Birmingham Health and Wellbeing Board

Sexual and Reproductive Health Profile Indicator Definitions

February 2020

Indicator	Syphilis diagnostic rate / 100,000
Source	GUMCAD STI Surveillance System, Public Health England.
	Data are reported via the GUMCAD STI Surveillance system, the mandatory STI surveillance system for commissioned sexual health services in England. GUMCAD returns are collected and collated by the Blood Safety, Hepatitis. STIs and HIV Service, PHE, Colindale.
Numerator	The number of syphilis diagnoses among people accessing sexual health services in England who are also residents in England.
Denominator	General population, ONS population estimates
How is it calculated?	Rate per 100,000 population. The numerator is divided by the denominator and multiplied by 100,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

Syphilis is an important public health issue in men who have sex with men (MSM) among whom incidence has increased over the past decade.

Indicator definition:

All syphilis diagnoses among people accessing specialist and non-specialist sexual health services in England who are also residents in England, expressed as a rate per 100,000 population. Data is presented by area of patient residence and exclude people accessing services located in England who are residents in Wales, Scotland, Northern Ireland or abroad.

Caveats

Every effort is made to ensure accuracy and completeness of GUMCAD data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the reporting service. Numbers have been adjusted to account for unavailable GUMCAD data.

Data are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning. Data reported through GUMCAD are not representative of the general population because they only represent patients accessing sexual health services.

Numbers between 1 and 4 with a population <10,000 are suppressed.

England	Birmingham's rate (8.7 per 100,000) is significantly lower than the England average (13.1/100,000)
West Midlands	Birmingham's rate is similar to the Regional average (7.2/100,000)
CIPFA neighbours	Birmingham's rate is significantly better than CIPFA neighbours average (11.8/100,000); worst = Manchester 30.6/100,000

Gonorrhoea diagnostic rate/100,000

Indicator	Gonorrhoea diagnostic rate / 100,000
Source	GUMCAD STI Surveillance System, Public Health England.
	Data are reported via the GUMCAD STI Surveillance system, the mandatory STI surveillance system for commissioned sexual health services in England. GUMCAD returns are collected and collated by the Blood Safety, Hepatitis. STIs and HIV Service, PHE, Colindale.
Numerator	The number of gonorrhoea diagnoses among people accessing sexual health services in England who are also residents in England.
Denominator	General population, ONS population estimates
How is it calculated?	Rate per 100,000 population. The numerator is divided by the denominator and multiplied by 100,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

Indicator rationale

Gonorrhoea causes avoidable sexual and reproductive ill-health. Gonorrhoea is used as a marker for rates of unsafe sexual activity. This is because the majority of cases are diagnosed in sexual health clinics, and consequently the number of cases may be a measure of access to sexually transmitted infection (STI) treatment. Infections with gonorrhoea are more likely than chlamydia to result in symptoms.

Indicator definition:

All gonorrhoea diagnoses among people accessing sexual health services in England who are also residents in England, expressed as a rate per 100,000 population. Data is presented by area of patient residence, and exclude people accessing sexual health services located in England who are residents in Wales, Scotland, Northern Ireland or abroad.

Caveats

Every effort is made to ensure accuracy and completeness of GUMCAD data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the reporting service. Numbers have been adjusted to account for unavailable GUMCAD data.

Data are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning. Data reported through GUMCAD are not representative of the general population because they only represent patients accessing sexual health services.

Numbers between 1 and 4 with a population <10,000 are suppressed.

England	Birmingham's rate (149.1 per 100,000) is significantly worse than the England average (98.5/100,000)
West Midlands	Birmingham's rate is significantly worse than the Regional average (79.0/100,000)
CIPFA neighbours	Birmingham's rate is significantly worse than CIPFA neighbours average (119.7/100,000); worst = Manchester 226.8/100,000

Chlamydia diagnostic rate / 100,000 Indicator Source Public Health England. Data are reported via the CTAD Chlamydia Surveillance System, a mandatory laboratory based surveillance system for chlamydia tests, and the GUMCAD STI Surveillance System, the mandatory STI surveillance system for all commissioned sexual health services in England. Data are collected and collated by Blood Safety, Hepatitis, STIs and HIV Service, PHE, Colindale. The number of chlamydia diagnoses Numerator among people accessing sexual health services in England. Includes those diagnosed through NHS and local authority commissioned testing and excludes those diagnosed through private testing. A maximum of one chlamydia test or diagnosis per individual is counted within a six-week period. Denominator General population, ONS population estimates How is it Rate per 100,000 population. The numerator is divided by the calculated? denominator and multiplied by 100,000. Frequency Annual Latest data

City level data

Macro/Micro

Indicator rationale

Chlamydia causes avoidable sexual and reproductive ill-health. While chlamydial infections are more commonly found among young adults aged <25 years, women and men aged 25 years and over are also at-risk of chlamydia.

