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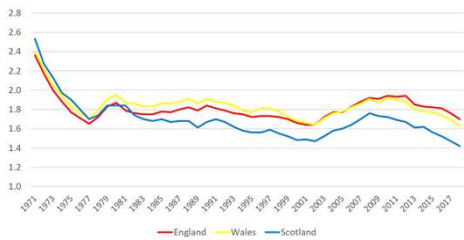
### Background

- Fertility in Britain has diverged between countries over time, with a growing gap in recent decades (Figure 1)
- Limited standardized administrative data on contraception and abortion
- No cross national studies of abortion and contraception to date

### Research Questions

- What are the roles of abortion & contraception in cross national fertility differences?
- Are there differences in contraceptive use and abortion across England, Wales and Scotland?
  - By method mix
  - By parity

Figure 1- Total Fertility Rate in Britain 1971-2017



### Data and Methods

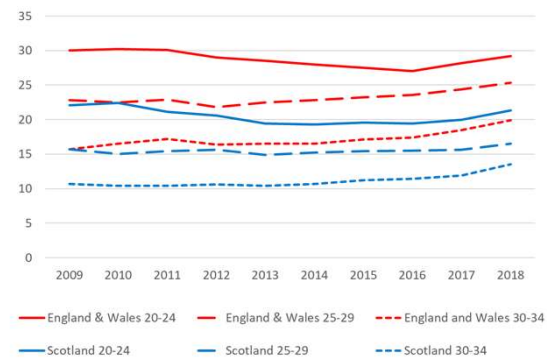
#### Abortion

- Administrative data collected by Department of Health in England and Wales and Public Health Scotland

#### Contraception

- National Survey of Sexual Attitudes and Lifestyles
- Collects data on different contraceptive methods
- Collects data on men and women
- Three waves - 1990, 2000, 2010
- Used multinomial logistic regression to model contraceptive use, with baseline category "not using any method"

Figure 2- Abortion Rate Per 1,000 women, by age



### Descriptive Results

#### Figure 2

- Abortion rate lower in Scotland
- Abortion does not account for lower fertility in Scotland

#### Figure 3

- Contraceptive prevalence rate very similar across countries

#### Figure 4

- Method mix differs by country
  - England highest barrier and traditional method use
  - Scotland highest use of female sterilization
  - Wales highest use of male sterilization
  - England has less effective method mix

#### Figure 5

- Similar country patterns across parities
  - Regardless of parity, female sterilization is most common in Scotland, barrier/traditional most common in England, male sterilization most common in Wales

Figure 3- Contraceptive Use, Sexually Active Men and Women Aged 16 to 49 - NATSAL 1990-2010

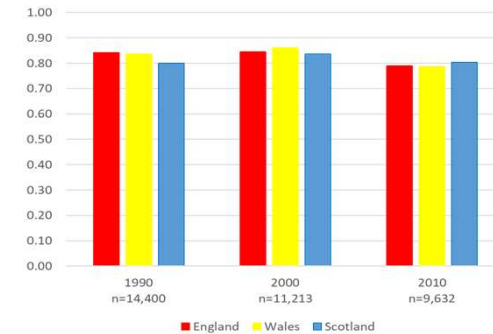
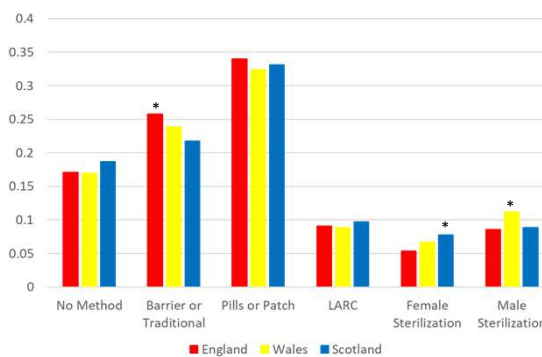


Figure 4- Contraceptive Use By Method, Sexually Active Men and Women Aged 16 to 49 - NATSAL 1990-2010



\* p<0.05

Figure 5- Contraceptive Use By Method and Parity, Sexually Active Men and Women Aged 30 to 49 - NATSAL 1990-2010



### Model Results

#### Figure 6

- Model includes control variables shown, as well as control variables typically associated with contraceptive use- parity, sex, partnership status, highest educational level, religion and ethnicity
- Likelihood of female sterilization in Scotland 53 percent higher versus England
- Likelihood of using a barrier/traditional method is 25 percent lower in Scotland versus England.

Figure 6- Multinomial Logistic Regression, Relative Risk Ratios- NATSAL 1990-2010

	Barrier or Traditional	Pills or Patch	LARC	Female ster.	Male ster.
Country (ref = England)					
Wales	1.00	0.99	0.99	1.14	1.26
Scotland	0.75**	0.93	1.06	1.53***	0.91
Survey year (ref = 1990)					
2000	1.02	0.90	1.10	0.71***	0.80**
2010	0.73***	0.70***	1.77***	0.28***	0.40***
Age (continuous)	0.94***	0.89***	0.93***	1.06***	1.07***

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

### Contribution

- First cross national study of abortion and contraception within Britain of past few decades
- Abortion does not explain lower fertility in Scotland
- Female sterilization is markedly more common in Scotland
- Barrier/traditional method more common in England
- Despite universal healthcare within the UK, contraceptive method use differs by geography

### Future Questions

- Why does method use differ across countries?
- Do differences reflect preferences or prescribing patterns or both?