

Understanding the Decline of Teenage Fertility in England

AYPH Conference 2018

Katie L Heap

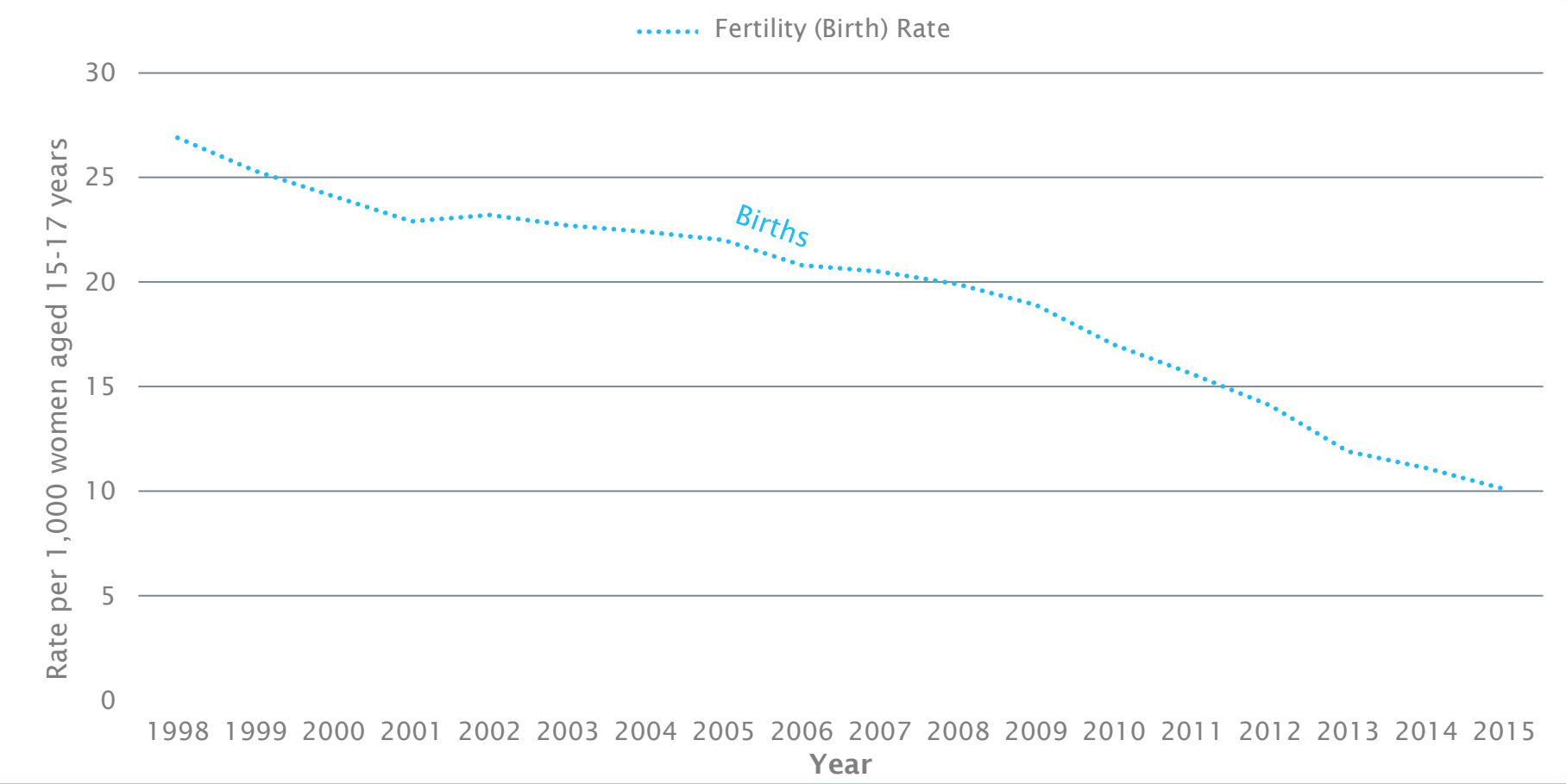
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Social Statistics and Demography

