Conceptions in England and Wales: 2013

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. Key findings

- The under 18 conception rate for 2013 is the lowest since 1969 at 24.5 conceptions per thousand women aged 15 to 17
- The estimated number of conceptions to women aged under 18 fell to 24,306 in 2013 compared with 27,834 in 2012, a decrease of 13%
- The estimated number of conceptions to women aged under 16 was 4,648 in 2013, compared with 5,432 in 2012 (a fall of 14%)
- In 2013 there were an estimated 872,849 conceptions to women of all ages, compared with 884,748 in 2012, a decrease of 1.3%
- Conception rates in 2013 increased for women aged 35 years and over, and decreased for women aged under 35 years from 2012

2. Background

This bulletin presents estimated annual conceptions occurring to women usually resident in England and Wales in 2013. Conception statistics bring together records of birth registrations collected under the Births and Deaths Registration Act (1953) and abortion notifications received under the Abortion Act (1967), amended by the Human Fertilisation and Embryology Act (2008). The estimates include all pregnancies of women usually resident in England and Wales that lead to one of the following outcomes:

- a maternity registered in England and Wales, at which one or more live births or stillbirths occur
- a termination of a pregnancy by abortion under the 1967 Act, which takes place in England and Wales

Conception statistics do not include conceptions resulting in miscarriages or illegal abortions.

Conceptions are analysed primarily using numbers, rates and the percentage leading to abortion. The statistics are tabulated by age, area of usual residence of woman and marital status.

This is the first time that we have published annual 2013 statistics on conceptions for women usually resident in England and Wales. We have previously published provisional figures for quarterly conceptions to women aged under 18, for Quarters 1 to 3 2013.

3. Number of conceptions and conception rates

In 2013, the estimated number of conceptions in England and Wales fell by 1.3% to 872,849 from 884,748 in 2012. The number of conceptions rose between 2001 and 2010 despite a slight fall in 2008. Since 2010 the number of conceptions has fallen from a peak of 909,245 conceptions.
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 could be explained by the increased use of contraception (Wellings and Kane, 1999). Oral contraception was introduced in 1961, but this was only available to married women and was a chargeable prescription. In 1970 there was a mandate for family planning clinics to start treating single women. In 1974 contraception became free on the National Health Service (NHS), opening up services to women regardless of marital status and ability to pay.

There have been a number of scares about the safety of the contraceptive pill (Wellings and Kane, 1999). These scares deterred some women from using the pill as a method of contraception due to concerns about their health (Wood et al., 1997). This 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 gradual increase in conceptions between 2001 and 2010 results from an overall increase in the number of conceptions at all ages with the exception of those aged under 20. Factors influencing the increasing age at conception are explored in a later section.
The conception rate for 2013 has decreased to 77.8 conceptions per thousand women aged 15 to 44, from 78.5 in 2012, a decrease of 0.9%. The proportion of all conceptions resulting in a maternity in 2013 was 79%, unchanged from 2012. This proportion has remained fairly stable over the last two decades.

The size of the female population of child bearing age (women aged 15 to 44) will influence the number of conceptions. The age composition of the female population will also influence the number of conceptions as there are peak age groups for maternities (25 to 29 and 30 to 34) and abortions (20 to 24) and the relative sizes of these groups will impact upon the number of conceptions. Changes in the size of the population are determined by births of females in previous years, mortality and migration.

The fall in the overall conception rate between 2012 and 2013 was driven by a 1.3% decrease in the number of conceptions and would have fallen further had there not been a 0.4% fall in the female population of child bearing age.

4 . Marital status at conception

There has been a long-term rise in the proportion of conceptions (and births) occurring outside marriage. In 2013 conceptions outside of a marriage or civil partnership accounted for 57% of all conceptions in England and Wales, compared with 55% in 2003 and 45% in 1993. In 2013 the proportion of conceptions outside marriage or civil partnership that resulted in a maternity was 69%, compared with 92% of conceptions inside marriage or civil partnership.

5 . Age at conception

Between 2012 and 2013 conception rates increased for women aged 35 years and over, and decreased for women aged under 35 years.