Indicator definition:

All chlamydia diagnoses among people accessing specialist and non-specialist sexual health services in England who are also residents in England, expressed as a rate per 100,000 population. Data is presented by area of patient residence, and exclude people accessing services located in England who are residents in Wales, Scotland, Northern Ireland or abroad.

Caveats

Every effort is made to ensure accuracy and completeness of the data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the data submitter and service providers. Numbers have been adjusted to account for unavailable GUMCAD data. CTAD data are based on tests with confirmed positive and negative results only.

Missing data in CTAD: Birmingham Women's Laboratory did not submit data for Q4 (October - December) 2018. This will affect the data for the areas where these laboratories are commissioned for chlamydia testing.

Data reported through GUMCAD are representative of the patients accessing specialist SHSs. The coverage of NCSP screening services varies between health service areas. The number of diagnoses detected depends on the coverage of testing, and is likely to be an underestimate of the true number of infections in the population.

England	Birmingham's rate (489 per 100,000) is significantly worse than the England average (384/100,000)
West Midlands	Birmingham's rate is significantly worse than the Regional average (320/100,000)
CIPFA neighbours	Birmingham's rate is similar to the CIPFA neighbours average (502/100,000); worst = Leeds 701/100,000

Indicator	Genital warts diagnostic rate / 100,000
Source	Public Health England.
	Data are reported via the GUMCAD STI Surveillance System, the mandatory STI surveillance system for all commissioned sexual health services in England. GUMCAD returns are collected and collated by the Blood Safety, Hepatitis, STIs and HIV Service, PHE, Colindale
Numerator	The number of diagnoses of first episode genital warts among people accessing sexual health services in England who are also residents in England.
Denominator	General population, ONS population estimates
How is it calculated?	Rate per 100,000 population. The numerator is divided by the denominator and multiplied by 100,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

Genital warts are the second most commonly diagnosed sexually transmitted infection (STI) in the UK and are caused by infection with specific subtypes of human papillomavirus (HPV). Recurrent infections are common with patients returning for treatment.

Indicator definition:

All diagnoses of first episode genital warts among people accessing specialist and non-specialist sexual health services in England who are also residents in England, expressed as a rate per 100,000 population. Data is presented by area of patient residence, and exclude people accessing services located in England who are resident in Wales, Scotland, Northern Ireland or abroad.

Caveats

Every effort is made to ensure accuracy and completeness of GUMCAD data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the reporting service. Numbers have been adjusted to account for unavailable GUMCAD data.

Data are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning.

Data reported through GUMCAD are not representative of the general population because they only represent patients accessing sexual health services.

Numbers between 1 and 4 with a population <10,000 are suppressed.

England	Birmingham's rate (93.4 per 100,000) is significantly better than the England average (100.1/100,000)
West Midlands	Birmingham's rate is slightly worse than the Regional average (82.0/100,000)
CIPFA neighbours	Birmingham's rate is significantly better than the CIPFA neighbours average (108.1/100,000); worst = Liverpool 168.9/100,000