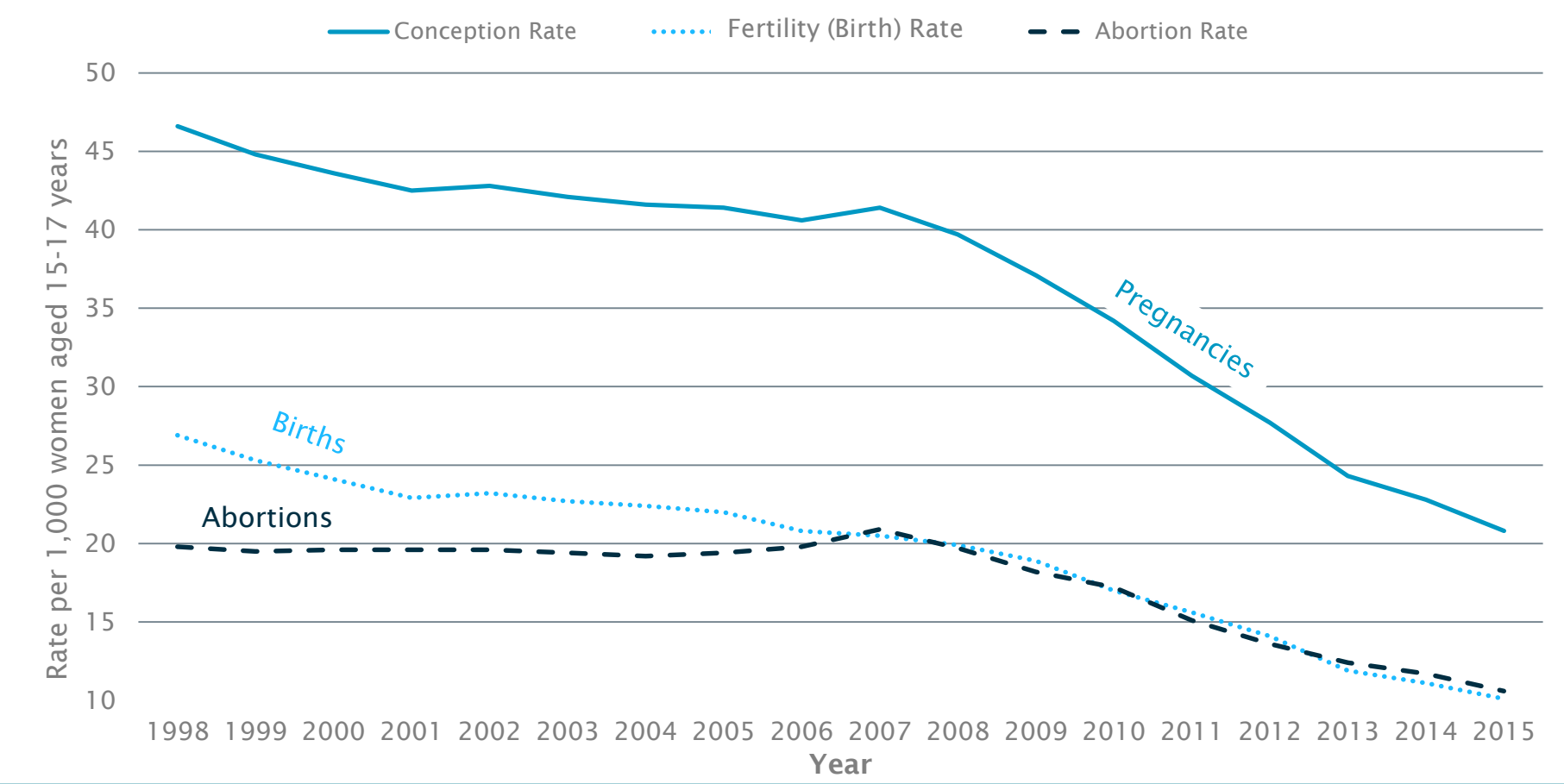


England's teenage fertility has altered dramatically



Source: ONS, analysed by Katie L Heap

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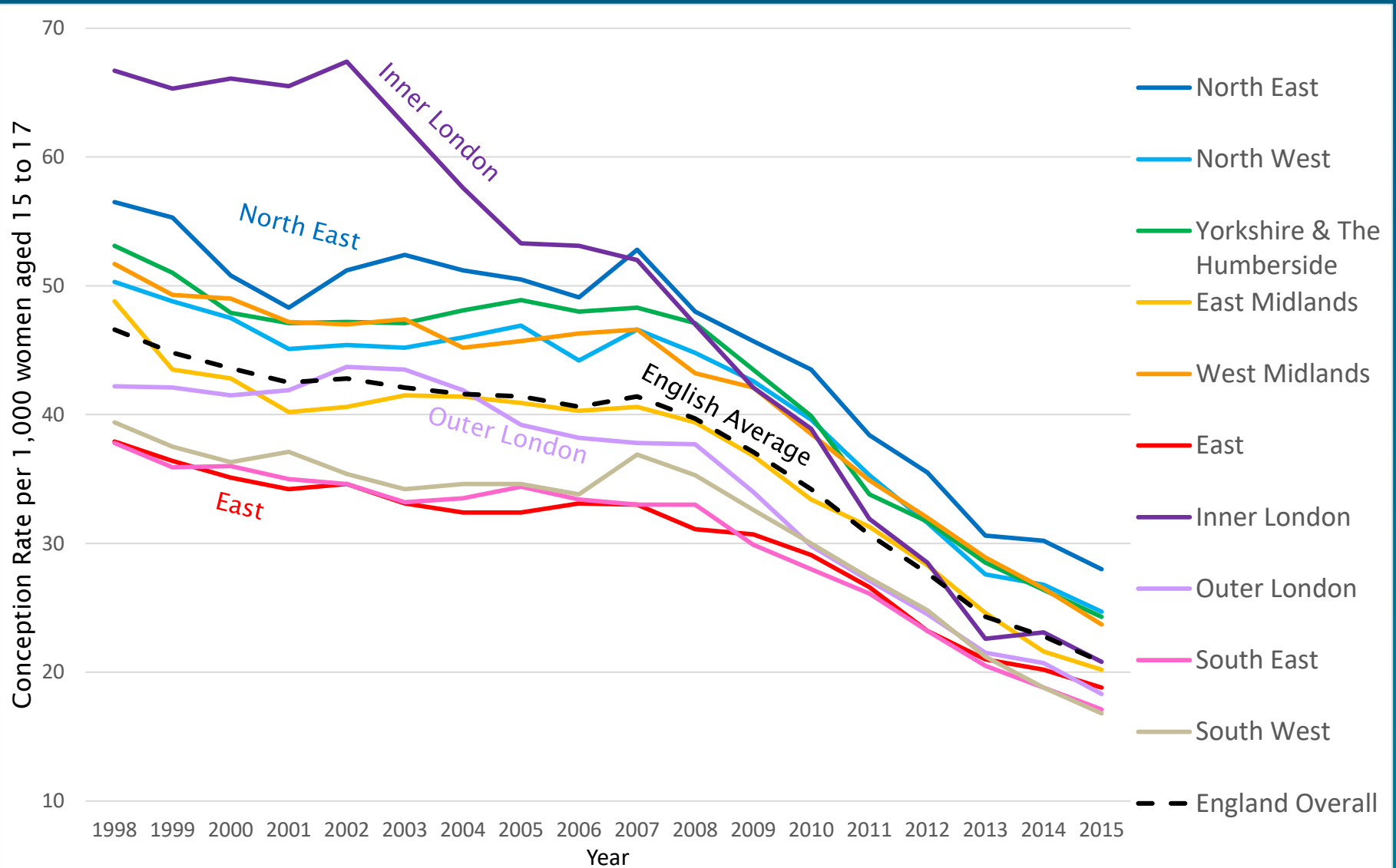