The largest percentage increase in conception rates occurred among women aged 35 to 39 (1.7%). A smaller increase in conception rates was recorded among women aged 40 and over (1.4%). Conception rates for women aged under 20 and 20 to 24 decreased by 8.4% and 4.3% respectively. Rates for women aged 25 to 29 and 30 to 34 decreased by smaller amounts (0.5% and 0.3% respectively).
The conception rate for women aged 40 and over has more than doubled since 1990 (Figure 2) from 6.6 to 14.2 conceptions per thousand women. The number of women in this age group conceiving has risen from 12,032 in 1990 to almost 29,000 in 2011, 2012 and 2013. For women aged 40 and over, the percentage of conceptions leading to abortion fell from 43% in 1990 to 28% in 2010, remaining the same until 2013. The number of conceptions, the conception rate and the percentage of conceptions leading to abortion for women aged 40 and over have remained relatively stable in 2013 compared with 2012.

The conception rate for women aged 35 to 39 has increased to 64.5 conceptions per thousand women aged 35 to 39; almost doubling since 1990. The 30 to 34 age group is the youngest age group in which conception rates have risen almost continuously since 1990, rising by over a third to 121.6 conceptions per thousand women aged 30 to 34 in 2013.

Reasons for an increased number of women giving birth at ages 30 and above include increased participation in higher education; increased female participation in the labour force, the increasing importance of a career, the rising opportunity costs of childbearing, labour market uncertainty, housing factors and instability of partnerships (Jefferies, 2008 (297 Kb Pdf); Ní Bhrolcháin, 2012).
The conception rate for women aged under 20 fell by 8.4% to 40.5 conceptions per thousand women aged 15 to 19 in 2013 (from 44.2 in 2012). This continues the overall downward trend in the conception rate for women aged under 20 since 2007 from 61.4 conceptions per thousand women. In 2013 conceptions to women aged under 18 accounted for 36% of all conceptions to women aged under 20, falling from 37% in 2012.

In 2013 there were 24,306 conceptions to women aged under 18 compared with 27,834 in 2012, a decrease of 13%. This is the lowest number of conceptions in this age group since 1969. Just over half (51%) of all conceptions to women aged under 18 in 2013 led to an abortion, this proportion has remained relatively unchanged since 2006.

The under 18 conception rate for England and Wales was 24.5 per thousand women aged 15 to 17 in 2013 compared with 27.9 in 2012, a decrease of 12%. This is the lowest estimated under 18 conception rate since comparable conception statistics were first produced in 1969. This fall in the conception rate in 2013 can be attributed to falls in both the conception rate leading to abortion and the conception rate leading to a maternity (decreases of 9.7% and 18% respectively). The under 18 conception rate continues the overall decline recorded since 1998 when there were 47.1 conceptions per thousand women aged 15 to 17, despite slight increases in 2002 and 2007. Since 1998 the conception rate for women aged under 18 has almost halved (a decrease of 48%).

**Figure 3: Under 18 conception rate, 1975 to 2013**

England and Wales

The number of conceptions to girls aged under 16 decreased by 14% from 5,432 in 2012 to 4,648 in 2013. In 2013 there were 4.9 conceptions per thousand girls aged 13 to 15 compared with 5.6 in 2012, a decrease of 13%. This fall in the conception rate consists of a 10% fall in the rate of conceptions leading to abortion and a 17% fall in the rate of conceptions leading to a maternity. The percentage of conceptions leading to abortion for this age group has increased to 62% in 2013 from 60% in 2012.

Overall the under 16 conception rate has decreased since 2007 from 8.1 conceptions per thousand girls aged 13 to 15 to 4.9 in 2013. The under 16 conception rate is the lowest since 1969, the first year for which we have comparable data, when a rate of 6.9 conceptions per thousand girls aged 13 to 15 was recorded. Over two-thirds (70%) of under 16 conceptions in 2013 were to girls aged 15.

There are a number of factors which could explain recent reductions in teenage conceptions, including:
the programmes invested in by successive governments (for example sex and relationships education, improved access to contraceptives and contraceptive publicity)

- a shift in aspirations of young women towards education (Broecke and Hamed, 2008)
- the perception of stigma associated with being a teenage mother (McDermott et al, 2004)

6. Why do teenage conceptions matter?

It is widely understood that teenage pregnancy and early motherhood can be associated with poor educational achievement, poor physical and mental health, social isolation, poverty and related factors. There is also a growing recognition that socio-economic disadvantage can be both a cause and a consequence of teenage motherhood (Swann et al, 2003).

