

Statistical bulletin

Conceptions in England and Wales: 2016

Annual statistics on conceptions to residents of England and Wales; numbers and rates, by age group including women aged under 18 years.



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Notice

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During the compilation of the Department of Health and Social Care's 2017 Abortion statistics publication, it was found that around 3,000 abortions (1.5% of the total) were missing from the official figures due to a technical error.

Corrections will be made to the 2016 conceptions publication using the revised figures.

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1 . Main points

- The under-18 conception rate in 2016 was 18.9 conceptions per thousand women aged 15 to 17 years; this is the lowest rate recorded since comparable statistics were first produced in 1969.
- The estimated number of conceptions to women aged under 18 years fell to 18,076 in 2016, compared with 20,351 in 2015, a decrease of 11%.
- The estimated number of conceptions to women aged under 16 years fell to 2,821 in 2016, compared with 3,466 in 2015, a decrease of 19%.
- In 2016, there were an estimated 862,785 conceptions to women of all ages, compared with 876,934 in 2015, a decrease of 1.6%.
- Conception rates in 2016 decreased for women in all age groups, except for those aged 40 and over where the rate increased by 2.0%.
- The percentage of conceptions leading to a legal abortion in 2016 increased for women in all age groups since 2015, apart from women aged 40 and over.

2 . Statistician's comment

“Conception rates for women aged under 18 years in England and Wales hit a record low in 2016 – declining by 10% since 2015 and 60% since 1998. This could be associated with a shift in aspirations for young women towards education, stigma associated with being a teenage mother and programmes invested in by successive governments.

“The overall conception rate in England and Wales in 2016 was the lowest recorded since 2005, this could be a consequence of declining conception rates for women aged under 25 years.

“Conception rates declined across all age groups between 2015 and 2016, except for women aged 40 and over where the rate increased.”

Nicola Haines, Vital Statistics Outputs Branch, Office for National Statistics.

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3 . Things you need to know about this release

Important information for interpreting these conception statistics:

- conception statistics are estimates of all pregnancies of women usually resident in England and Wales
- figures are derived from combining numbers of maternities and abortions using information recorded at birth registration and abortion notification; there is a legal requirement to record these data making them the best and most complete data sources available
- maternities are pregnancies that result in the birth of one or more children, including stillbirths; abortions are pregnancies terminated under the Abortion Act (1967)
- conception statistics do not include conceptions resulting in miscarriages or illegal abortions; [NHS Choices](#) estimate that one in six confirmed pregnancies will end in miscarriage

4 . Lowest number and rate of conceptions since 2005

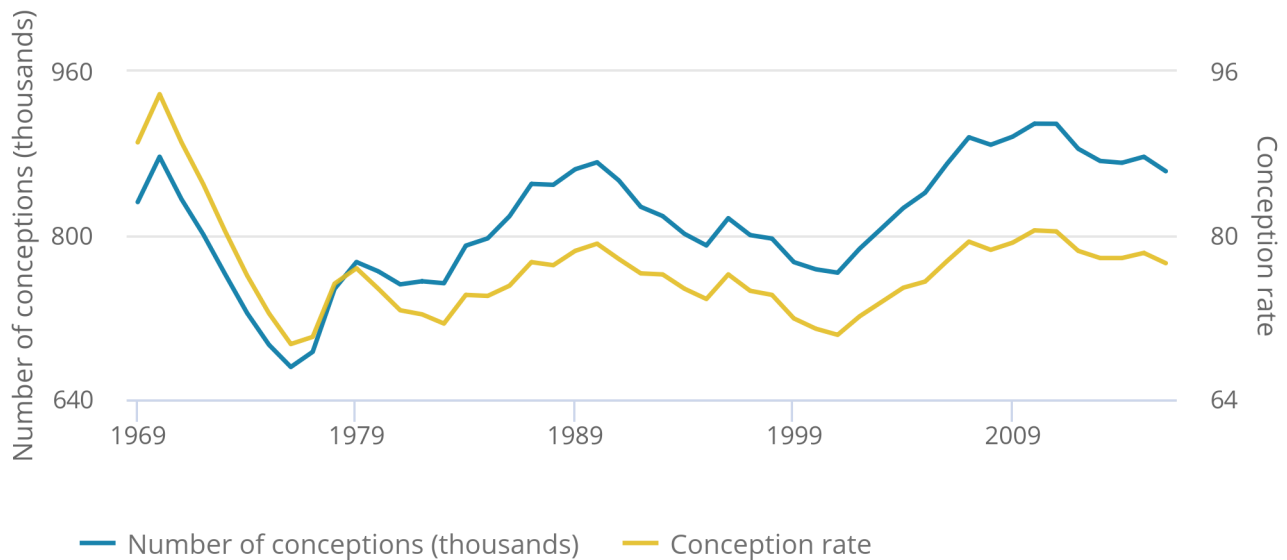
In 2016, the estimated number of conceptions in England and Wales decreased by 1.6% to 862,785 from 876,934 in 2015.

