

Statistical bulletin

Conceptions in England and Wales: 2017

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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1 . Main points

- In 2017, there were an estimated 847,204 conceptions to women of all ages, a decrease of 1.8%; this was the largest decrease since 2012.
- The under-18 conception rate in 2017 decreased, for the 10th year running, to 17.9 conceptions per thousand women aged 15 to 17 years.
- The estimated number of conceptions to women aged under 16 years fell to 2,517 in 2017, compared with 2,821 in 2016, a decrease of 10.8%.
- Conception rates in 2017 decreased for women in all age groups, except for those aged 40 years and over where the rate increased by 2.6%.
- Women aged under 16 years were the only age group where the percentage of conceptions leading to a legal abortion decreased.

2 . Statistician's comment

"Conception rates for women aged under 18 years in England and Wales decreased for the 10th year running in 2017. Possible reasons for the continued decrease in teenage conception rates include improved sex and relationship education, better access to contraceptives and increased participation in higher education.

"By contrast, for the second year in a row, women aged 40 years and over were the only age group for whom conception rates increased. This could relate to the rising costs of childbearing and housing, among other reasons."

Kathryn Littleboy, Vital Statistics Outputs Branch, Office for National Statistics.

Follow Vital Statistics Outputs Branch on Twitter [@NickStripe_ONS](https://twitter.com/NickStripe_ONS).

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 eight confirmed pregnancies will end in miscarriage

4 . Largest decrease in the rate of conceptions since 2012

In 2017, the estimated number of conceptions in England and Wales decreased by 1.8% to 847,204 from 863,106 in 2016 (Figure 1). This was the largest decrease since 2012 when the estimated number of conceptions decreased by 2.7% compared with 2011.

Historically, the number of conceptions increased after the introduction of the Abortion Act 1967. This was followed by a decline in the number of conceptions in the early to mid-1970s, despite an increasing number of women of childbearing age. This decrease can be explained by the [increased use of contraception](#) over this period.

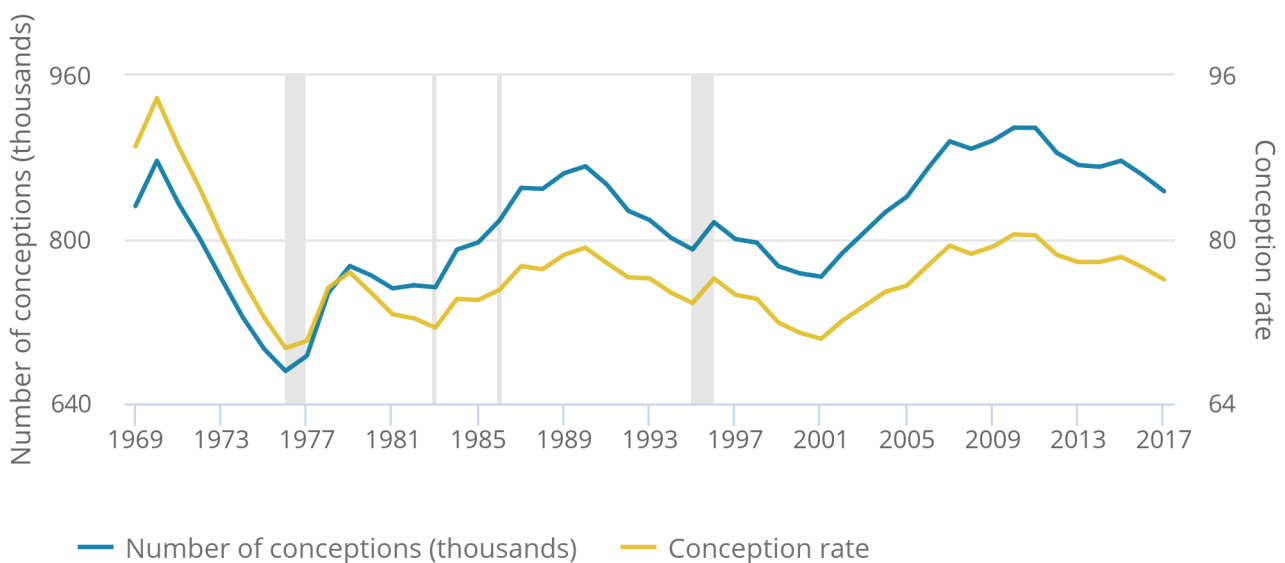
There have been several scares about the [safety of the contraceptive pill](#), which may have led to a number of women using less reliable methods of contraception or no contraception at all. These pill scares, which correspond with increases in the number of conceptions, occurred in 1976 to 1977, 1983,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

