Nottinghamshire County Council

Teenage Conception Information: Update for the Teenage Pregnancy Integrated Commissioning Group

September 2016

Version Control

Date	Notes	Author
2016 September	Updated with 2014 annual, 2015 Q2 quarterly data	IB
2015 November	Updated with Ward data for 2011-13. Map and SII. 2014 Q2 data.	IB
2015 March	Updated with 2013 annual and 2013 Q4 quarterly data	IB / Sam Aderson (SA)
2014 October	Updated with 2012 annual, 2013 Q2 quarterly and 2010-12 ward map	IB
2014 January	Updated with 2012 Q2 quarterly data, 2009-11 ward map and 2009-11 SII	IB
2013 October	Updated with 2011 annual, 2012 Q2 quarterly data	IB
2013 July	Updated with 2008-10 SII, 2008-10 ward map reformatted	Ian Bates (IB)
2012 October	Original report with 2010 annual, 2011 Q2 quarterly data, 2008-10 ward map, 2005-07 SII and some minor reformatting	Irene Kakoullis (IK)?

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Executive Summary

Aims and Objectives

Present current status of teenage conceptions through available data and local analysis.

Changes to note in this document

- **Annual Data (County and District)**
  - Added 2014 release. Next data release expected February/March 2017
- **Quarterly data update (County)**
  - Data up to 2015 Q2 now available. Appropriate sections updated
  - Next data release expected November/December 2016
- **Ward data update (sub-district)**
  - Data for 2012-14 now available. Table updated, Map updated, Slope index of Inequality updated
  - Next data release expected October 2017

Introduction

Nottinghamshire historically has achieved well in reducing teenage conceptions, comparing well with statistical neighbours and across the region. The teenage conception rate is calculated by identifying the number of conceptions per 1,000 females aged 15-17 in an area. Under 16 conception data is also provided as although it has not historically been used to assess progress nationally it is, from 2013, included in the national Public Health Outcomes Framework.

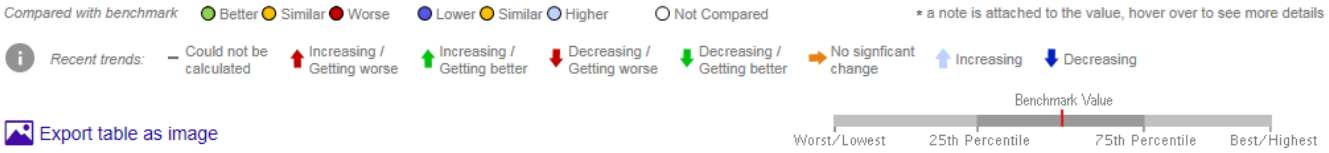
Teenage Conception Data is measured annually and this annual teenage conception rate for under 18's has been the main target for teenage pregnancy strategies and Children's Trust partnerships. The latest annual data published is for 2014. Teenage Conception data is provided by the Office of National Statistics (ONS) and the Department of Health (DH).

1 Public Health Outcomes Framework indicator: 2.04 Under 18 conceptions

Summary of document changes since last report: New section

Teenage conceptions are reported on in the Public Health Outcomes Framework (PHOF). Public Health England (PHE) provide an online tool to explore this information: PHE fingertips online tool: http://www.phoutcomes.info/ The information in the tool mirrors that presented in the rest of this report but is presented in a format consistent with other indicators in the PHOF.

Figure 1.1: PHOF indicator 2.04: u18 and u16 conception rates: Nottinghamshire County



Indicator	Period	Notts			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst/ Lowest	Range	Best/ Highest
2.04 - Under 18 conceptions	2014	↓	294	21.1	21.6	22.8	42.4		8.4
2.04 - Under 18 conceptions: conceptions in those aged under 16	2014	↓	60	4.6	4.4	4.4	11.9		0.7

Source: PHE fingertips PHOF tool, URL: http://www.phoutcomes.info/ (last accessed September 2016).

The Under 18 teenage conception rate in Nottinghamshire is statistically similar to England and has shown a consistent decrease/improvement over the last five years. The same can be said for the Under 16 teenage conception rate.

Figure 1.2: PHOF indicator 2.04: u18 conception rates: Nottinghamshire Districts



Indicator	Period	England	Nottinghamshire	Ashfield	Bassetlaw	Broxtowe	Gedling	Mansfield	Newark and Sherwood	Rushcliffe
2.04 - Under 18 conceptions	2014	↓ 22.8	↓ 21.1	↓ 25.6	↓ 24.7	↓ 18.9	↓ 20.5	↓ 24.9	↓ 18.5	↓ 14.1

Source: PHE fingertips PHOF tool, URL: http://www.phoutcomes.info/ (last accessed September 2016).

Under 18 teenage conception rates in Nottinghamshire districts are either similar or better than the England rate. All districts show a consistent decrease/improvement over the last five years. Under 16 conception rates are not reported in PHOF at district level.

2 Under 18 Conception Statistics for England: 2014

Summary of document changes since last report: updated with 2014 data

The 2014 under 18 conception rate for England is **22.8** per 1,000 girls aged 15-17 – a decrease of 6.2% from the 2013 rate and the lowest rate since 1998 (16 years ago). Since 1998 (baseline year), the under 18 conception rate has fallen by 51.1% (from 46.6 per 1,000 in 1998).

3 Under 18 Conception Statistics for Nottinghamshire: 1998 - 2014

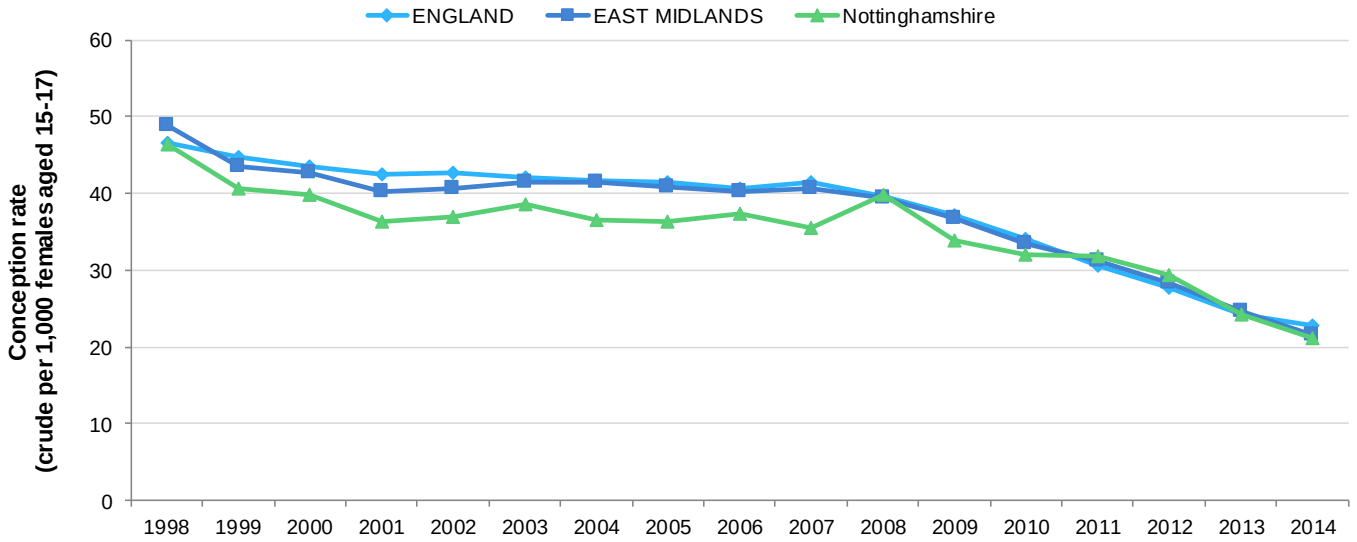
Summary of document changes since last report: updated with 2014 data

The 2014 under 18 conception rate for Nottinghamshire was **21.1** per 1,000 females aged 15-17 – a decrease of 12.2% from the 2013 rate of 24.2%, and a decrease of 54.5% since the 1998 baseline year. The number of under 18 conceptions in 2014 was 294, 320 fewer than in the 1998 baseline year where the number was 614.

In 2014, Nottinghamshire has a lower under 18 conception rate than both the England value (22.8) and the East Midlands value (21.6) although this difference is not significant at the 95% statistical confidence level.

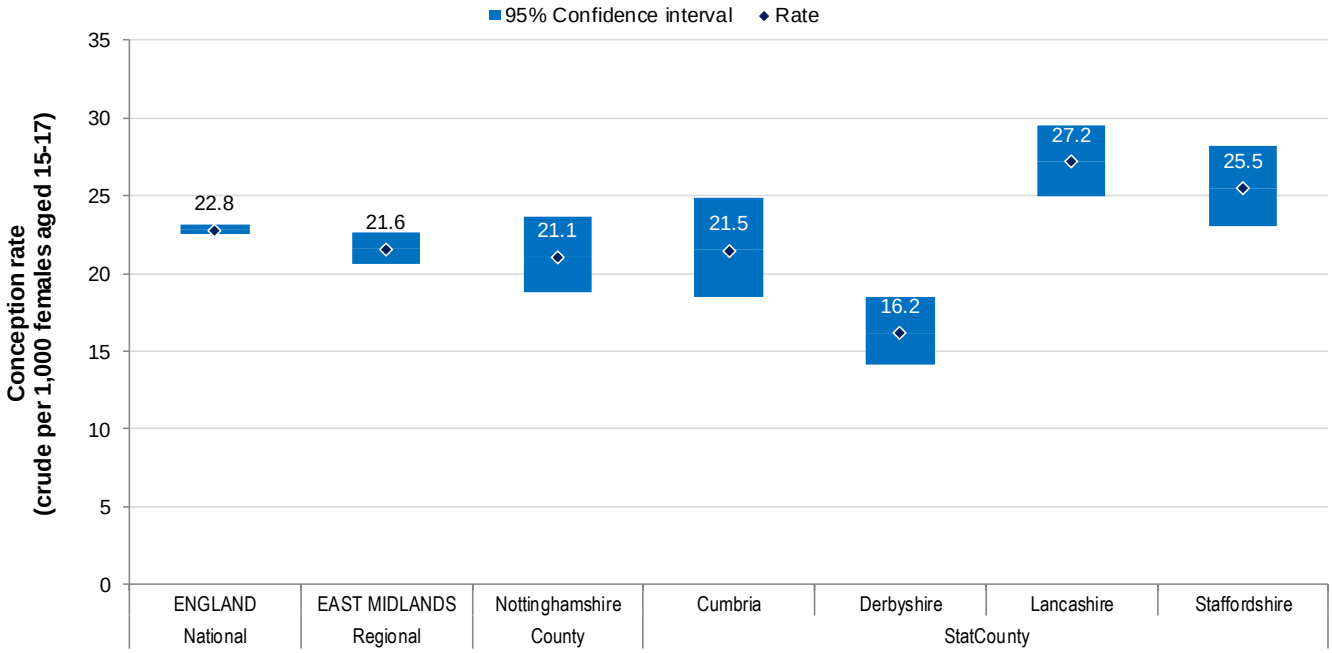
Currently Nottinghamshire's overall reduction of 54.5% against the 1998 base rate compares broadly similar with the national reduction of 51.1% and the East Midlands reduction of 55.7%.