Figure 1: Number of conceptions and the conception rate for all women, 1969 to 2016

England and Wales

Figure 1: Number of conceptions and the conception rate for all women, 1969 to 2016

England and Wales



Source: Office for National Statistics

Notes:

1. The conception rate shows the number of conceptions per thousand women aged 15 to 44 years.
2. Prior to 1969, the first full year for which abortions data are available, the number of conceptions was equivalent to the number of maternities.

Following the introduction of the Abortion Act (1967) the number of conceptions increased (Figure 1). The sudden decline in conceptions in the early to mid-1970s, despite a rise in the number of women in childbearing ages, can be explained by the [increased use of contraception](#).

There have been several scares about the [safety of the contraceptive pill](#), which may have led to a number of women using less reliable methods of contraception or no contraception at all. These pill scares correspond to increases in the number of conceptions and occurred in 1976 to 1977, 1983, 1986 and 1995 to 1996.

The size and age structure of the female population influences the number of conceptions, especially the relative sizes of the female population in the peak age groups for maternities (25 to 29 years and 30 to 34 years) and abortions (20 to 24 years). Conception rates therefore provide a better measure of conceptions than simply looking at the numbers.

In 2016, the conception rate for all women decreased slightly to 77.3 conceptions per thousand women aged 15 to 44 years, down from 78.3 in 2015. The percentage of all conceptions resulting in a maternity in 2016 was 78%. This proportion has remained fairly stable over the last two decades.

5 . Most conceptions occurred outside marriage or civil partnership

There has been a long-term rise in the percentage of conceptions (and births) occurring outside marriage or civil partnership, reaching 58% in 2016 in England and Wales. This compares with 55% in 2005 and 51% in 1998. In 2016, 68% of conceptions outside marriage or civil partnership resulted in a maternity, compared with 92% of conceptions within marriage or civil partnership.