The government has included the under 18 teenage conception rate as one of its three sexual health indicators in its Public Health Outcomes Framework (2013-2016) and it is one of the national measures of progress on child poverty. This ensures a continued focus on preventing teenage conceptions as well as the social impact upon teenage mothers. Local authorities, working with a range of partners, continue to lead in reducing teenage conceptions.

In Wales, teenage conception rates are widely used as outcome indicators in the sexual health context, for example in the Sexual Health and Well-being Action Plan for Wales, 2010-15, as well as being a general indicator of health and inequality, for example in Our Healthy Future. The conception rate for under 18 years is the most commonly used with the underage rate (under 16 years) being a key health indicator for children and young people.

7. Conceptions leading to abortion

The percentage of conceptions leading to a legal abortion varies by age group. Women aged 30 to 34 have had the lowest percentage of conceptions leading to abortion. In 2013, 13% of conceptions to women aged 30 to 34 resulted in an abortion compared with 21% to women of all ages.

Over the last two decades the percentage of conceptions leading to a legal abortion has generally increased for women aged under 20 but decreased for women aged 35 and over (Figure 4). For women in their 20s and early 30s the percentage of conceptions leading to abortion generally increased between 1992 and 2001, but decreased steadily until 2009 to 2010 before increasing slightly again.

In 2013, the percentage of conceptions leading to a legal abortion decreased in all age groups from 2012.
For women usually resident in England, the overall conception rate fell by 1.0% from 78.8 conceptions per thousand women aged 15 to 44 in 2012 to 78.0 in 2013. For women usually resident in Wales, the overall conception rate fell by 1.6% from 73.8 conceptions per thousand women aged 15 to 44 in 2012 to 72.6 in 2013.

A comparison of rates across regions in England for all ages shows that the North East had the lowest conception rate in 2013, with 70.6 conceptions per thousand women aged 15 to 44. London had the highest overall conception rate at 85.2.

For women usually resident in England the under 18 conception rate fell by 12.3% from 27.7 conceptions per thousand women aged 15 to 17 in 2012, to 24.3 in 2013. A decrease was also recorded for women usually resident in Wales where the under 18 conception rate fell by 11.4%, from 30.8 conceptions per thousand women aged 15 to 17 in 2012, to 27.3 in 2013. In 1998, the under 18 conception rate in England was 46.6 conceptions per thousand women aged 15 to 17 and in Wales it was 55.0. Figure 5 compares under 18 conception rates for England and Wales.
A comparison of rates across regions in England shows that the North East had the highest under 18 conception rate in 2013, with 30.6 per thousand women aged 15 to 17. The South East had the lowest rate for women aged under 18 in 2013 with 20.5 per thousand women aged 15 to 17.

It should be noted that at the local level, statistics for under 18 conceptions can fluctuate between years (due to an unusually high or low number of teenage conceptions in a year).

Figure 6 shows a comparison of under 18 conception rates across local authorities.
Figure 6: Under 18 conception rates by local authority

England and Wales

Rate per 1,000 women aged 15–17
(Total number of areas = 348)

- 31.0 to 44.0 (57)
- 25.0 to 30.9 (79)
- 21.0 to 24.9 (88)
- 17.0 to 20.9 (89)
- 7.6 to 16.9 (75)

1 To preserve confidentiality, counts for City of London and Isles of Scilly unitary authority (UA) have been combined with those for Hackney London borough and Cornwall UA respectively.

Source: Office for National Statistics licensed under the Open Government Licence v.3.0.
Contains Ordnance Survey data © Crown copyright and database right 2015
Table 1: The 10 Areas with the Highest Conception Rate for Women Aged Under 18 in 2013