Figure 1: Number of conceptions and conception rates have decreased in recent years

Number of conceptions and the conception rate for all women, England and Wales, 1969 to 2017

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Number of conceptions and the conception rate for all women, England and Wales, 1969 to 2017



Source: Office for National Statistics – Conceptions in England and Wales

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 were available, the number of conceptions was equivalent to the number of maternities.

Conception rates provide a better measure than simply looking at the number of conceptions. Rates account for the size and age structure of the female population, which affects the number of conceptions.

In 2017, the conception rate for all women decreased by 1.6% from 2016, to 76.1 conceptions per thousand women aged 15 to 44 years. This was the largest decrease since 2012 when the conception rate for all women decreased by 2.4% compared with 2011.

5 . Under-18 conception rate has decreased for 10 years running

For the 10th year in a row, the number of conceptions and the conception rate for women aged under 18 years have decreased. In 2017, there were 16,740 conceptions to women aged under 18 years in England and Wales, a 7.4% decrease compared with 18,086 in 2016 and a 61.1% decrease compared with 2007.

A similar pattern is seen with the under-18 conception rate, which was 17.9 conceptions per thousand women aged 15 to 17 years in 2017. This was a 5.3% decrease compared with 2016, and a 57.0% decrease compared with 2007.

Since comparable statistics were produced, there has never been such a continued decrease in the under-18 conception rate (Figure 2). This includes falls in both the maternity rate (decreased by 58.2%) and the abortion rate (decreased by 55.3%).

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

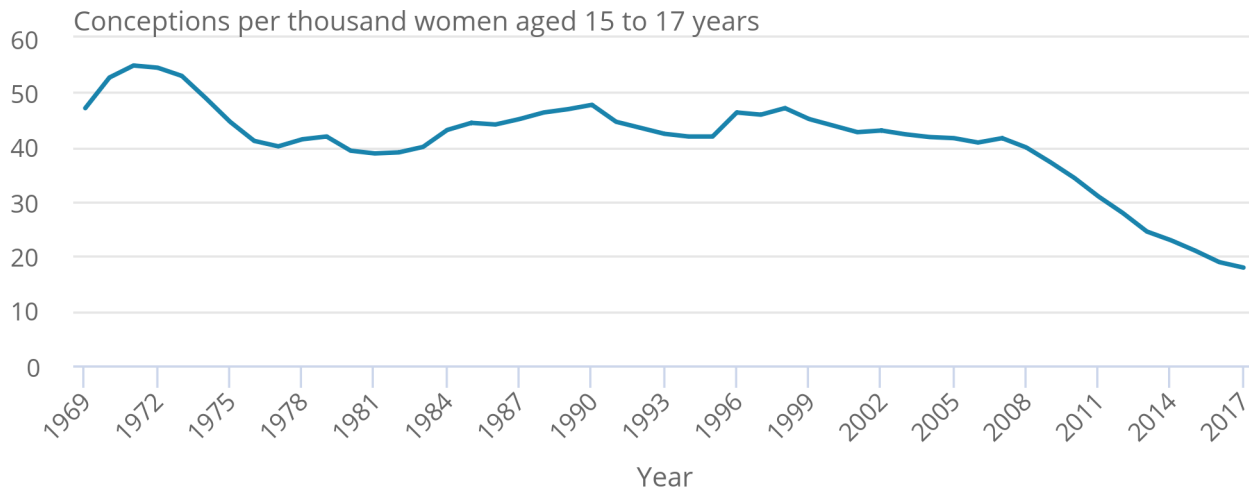
- the [programmes invested in by successive governments](#) (for example, sex and relationship education, improved access to contraceptives and contraceptive publicity)
- a [shift in aspirations of young women towards education](#)
- the perception of [stigma associated with being a teenage mother](#)