Figure 3.1: Teenage conception rates 1998-2014 for Nottinghamshire and National, Regional comparators



Source: ONS Conceptions Statistics 2014 (published 2016)

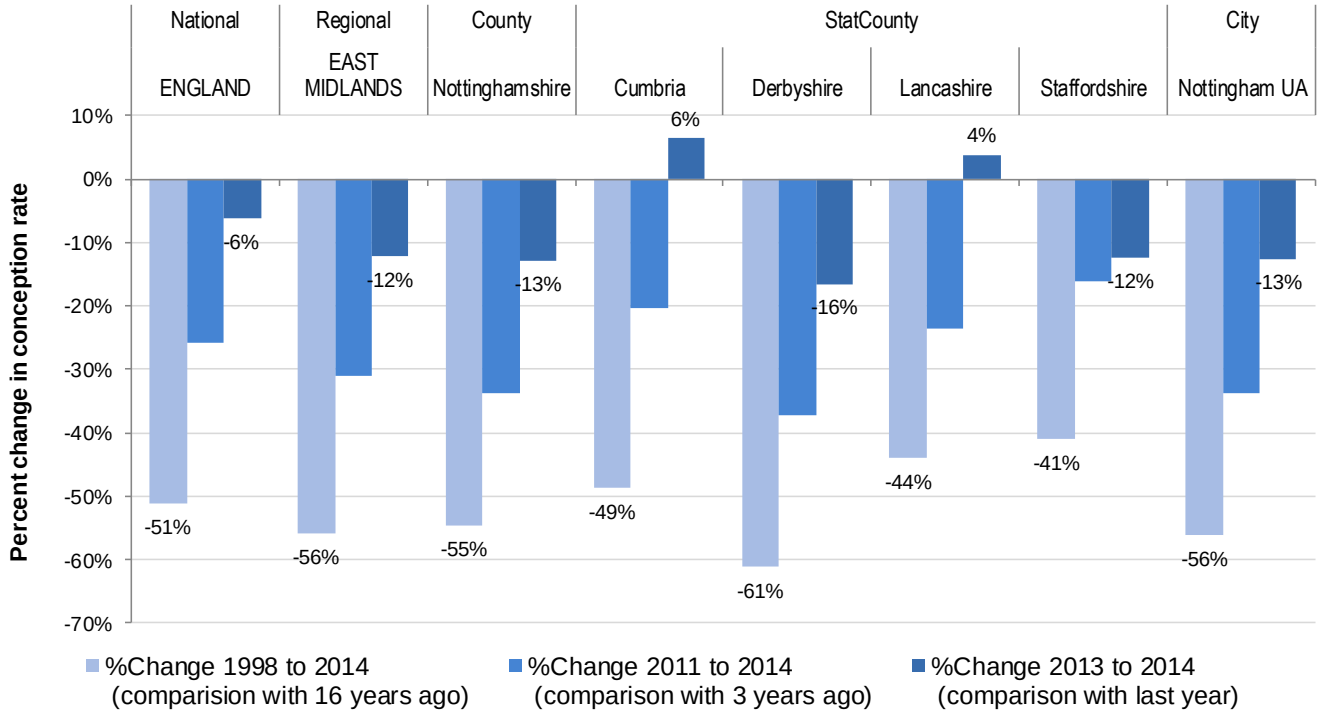
Figure 3.2: 2014 Teenage Conception rates for Nottinghamshire and statistical neighbours



Source: ONS Conceptions Statistics 2014 (published 2016)

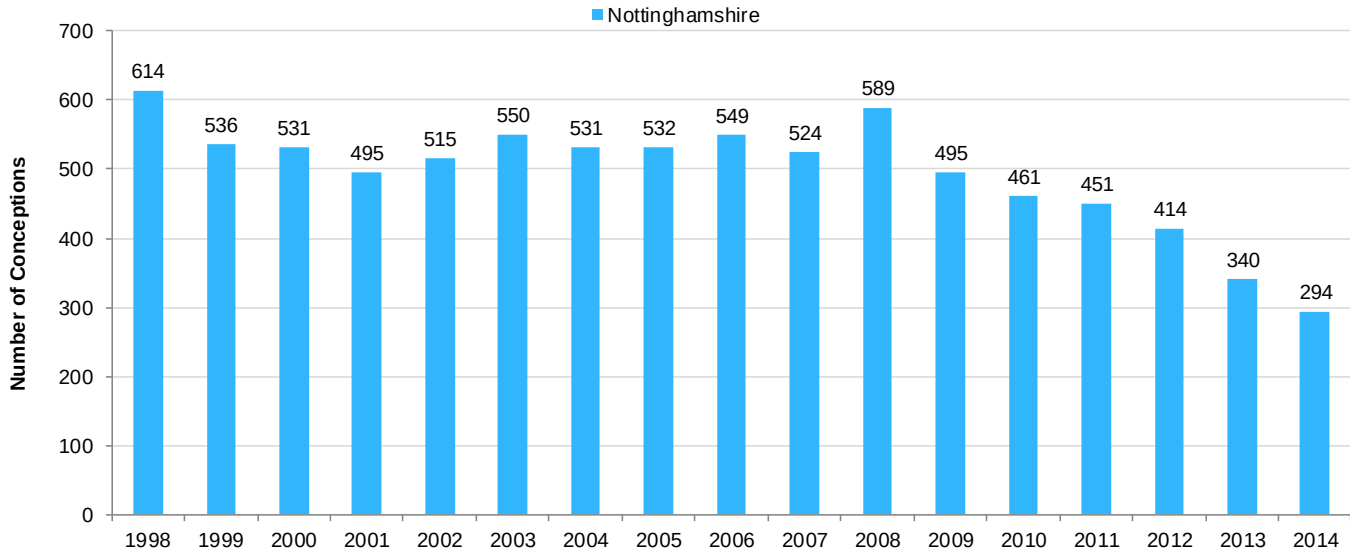
Figure 3.2 shows that Nottinghamshire's 2014 teenage conception rates were similar to the East Midlands average, the England average and all of Nottinghamshire's statistical neighbours (at the 95% statistical confidence level).

Figure 3.3: Changes in teenage conception rates for Nottinghamshire and statistical neighbours in 2014 (the latest period) relative to one year ago, three years ago and from the baseline year of 1998



Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 3.4: Numbers of teenage conceptions Nottinghamshire 1998-2014



Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 3.3 shows that Nottinghamshire has a reduction in teenage conception rates from the 1998 baseline year to 2014 and is in line with the statistical neighbours.

It is useful to consider the numbers of conceptions alongside the rate. Figure 3.4 shows how the annual number of conceptions reduces from the 1998 baseline of 614 to the current number in 2014 of 294.

4 Do we know our latest progress for 2015?

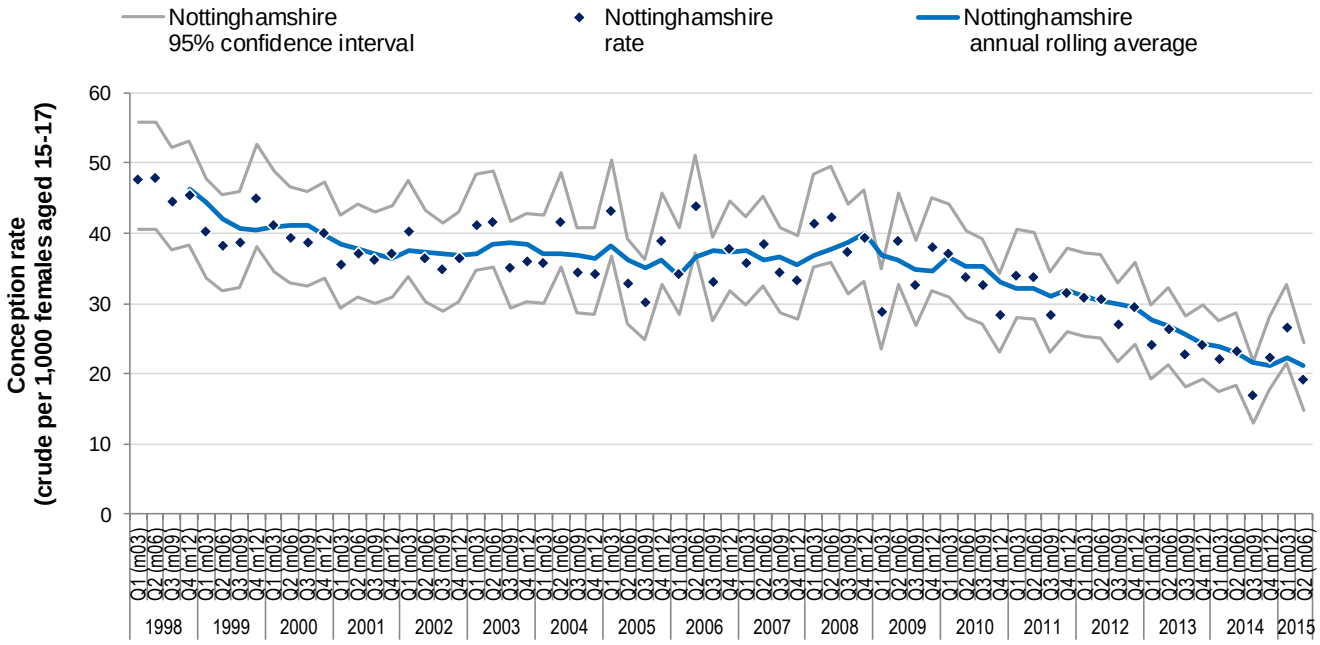
Summary of document changes since last report: updated with 2015 Q2 data

Conceptions data are subject to a number of lags (notably the possibly full gestation period but also including processing by ONS) meaning the latest time period available is usually more than one year behind 'now'. At this time of this report (September 2016) the latest under 18 conception data that has been published by ONS is for the second quarter of 2015.

Nationally for Q2 2015 the rate of under 18 conceptions was **21.6** per 1,000 girls aged 15-17 – a percent decrease of 6.9% from the rate in Q2 2014 (23.2 per 1,000) (Figure 4.1). For under 18 conceptions the rolling four-quarterly average continues to fall and for the last four quarters has been at its lowest since quarterly data collection began, this is evidenced in Figure 4.2.

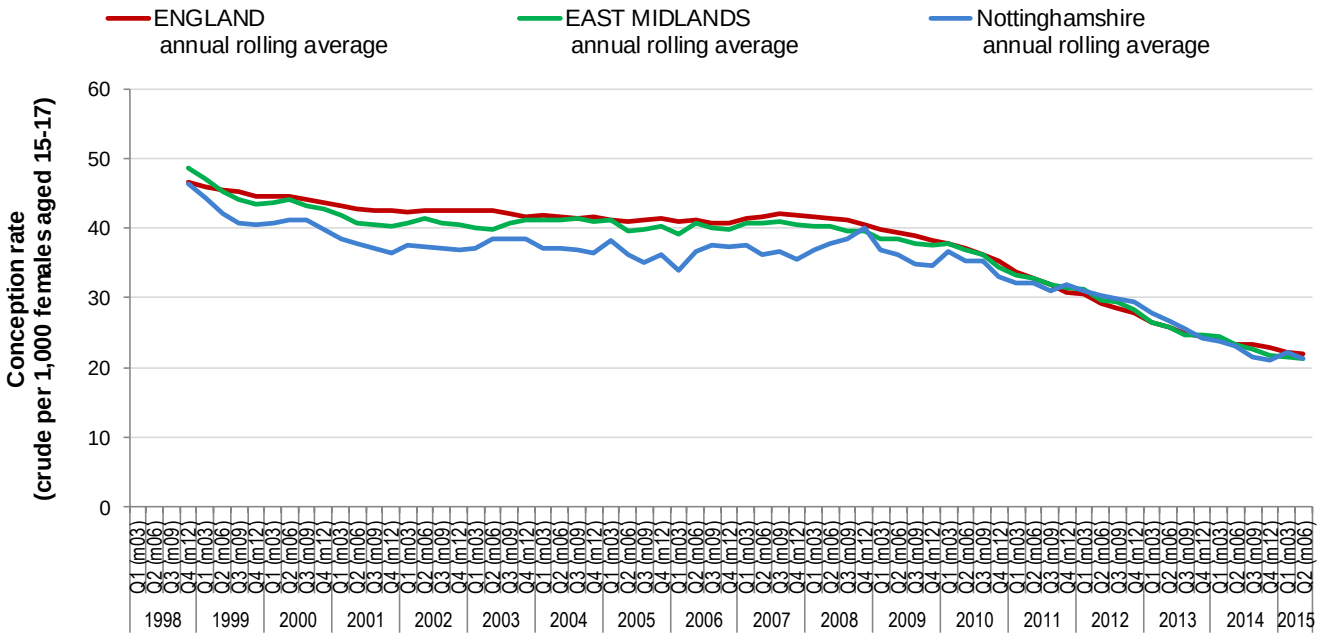
In Nottinghamshire the rate of under 18 conceptions in Q2 2015 was **19.1** conceptions per 1,000 15-17 year old females, lower than the Q2 2014 rate of 23.1 by a percent decrease of 17.3%. When looking at the numbers of conceptions across Nottinghamshire in Q2 2015 (over 3 months) there were 64 conceptions compared to 80 in Q2 2014.