England and Wales

<table>
<thead>
<tr>
<th>Rank</th>
<th>Local Authority</th>
<th>Number of Conceptions 2013</th>
<th>Conception rate per thousand women aged 15 to 17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>1</td>
<td>Tamworth</td>
<td>64</td>
<td>44.0</td>
</tr>
<tr>
<td>2</td>
<td>Stoke-on-Trent UA</td>
<td>183</td>
<td>43.9</td>
</tr>
<tr>
<td>3</td>
<td>North East Lincolnshire UA</td>
<td>123</td>
<td>43.3</td>
</tr>
<tr>
<td>4</td>
<td>Blackpool UA</td>
<td>108</td>
<td>41.7</td>
</tr>
<tr>
<td>5</td>
<td>Wrexham</td>
<td>93</td>
<td>41.2</td>
</tr>
<tr>
<td>6</td>
<td>Barnsley</td>
<td>176</td>
<td>40.9</td>
</tr>
<tr>
<td>7</td>
<td>Middlesbrough UA</td>
<td>103</td>
<td>40.5</td>
</tr>
<tr>
<td>8</td>
<td>Barking and Dagenham</td>
<td>154</td>
<td>40.1</td>
</tr>
<tr>
<td>9</td>
<td>Coventry</td>
<td>227</td>
<td>39.5</td>
</tr>
<tr>
<td>10</td>
<td>Burnley</td>
<td>62</td>
<td>39.3</td>
</tr>
<tr>
<td>10</td>
<td>Rhondda, Cynon, Taff</td>
<td>164</td>
<td>39.3</td>
</tr>
</tbody>
</table>

Source: Office for National Statistics

As can be seen from the map (Figure 6) there is large variation in the conception rate at the local level. When analysing figures for areas with small populations, it is important to also take into account the numbers involved, 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.

There has been widespread variation in reducing teenage conception rates since 1998, as can be seen in Table 6 (1.48 Mb Excel sheet).

10. Users and uses of conception statistics

The Department of Health (DH) leads for the government on reducing under 18 conceptions and is a key user of conception statistics. DH monitor the rate of under 18 conceptions under the Public Health Outcomes Framework 2013 to 2016 as part of the measures of health improvement. DH use the numbers of conceptions at all ages as a marker for the success of policies on access to contraception (and other sexual health services). DH use conception statistics by age because they are of use to maternity service providers, particularly during the antenatal period, to allow them to plan for the level of demand for antenatal services.

DH published their Framework for Sexual Health Improvement in England in 2013. The framework is designed to be used by local organisations, including local authorities and health and well-being boards, to help them provide the best sexual health services in their area. It sets out a number of ambitions for sexual health, including the need for a fall in the number of unwanted pregnancies and offering counselling to all women who request an abortion so they can discuss the options and choices available with a trained counsellor.
Public Health England (PHE) is another key user of conception statistics. PHE have a role in providing information and evidence to local areas, as well as providing more tailored advice and support. Data, information, tools and resources (including policy, practice and research) are brought together in a single knowledge hub, for use by local decision makers. The teenage conception rate is a key indicator in many of PHE’s profiles and tools (including health profiles, child health profiles and sexual and reproductive health profiles) which provide local data and enable comparison locally, regionally and nationally.

In Wales teenage conception rates are used widely as outcome indicators in the sexual health context, for example in the Sexual Health and Well-being Action Plan for Wales, 2010 to 15, as well as being a general indicator of health and health inequality, for example in Our Healthy Future. The conception rate for under 18 years is the most commonly used with the underage rate (under 16 years) being a key health indicator for children and young people. For example, in Child Poverty targets.

Local authorities use the data, particularly the number and rate of under 18 conceptions to feed into their Joint Strategic Needs Assessments and to inform their commissioning decisions. They also use the statistics to make comparisons with other local areas and with the county, region and national level.

Voluntary and community sector organisations, particularly those working in the field of sexual health, use the statistics to inform their work with local areas.

11. Further information

More data on annual conceptions, in England and Wales for 2013 are available on our website.

There is more information on data quality, legislation and procedures relating to conception statistics in Conceptions Metadata (143.5 Kb Pdf) and the Conceptions Quality and Methodology Information document (131.5 Kb Pdf).

Quarterly Conceptions to Women aged under 18 provides provisional quarterly statistics on the number of conceptions to women aged under 18 by regions and other local authority areas within England and Wales.

There is an interactive mapping tool that enables trends in under 18 conceptions to be analysed at the local level for the years 1998 to 2013.

There is an interactive Excel toolkit allowing users to explore under 18 and under 16 conceptions statistics and their links with measures of deprivation at the national, regional and local level. This has been published with an analysis of under 18 conceptions and their links to measures of deprivation in England and Wales, 2008 to 2010, exploring the link between teenage conceptions and measures of deprivation both nationally and sub-nationally.

Conception statistics are subject to disclosure control to prevent the discovery of individuals at sub-national levels of geography. Occasionally suppressing other areas is necessary to prevent disclosure by differencing. Disclosure of conceptions is in accordance with Department of Health (DH) practice in relation to the release of abortion statistics. Annual abortion statistics are published by the DH. These statistics are based on date of occurrence, whereas our conception statistics are based on estimated date of conception.

