

Table S1. Versions of the Scottish and English Indices of Multiple Deprivation (SIMD and (E)IMD) used in the analyses.

Scottish Index of Multiple Deprivation (SIMD)		(English) Index of Multiple Deprivation (IMD)	
Version	Analysis years	Version	Analysis years
SIMD 2004	2001-04	IMD 2004	2001-05
SIMD 2006	2005-07	IMD 2007	2006-08
SIMD 2009	2008-10	IMD 2010	2009-13
SIMD 2012	2011-13	IMD 2015	2014-17
SIMD 2016	2014-17	IMD 2019	2018-19
SIMD 2020	2018-19		

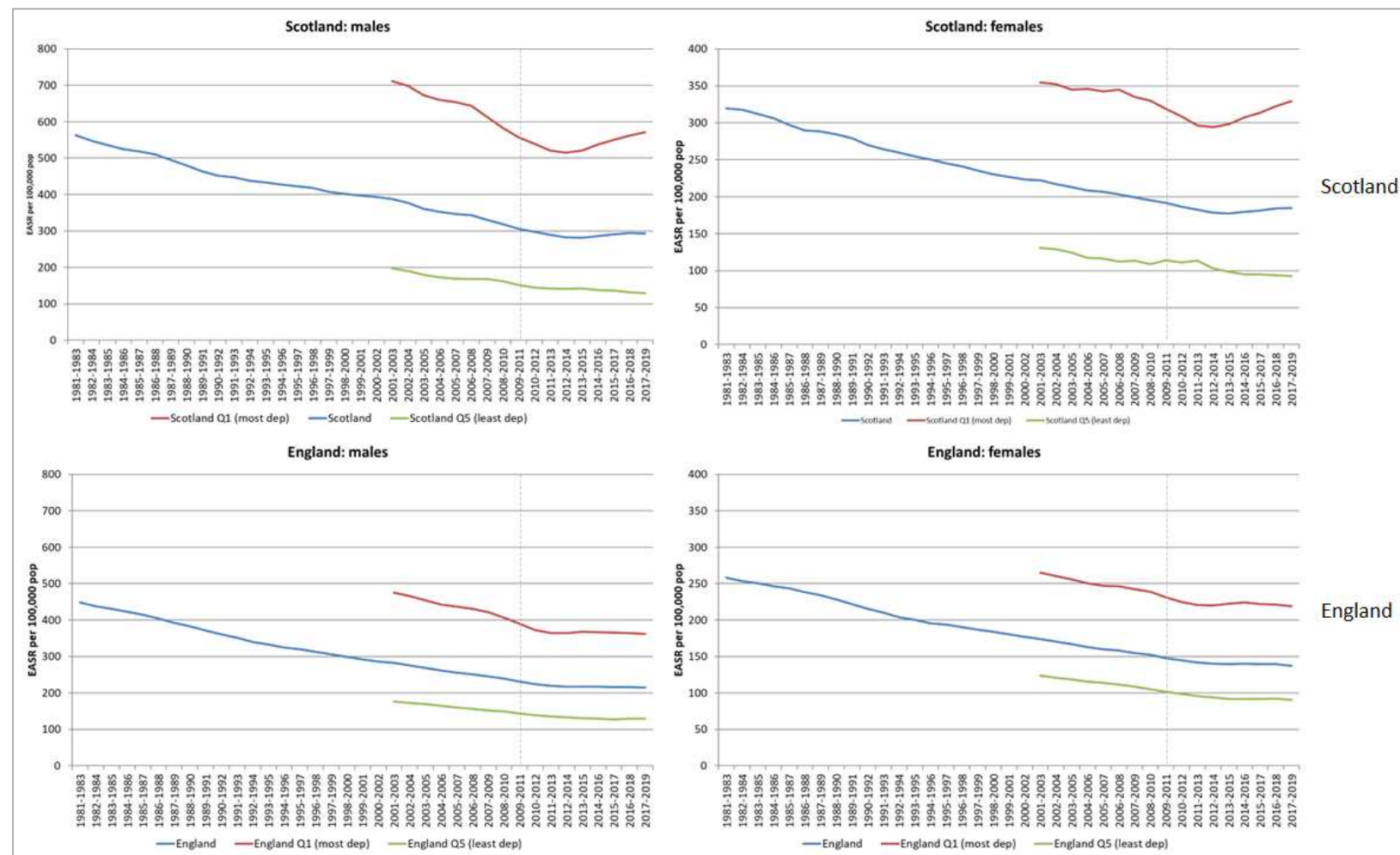


Figure S1. European age-standardised mortality rates per 100,000 population (three-year rolling