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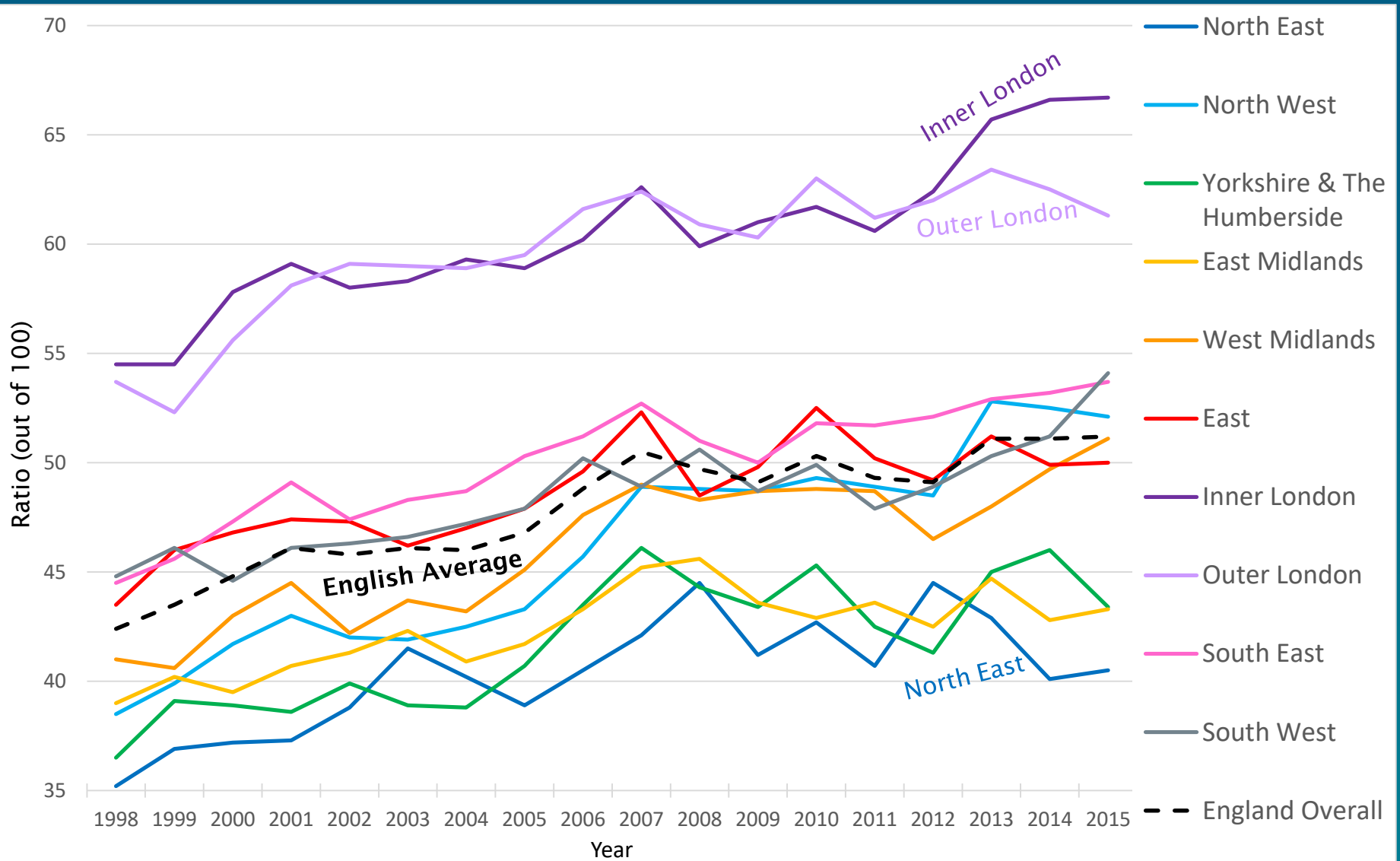
The fertility measures

- Under-18 conception (pregnancy) rates per 1,000 women aged 15-17.
- Under-18 abortion ratios (the percentage of conceptions that end in an abortion).

The under-18 pregnancy (conception) rate, by Region



The percentage of under-18 pregnancies ending in abortion, by Region



The focus

- This transformation in the wider U.K. context, i.e. societal changes.
- Understanding relationships between area characteristics (e.g. deprivation) and the conception rates and abortion ratios in all of the 328 local authority districts in England between 1998 to 2015.
 - What are these relationships?
 - Have these relationships changed?
- Three geographical sub-populations of England:
 - The Rest of England,
 - Inner London,
 - Outer London.

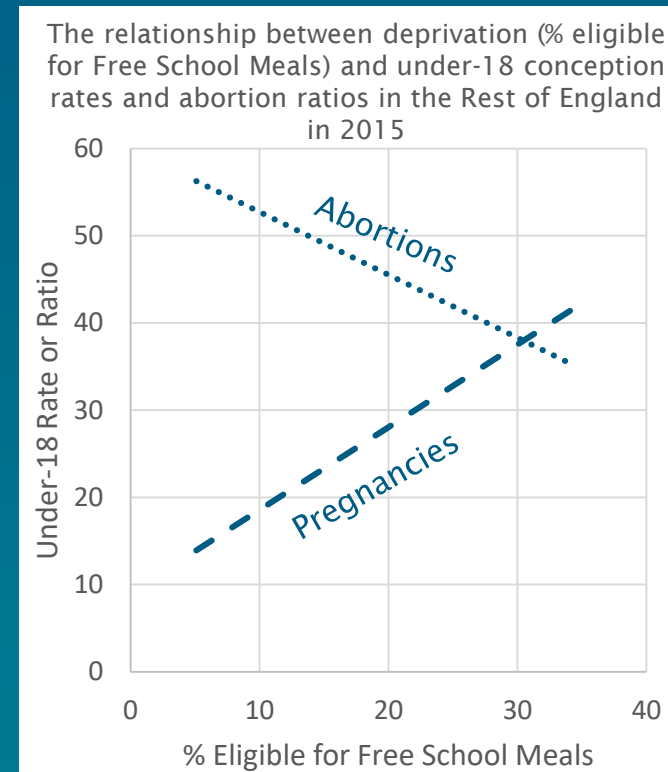
The measures of deprivation and educational attainment

- The percentage of state-funded secondary school pupils eligible for Free School Meals.
- The percentage of girls attaining level 5 or above in their Key Stage 2 (around age 11) Mathematics tests in state-funded primary schools.