Figure 4.1: Quarterly teenage conception rates for Nottinghamshire 1998 (Q1) to 2015 (Q2)



Source: ONS Quarterly Conceptions Statistics 2015 Q2 (published August 2016)

Figure 4.2: Nottinghamshire quarterly teenage conception rates with Regional and England comparisons (rolling quarterly average) 1998 (Q1) to 2015 (Q2)



Source: ONS Quarterly Conceptions Statistics 2015 Q2 (published August 2016)

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5 Under 18 Conception Rates for Nottinghamshire Districts: 1998 - 2014

Summary of document changes since last report: updated with 2014 data

District level data is now available on an annual basis rather than a three year aggregated basis. 2014 teenage conception data is detailed below.

Table 5.1: Under 18 conception rate by district of residence 2014

Area Type	Area Name	2014 No. of conceptions for 15-17 year old females	2014 Conception rate per 1,000 15-17 year old females	2013 %change in conception rate 2013 to 2014	2011 %change in conception rate 2011 to 2014	1998 %change in conception rate 1998 to 2014
County	Nottinghamshire	294	21.1	*-12.8%*	*-33.9%*	*-54.5%*
District	Bassetlaw	53	24.7	*-5.0%*	*-17.1%*	*-45.1%*
	Mansfield	46	24.9	*-30.8%*	*-44.0%*	*-55.9%*
	Ashfield	55	25.6	*-8.9%*	*-42.0%*	*-64.9%*
	Newark and Sherwood	36	18.5	*-33.7%*	*-39.9%*	*-56.6%*
	Gedling	42	20.5	*-12.8%*	*-24.9%*	*-59.9%*
	Broxtowe	35	18.9	*26.0%*	*-26.5%*	*-51.0%*
	Rushcliffe	27	14.1	*13.7%*	*-27.7%*	*-14.5%*
City	Nottingham UA	160	32.8	*-12.5%*	*-33.7%*	*-56.1%*

Decrease	*-50.0%*
Increase	*50.0%*

Note: Colour scale for conception rate: white 0, Dark purple highest value
Note: Colour scale for % change: dark blue -50% and lower, dark red 50% and higher

Source: ONS Conceptions Statistics 2014 (published 2016)

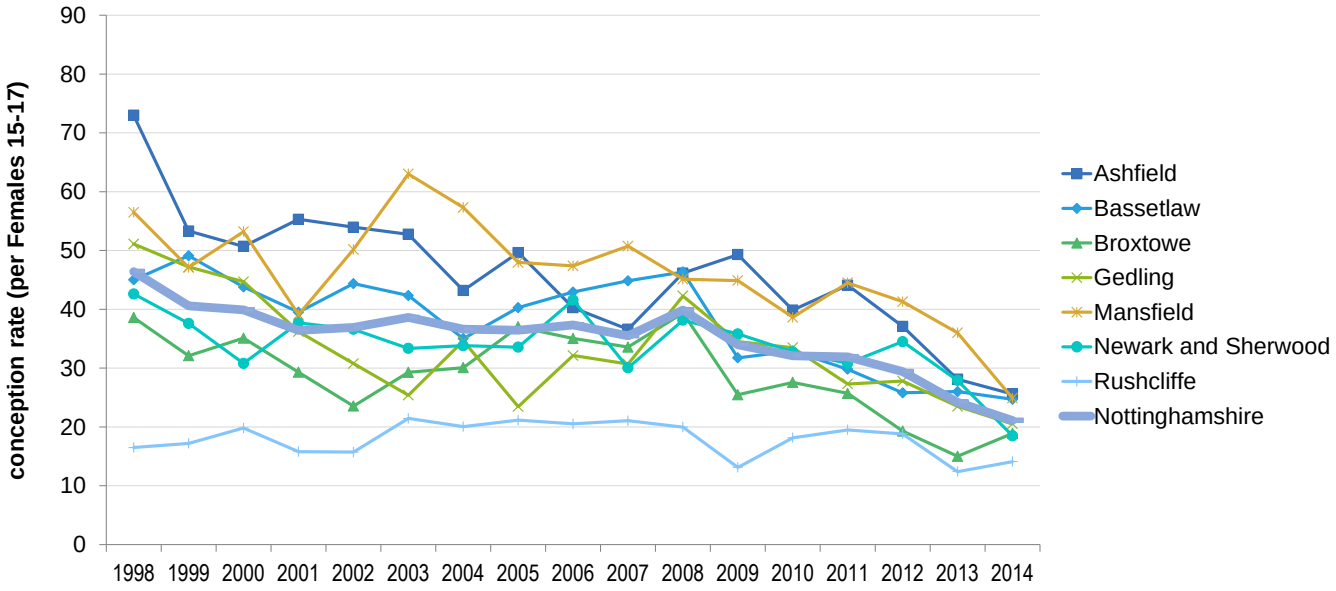
When looking at district teenage conception data it is clear that Districts in the north of the County continue to have the highest teenage conception rates compared to the rest of the County. This is in line with levels of child poverty and deprivation (measured by the Index of Multiple Deprivation).

There have been substantial reductions in the teenage conception rate since the baseline year (1998) for all Districts. This trend continues over the last three years.

More recently in the last year the story is mixed. Mansfield and Newark and Sherwood districts have seen rates decrease by over 30%. This is a positive situation for the north of the County where numbers and rates have been historically high.

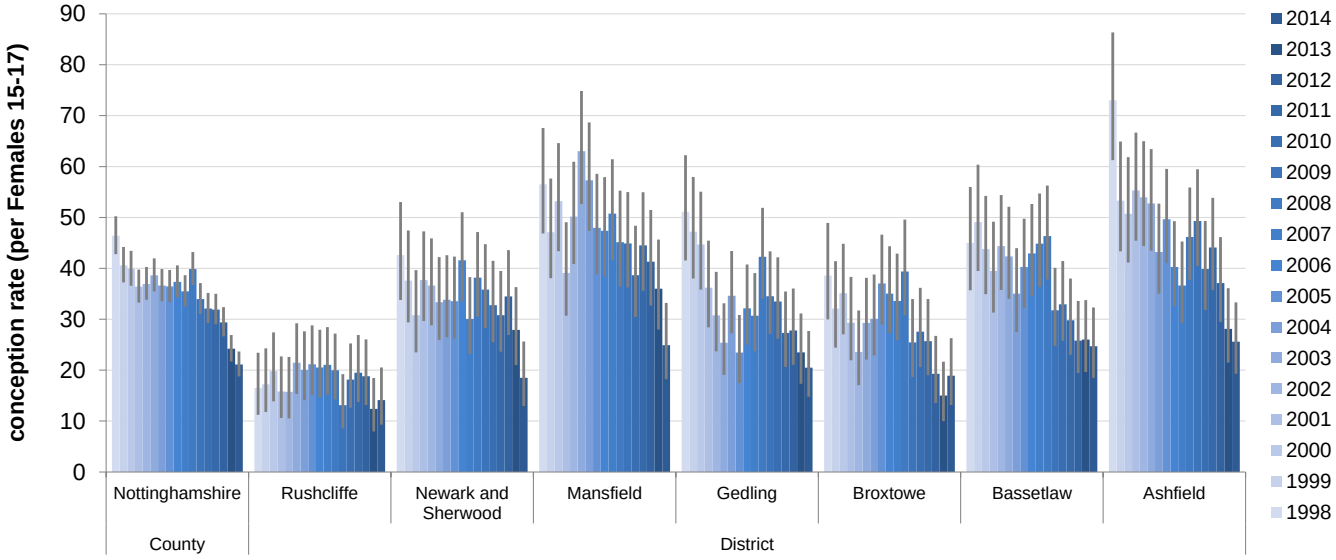
Both Broxtowe and Rushcliffe have seen an increase in teenage conception rates This is a notable change for the South of the County but as this area has historically relatively low numbers and rates, a positive, this increase relates to changes to numbers that are already low.

Figure 5.1: Teenage conception rates 1998-2014 for Nottinghamshire County and districts



Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 5.2: Teenage Conception Rates 1998-2014 for Nottinghamshire County and districts. Grouped by area with 95% confidence limits.

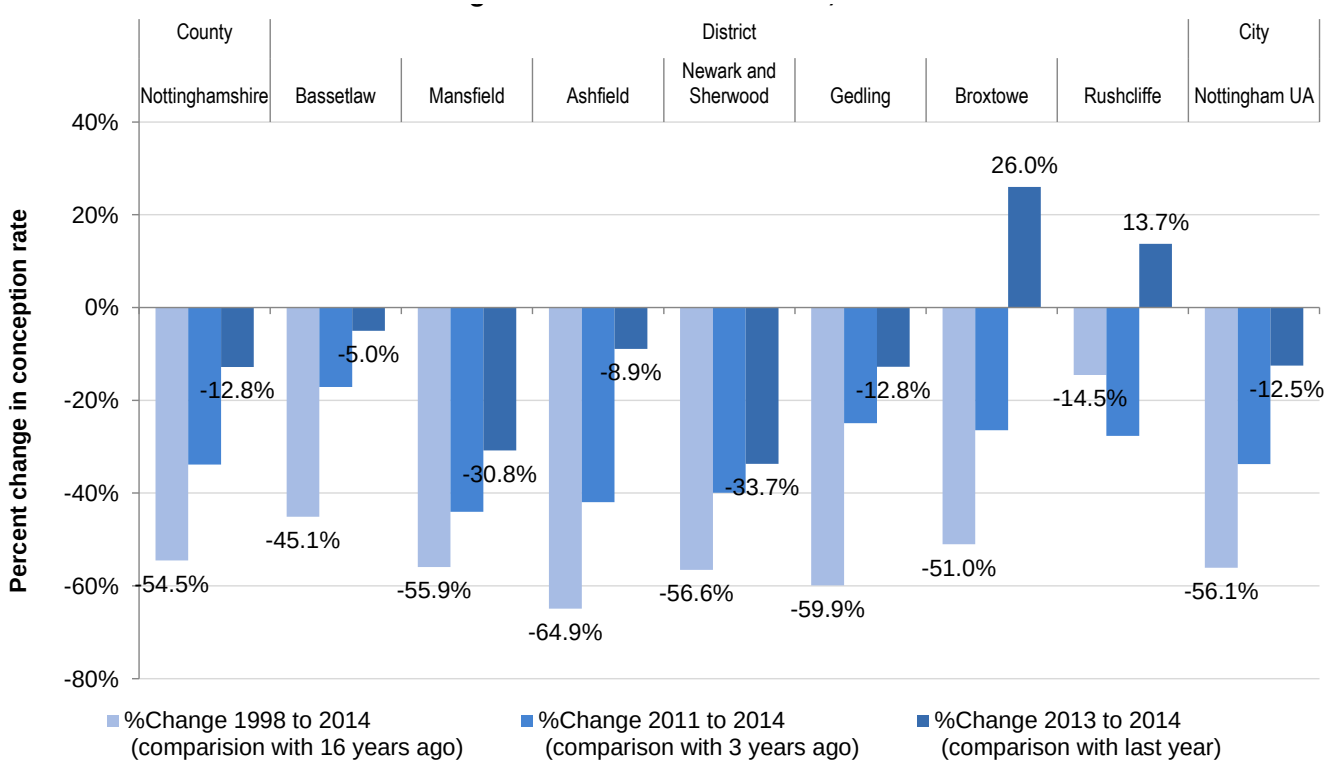


Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 5.1 highlights the overall trend for Nottinghamshire's districts since the 1998 baseline and also shows differences between the districts.

Figure 5.2 presents the same data but grouped by district to show trends within each district.

Figure 5.3: Progress by district in reducing under 18 conception rates in 2014 relative to one year ago, three years ago and from the baseline year of 1998.



Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 5.3 shows the percentage change since the 1998 baseline for each district. All areas have seen a reduction in teenage conception rates since the baseline year and up to 2014. Ashfield has seen the largest reduction in teenage conception rates with a reduction of 64.9% since the 1998 baseline followed by Gedling with a reduction of 59.9%

This overall reduction is seen in the last three years but more recently the picture is mixed. As noted above there have been reductions in rates in the north of the County, where rates and numbers have been historically high, and some increases in the south of the County although numbers and rates continue to remain low.

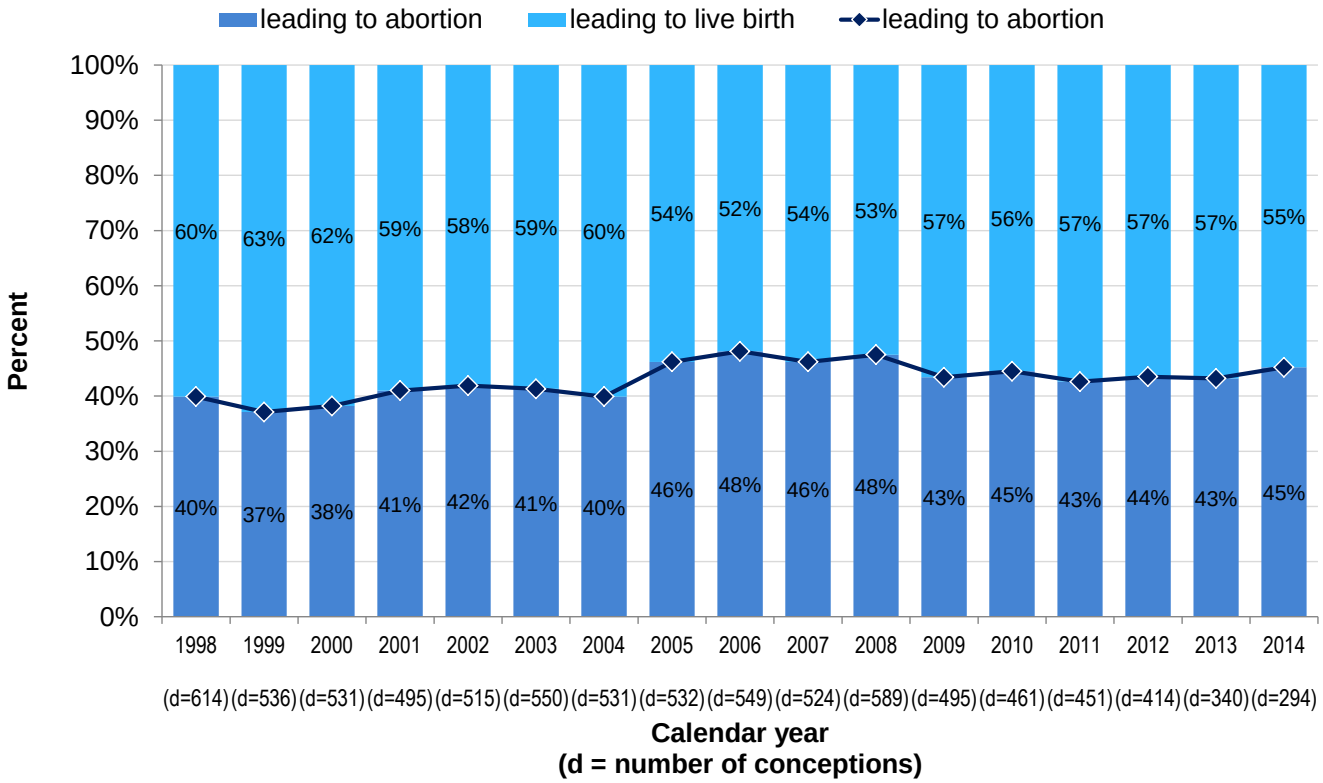
6 What proportion of conceptions resulted in a Termination?

Summary of document changes since last report: updated with 2014 data

Nottinghamshire overall

The percentage of under 18 conceptions leading to termination in Nottinghamshire in 2014 was 45.2%. This value is lower than the England value (51.1%) and higher than the East Midlands value (42.8%). The proportion of young women accessing a termination will vary depending on a number of factors including, a young woman's aspirations, access and knowledge to appropriate services and early identification of pregnancy.

Figure 6.1: Proportion of teenage conceptions resulting in a live birth or termination across Nottinghamshire 1998-2014.



Source: ONS Conceptions Statistics 2014 (published 2016)

Table 6.1: Proportion of teenage conceptions resulting in a termination in Nottinghamshire in 2014, one and three years previous and 1998

Area Name	Period	Number of conceptions for 15-17 year old females	*Percent leading to abortion*	*Percent NOT leading to abortion*	Number leading to abortion (rounded)	Number NOT leading to abortion (rounded)
Nottinghamshire	2014	294	*45.2%*	*54.8%*	133	161
	2013	340	*43.2%*	*56.8%*	147	193
	2011	451	*42.6%*	*57.4%*	192	259
	1998	614	*39.9%*	*60.1%*	245	369

Source: ONS Conceptions Statistics 2014 (published 2016)

Nottinghamshire Districts

Table 6.2: 2014 District level teenage conceptions leading to live birth or a termination of pregnancy

Area Type	Area Name	Number of conceptions for 15-17 year old females	*Percent leading to abortion*	*Percent NOT leading to abortion*	Number leading to abortion (rounded)	Number NOT leading to abortion (rounded)
County	**Nottinghamshire**	294	*45.2%*	*54.8%*	133	161
District	**Bassetlaw**	53	*37.7%*	*62.3%*	20	33
	Mansfield	46	*47.8%*	*52.2%*	22	24
	Ashfield	55	*30.9%*	*69.1%*	17	38
	Newark and Sherwood	36	*55.6%*	*44.4%*	20	16
	Gedling	42	*50.0%*	*50.0%*	21	21
	Broxtowe	35	*51.4%*	*48.6%*	18	17
	Rushcliffe	27	*55.6%*	*44.4%*	15	12

Source: ONS Conceptions Statistics 2014 (published 2016)

The proportion of teenage abortions varies across areas with Rushcliffe and Newark and Sherwood Districts having a higher proportion than Ashfield and Bassetlaw. The choice to terminate a pregnancy is strongly associated with the level of aspirations of a young woman, to continue with a pregnancy is often seen as a positive choice for young women with poor educational attainment and no future career plans.

7 What proportion of young women had repeat Abortions?

Summary of document changes since last report: no update

In 2011 8% of young women within the NHS Nottinghamshire County boundary (excluding Bassetlaw) had repeat abortions compared with 11% for England and 8% for the East Midlands1. NHS Bassetlaw data was not made available because numbers are too small and therefore potentially identifiable.

Note: This data showing the proportion of young women under the age of 19 who have repeat abortions is only available up to 2011. For calendar years 2012 onwards repeat abortions are reported nationally but only for the wider age group 'under 25s'. As this is not explicitly focussed on teenage conceptions there is no further reporting on this indicator.

Source: URL: http://www.apho.org.uk/sexualhealthbalancedscorecard (Last accessed September 2016)

1 DH (2012) Repeat abortions to women aged under 19, by PCT of residence, England, 2011

8 Under 16 Conception Rates

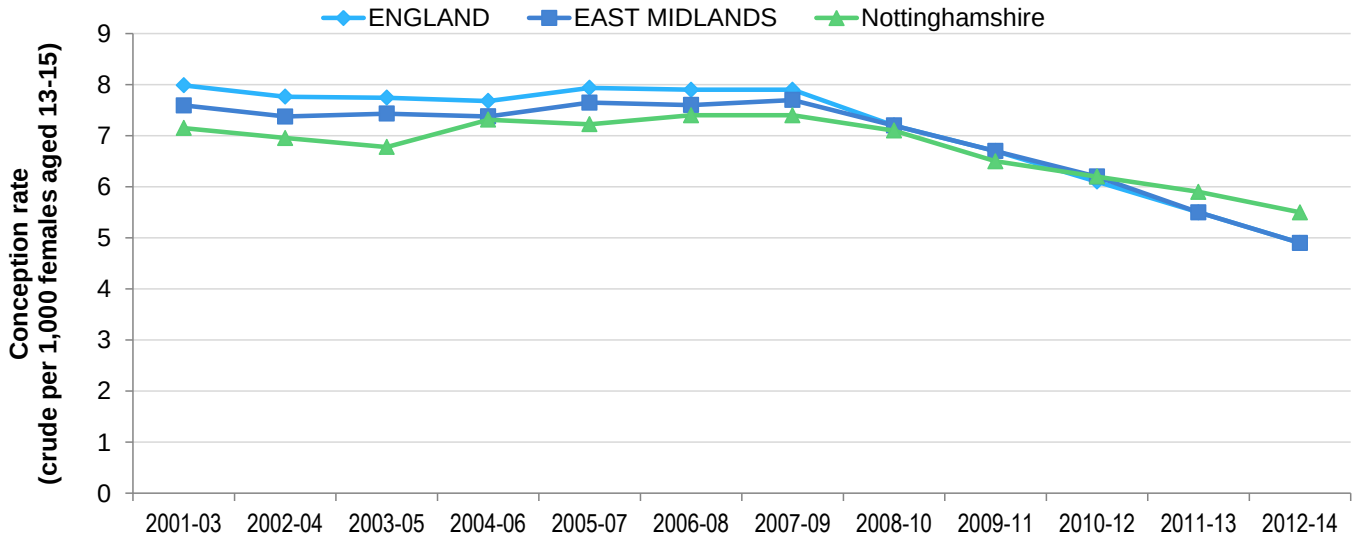
Summary of document changes since last report: updated with 2014 data

Under 16 conception data is provided by ONS on an aggregated basis over three years as numbers are relatively small and this reduces the risk young women from being identified. Although a single year measure is also provided by ONS, and is reported in the Public Health Outcomes Framework for Nottinghamshire County overall, in the remainder of this section only the three-year measure will be reported to allow inspection and comparison at District level.

Nottinghamshire overall

Under 16 aggregated conception rates for Nottinghamshire show that rates have increased from 2003-05 and then from 2007-09 onwards there has been a steady downward trend. This is shown in Figure 8.1.

Figure 8.1: Nottinghamshire aggregated under 16 conception rates 2001-03 to 2012-14

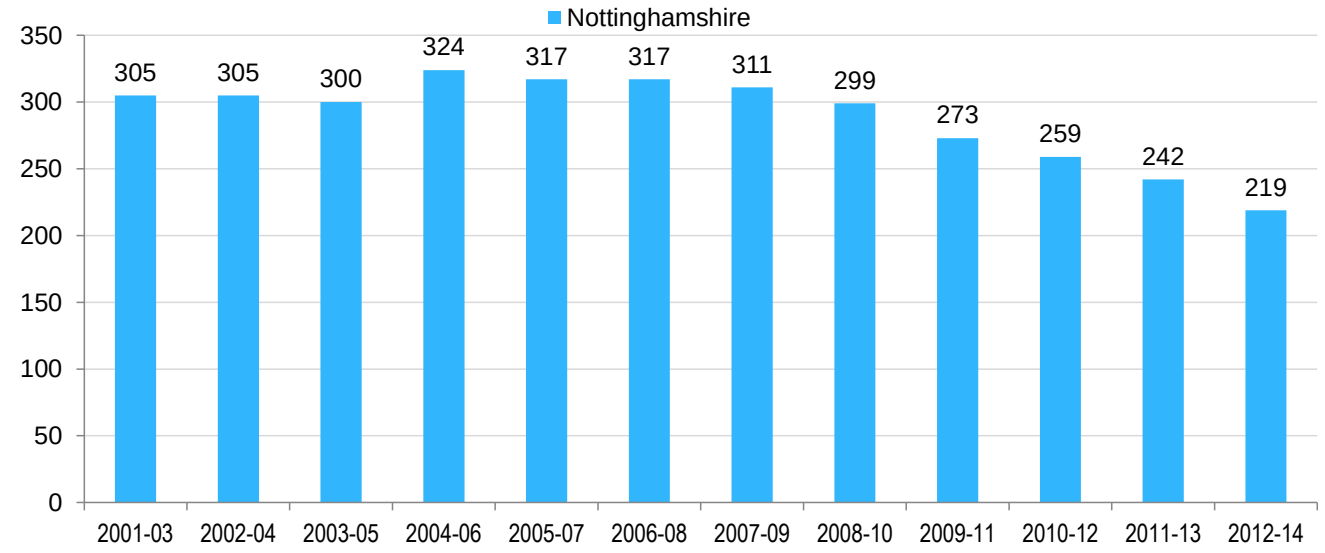


Source: ONS Conceptions Statistics 2014 (published 2016)

When looking at the numbers of conceptions Figure 8.2 below identifies that since 2006-08 there have been fewer than 300 conceptions to young women under the age of 16 in Nottinghamshire over each three year period. The graph below highlights there has been no year-on-year increase in numbers since 2004-06 and that the numbers of under 16 conceptions have seen a steady decrease from 2008-10 onwards to their current level in 2012-14 of 219.