Scottish conception figures are available for women aged under 16, under 18 and under 20. In 2006 Information Services Division (ISD) Scotland introduced a new method of calculating teenage pregnancy information. The new methodology means that Scottish teenage pregnancy rates can be directly compared with the rates published for England and Wales.

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
- there is a risk of real and serious adverse 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. Due to the small numbers of abortions carried out in Northern Ireland each year, and in order to protect patient confidentiality, information on
terminations of pregnancy is only released at Northern Ireland and Health and Social Care (HSC) Trust level. Further information on the number of terminations of pregnancy carried out in Northern Ireland, can be accessed through the Department of Health, Social Services and Public Safety’s website.

Further statistics on births for England and Wales are available on our website.

12. References


13. Background notes

1. Conception statistics include pregnancies that result in either one or more live births or stillbirths (a maternity) or a legal abortion under the Abortion Act 1967. They do not include miscarriages or illegal abortions. More information on this can be found in the Accuracy section of the Conceptions Quality and Methodology Information document (131.5 Kb Pdf).

2. Conception rates are based on the latest mid-year population estimates for the reference year at the time of publication.

3. In 1999, an amendment was made to the method for estimating the age at conception where the conception occurred in the same calendar month as the woman’s birthday. The new algorithm took account of the day of the mother’s birth and the estimated day of conception rather than just using year and month. The first data year to use this new algorithm was 1997. The amendment had a relatively small impact on the under 18 conception rate. The change was estimated to result in around a 2.6% decrease in the under 18 conception rate between 1987 and 1991. The impact on 1992 to 1997 was much smaller (around 0.6% decrease).

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

5. A woman’s age at conception is calculated as the number of complete years between her date of birth and the date of conception. In many cases her birthday will occur between conception and the birth or abortion; a woman may conceive, for example, at age 19 and give birth at age 20. The conception and birth may also occur in different calendar years. For these reasons the number of conceptions to women of a given age in a given year does not match the number of maternities and abortions to women of the same given age in the same given year.

6. The Human Fertilisation and Embryology Act (2008) contained provisions enabling two females in a same-sex couple to register a birth from 1 September 2009 onwards. Abortion notifications also contain information about whether the woman was in a civil partnership (legal partnership for same-sex couples). Due to relatively small numbers, conceptions within a civil partnership (639 in 2013) are included with conceptions within marriage. Conceptions to same-sex couples not in a civil partnership (219 in 2013) are included with conceptions outside marriage. Due to the relatively small numbers, the impact on the statistics is negligible.
7. Under arrangements made following implementation of the Abortion Act (1967), we and our predecessors processed and analysed the abortion notification forms (HSA4) sent to the Chief Medical Officers of England and Wales. From 1 April 2002 the Department of Health took over this work, and the system has been redesigned to process the new abortion notification forms that were introduced from 18 April 2002.

8. Numbers and rates of conceptions are given by mother’s usual area of residence based on boundaries in place during the data year. The postcode of the woman’s address at the time of the maternity or abortion was used to determine the administrative area she was living in at the time of the conception. Direct comparisons with conceptions data by area published in previous years are not always possible because of boundary changes.

9. Special extracts and tabulations of conception data for England and Wales are available to order (subject to legal frameworks, disclosure control, resources and agreements of costs, where appropriate). Such enquiries should be made to:

Vital Statistics Outputs Branch Life Events and Population Sources Division Office for National Statistics Segensworth Road Titchfield Fareham Hampshire PO15 5RR

Tel: +44 (0)1329 444 110 email: vsob@ons.gsi.gov.uk

The ONS charging policy is available on the ONS website. In line with the ONS approach to open data, ad hoc data requests will be published onto the website.

10. We would welcome feedback on the content, format and relevance of this release. Please send feedback to the postal or email address above.

11. Follow ONS on Twitter, Facebook and LinkedIn.

12. A list of the names of those given pre-publication access to the statistics and written commentary is available in Pre-release Access List – Conceptions 2013. The rules and principles which govern pre-release access are featured within the Pre-release Access to Official Statistics Order 2008.

13. Details of the policy governing the release of new data are available from the Media Relations Office.

14. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

15. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs
- are well explained and readily accessible
- are produced according to sound methods
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.