Figure 2: Continued decrease in conception rates for women aged under 18 years since 2007

Conceptions per thousand women aged 15 to 17 years, England and Wales, 1969 to 2017

Figure 2: Continued decrease in conception rates for women aged under 18 years since 2007

Conceptions per thousand women aged 15 to 17 years, England and Wales, 1969 to 2017



Source: Office for National Statistics – Conceptions in England and Wales

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. The 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 trend for women aged under 16 years is very similar. Compared with the previous year, the number of conceptions to women aged under 16 years decreased to 2,517 in 2017; a fall of 10.8%. The conception rate also decreased, by 12.9%, to 2.7 conceptions per thousand women aged under 16 years.

Both the under-16 conception number and rate have decreased every year since 2007. Over this 10-year period the number of conceptions has decreased by 69.3% and the conception rate has decreased by 66.7%. The majority (73.3%) of under-16 conceptions in 2017 were to women aged 15 years. This percentage has remained relatively stable over the past 20 years.

6 . Conception rates continued to increase for women aged 40 years and over

Between 2016 and 2017, conception rates increased by 2.6% for women aged 40 years and over. For the second year running, this was the only age group to see an increase. For the fifth year in a row, the largest percentage decrease in conception rates happened among women aged under 16 years (12.9%).

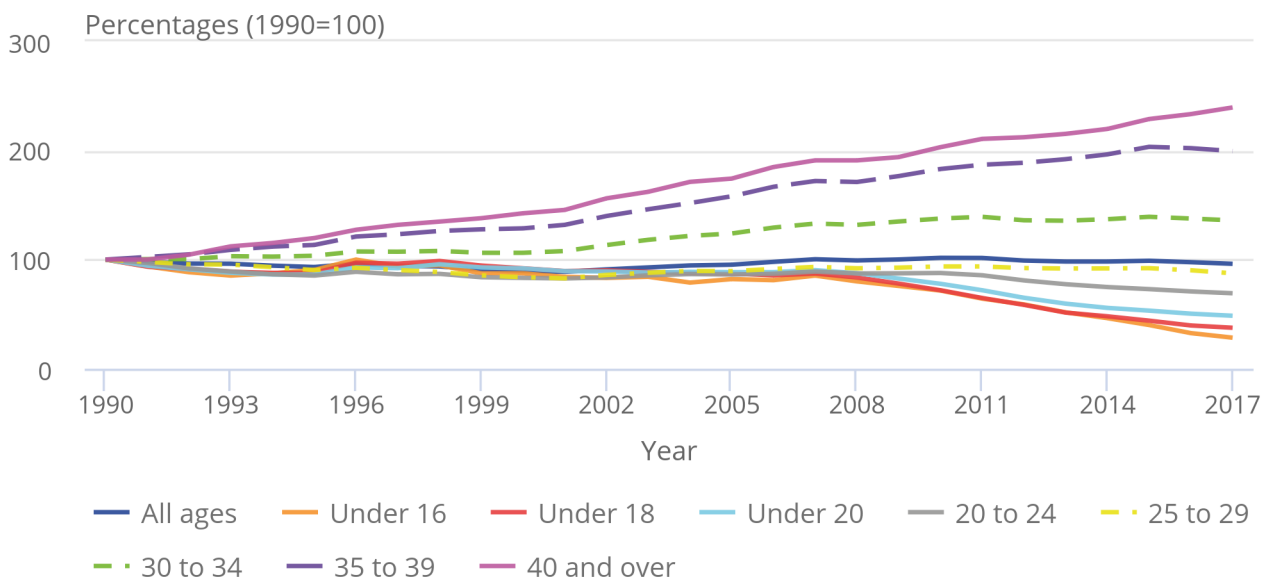
The conception rate for women aged under 20 years continued to decrease in 2017 but the 3.8% reduction from the previous year was the smallest decrease for this age group since 2008. Women aged under 18 years accounted for 31.6% of all conceptions to women aged under 20 years in 2017, a slightly smaller proportion compared with 2016.