Indicator Source	Genital herpes diagnostic rate / 100,000 Public Health England. Data are reported via the GUMCAD STI Surveillance System, the mandatory	Indicator rationale Genital herpes is the most common ulcerative sexually transmitted infection seen in England. Infections are frequently due to herpes simplex virus (HSV) type 2, although HSV-1 infection is also seen. Recurrent infections are common with patients returning for treatment.
	Stivenialice System, the mandatory STI surveillance system for all commissioned sexual health services in England. GUMCAD returns are collected and collated by the Blood Safety, Hepatitis, STIs and HIV Service, PHE, Colindale	Indicator definition: All diagnoses of first episode genital herpes among people accessing specialist and non-specialist sexual health services* in England who are also residents in England, expressed as a rate per 100,000 population. Data is presented by area of patient residence, and exclude people accessing services located in England who are resident in Wales, Scotland, Northern Ireland or abroad.
Numerator	The number of diagnoses of genital herpes (first episode) among people accessing sexual health services in England who are also residents in England.	Caveats
Denominator	General population, ONS population estimates	Every effort is made to ensure accuracy and completeness of GUMCAD data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the reporting service. Numbers have been adjusted to account for unavailable GUMCAD data. (Data form enhanced GPs are not adjusted.)
How is it calculated?	Rate per 100,000 population. The numerator is divided by the denominator and multiplied by 100,000.	Data are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning. Data may differ from previous publications. Data reported through GUMCAD are not representative of the general population because they only represent patients accessing sexual health services.
Frequency	Annual	Numbers between 1 and 4 with a population <10,000 are suppressed.
Latest data	2018	
Macro/Micro	City level data	
		Birmingham rates in context

EnglandBirmingham's rate (56.1 per 100,000) is similar to the England average (59.0/100,000)West MidlandsBirmingham's rate is slightly worse than the Regional average (48.2/100,000)CIPFA neighboursBirmingham's rate is similar to the CIPFA neighbours average (55.2/100,000); worst = Manchester 88.4/100,000

Indicator	HIV testing coverage, total (%)
Source	Public Health England.
	Data are reported via the GUMCAD STI Surveillance System, the mandatory STI surveillance system for all commissioned sexual health services in England. GUMCAD returns are collected and collated by the Blood Safety, Hepatitis, STIs and HIV Service, PHE, Colindale
Numerator	The number of 'Eligible new attendees' in whom (a maximum of) one HIV test was accepted, among those accessing specialist sexual health services.
Denominator	The number of 'Eligible new attendees', among those accessing specialist sexual health services.
How is it calculated?	Proportion expressed as a percentage. The numerator is divided by the denominator and multiplied by 100.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data; also broken down by MSM, men and women

HIV test coverage data represent the number of persons tested for HIV and not the number of tests reported. HIV testing is integral to the treatment and management of HIV. Knowledge of HIV status increases survival rates, improves quality of life and reduces the risk of HIV transmission.

Indicator definition:

The proportion of 'Eligible new attendees' in whom a HIV test was accepted. This is defined as a patient attending a specialist sexual health service (SHS) at least once during a calendar year. Patients known to be HIV positive, or for whom a HIV test was not appropriate, or for whom the attendance was related to Sexual and Reproductive Health (SRH) care only are excluded. Data is presented by area of patient residence, and exclude people accessing services located in England who are residents in Wales, Scotland, N. Ireland or abroad.

Men who have sex with men (MSM) includes men who reported a homosexual or bisexual orientation. For uptake of HIV testing, MSM is defined based on a patient's entire clinic attendance history (i.e. a man is classified as MSM for all attendance years including and following the earliest year a man identifies as MSM).

Caveats

Every effort is made to ensure accuracy and completeness of GUMCAD data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the reporting service. Numbers have been adjusted to account for unavailable GUMCAD data. (Data form enhanced GPs are not adjusted.)Data are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning. Data may differ from previous publications. Data reported through GUMCAD are not representative of the general population because they only represent patients accessing sexual health services.

HIV test coverage may be underestimated, as some ineligible patients may be included in the denominator (due to e.g. the patient not disclosing that they are HIV positive or clinicians not reporting that the patient attended for contraception only).

England	Birmingham's rate (70.9%) is significantly better than the England average (64.5%)
West Midlands	Birmingham's rate is significantly better than the Regional average (64.2%)
CIPFA neighbours	Birmingham's rate is significantly better than the CIPFA neighbours average (62.7%); worst = Bolton 41.6%

Indicator	New HIV diagnosis rate / 100,000 age 15+
Source	Public Health England.
	Data from all those newly diagnosed with HIV and those accessing HIV care in England, Wales and Northern Ireland are collected, validated, de- duplicated and collated using the HIV and AIDS Reporting System (HARS) by the Blood Safety, Hepatitis, STIs and HIV Service, PHE, Colindale.
Numerator	The number of adults (aged 15 years or more) newly diagnosed with HIV infection who are resident in England
Denominator	Resident population aged 15 and ove ONS mid-year population estimates
How is it calculated?	Rate per 100,000 population. The numerator is divided by the denominator and multiplied by 100,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

New HIV diagnosis provides a timely insight into the onward HIV transmission in a country and consequently allows targeting efforts to reduce transmission. Although the majority of HIV diagnoses are made in genitourinary medicine (GUM) services, HIV testing has been introduced in a variety of different medical services and non-medical settings, including the expansion of self-sampling/self-testing.