Results

Deprivation's relationships

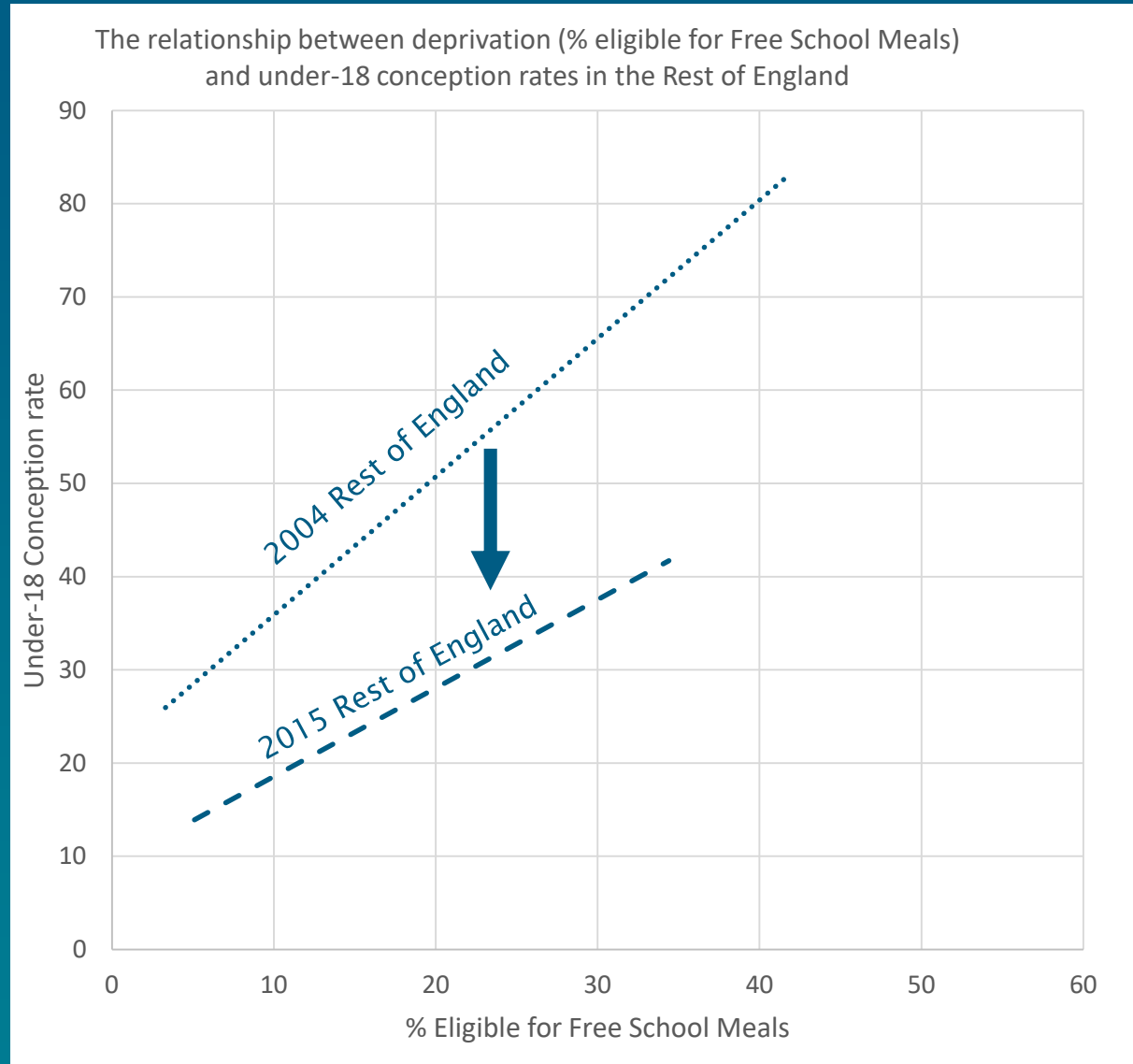
- Overall, the more deprived a Local Authority District is, the higher the under-18 pregnancy rate.
- The more deprived an area is, the lower the proportion of these pregnancies which end in abortion (more ending in births).
- However, these relationships are not the same throughout England or the time period...



Source: ONS, and gov.uk analysed by Katie L Heap

Under-18 Pregnancy Rates and Deprivation

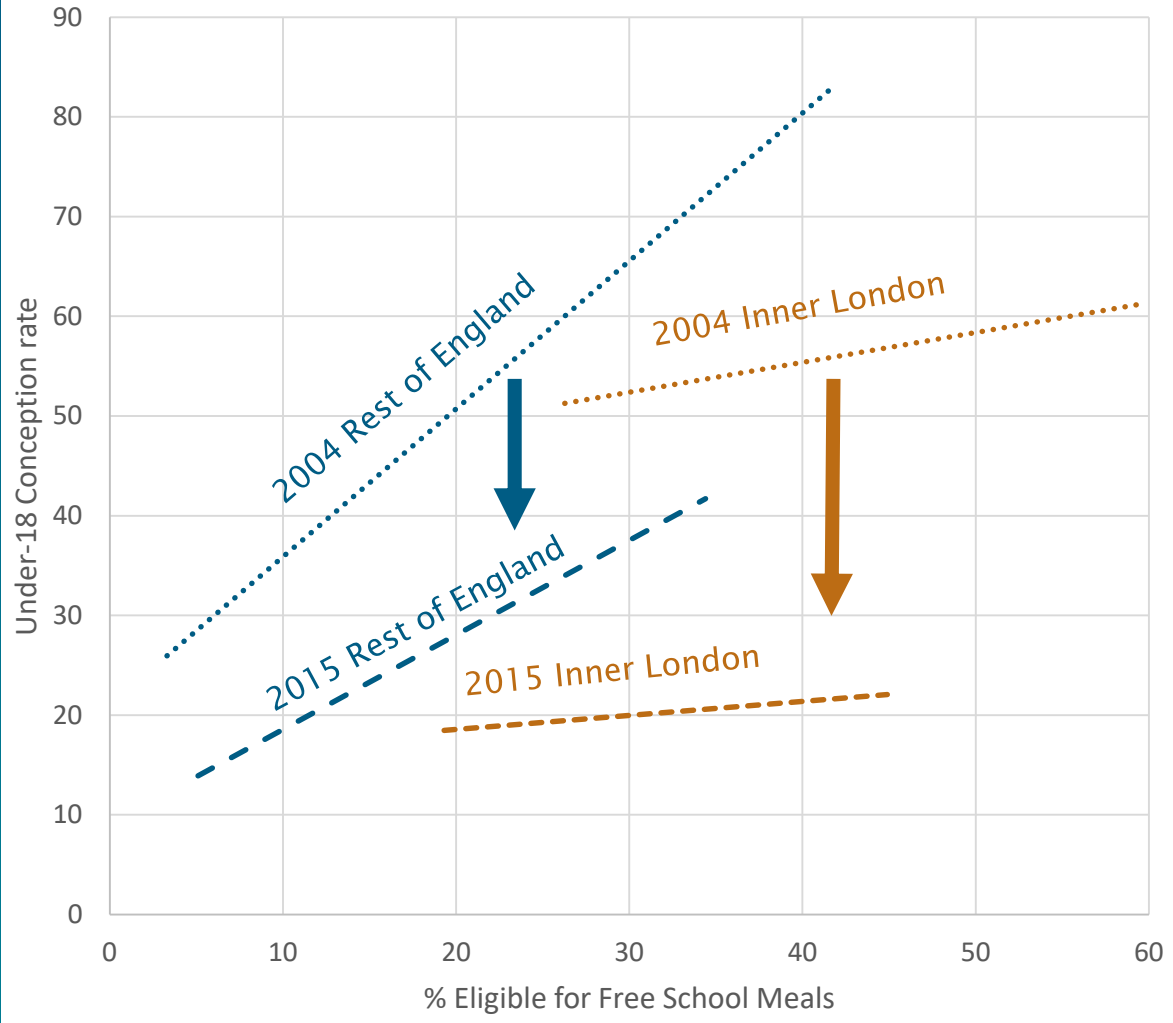
- The relationship between deprivation and pregnancy was consistent between 2004 and 2015 for the Rest of England (excluding London).