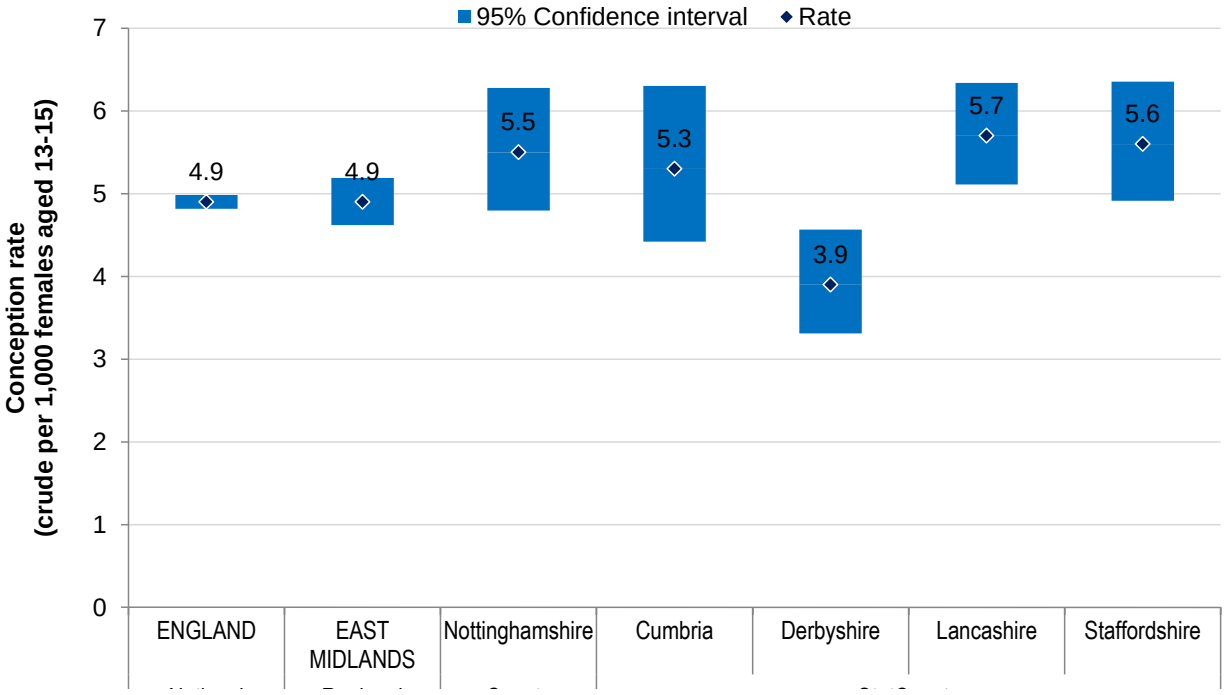
Nottinghamshire Under 16s conception rates are statistically similar to National, Regional and Statistical neighbours. This is shown in Figure 8.3.

Figure 8.2: Nottinghamshire under 16 conception numbers 2001-03 to 2012-14 (three year rolling totals)



Source: ONS Conceptions Statistics 2014 (published 2016)

Figure 8.3: Nottinghamshire under 16 conception rates compared to National, Regional, and Statistical neighbours 2012-14

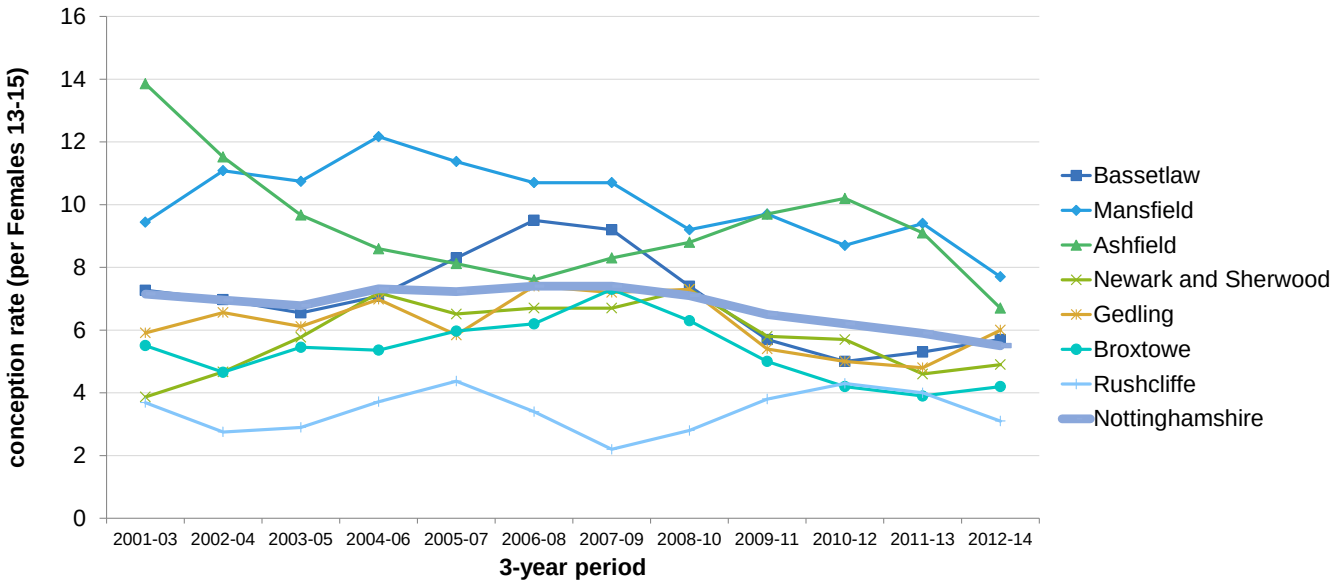


Source: ONS Conceptions Statistics 2014 (published 2016)

Nottinghamshire Districts

When comparing under 16 conception rates across Districts (see Figure 8.4) Mansfield and Ashfield continue to have higher rates of under 16 conceptions but these Districts more than others show a marked decrease since last year. Rates in the remaining Districts, since 2009-11, show some variation but overall little change Rates in Rushcliffe and Broxtowe remain the lowest across the County.

Figure 8.4: Nottinghamshire districts aggregated under 16 conception rates 2001-03 to 2012-14



Source: ONS Conceptions Statistics 2014 (published 2016)

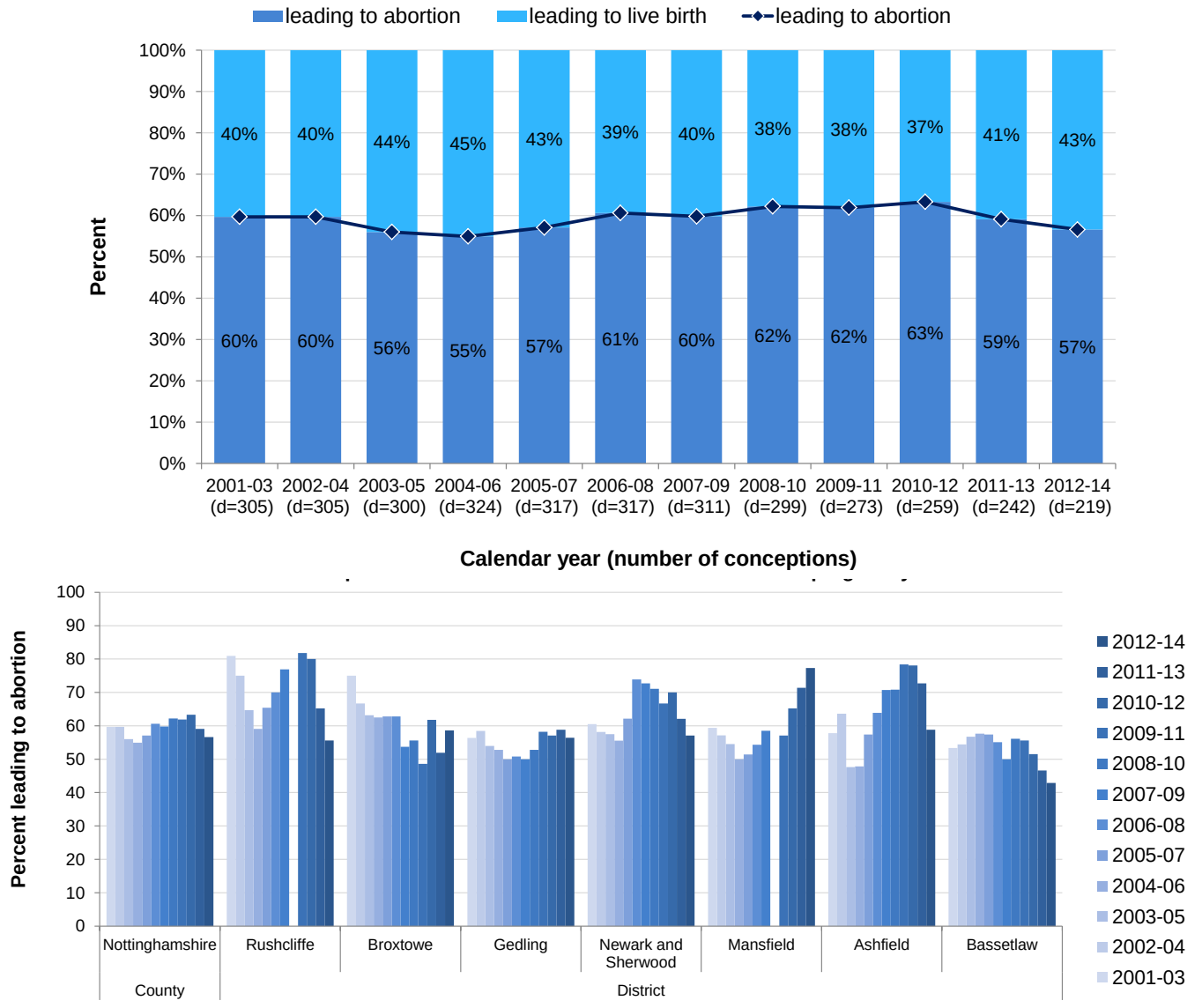
Live births and terminations

Across Nottinghamshire the proportion of conceptions leading to terminations for under 16's is 59% for the period 2012-14 and has varied between 55% and 63% over time from the earliest reported value of 60% in 2001-03.

Amongst Districts there is a general decreasing trend in the proportion of conceptions leading to termination but there is variation. Most notable there is a decrease in Rushcliffe contrasting with a increase in Mansfield - a shift from the historic pattern where more young women in affluent areas have terminations. Rushcliffe has the second lowest district proportion in the County and Mansfield has the highest. This is shown in Figure 8.5.

Under 16 conception data (as with under 18 data) includes terminations and live births. More under 16's opt for a termination compared to under 18's. We can estimate that each year across Nottinghamshire approximately 31 young women (under 16) give birth.

Figure 8.5: % of young women aged under 16 who choose to terminate a pregnancy 2001-03 to 2012-14. Nottinghamshire (top panel) and by district (bottom panel)



Source: ONS Conceptions Statistics 2014 (published 2016)

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9 Nottinghamshire Ward level under 18 conception data: 2012-142

Summary of document changes since last report: updated with 2012-14 data.

Looking at the previous hot spot wards (identified because they have high conception rates), it is useful to examine how many teenage girls conceive not just the examination of rates. As in the past Nottinghamshire has been challenged regarding the numbers of conceptions members are also asked to consider these.