Indicator definition:

All new HIV diagnoses among adults (aged 15 years or more) in the UK, expressed as a rate per 100,000 population. Data are presented by area of residence, and exclude children and adults diagnosed with HIV in England who are resident in Wales, Scotland, Northern Ireland or abroad.

Caveats

Data are presented by geographical area of residence. Where data on residence were unavailable, diagnoses have been assigned to the diagnosing area.

Every effort is made to ensure accuracy and completeness of the data, including web-based reporting with integrated checks in data quality. However, responsibility for the accuracy and completeness of data lies with the data service.

Data are as reported but rely on 'record linkage' to integrate data and 'de-duplication' to prevent double counting of the same individual. The data may not be representative in areas where residence information is not known for a significant proportion of new HIV diagnoses.

Data supplied for previous years are updated on an annual basis due to clinic/laboratory resubmissions and improvements to data cleaning. Data may therefore differ from previous publications.

England	Birmingham's rate (12.9 per 100,000) is significantly worse than the England average (8.7/100,000)
West Midlands	Birmingham's rate is significantly worse than the Regional average (6.8/100,000)
CIPFA neighbours	Birmingham's rate is the same as the CIPFA neighbours average (12.9/100,000); worst = Nottingham 25.7/100,000

Late HIV diagnosis

Indicator	HIV late diagnosis (%)
Source	The HIV and AIDS Reporting System
	(HARS), Public Health England.
Numerator	Number of adults (aged 15 years or
	more) newly diagnosed with HIV
	infection with a CD4 count less than
	350 cells per mm3 within 91 days and
	who are resident in England. Three-
	year combined data.
Denominator	Number of adults (aged 15 years or
	more) newly diagnosed with HIV
	infection with CD4 count available
	within 91 days and who are resident in
	England. Three-year combined data.
How is it	Percentage: The numerator is divided
calculated?	by the denominator and multiplied by
	100.
Frequency	Annual
Latest data	2016-2018
Macro/Micro	City level data; also available broken
	down to MSM, heterosexual men and
	heterosexual women.
	-neterosexual women.

Indicator rationale

Late diagnosis is the most important predictor of morbidity and mortality among those with HIV infection. Those diagnosed late have a 10-fold risk of death compared to those diagnosed promptly and is essential to evaluate the success of expanded HIV testing. This indicator directly measures late diagnoses and indirectly informs our understanding of the proportion of HIV infections undiagnosed.

Indicator definition:

Percentage of adults (aged 15 years or more) diagnosed with a CD4 cell count less than 350 cells per mm3 among all newly diagnosed adults with CD4 cell count available within 91 days of diagnosis. Data are presented by area of residence, and exclude children and adults diagnosed with HIV in England who are resident in Wales, Scotland, Northern Ireland or abroad.

Caveats

Data are presented by geographical area of residence. Where data on residence were unavailable, diagnoses have been assigned to the diagnosing area.

Data are small when presented by local health service area and therefore data should be interpreted cautiously and with explicit reference to the confidence intervals. Where a small number of cases have been reported, the proportions diagnosed late could be due to chance. The proportion will also be in part influenced by the composition of the local population. Some health service areas may be unable to improve the proportion as many of their late diagnoses are among people who acquired their infection years before arriving in the UK.

Every effort is made to ensure accuracy and completeness of the data, including web-based reporting with integrated checks on data quality. However, responsibility for the accuracy and completeness of data lies with the services that provide the data.