Figure 3: Continued rise in conception rates for women aged 40 years and over since 1991

Relative changes in age specific conception rates, England and Wales, 1990 to 2017

Figure 3: Continued rise in conception rates for women aged 40 years and over since 1991

Relative changes in age specific conception rates, England and Wales, 1990 to 2017



Source: Office for National Statistics – Conceptions in England and Wales

Focusing on long-term trends, conception rates for older women have generally been increasing and have more than doubled for women aged 40 years and over, since 1990 (Figure 3). Reasons for an increased number of women conceiving at ages 30 years 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
- housing factors

Opposite patterns have been seen with conception rates for women aged under 30 years, which have generally been declining in recent years, especially in the younger age groups. The conception rates for women aged under 20 years and under 18 years have more than halved since 1990.

7 . Percentage of conceptions leading to abortion decreased for women aged under 16 years

For women aged under 16 years, 60.7% of conceptions led to a legal abortion in 2017. This was the only age group where the percentage of conceptions leading to a legal abortion fell compared with 2016. Despite the decrease, the percentage of legal abortions for women aged under 16 years remained higher than all other age groups. For all other age groups, the percentage of conceptions leading to a legal abortion increased compared with 2016. The largest increase (5.8%) was among women aged 25 to 29 years.

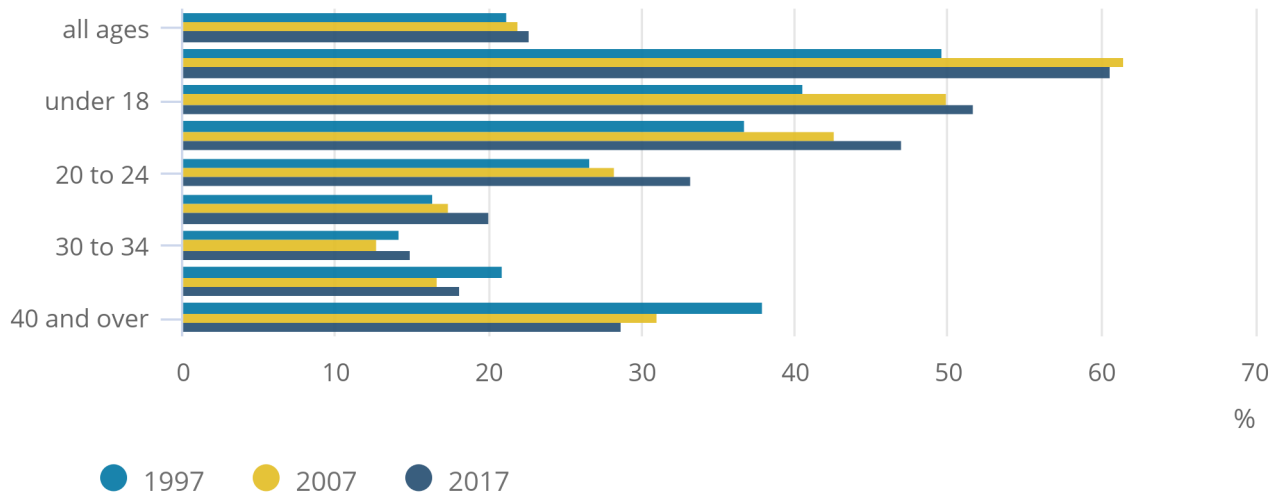
Compared with 20 years ago, the percentage of conceptions leading to a legal abortion has generally increased for women aged under 30 years, remained stable for women aged 30 to 34 years and decreased for women aged 35 years and over (Figure 4).