6 . Conception rates decreased at all ages except for women aged 40 and over

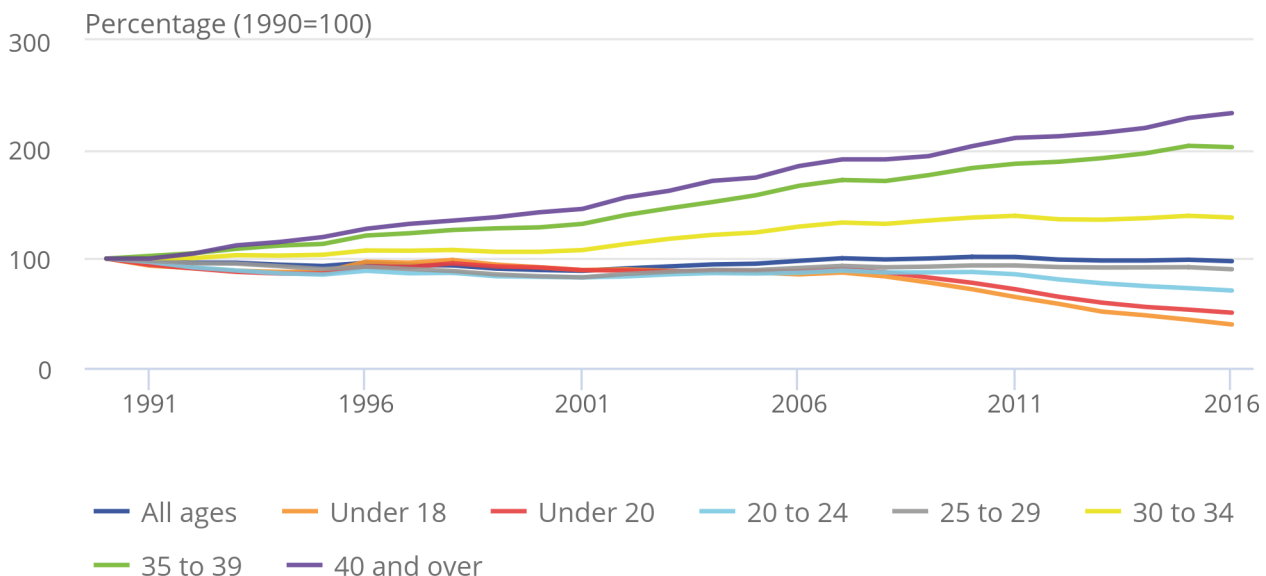
Between 2015 and 2016, conception rates increased for women aged 40 and over by 2.0% and decreased for all women aged under 40 years. The largest percentage decrease in conception rates occurred among women aged under 18 years (10%).

Figure 2: Relative changes in age-specific conception rates, 1990 to 2016

England and Wales

Figure 2: Relative changes in age-specific conception rates, 1990 to 2016

England and Wales



Source: Office for National Statistics

Since 1990, the conception rate for women aged 35 to 39 years and 40 and over has more than doubled (Figure 2). The 30 to 34 age group is the youngest group for which conception rates have risen almost continuously since 1990, rising by over one-third. Conception rates by age group are available in [Table 1a of the dataset](#).

Reasons for an increased number of women conceiving at ages 30 and over include [increased participation in higher education](#), increased [female participation in the labour force](#), increased importance of a career, the rising opportunity costs of childbearing, labour market uncertainty and housing factors.

The conception rate for women aged under 20 years has been declining since 2007, falling by 44%. Between 2015 and 2016, the conception rate for women aged under 20 years decreased by 5.2%; decreases were most notable among women aged under 16 years (18%) and under 18 years (10%). Women aged under 18 years accounted for 32% of all conceptions to women aged under 20 years in 2016, decreasing from 34% in 2015.

7 . Lowest under-18 conception rate since comparable statistics were first produced

In 2016, there were 18,076 conceptions to women aged under 18 years in England and Wales, an 11% decrease compared with 20,351 in 2015. The under-18 conception rate was 18.9 conceptions per thousand women aged 15 to 17 years in 2016, a 10% decrease from 21.0 in 2015. This is the lowest number of conceptions and the lowest conception rate for women aged under 18 years since comparable statistics were first produced in 1969. In 1969, there were 45,495 conceptions to women aged under 18 years, resulting in a rate of 47.1 conceptions per thousand women.

The fall in the under-18 conception rate in 2016, compared with 2015, consists of falls in both the conception rate leading to a maternity (decreased by 11%) and the conception rate leading to abortion (decreased by 9.3%). The under-18 conception rate has now declined by 60% since 1998 and by 55% since 2007 (Figure 3).

