (boxplot):	2015
Age group:	All ages
Description	The percentage of people with liver disease who have died without a hospital admission in the last year of life by strategic clinical network of residence
Data source:	Numerator: Number of people with liver disease that have not had a hospital admission in their last year of life, Linked HES-ONS database, Office of National Statistics
	Denominator: Number of people who have died with liver disease, Linked HES-ONS database, Office of National Statistics
Coding scheme	Cause of death ICD-10 codes; B15-B19,C22,I81,I85, K70, K71-K77, T864
	LSOAs in England looked up to SCN
	EPISTAT =3
	CLASSPAT in (1,2,5)
	Admission date and date of death is <366
	CAUSE OF NEONATAL DEATH is null
	SUBSEQUENT_ACTIVITY_FLAG is null
	Spell duration is not null
	Date of registration = 2015
Numerator:	Number of people with liver disease that have not had a hospital admission in their last year of life
Denominator:	Number of people that have died with an underlying cause of liver disease
Methodology:	The numerator is divided my the denominator, expressed as a percentage.
	Confidence intervals are calculated using the Wilson Score method
	https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/article/2677/Linked-HES-ONS-mortality-data
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 27c: Variation in percentage of liver cancer deaths that occurred in hospital among all care facilities by Strategic Clinical Network (SCN) (2015)

Indicator:	**Liver cancer deaths occurring in hospitals**
Statistic:	Percentage
Time period (map):	2015
Time period (boxplot):	2015
Age group:	All ages
Description	The percentage of people who have died with liver cancer as a cause of death that have occurred in hospitals (acute or community, not psychiatric) out of all care facilities (Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places) by strategic clinical network of residence
Data source:	Numerator: The number of liver cancer deaths occurring in hospital, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: The number of liver cancer deaths, Office for National Statistics: Public Health England Annual Births and Mortality Extracts
Coding scheme	Underlying cause of death ICD-10 code for liver cancer; C22 LSOAs in England looked up to SCN Death Year = 2015 Neonatal deaths are null; [Neo_Ind] <>1 Care facilities include; Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places
Numerator:	Number of deaths with an underlying cause of death recorded as liver cancer that have occurred in hospitals (acute or community, not psychiatric)
Denominator:	Number of deaths with an underlying cause of death recorded as liver cancer that have occurred in all care facilities (Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places)
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017

Map 27d: Variation in percentage of liver non-cancer deaths that occurred in hospital among all care facilities by Strategic Clinical Network (SCN) (2015)

Indicator:	**Liver non-cancer deaths occurring in hospitals**
Statistic:	Percentage
Time period (map):	2015
Time period (boxplot):	2015
Age group:	All ages
Description	The percentage of people who have died with a liver disease (non-cancer) as a cause of death that have occurred in hospitals (acute or community, not psychiatric) out of all care facilities (Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places) by strategic clinical network of residence
Data source:	Numerator: The number of liver non-cancer deaths occurring in hospital, Office for National Statistics: Public Health England Annual Births and Mortality Extracts Denominator: The number of liver non-cancer deaths, Office for National Statistics: Public Health England Annual Births and Mortality Extracts
Coding scheme	Underlying cause of death ICD-10 codes for liver disease non-cancer; B15-B19,I81,I85, K70, K71- K77, T864 LSOAs in England looked up to SCN Death Year = 2015 Neonatal deaths are null; [Neo_Ind] <>1 Care facilities include; Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places
Numerator:	Number of deaths with an underlying cause of death recorded as liver disease non-cancer that have occurred in hospitals (acute or community, not psychiatric)
Denominator:	Number of deaths with an underlying cause of death recorded as liver disease non-cancer that have occurred in all care facilities (Care home (nursing or residential), Home, Hospice, Hospital (acute or community, not psychiatric), Other Places)
Methodology:	The numerator is divided my the denominator, expressed as a percentage. Confidence intervals are calculated using the Wilson Score method https://fingertips.phe.org.uk/profile/guidance
Source locations (1):	http://content.digital.nhs.uk/onsmortality
Source locations (2):	
Source locations (3):	
Further notes (1):	
Further notes (2):	
Produced by:	Public Health England
Date created:	01/01/2017