England	Birmingham's rate (41.0%) is similar to the England average (42.5%)
West Midlands	Birmingham's rate is slightly lower but not significantly different from the Regional average (46%)
CIPFA neighbours	Birmingham's rate is similar to the CIPFA neighbours average (44.8%); worst = Sandwell 54.3%

Indicator Prompt ART initiation in people newly diagnosed with HIV (%) The HIV and AIDS Reporting System (HARS), Public Health England. Number of adults (aged 15 years or more) newly diagnosed with HIV and attended HIV care who have started ART within 91 days of the diagnosis date and who are resident in England. Three-year combined data. Number of adults (aged 15 years or more) newly diagnosed with HIV and attended for HIV care and who are resident in England. Three-year combined data. How is it Percentage: The numerator is divided calculated? by the denominator and the resulting value is multiplied by 100. Latest data 2016-2018 N.B. Three-year combined data are shown due to small numbers in an individual year by local health Macro/Micro City level data

Indicator rationale

This indicator presents the proportion of adults newly diagnosed with HIV who start antiretroviral therapy (ART) within 91 days of their diagnosis. The indicator measures prompt treatment initiation which reduces the risk of onward HIV infection to partners. Successful ART decreases a person's viral load; HIV transmission does not occur when the viral load is undetectable.

Indicator definition:

Proportion of adults who started antiretroviral therapy (ART) within 91 days of their HIV diagnosis.

Caveats

Data are presented by geographical area of residence. Where data on residence were unavailable, diagnoses have been assigned to the diagnosing area. Responsibility for the accuracy and completeness of data lies with the services that provide the data.

Data are as reported but rely on 'record linkage' to integrate data and 'de-duplication' to prevent double counting of the same individual.

The data may not be representative in areas where residence information is not known for a significant proportion of new HIV diagnoses or where ART initiation date is not reported.

All figures where the denominator is below 5 are suppressed. This is because of the unreliability of percentages calculated from a small base. It also ensures that any numbers between 1 and 4 in areas with a population <10,000 are masked.

England	Birmingham's rate (86.5%) is significantly better than the England average (79.1%)
West Midlands	Birmingham's rate is higher than the Regional average (82.5%)
CIPFA neighbours	Birmingham's rate is significantly higher than the CIPFA neighbours average (79.1%); worst = Derby 68.4%

Total abortion rate

Indicator	Total abortion rate / 1000
Source	Department of Health based on data from abortion clinics.
Numerator	Number of women having an abortion.
Denominator	Number of women aged 15-44 living in the area.
How is it calculated?	Crude rate: numerator is divided by denominator and then multiplied by 1,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

Indicator rationale

Whilst there are many and varied reasons a woman may have an abortion, this is an indicator may be used as a proxy measure for lack of access to good quality contraception services and advice, as well as problems with individual use of contraceptive method.

Indicator definition:

Crude rate of abortions per 1,000 female population aged 15-44 years.

Caveats

Trend data is available for this 'crude rate' indicator. Values will differ slightly from the total abortion rates published by the Department of Health which are now age-standarised.

Abortion data quality is good. Data relating to legal abortions is collated by the Department of Health through mandatory reporting processes. The Department of Health use a thorough process for inspecting and recording the information received on the forms in order to monitor compliance with the legislation and the extent to which best practice guidance from the Department of Health is followed. The methods used ensure good quality, accurate statistics can be derived from the data.

England	Birmingham's rate (19.3 per 1,000) is higher than the England average (18.1/1,000)
West Midlands	Birmingham's rate is similar to the Regional average (19.0/1,000)
CIPFA neighbours	Birmingham's rate is the same as the CIPFA neighbours average $(19.3/1,000)$; highest = Sandwell 25.6/1,000

Under 25s repeat abortions

Indicator	Under 25s repeat abortions (%)
Source	Department of Health
Numerator	Number of females aged under 25 years having an abortion in the year and who have had a previous abortion in any year.
Denominator	Total number of females aged under 25 years having an abortion in the year.
How is it calculated?	Percentage: numerator divided by the denominator, multiplied by 100.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

Indicator rationale

Over a quarter of England abortions in this age group are repeat abortions. Whilst there are many and varied reasons a woman may have an abortion, this is an indicator may be used as a proxy measure for lack of access to good quality contraception services and advice as well as problems with individual use of contraceptive method.

Indicator definition:

Percentage of abortions in women aged under 25 years that involve a woman who has had a previous abortion in any year.

Caveats

Abortion data quality is good. Data relating to legal abortions is collated by the Department of Health through mandatory reporting processes. The Department of Health use a thorough process for inspecting and recording the information received on the forms in order to monitor compliance with the legislation and the extent to which best practice guidance from the Department of Health is followed. The methods used ensure good quality, accurate statistics can be derived from the data.