Source: ONS, and gov.uk analysed by Katie L Heap

Under-18 Pregnancy Rates and Deprivation

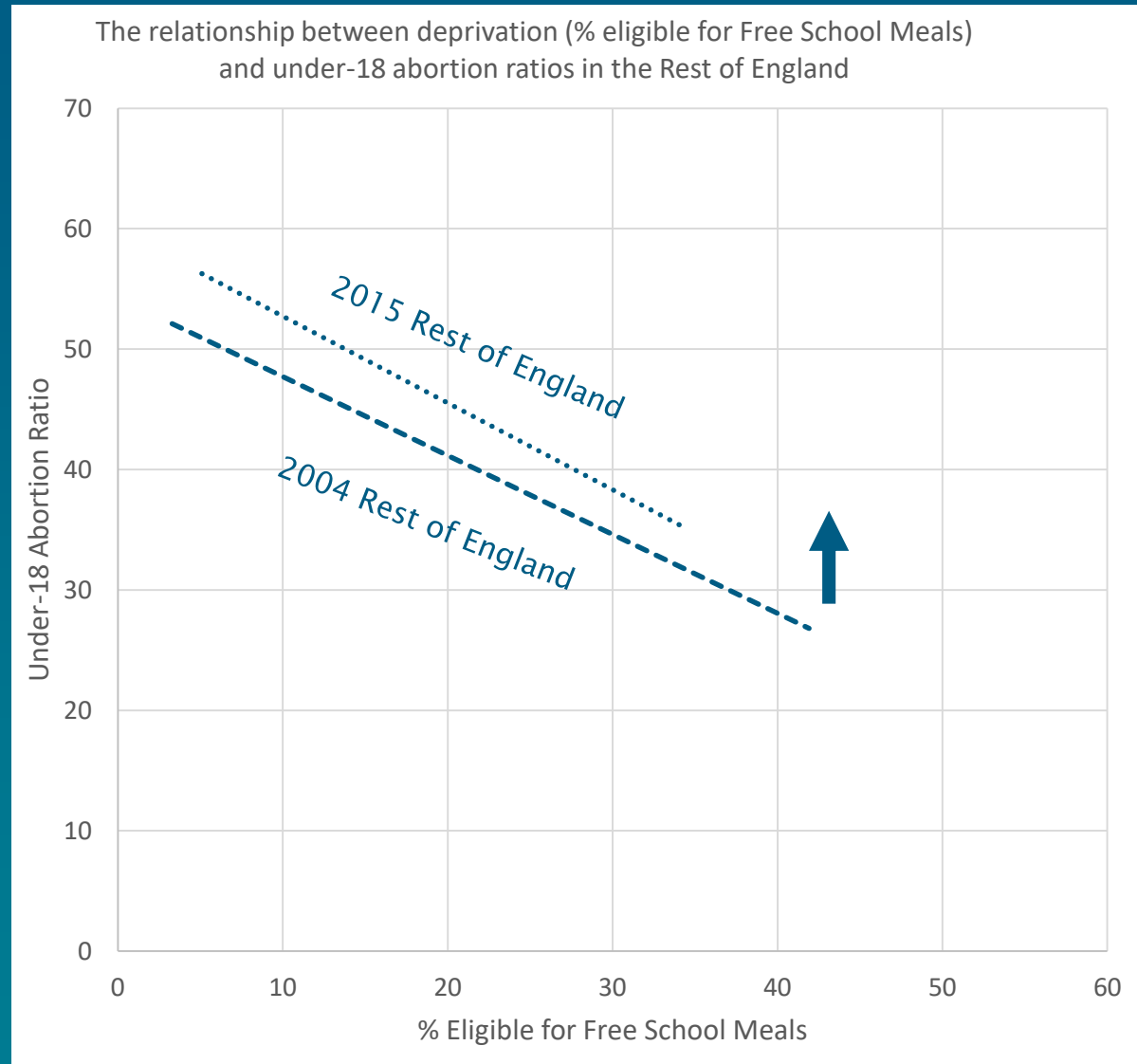
The relationship between deprivation (% eligible for Free School Meals) and under-18 conception rates, in the Rest of England and Inner London



- Inner London *does not* have this relationship between pregnancy rates and deprivation.
- Outer London *does* have this relationship (not shown).