There are many factors that could explain recent reductions in under-18 conceptions, including:

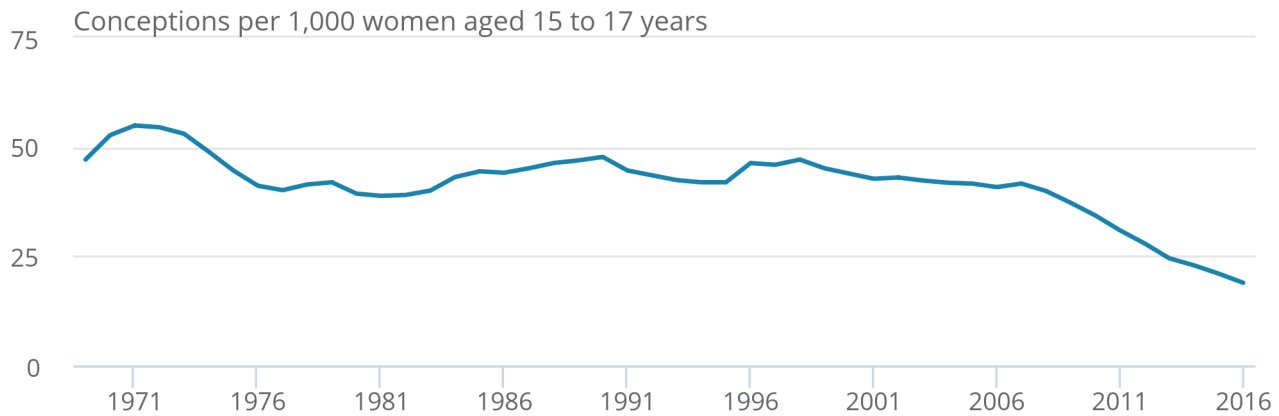
- the [programmes](#) invested in by successive governments (for example, sex and relationship education, improved access to contraceptives and contraceptive publicity)
- a shift in aspirations of [young women towards education](#)
- the perception of [stigma](#) associated with being a teenage mother

Figure 3: Conception rate for women aged under 18 years, 1969 to 2016

England and Wales

Figure 3: Conception rate for women aged under 18 years, 1969 to 2016

England and Wales



Source: Office for National Statistics

Notes:

1. The conception rate is calculated by dividing the number of conceptions to women aged under 18 years by the female population aged 15 to 17 years.
2. Methodology for estimating age at conception changed from 1997. Rates for 1987 to 1996 were revised to provide a comparable time series from 1987 onwards. The conception rates for 1969 to 1986 are not directly comparable as they have been calculated using the previous methodology.

The number of conceptions to women aged under 16 years decreased by 19% to 2,821 in 2016, from 3,466 in 2015. In 2016, there were 3.1 conceptions per thousand women aged 13 to 15 years, compared with 3.8 in 2015, a decrease of 18%. This fall in the conception rate consists of a 20% fall in the rate of conceptions leading to a maternity and a 14% fall in the rate of conceptions leading to abortion.

The under-16 conception rate has continually decreased since 2007, from 8.1 conceptions per thousand women aged 13 to 15 years to 3.1 in 2016. The under-16 conception rate is also the lowest recorded since the time series of comparable data began in 1969, when the rate was 6.9 conceptions per thousand women. Nearly three-quarters (72%) of under-16 conceptions in 2016 were to women aged 15 years.

8 . The percentage of conceptions leading to abortion varied by age group

Women aged 30 to 34 years had the lowest percentage of conceptions leading to legal abortion (14.2%) in 2016, whereas women aged under 16 years had the highest percentage (61.5%). Compared with 2015, the percentage of conceptions leading to a legal abortion in 2016 increased for women in all age groups, except for women aged 40 years and over.