averages) 1981-2019 for males and females: Scotland, England and their 20% most and least deprived populations (0-64 years). *Note different y-axis scale for males and females.*

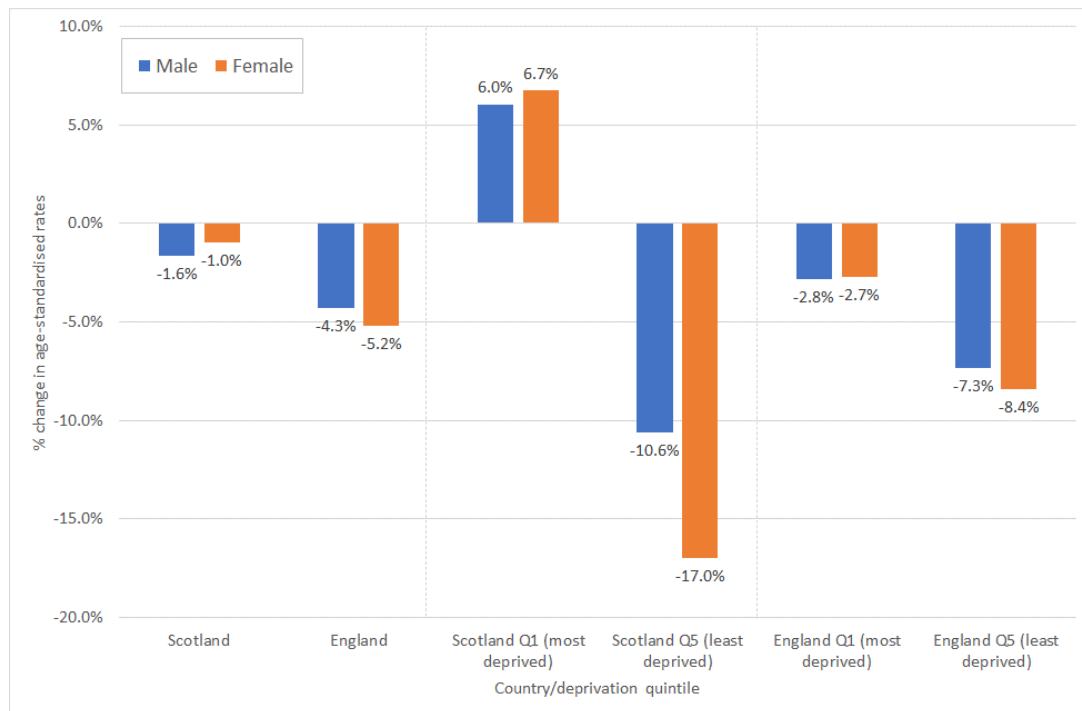
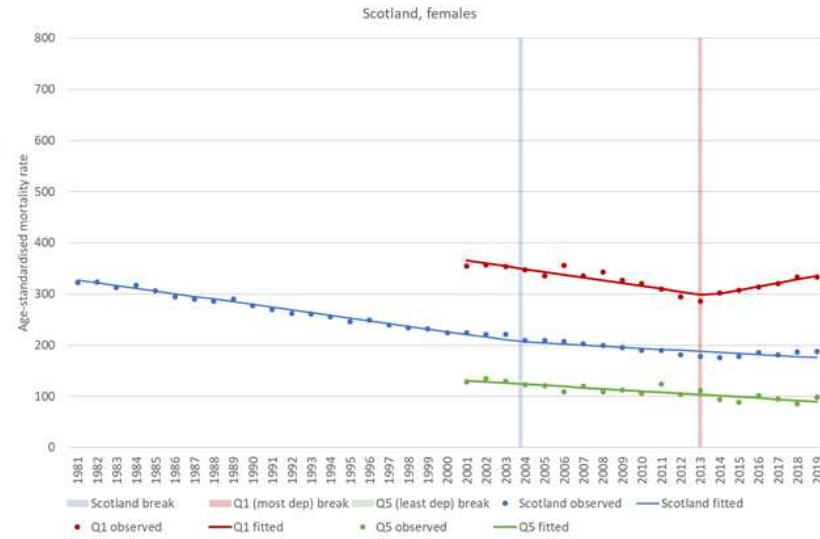
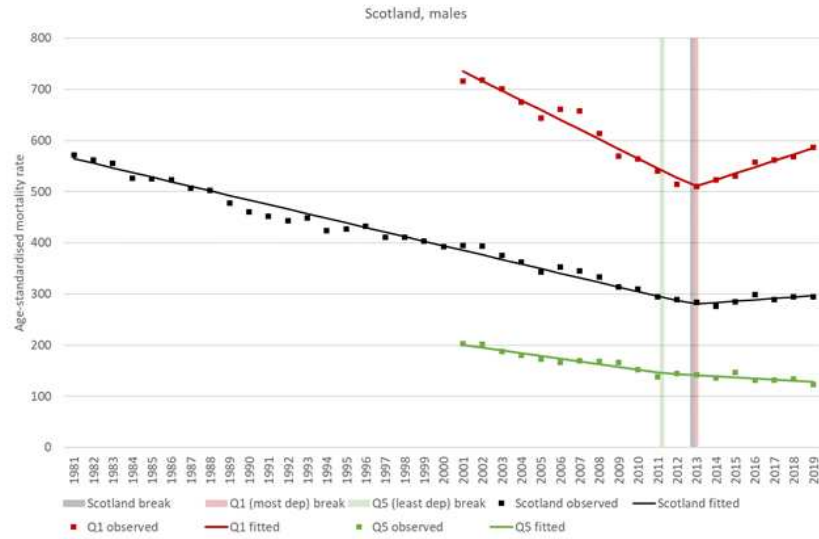