Source: ONS, and gov.uk analysed by Katie L Heap

Under-18 Proportions of Pregnancies ending in Abortion and Deprivation



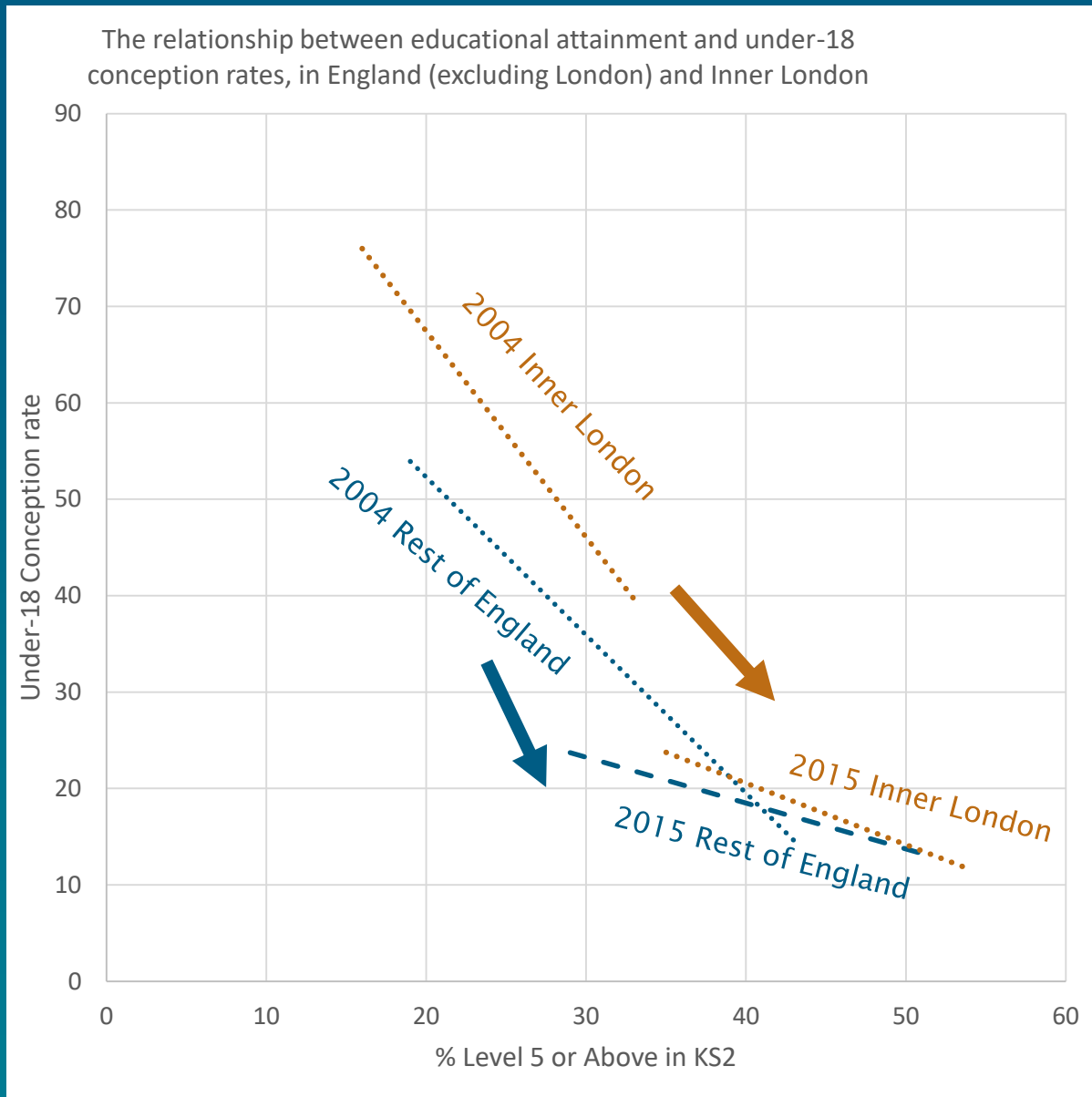
- *A slight weakening of the relationship from 2004 to 2015.*
- Only England (excluding London) has a relationship between deprivation and the proportion of pregnancies ending in abortion.

Educational attainment at age 11's relationships

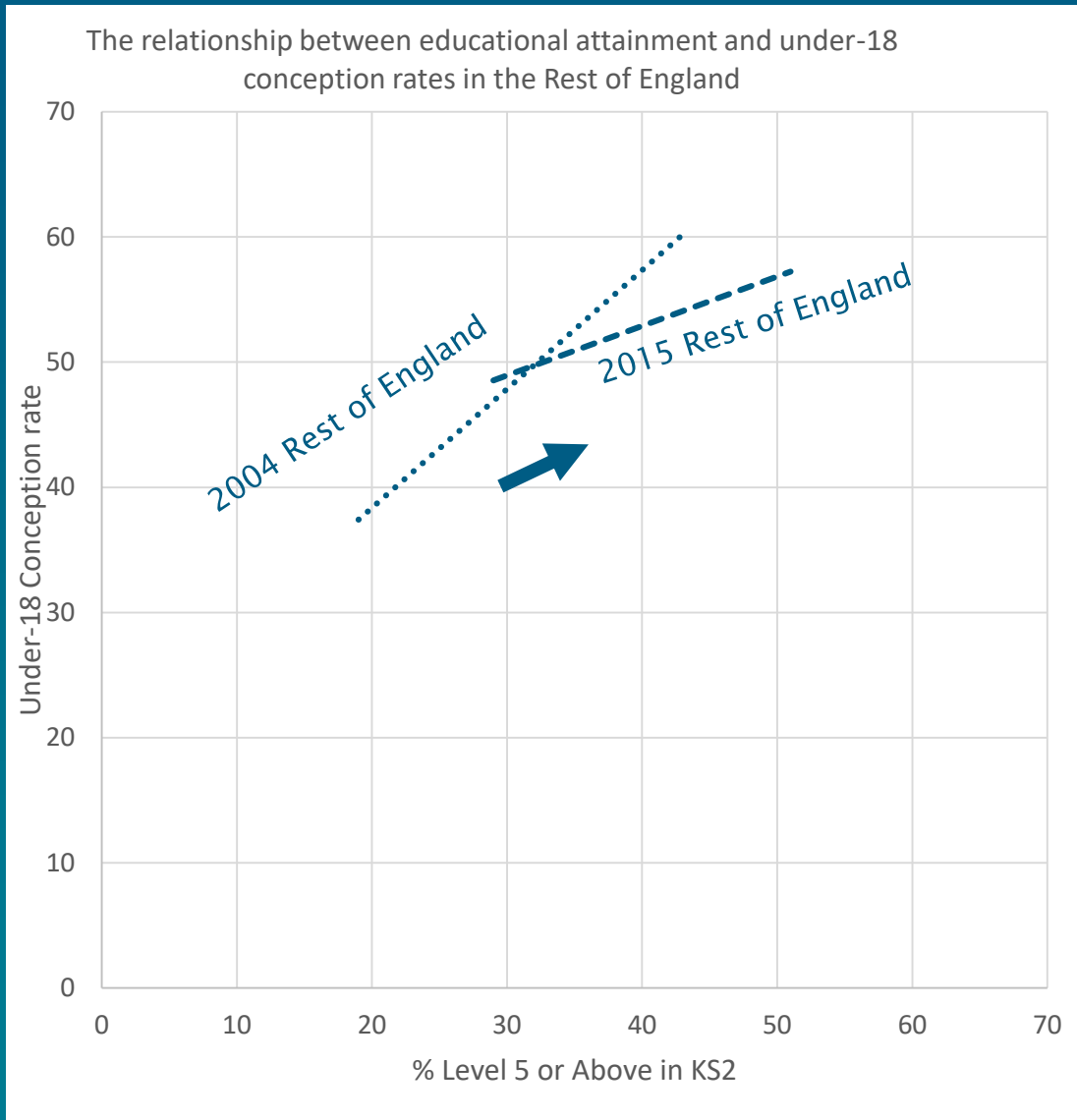
- The relationships between the average level of attainment at Key Stage 2 are similar to those with deprivation:
 - Local Authority Districts with the lowest educational attainment have greater under-18 pregnancy rates.
 - Areas with the lowest educational attainment have smaller proportions of under-18 pregnancies ending in abortion.
- Both of these relationships weakened between 2004-2015.