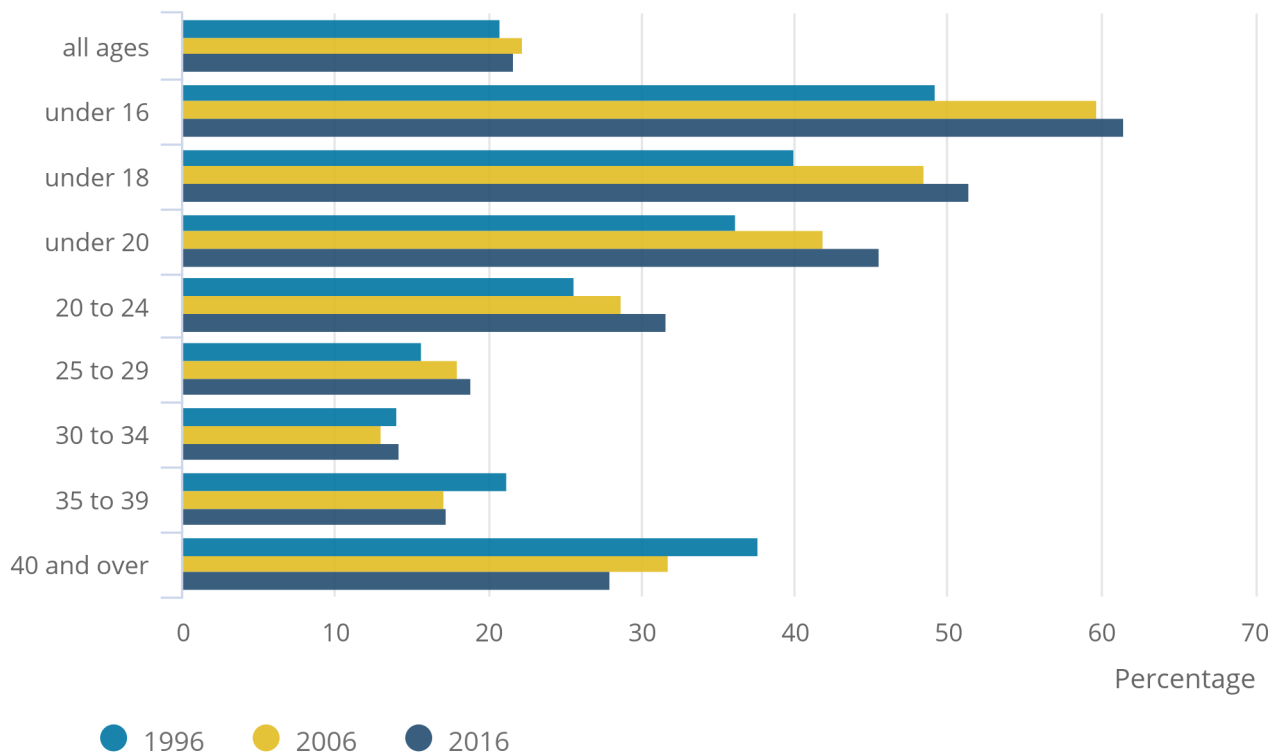
Over the last two decades the percentage of conceptions leading to a legal abortion has generally increased for women aged under 30 years, decreased for women aged 35 and over and remained relatively stable for women aged 30 to 34 years (Figure 4).

Figure 4: Percentage of conceptions leading to legal abortion by age of woman at conception, 1996, 2006 and 2016

England and Wales

Figure 4: Percentage of conceptions leading to legal abortion by age of woman at conception, 1996, 2006 and 2016

England and Wales



Source: Office for National Statistics

9 . Conception rates varied by area of usual residence

Conception rates for regions and lower geographical areas have been recalculated back to 2012 as a result of [revisions to the mid-year population estimates](#) (published 22 March 2018). National rates for England and Wales have not been affected.

For women of all ages, conception rates in 96% of local areas in 2012 changed by less than 0.5%. The degree of change in 2015 was greater than in 2012 due to the cumulative effect of revisions to the population estimates. In 2015, conception rates in 58% of local areas changed by less than 0.5% while 87% changed by less than 1%; conception rates for Inner London boroughs have recorded the greatest change, with rates changing by up to 3.1%.

For women aged under 18 years, conception rates in 90% of local areas in 2012 changed by less than 0.5%. Again, the degree of change in 2015 was greater than in 2012 due to the cumulative effect of revisions to the population estimates. In 2015, conception rates in 79% of local areas changed by less than 0.5% while for 97% of areas, rates changed by less than 1%; the conception rate for Forest Heath recorded the greatest change with an increase of 5.4% in 2014.