Figure 4: The percentage of conceptions leading to abortion has increased over the last 20 years

Percentage of conceptions leading to legal abortion by age, England and Wales, 1997, 2007, 2017

Figure 4: The percentage of conceptions leading to abortion has increased over the last 20 years

Percentage of conceptions leading to legal abortion by age, England and Wales, 1997, 2007, 2017



Source: Office for National Statistics – Conceptions in England and Wales

8 . Most conceptions occurred outside marriage or civil partnership

In recent decades there has been a steady rise in the percentage of conceptions happening outside marriage or civil partnership. In 2017, the majority (58.7%) of all conceptions in England and Wales were outside marriage or civil partnership, up from 57.8% in 2016 and 51.2% in 1998.

This trend is mirrored in the [percentage of live births occurring outside marriage or civil partnership](#), which currently stands at 48.1%. The difference between the two figures is because less conceptions outside of marriage or civil partnership result in a maternity. In 2017, only 67.4% of conceptions outside marriage or civil partnership resulted in a maternity, compared with 91.4% of conceptions within.

This long-term trend towards more conceptions and births occurring outside marriage or civil partnership highlights a dramatic [cultural change](#) that has taken place over the last 50 to 60 years.

9 . Regional and local level conception rates vary

Over the past two years, conception rates have decreased more in England than in Wales. In 2017, the conception rate for women usually resident in England was 76.4 conceptions per thousand women aged 15 to 44 years, a decrease of 1.5% from 77.6 conceptions per thousand women aged 15 to 44 years in 2016. The conception rate in Wales is lower than in England, at 71.8 conceptions per thousand women aged 15 to 44 years, but saw a smaller decrease (0.4%) than England in 2017.

The under-18 conception rate for women usually resident in England fell by 5.3%, to 17.8 conceptions per thousand women aged 15 to 17 years in 2017, compared with the previous year. The under-18 conception rate for Wales also decreased, by 3.3%, but remained higher than England, at 20.2 conceptions per thousand women aged 15 to 17 years in 2017.

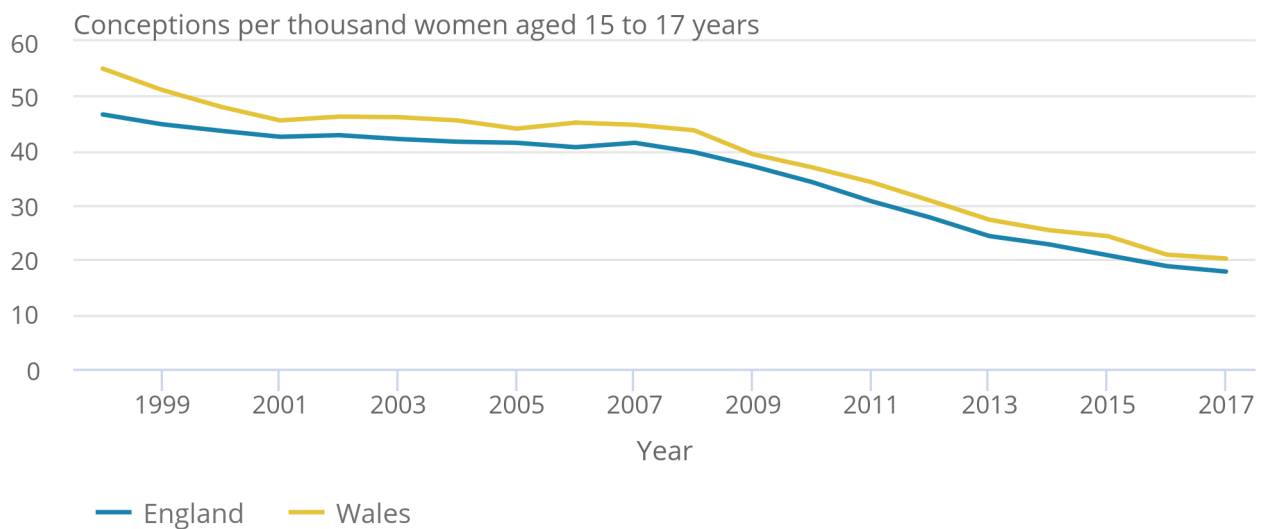
Since 2008, the under-18 conception rate for England has fallen every year, a total decrease of 57.0% when compared with 2007. Similarly, the under-18 conception rate for Wales has fallen each year since 2007 and has decreased by 55.2% when compared with 2006 (Figure 5).