Under-18 Pregnancy Rates and Educational Attainment

- In the whole of England there is a *weakening* of the relationship between pregnancy rates and educational attainment from 2004 to 2015.



Under-18 Proportions of Pregnancies ending in Abortion and Educational Attainment



- In the Rest of England there is a *weakening* relationship between the proportion of pregnancies ending in abortion and educational attainment from 2004 to 2015.
- There is no relationship in Outer and Inner London.

What does this mean?

- The level of deprivation remains a strong indicator of whether an area has high pregnancy rates and a lower proportion of these ending in abortion.
- Areas with the least educational attainment, are becoming more similar to the more educated areas.
- But these measures do not explain all of these differences, so what will?

What next - statistics?

- Statistically model these relationships with other area characteristics for the whole period (1998-2015):
 - Ethnic composition of teenagers,
 - Urban/rural
 - Housing cost and provision,
 - Inequality,
 - Teenage Pregnancy Strategy funding.

Data I would access in an ideal world

- Teenage contraceptive use,
- Teenage alcohol consumption,
- The amount of sexual intercourse teenagers are *actually* having (by geographic area and individual characteristics),
- The *quality* and *amount* of Sex and Relationships education,
- The *quality* of local services,
- And the ethnic composition of teenage pregnancy/ motherhood/ abortion (birth registration).

What next - qualitative?

- Using these models to highlight LADs/wards of interest for qualitative work.
- Interviewing young people and professionals for their experiences and views.

Thank you

For more information:
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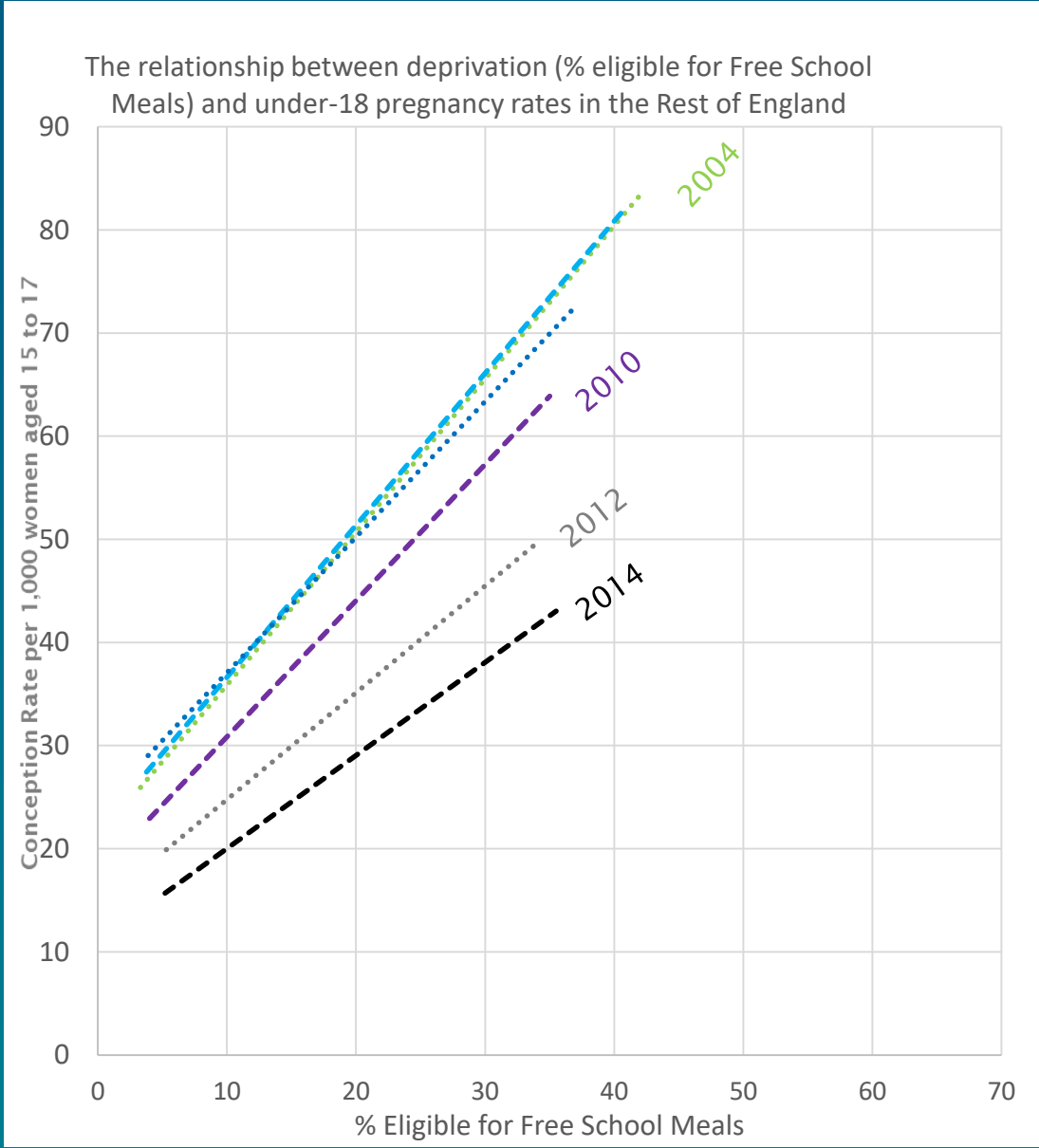
References