Data regarding ward level teenage conception data is not available because of confidentiality. The data is used only by data leads to assess progress and gain a greater understanding of which areas we need to target.

Table 9.1 below shows Hotspot wards for 2012-14 and the previous period 2011-13 and includes details of conception rates, conception numbers, hotspot status (persisting, emerging, reverted) and the significance compared to England..

A map showing teenage conception data by ward is available in Appendix A.

There are 37 'hotspot' wards identified for 2012-14 (out of 172 wards in Nottinghamshire). 28 are so-called 'persistent' in the sense they were 'hotspots' in the last period too. The remaining 9 are 'emerging' in the sense they were not 'hotspots' in the last period. 10 wards have 'reverted', i.e. been de-classified as 'hotspots' since the last period.

Mansfield has 12 'hotspot' wards, Ashfield has 4, Newark and Sherwood has 7, Bassetlaw has 7, Gedling has 3, Broxtowe has 3 and Rushcliffe has 1 'hotspot' Wards.

Note: Definition of a 'hotspot'

A ward is classed as a 'hotspot' if the ward rate lies within the top 20% highest rates nationally.

An additional statistical comparison is made to determine if the ward rate is statistically significantly higher than national rate (95% confidence interval). This method is sensitive to both the rate and the underlying number of conceptions so is useful to consider in addition to simply the value of the rate.

With teenage conception rates lowering over time nationally the 'top 20% cut-off rate' is also lowering so this definition of a hotspot may need to be revised in future (e.g. to consider statistical significance too).

2 Ward data are Crown Copyright. They may be reproduced freely within your organisation; however they may not be used for sale, advertising purposes, or commercial gain. The data may not be placed, either in whole or in part, on the Internet. These data must not be combined with other information which could lead to identifying individuals.

Table 9.1: 2012-14 Teenage conceptions by ward. 2011-13 included for year-on-year comparison. Ward names shaded dark / red are 'persistent' hotspots, shaded intermediate / orange are 'emerging' hotspots, and shaded light / green are 'reverted' hotpots, compared to last period.

District	District rate 2012-14	CMW2011 Ward Name	Hotspot status 2011-13 to 2012-14	Conception rate 'Hotspot' (above a certain cutoff) Top 20% National 2012-14	Conception rate 'Hotspot' (above a certain cutoff) Top 20% National 2011-13	Conception rate signficance relative to England 2012-14	Conception rate signficance relative to England 2011-13
ENGLAND	24.9	ENGLAND	-	*	*	Similar	Similar
Nottinghamshire	24.9	Nottinghamshire	28	37	38	Similar	Similar
Mansfield	34.2	Mansfield	8	12	12	Higher	Higher
Ashfield	30.3	Ashfield	4	4	7	Higher	Higher
Newark and Sherwood	27.1	Newark and Sherwood	7	7	8	Similar	Similar
Bassetlaw	25.5	Bassetlaw	4	7	5	Similar	Similar
Gedling	23.9	Gedling	2	3	3	Similar	Similar
Broxtowe	17.7	Broxtowe	2	3	2	Lower	Lower
Rushcliffe	15.1	Rushcliffe	1	1	1	Lower	Lower
Mansfield	34.2	Ladybrook	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Carr Bank	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Newgate	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Broomhill	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Woodhouse	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Bull Farm and Pleasley Hill	Persistent	Hotspot	Hotspot	Higher	Higher
Mansfield	34.2	Sandhurst	Persistent	Hotspot	Hotspot	Similar	Similar
Mansfield	34.2	Brick Kiln	Emerging	Hotspot	-	Similar	Similar
Mansfield	34.2	Oak Tree	Emerging	Hotspot	-	Similar	Similar
Mansfield	34.2	Woodlands	Emerging	Hotspot	*	Similar	*
Mansfield	34.2	Ransom Wood	Persistent	Hotspot	Hotspot	Similar	Similar
Mansfield	34.2	Newlands	Emerging	Hotspot	-	Similar	Similar
Mansfield	34.2	Netherfield	Reverted	-	Hotspot	Similar	Similar
Mansfield	34.2	Warsop Carrs	Reverted	-	Hotspot	Similar	Similar
Mansfield	34.2	Penniment	Reverted	-	Hotspot	Similar	Similar
Mansfield	34.2	Park Hall	Reverted	*	Hotspot	*	Similar
Ashfield	30.3	Sutton in Ashfield East	Persistent	Hotspot	Hotspot	Higher	Higher
Ashfield	30.3	Hucknall East	Persistent	Hotspot	Hotspot	Higher	Similar
Ashfield	30.3	Kirkby in Ashfield West	Persistent	Hotspot	Hotspot	Similar	Higher
Ashfield	30.3	Hucknall Central	Persistent	Hotspot	Hotspot	Similar	Higher
Ashfield	30.3	Hucknall West	Reverted	-	Hotspot	Similar	Similar
Ashfield	30.3	Sutton in Ashfield Central	Reverted	-	Hotspot	Similar	Higher
Ashfield	30.3	Kirkby in Ashfield East	Reverted	-	Hotspot	Similar	Similar
Newark and Sherwood	27.1	Bridge	Persistent	Hotspot	Hotspot	Higher	Higher
Newark and Sherwood	27.1	Devon	Persistent	Hotspot	Hotspot	Higher	Higher
Newark and Sherwood	27.1	Clipstone	Persistent	Hotspot	Hotspot	Higher	Similar
Newark and Sherwood	27.1	Ollerton	Persistent	Hotspot	Hotspot	Higher	Similar
Newark and Sherwood	27.1	Castle	Persistent	Hotspot	Hotspot	Similar	Higher
Newark and Sherwood	27.1	Boughton	Persistent	Hotspot	Hotspot	Similar	Similar
Newark and Sherwood	27.1	Balderton North	Persistent	Hotspot	Hotspot	Similar	Similar
Newark and Sherwood	27.1	Muskham	Reverted	*	Hotspot	*	Similar
Bassetlaw	25.5	Carlton	Persistent	Hotspot	Hotspot	Higher	Higher
Bassetlaw	25.5	Welbeck	Emerging	Hotspot	*	Similar	*
Bassetlaw	25.5	Worksop South East	Emerging	Hotspot	-	Similar	Similar
Bassetlaw	25.5	Langold	Persistent	Hotspot	Hotspot	Similar	Similar
Bassetlaw	25.5	Worksop North West	Emerging	Hotspot	-	Similar	Similar
Bassetlaw	25.5	Worksop North East	Persistent	Hotspot	Hotspot	Similar	Similar
Bassetlaw	25.5	Harworth	Persistent	Hotspot	Hotspot	Similar	Similar
Bassetlaw	25.5	Worksop South	Reverted	-	Hotspot	Similar	Similar
Gedling	23.9	Netherfield and Colwick	Persistent	Hotspot	Hotspot	Higher	Similar
Gedling	23.9	Killisick	Persistent	Hotspot	Hotspot	Similar	Similar
Gedling	23.9	Gedling	Emerging	Hotspot	-	Similar	Similar
Gedling	23.9	Valley	Reverted	-	Hotspot	Similar	Similar
Broxtowe	17.7	Stapleford North	Persistent	Hotspot	Hotspot	Similar	Higher
Broxtowe	17.7	Beeston North	Emerging	Hotspot	-	Similar	Similar
Broxtowe	17.7	Eastwood South	Persistent	Hotspot	Hotspot	Similar	Similar
Rushcliffe	15.1	Bingham West	Persistent	Hotspot	Hotspot	Higher	Similar

Source: ONS Conceptions Statistics 2012-2014 (distributed 2016)
Note on suppression: rates and numbers suppressed due to low counts (4 or less) are denoted ''.*
Note: District summary for the 'Hotspot' columns shows total 'Hotspot' Wards. The 'Hotspot status' columns shows total 'Persistent Hotspot' wards

10 Slope Index of Inequality

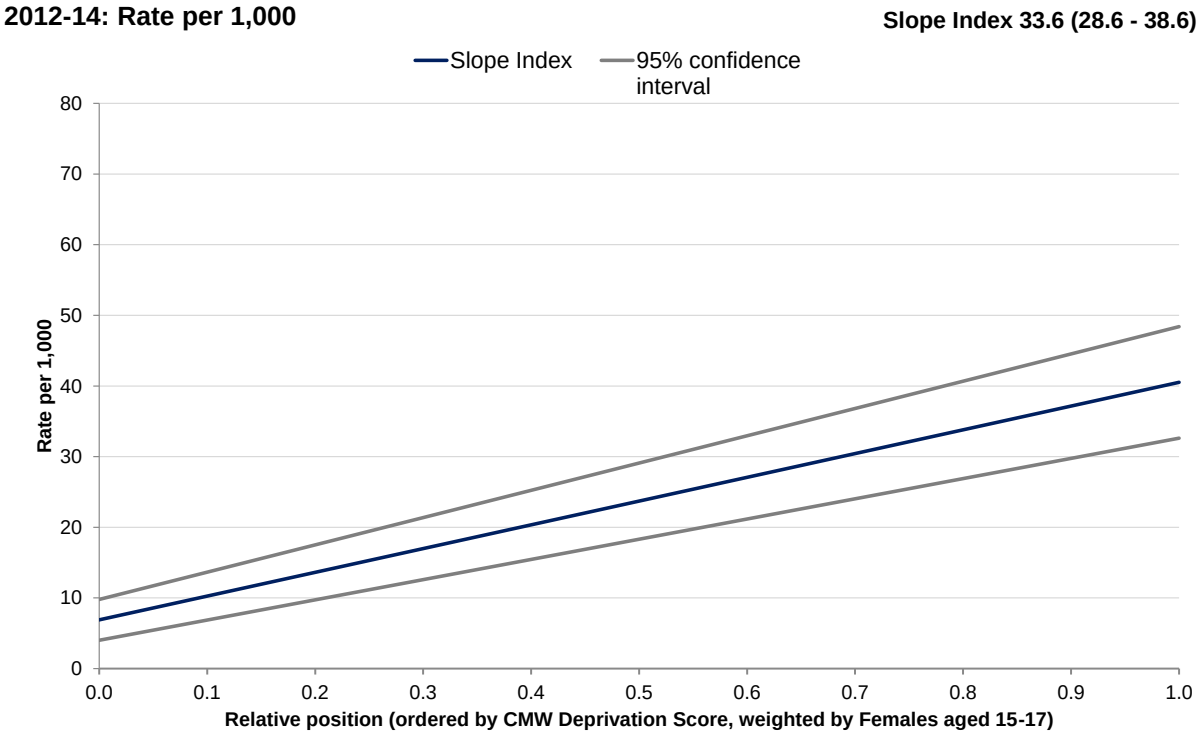
Summary of document changes since last report: updated with 2012-14 ward data

Teenage conceptions are strongly associated with levels of deprivation in the population. The relationship between a health issue and deprivation can be quantified using the slope index of inequality (SII) and changes can be monitored over time. The SII takes into account the relative population size and the level of deprivation of each ward in Nottinghamshire. The SII shows the difference in conception rate between the most deprived wards and the least deprived wards.

The aim, over time, is that health inequalities are reduced by lowering teenage conceptions across the whole of Nottinghamshire but to a greater degree in more deprived wards. This would have the effect of flattening the slope therefore reducing the SII value without increasing the rate of teenage conceptions in less deprived wards.

Figure 10.1 shows that for the period 2012-14 there is a slope index of **33.6** which suggests that there were over 33 more conceptions per 1,000 females aged 15-17 in the most deprived wards than in the least deprived wards (95% confidence intervals (CI) indicate the figure is between 29 and 38 per 1,000 females aged 15-17). This is a summary measure and there is variation to be seen between individual areas.