In 2016, the overall conception rate for women usually resident in England was 77.5 conceptions per thousand women aged 15 to 44 years, a decrease of 1.4% from 78.6 in 2015. For women usually resident in Wales, the overall conception rate decreased by 0.4% from 72.4 conceptions per thousand women in 2015 to 72.1 in 2016.

A comparison across regions in England for all ages shows that the North East had the lowest conception rate in 2016, with 70.4 conceptions per thousand women aged 15 to 44 years. London had the highest conception rate at 83.1 conceptions per thousand women.

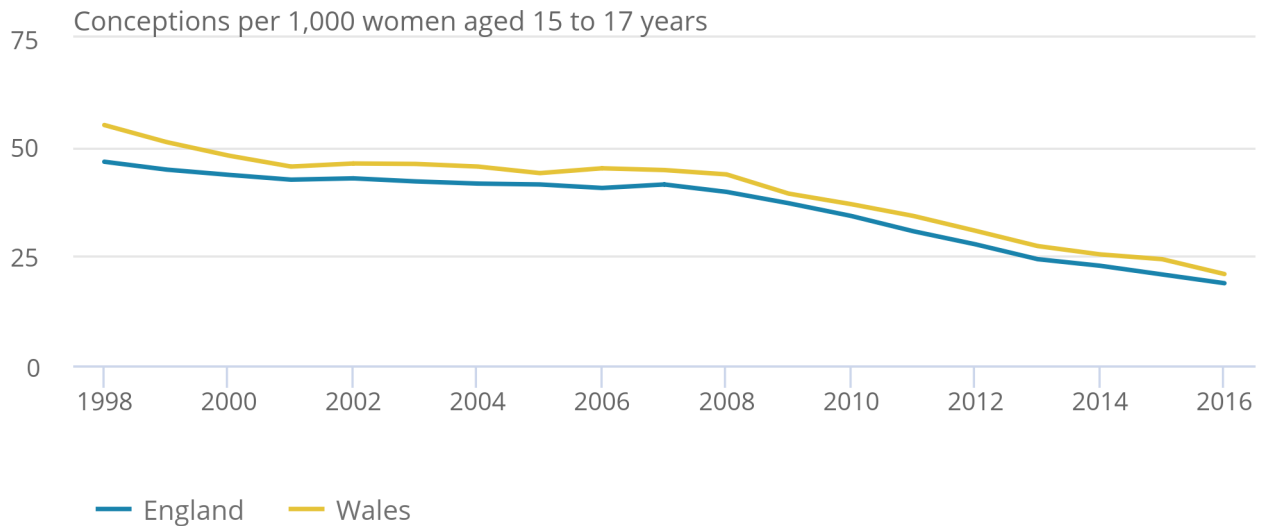
For women usually resident in England, the under-18 conception rate fell by 9.6% to 18.8 conceptions per thousand women aged 15 to 17 years in 2016 compared with 2015. A decrease of 14% was recorded for women usually resident in Wales, with the under-18 conception rate falling to 20.9 in 2016. Since 1998, the under-18 conception rate for England has fallen by 60% while for Wales the rate has fallen by 62% (Figure 5).

Figure 5: Under-18 conception rates, 1998 to 2016

England and Wales

Figure 5: Under-18 conception rates, 1998 to 2016

England and Wales



Source: Office for National Statistics

Across the regions in England, the North East had the highest under-18 conception rate in 2016 (24.6). The South East had the lowest rate (15.0).

Figure 6: Under-18 conception rates by local authority, 2016

England and Wales

Source: Office for National Statistics

Notes:

1. To preserve confidentiality, counts for City of London and Isles of Scilly have been combined with those for Hackney and Cornwall respectively.