Late abortion notifications are not included but these are small in number.

Records with missing ages are assigned to the 20-24 age group. Missing gestations are imputed as 6, 7, 8, 9 or 10 weeks in equal distribution unless the method of abortion or diagnosis suggests otherwise. Missing postcodes are imputed with a random postcode from within the main locality of other residents attending the same hospital or clinic.

England	Birmingham's rate (29.1%) is higher than the England average (26.8%)
West Midlands	Birmingham's rate is similar to the Regional average (29.5%)
CIPFA neighbours	Birmingham's rate is slightly higher than the CIPFA neighbours average (27.6%); worst = Sandwell 32.6%

Indicator	Total prescribed LARC excluding injections rate / 1,000
Source	NHS Digital, NHS Business Services Authority and Office for National Statistics.
Numerator	Total number of implants, IUS and IUDs prescribed in the calendar year (January to December) for women in all age groups.
Denominator	Local authority resident female population aged 15-44 years - relevant mid-year estimate.
How is it calculated?	Crude rate: numerator is divided by denominator and then multiplied by 1,000.
Frequency	Annual
Latest data	2018
Macro/Micro	City level data

The National Institute for Health and Clinical Excellence (NICE) advises that LARC methods, such as contraceptive injections, implants, the intra-uterine system (IUS) or the intrauterine device (IUD), are highly effective as they do not rely on daily compliance and are more cost effective than condoms and the pill. Implants, IUS and IUD can remain in place for up to 3, 5 or 10 years depending on the type of product.

A strategic priority is to ensure access to the full range of contraception is available to all. An increase in the provision of LARC is a proxy measure for wider access to the range of possible contraceptive methods and should also lead to a reduction in rates of unintended pregnancy.

Indicator definition:

Crude rate of long acting reversible contraception (LARC) excluding injections prescribed by GP and Sexual and Reproductive Health Services per 1,000 resident female population aged 15-44 years.

Caveats

LARC prescriptions in abortion and maternity/gynaecology settings are not included. Women may seek removal of LARC after a short time of use. In some cases LARC may be prescribed for menorrhagia, rather than for contraceptive purposes. As LARC products can be in place for a number of years, a prescriptions view will be an undercount of the number of women actually using LARC in any year.

GP prescribing data is prescription-item rather than person-based thus: i) it is not possible to use this data to derive an exact measure of the number of women prescribed LARC in general practice. ii) it is not possible to derive area of residence for this component of the indicator - GP activity is assigned instead to the host local authority of the GP practice main base.

The denominator population has been restricted to age 15-44 to allow direct comparison with the total abortion rate which is constructed on this basis. However, it should be noted that there is increasing use of contraception in older age groups. The numerator includes all age groups.

England	Birmingham's rate (44.4 per 1,000) is lower than the England average (49.5/1,000)
West Midlands	Birmingham's rate is slightly higher than the Regional average (43.2/1,000)
CIPFA neighbours	Birmingham's rate is similar to the CIPFA neighbours average (43.7/1,000); highest = Bristol 70.2/1,000

Under 18s conception rate / 1,000

Indicator	Under 18s conception rate / 1,000
Source	Office for National Statistics (ONS)
Numerator	Number of pregnancies that occur in women aged under 18 and result in either one or more live or still births or a legal abortion under the Abortion Act 1967.
Denominator	Number of women aged 15-17 living in the area.
How is it calculated?	Crude rate: numerator is divided by denominator and then multiplied by 1,000.
Frequency	Annual
Latest data	2017
Macro/Micro	City level data

Indicator rationale

Most teenage pregnancies are unplanned and around half end in an abortion. As well as it being an avoidable experience for the young woman, abortions represent an avoidable cost to the NHS. While for some young women having a child when young can represent a positive turning point in their lives, for many more teenagers bringing up a child is extremely difficult and often results in poor outcomes for both the teenage parent and the child, in terms of the baby's health, the mother's emotional health and wellbeing and the likelihood of both the parent and child living in long-term poverty.

Research evidence, particularly from longitudinal studies, shows that teenage pregnancy is associated with poorer outcomes for both young parents and their children. Teenage mothers are less likely to finish their education, are more likely to bring up their child alone and in poverty and have a higher risk of poor mental health than older mothers. Infant mortality rates for babies born to teenage mothers are around 60% higher than for babies born to older mothers. The children of teenage mothers have an increased risk of living in poverty and poor quality housing and are more likely to have accidents and behavioural problems.