Figure 5: Under-18 conception rates continued to decline in both England and Wales

Under-18 conception rates per thousand women aged 15 to 17 years, England and Wales, 1998 to 2017

Figure 5: Under-18 conception rates continued to decline in both England and Wales

Under-18 conception rates per thousand women aged 15 to 17 years, England and Wales, 1998 to 2017



Source: Office for National Statistics – Conceptions in England and Wales

Among the English regions, the North East had the lowest conception rate in 2017, with 69.9 conceptions per thousand women aged 15 to 44 years. London had the highest conception rate at 81.1 per thousand women aged 15 to 44 years. This continues a running trend since 2013.

Conversely, the North East has had the highest under-18 conception rate since 2003, with 24.7 conceptions per thousand women aged 15 to 17 years in 2017. For the second year in a row, the South East had the lowest under-18 conception rate, at 13.9 conceptions per thousand women aged 15 to 17 years in 2017.

Teenage conception rates vary at the local level and over time (Figure 6). When looking at rates for areas with small populations, it is important to consider the numbers involved. If there is a small change in the number of conceptions in these areas, there can be large changes in the rates. Other population characteristics can also have an impact, for example, the ethnic make-up of an area, the level of deprivation and educational achievement levels.

Figure 6: Under-18 conception rates have decreased across all local authorities compared with 1998

Under-18 conception rates by local authority, England and Wales, 1998 to 2017

[Data download](#)

Source: Office for National Statistics - Conceptions in England and Wales

Notes:

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

Middlesbrough had the highest under-18 conception rate among the local authorities in England and Wales, with 43.8 conceptions per thousand women aged 15 to 17 years. This was an increase of 20.0% compared with 2016 (Table 1). However, despite this increase, the 2017 under-18 conception rate in Middlesbrough is still 34.1% lower than in 1998. Since 1998, all local authorities have reduced their teenage conception rates with varying levels of success.

Table 1: The 10 areas with the highest under-18 conception rates in 2017 compared with 2016 and 1998
England and Wales

Rank	Local authority	Number of conceptions 2017	Conception rate per thousand women aged 15 to 17		
			2017	2016	1998
1	Middlesbrough	103	43.8	36.5	66.5
2	St Helens	103	37.1	22.6	55.5
3	Halton	76	34.9	26.2	47.1
4	Hartlepool	52	33.2	34.9	75.6
5	North East Lincolnshire	85	33.2	33.1	69.8
6	Blackpool	74	32.9	34.6	64.8
7	Hyndburn	43	32.8	36.7	71.8
8	Kingston upon Hull, City of	121	32.7	30.6	84.6
9	Norwich	53	31.3	27.3	53.7
10	Salford	117	30.7	31.5	61.5

Source: Office for National Statistics – Conceptions in England and Wales

10 . Links to related statistics

More statistics on [annual conceptions in England and Wales](#) for 2017 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 and Social Care.

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.gov.uk or by 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 2017.

Provisional [Quarterly conceptions to women aged under 18 years](#) provide more timely figures on conceptions to women aged under 18 years. The finalised quarterly figures for conceptions to women aged under 18 years in 2017 were published on 15 April 2019.

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.