As can be seen from the map (Figure 6), there is significant variation in conception rates at the local level; see Table 1 for the 10 local authorities with the highest under-18 conception rates. When analysing figures for areas with small populations, for example, Rutland, it is important to also consider the numbers involved, as a slight change when numbers are small can lead to large changes in the rate. Other population characteristics can also have an impact, for example, the ethnic composition of an area, the level of deprivation and educational attainment levels.

Table 1: The 10 areas with the highest conception rates for women aged under-18 in 2016, 2015 and 1998, England and Wales

England and Wales

Rank	Local authority	Number of conceptions 2016	Conception rate per thousand women aged 15 to 17		
			2016	2015	1998
1	Hyndburn	51	36.7	33.8	71.8
2	Middlesbrough	90	36.5	33.9	66.5
3	Burnley	50	35.8	41.2	82.3
4	Hartlepool	58	34.9	35.9	75.6
5	Blackpool	82	34.6	43.7	64.8
6	Newcastle-under-Lyme	66	34.4	34.8	51.3
7	Barnsley	129	33.8	33.7	60.2
8	Merthyr Tydfil	34	33.8	31.5	71.1
9	Tamworth	45	33.3	32.7	55.7
10	North East Lincolnshire	86	33.1	37.6	69.8

Source: Office for National Statistics

There has been widespread variation in the success of local authorities in reducing teenage conception rates since 1998, as can be seen in [Table 6](#) of the dataset.

10 . Links to related statistics

More statistics on [annual conceptions in England and Wales](#) for 2016 are available.

[Quarterly conceptions to women aged under 18 years](#) provides provisional quarterly statistics on the number of conceptions to women aged under 18 years by regions and other local authority areas within England and Wales. See the [GOV.UK release calendar](#) for information on planned publication dates.

[Abortion statistics](#) are available from the Department of Health.

Further statistics on [Births for England and Wales](#) are available.

Special extracts and tabulations of conceptions data for England and Wales are available to order (subject to legal frameworks, disclosure control, resources and the [ONS charging policy](#), where appropriate). Enquiries should be made to Vital Statistics Outputs Branch by email to vsob@ons.gsi.gov.uk or telephone on +44 (0)1329 444110. [User requested data](#) will be published.

11 . Quality and methodology

This is the first time that final annual statistics on conceptions in England and Wales have been published for 2016. This release was delayed by a month to enable rates to be based upon revised population estimates, which were published on 22 March 2018.

Provisional [Quarterly conceptions to women aged under 18 years](#) provide more timely figures on conceptions to women aged under 18 years and were last published for July to September 2016 (Quarter 3 of 2016) on 5 December 2017.

The date of conception is estimated using recorded gestation for abortions and stillbirths, assuming 38 weeks gestation for live births.

Conception statistics are used for planning maternity services and anticipating the demand of antenatal services. Conception statistics are also used to inform and monitor policies on the access to contraception, allowing the analysis of social and demographic trends.

The [Conceptions Quality and Methodology Information](#) report contains important information on:

- the strengths and limitations of the data and how it compares with related data
- uses and users of the data
- how the output was created
- the quality of the output including the accuracy of the data

Our [User guide to conception statistics](#) provides further information on data quality, legislation and procedures relating to conceptions and includes a glossary of terms.

There is a large degree of comparability in conception statistics between England and Wales and Scotland. In Northern Ireland, it is lawful to perform an operation for the termination of a pregnancy where it is necessary to preserve the life of the woman or there is a risk of real and serious effect on her physical or mental health, which is either long term or permanent. In any other circumstance, it would be unlawful to perform such an operation. These differences are outlined in our [Quality and Methodology Information report](#).

The [Revisions policy for population statistics \(including conception statistics\)](#) is available.

Conception figures are covered by the disclosure control protocol for abortion statistics. The requirement to suppress counts and rates is determined by the number of women in the underlying population. Full details can be found in the [Disclosure control protocol for abortion statistics](#). Occasionally it is necessary to apply secondary suppression to avoid the possibility of disclosure by differencing.