Indicator definition:

Conceptions in women aged under 18 per 1,000 females aged 15-17.

Caveats

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The date of conception is estimated using recorded gestation for abortions and stillbirths, and assuming 38 weeks gestation for live births. A woman's age at conception is calculated as the number of complete years between her date of birth and the date she conceived. The postcode of the woman's address at time of birth or abortion is used to determine geographical area of residence at time of conception.

Only about 5% of under 18 conceptions are to girls aged 14 or under and to include younger age groups in the base population would produce misleading results. The 15-17 age group is effectively treated as population at risk.

England	Birmingham's rate (19.4 per 1,000) is higher than the England average (17.8/1,000)
West Midlands	Birmingham's rate is similar to the Regional average (19.9/1,000)
CIPFA neighbours	Birmingham's rate is higher than the CIPFA neighbours average (17.8/1,000); worst = Salford 30.7/1,000

Under 18s births rate

Indicator	Under 18s births rate / 1,000
Source	Office for National Statistics (ONS)
Numerator	Number of live births registered in women aged under 18 years by area of usual residence.
Denominator	Number of women aged 15-17 living in the area.
How is it calculated?	Crude rate: numerator is divided by denominator and then multiplied by 1,000.
Frequency	Annual
Latest data	2016
Macro/Micro	City level data

Indicator rationale

Teenage parents are at increased risk of postnatal depression and poor mental health in the 3 years following birth. They are more likely than older mothers to have low educational attainment, experience adult unemployment and be living in poverty at age 30. Their children experience higher rates of infant mortality and low birth weight, A&E admissions for accidents and have a much higher risk of being born into poverty.

Indicator definition:

Live births in women aged under 18 per 1,000 females aged 15-17.

Caveats

2009 and 2010 rates won't match earlier ONS published figures as the latest data uses re-based populations based on the 2011 census.

Deprivation deciles and ONS group calculations exclude any local authority values that have been suppressed.

This indicator is based on year of birth. This replaces an earlier indicator that was based on year of conception.

2015 data onwards excludes display of the rates for numbers of births under 3 in line with the ONS policy that these are 'susceptible to inaccurate interpretation'. However, the numerator & denominator counts for the relevant local authorities have been uploaded and contribute to aggregate values depending on these.

England	Birmingham's rate (7.0 per 1,000) is significantly worse than the England average (5.6/1,000)
West Midlands	Birmingham's rate is higher than the Regional average (6.1/1,000)
CIPFA neighbours	Birmingham's rate is the same as the CIPFA neighbours average $(7.6/1,000)$; worst = Nottingham $10.8/1,000$

Teenage mothers

Indicator	Teenage mothers
Source	Hospital Episode Statistics (HES)
Numerator	Total number of maternal episodes, mother aged between 12 and 17 years, where the episode type is '2' (delivery episode) or '5' (other delivery event), and where the actual place of delivery is not '1' (at a domestic address), '5' (in a private hospital) or '6' (in another hospital or institution)
Denominator	Total number of maternal episodes where the episode type is '2' (delivery episode) or '5' (other delivery event), and where the actual place of delivery is not '1' (at a domestic address), '5' (in a private hospital) or '6' (in another hospital or institution).
How is it calculated?	Percentage: numerator divided by the denominator, multiplied by 100
Frequency	Annual
Latest data	2017/2018
Macro/Micro	City level data

Indicator rationale

Children born to teenage mothers have 60% higher rates of infant mortality and are at increased risk of low birthweight which impacts on the child's long-term health.

Teenage mothers are three times more likely to suffer from post-natal depression and experience poor mental health for up to three years after the birth.

Teenage parents and their children are at increased risk of living in poverty.

Indicator definition:

Percentage of delivery episodes, where the mother is aged under 18 years.

Caveats

Data allocated to local authority directly by using postcode of residence, and to CCG based on registered GP practice.

Deliveries at home or in a private hospital are not included.

England	Birmingham's rate (1.0%) is significantly worse than the England average (0.7%)
West Midlands	Birmingham's rate is similar to the Regional average (0.9%)
CIPFA neighbours	Birmingham's rate is the same as the CIPFA neighbours average (1.0%); worst = Nottingham 1.5%