- Studies which have found a positive relationship between deprivation and teenage pregnancy:
 - Bradshaw, J., et al. (2005). "Deprivation and variations in teenage conceptions and abortions in England." Journal of Family Planning and Reproductive Health Care **31**(1): 15-19.
 - Conrad, D. (2012). "Deprivation-based inequalities in under-18 conception rates and the proportion of under-18 conceptions leading to abortion in England, 1998-2010." Journal of Public Health **34**(4): 609-614.
 - Diamond, I., et al. (1999). "Spatial variation in teenage conceptions in south and west England." Journal of the Royal Statistical Society: Series A (Statistics in Society) **162**(3): 273-289.
 - Wellings, K., et al. (2016). "Changes in conceptions in women younger than 18 years and the circumstances of young mothers in England in 2000-12: an observational study." Lancet **388**(10044): 586-595.

- Studies which have found a negative relationship between deprivation and teenage abortion:
 - Bradshaw, J., et al. (2005). "Deprivation and variations in teenage conceptions and abortions in England." Journal of Family Planning and Reproductive Health Care **31**(1): 15-19.
 - Conrad, D. (2012). "Deprivation-based inequalities in under-18 conception rates and the proportion of under-18 conceptions leading to abortion in England, 1998-2010." Journal of Public Health **34**(4): 609-614.
 - Lee, E. J., et al. (2004). A Matter of Choice?: Explaining National Variations in Teenage Abortion and Motherhood, Joseph Rowntree Foundation.

Additional Graphs

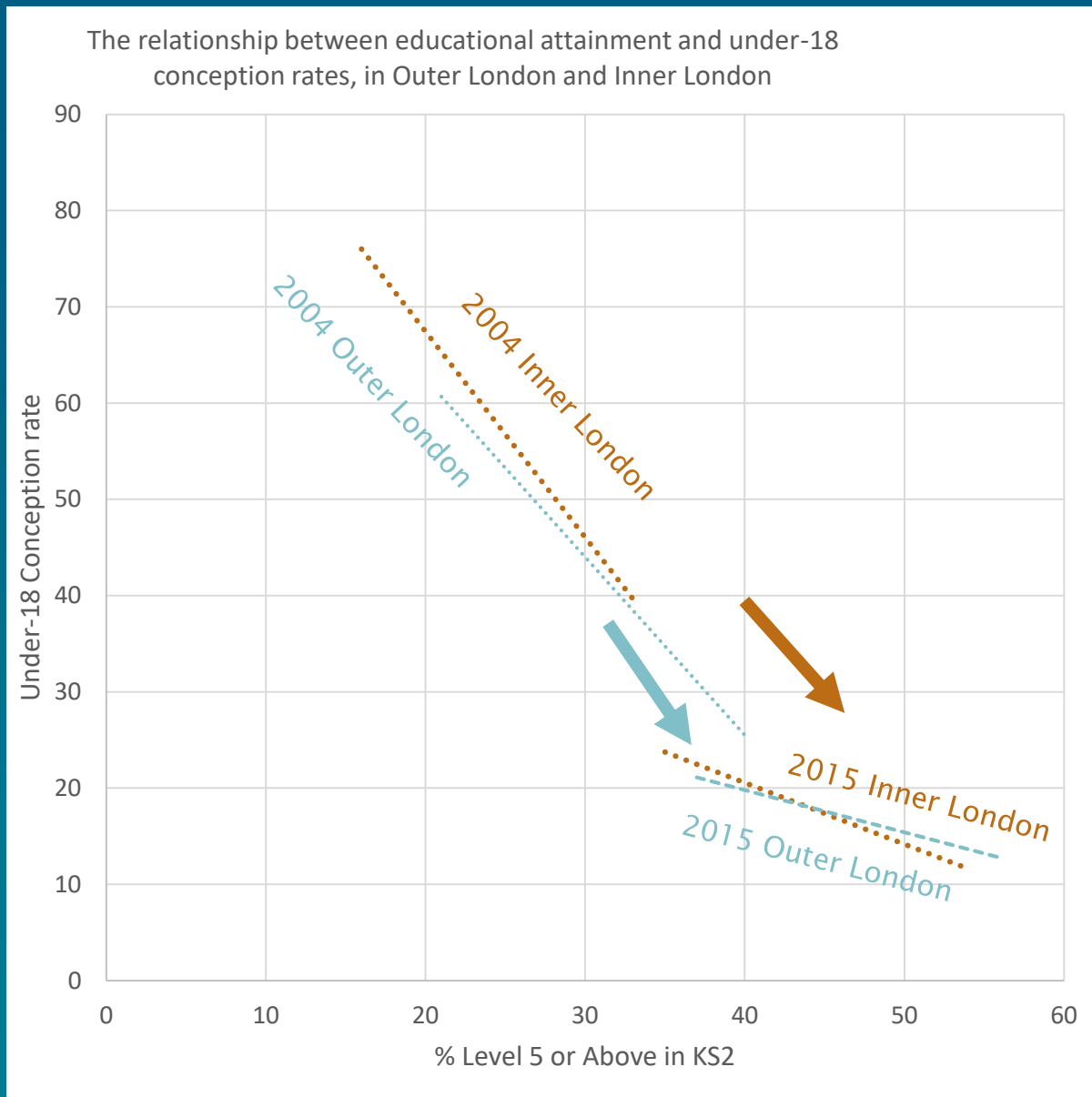
Under-18 Pregnancy Rates and Deprivation



- The relationship between deprivation and under-18 pregnancy rates in the Rest of London with more years' data.

Source: ONS, analysed by Katie L Heap

Under-18 Pregnancy Rates and Educational Attainment



- The relationship between educational attainment and pregnancy rates experienced a similar decline in Inner and Outer London.