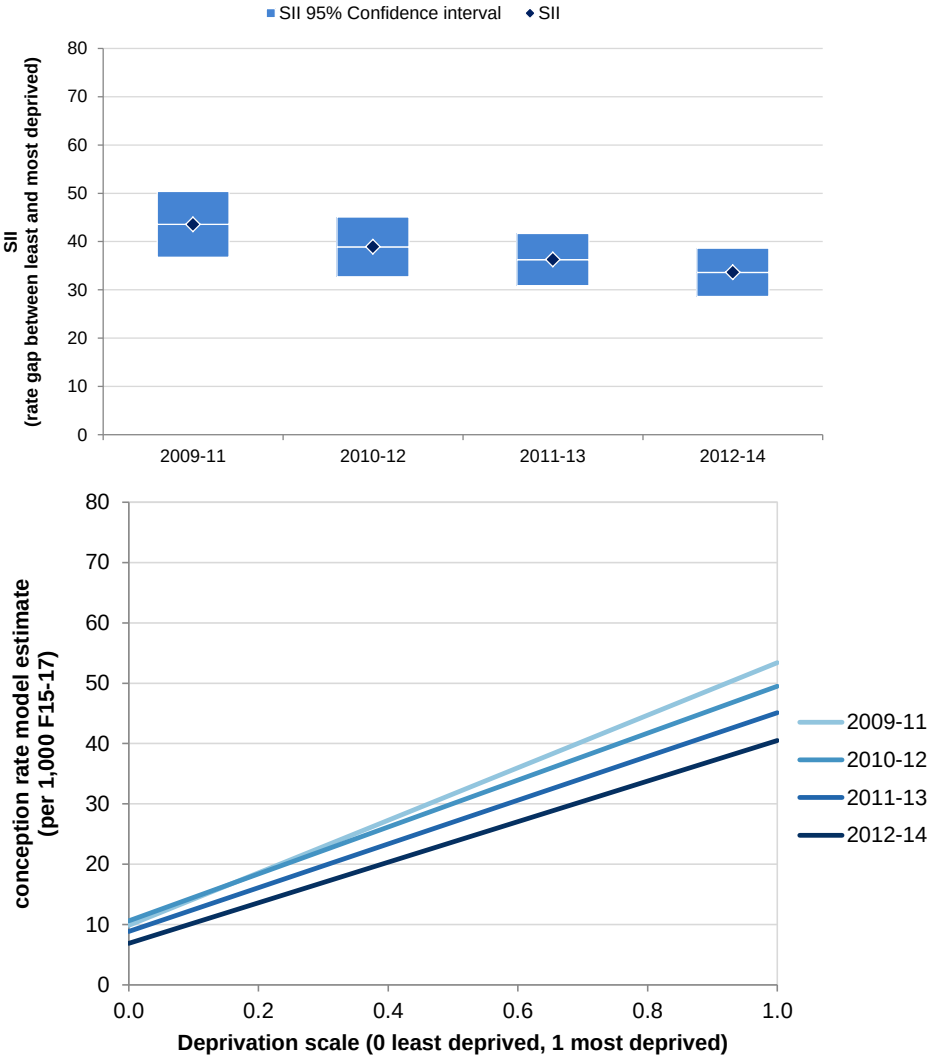
Figure 10.1: Slope index of inequality (SII) for under-18 conceptions by ward in Nottinghamshire 2012-14



Source: ONS conceptions data

Note: SII is broadly well defined but the exact calculation is dependent on a number of factors including the deprivation measure and population denominator used. Variation can be expected between these values and those in earlier reports however the overall picture remains the same
Source: Secondary analysis of ONS conceptions and population data, DCLG deprivation data (IMD 2010) (Nottinghamshire Public Health)

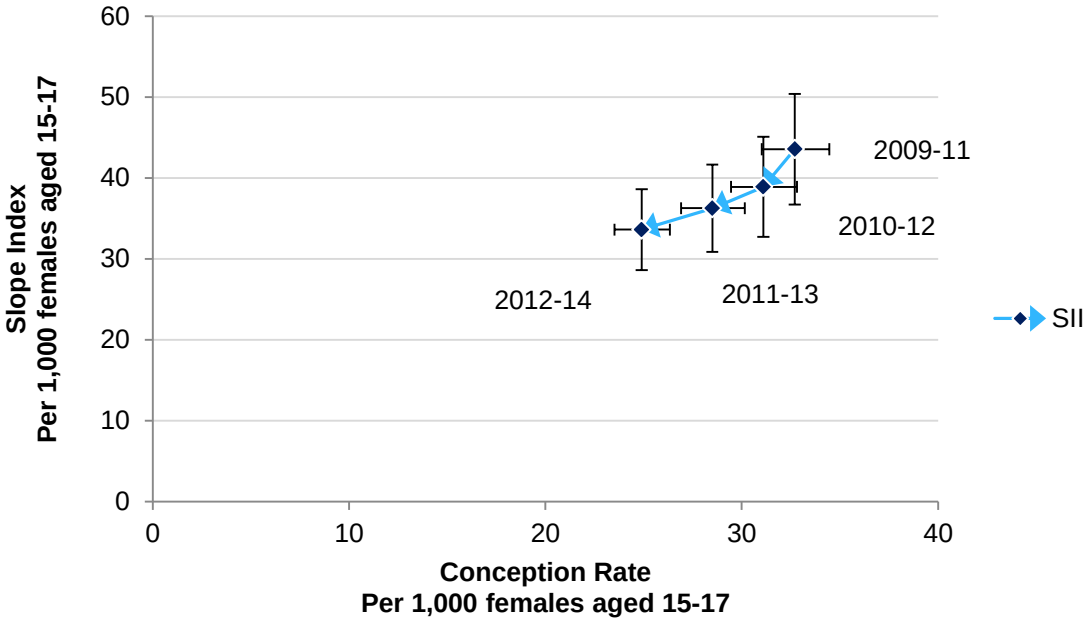
Figure 10.2: Change in slope index of inequality (SII) for teenage conception rates in Nottinghamshire County wards from 2009-11 to 2012-14. Change over time (upper panel), SII conception rate deprivation model curve change over time (lower panel)



Source: Secondary analysis of ONS conceptions and population data, DCLG deprivation data (Nottinghamshire Public Health)
Note: The periods analysed start from 2009-11 as analyses from earlier periods cannot be compared due to methodological differences (i.e. change in geographic unit, change in deprivation measure).

Figure 10.2 shows how the SII has varied over time. Inspection suggests that although there are no statistically significant changes health inequalities may have reduced over the period 2009-11 to 2012-14 with the rates in the most deprived areas decreasing more than in the least deprived areas. All this set against an overall County teenage conception rate level that has been decreasing.

Figure 10.3: Change in slope index of inequality (SII) for teenage conception rates in Nottinghamshire County wards from 2009-11 to 2012-14. SII change with under 18 conception rates over time



Indicator	Statistic	Period 2012-14	2011-13	2010-12	2009-11
Slope Index	Value	**33.6**	**36.3**	**38.9**	**43.6**
Per 1,000 females aged 15-17	*CI*	*(28.6, 38.6)*	*(30.9, 41.7)*	*(32.7, 45.1)*	*(36.7, 50.4)*
Conception Rate	Value	**24.9**	**28.5**	**31.1**	**32.7**
Per 1,000 females aged 15-17	*CI*	*(23.5, 26.3)*	*(26.9, 30.2)*	*(29.4, 32.8)*	*(31.0, 34.5)*

Source: Secondary analysis of ONS conceptions and population data, DCLG deprivation data (Nottinghamshire Public Health)
Note: The periods analysed start from 2009-11 as analyses from earlier periods cannot be compared due to methodological differences (i.e. change in geographic unit, change in deprivation measure).

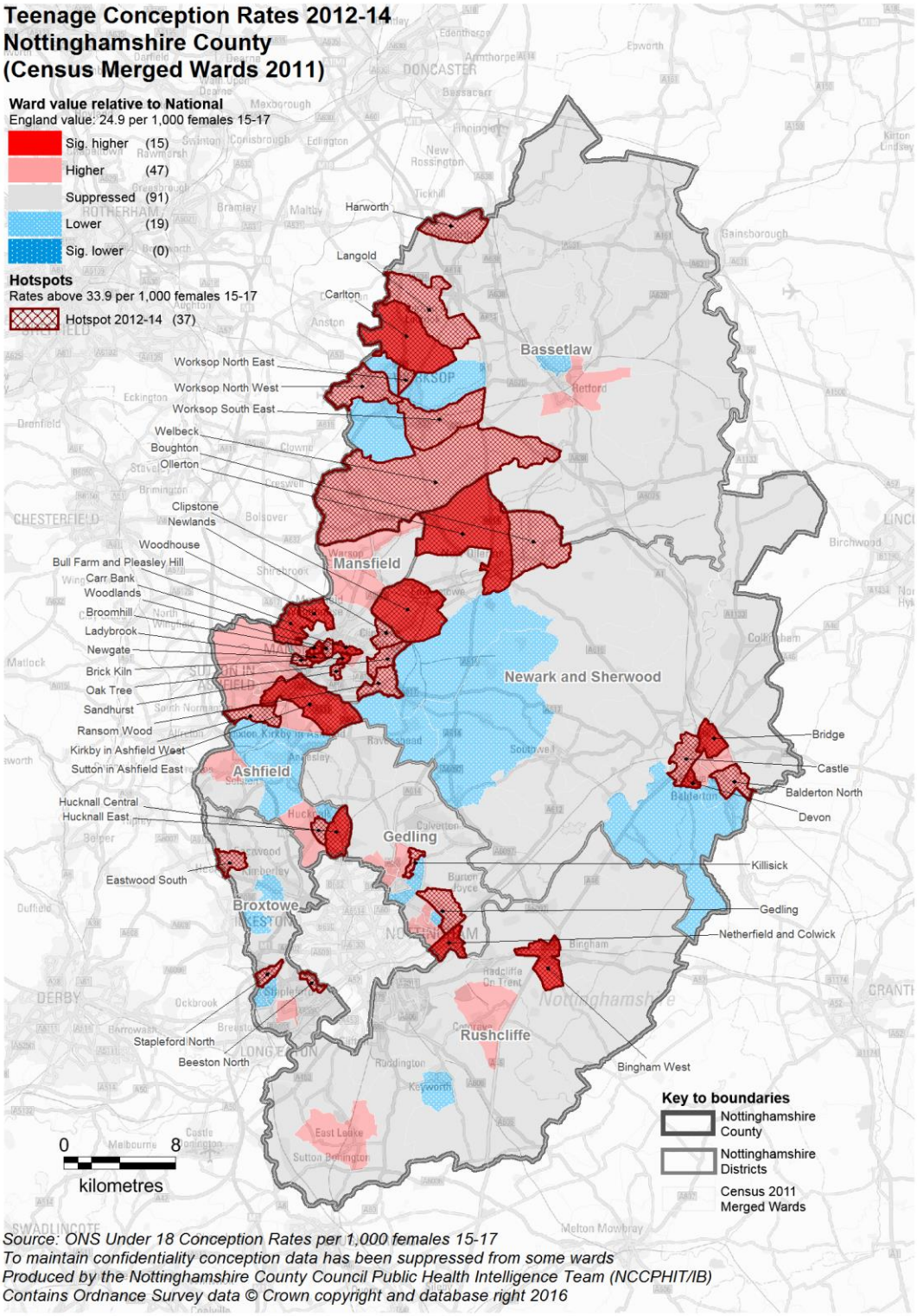
Figure 10.3 shows how the SII value and teenage conception rate vary together in time. The SII slope has decreased while the conception rate has also decreased over the same period.

Appendices

A Teenage conceptions at ward level (Census Merged Wards 2011)

Summary of document changes since last report: updated with 2012-14 data.

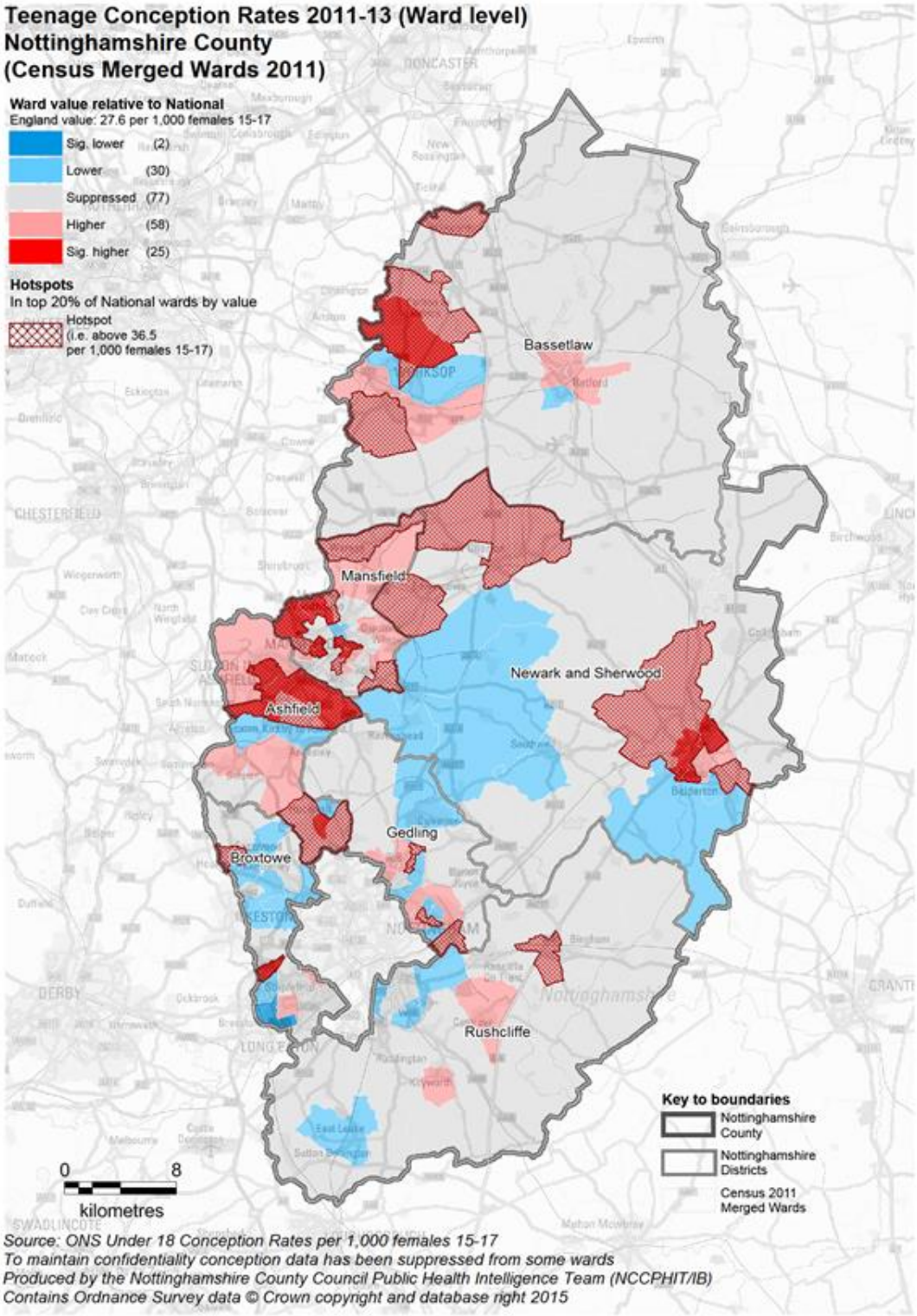
Figure 10.4: Ward level teenage conception rates 2012-14. Local census ward rates relative to National rate indicated with a 95% statistical significance test. Hotspots (in the top 20% of national highest ward rates) denoted by hatched areas.



Source: ONS Under 18 Conception Rates per 1,000 females 15-17
To maintain confidentiality conception data has been suppressed from some wards
Produced by the Nottinghamshire County Council Public Health Intelligence Team (NCCPHIT/IB)
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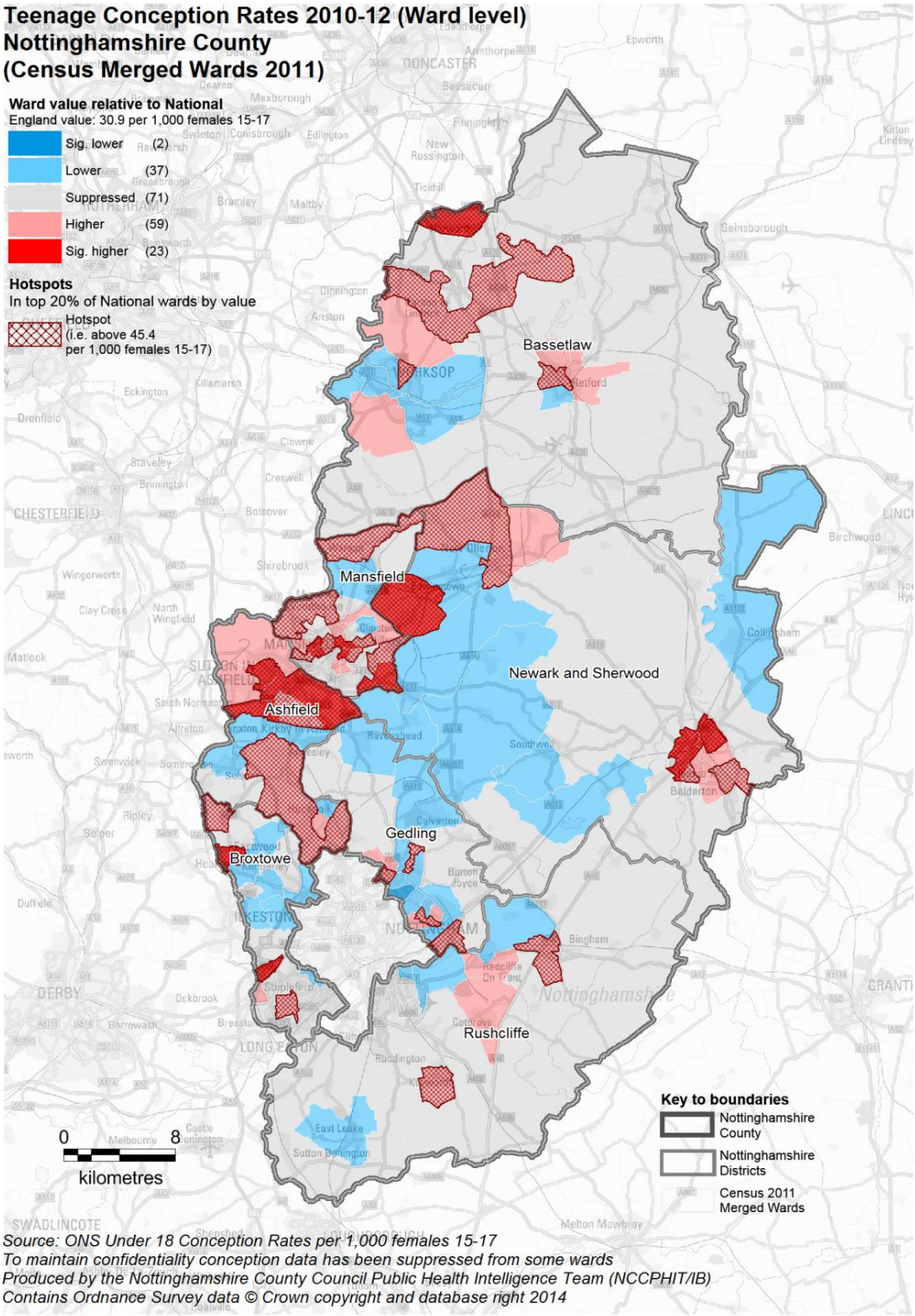
Source: Secondary analysis of ONS conceptions data

Figure 10.5: Ward level teenage conception rates 2011-13. Local census ward rates relative to National rate indicated with a 95% statistical significance test. Hotspots (in the top 20% of national highest ward rates) denoted by hatched areas.



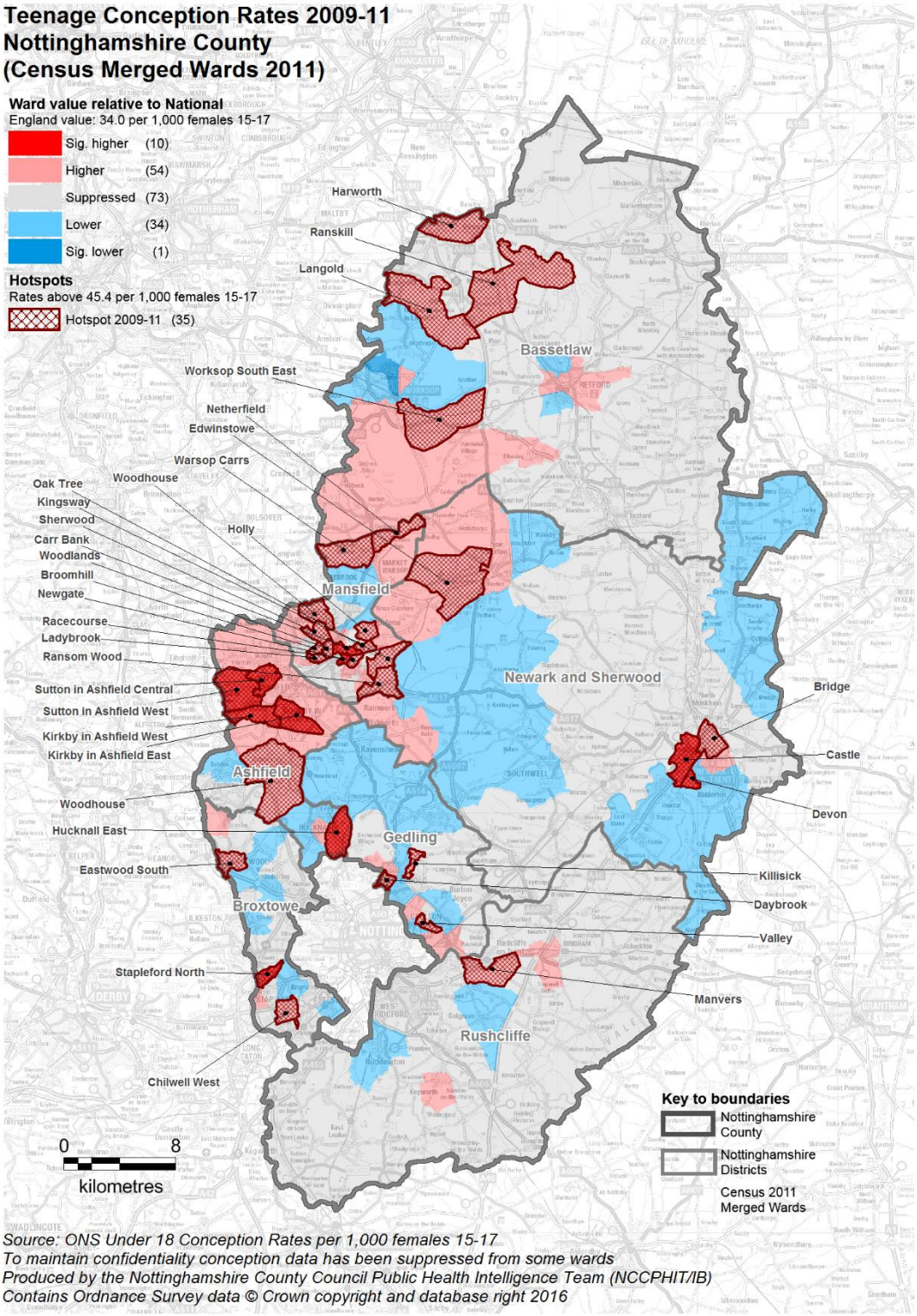
Source: Secondary analysis of ONS conceptions data

Figure 10.6: Ward level teenage conception rates 2010-12. Local census ward rates relative to National rate indicated with a 95% statistical significance test. Hotspots (in the top 20% of national highest ward rates) denoted by hatched areas.



Source: Secondary analysis of ONS conceptions data

Figure 10.7: Ward level teenage conception rates 2009-11. Local census ward rates relative to National rate indicated with a 95% statistical significance test. Hotspots (in the top 20% of national highest ward rates) denoted by hatched areas.



Source: ONS Under 18 Conception Rates per 1,000 females 15-17
To maintain confidentiality conception data has been suppressed from some wards
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Source: Secondary analysis of ONS conceptions data

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