Figure S2. Percentage change in European age-standardised mortality rates (0-64 years), 2010/12 to 2017/19: Scotland, England and their 20% most and least deprived populations

a) Scotland



## b) England

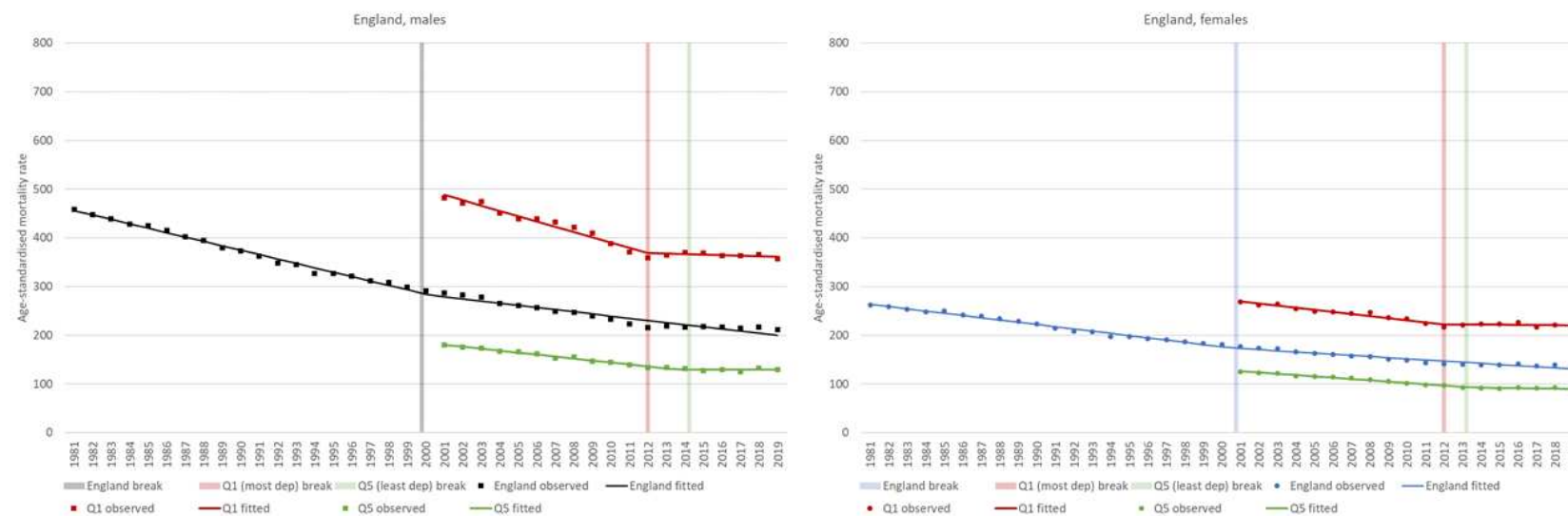


Figure S3. European age-standardised mortality rates (0-64 years), 1981-2019, (a) Scotland (b) England and its 20% most and least deprived populations: observed rates, fitted regression line and break points

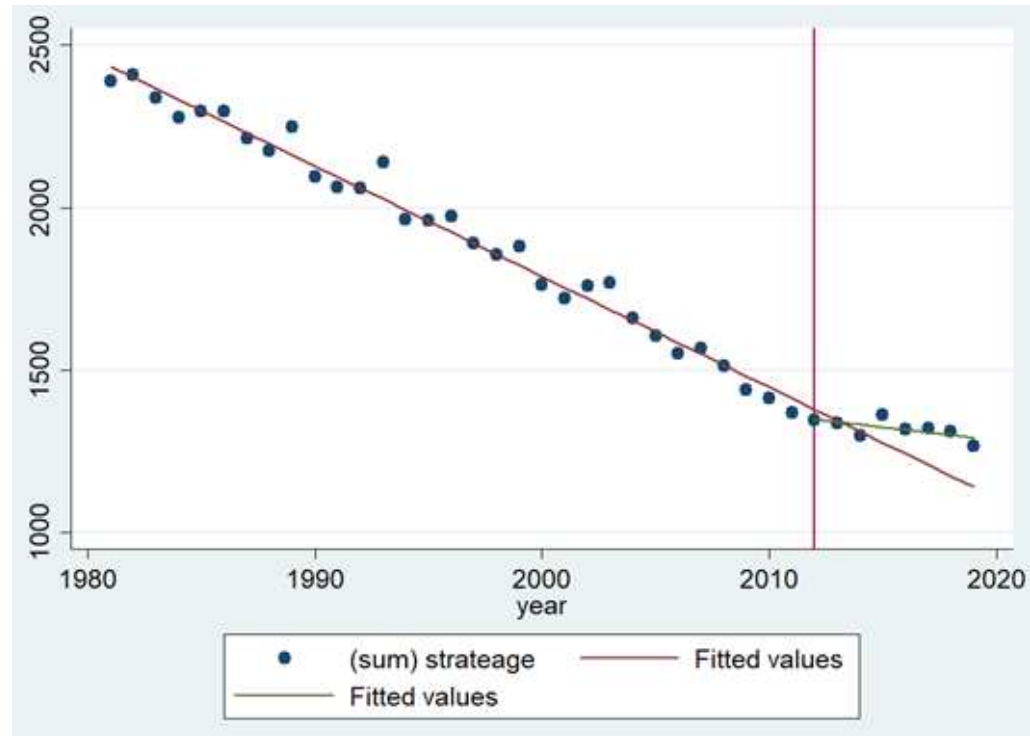
Table S2. Observed, expected and excess deaths by county and sex, 2012-2019 (0-64 years).

*Expected deaths based on linear trend 1981-2011; excess deaths shown as percentage of observed deaths.*

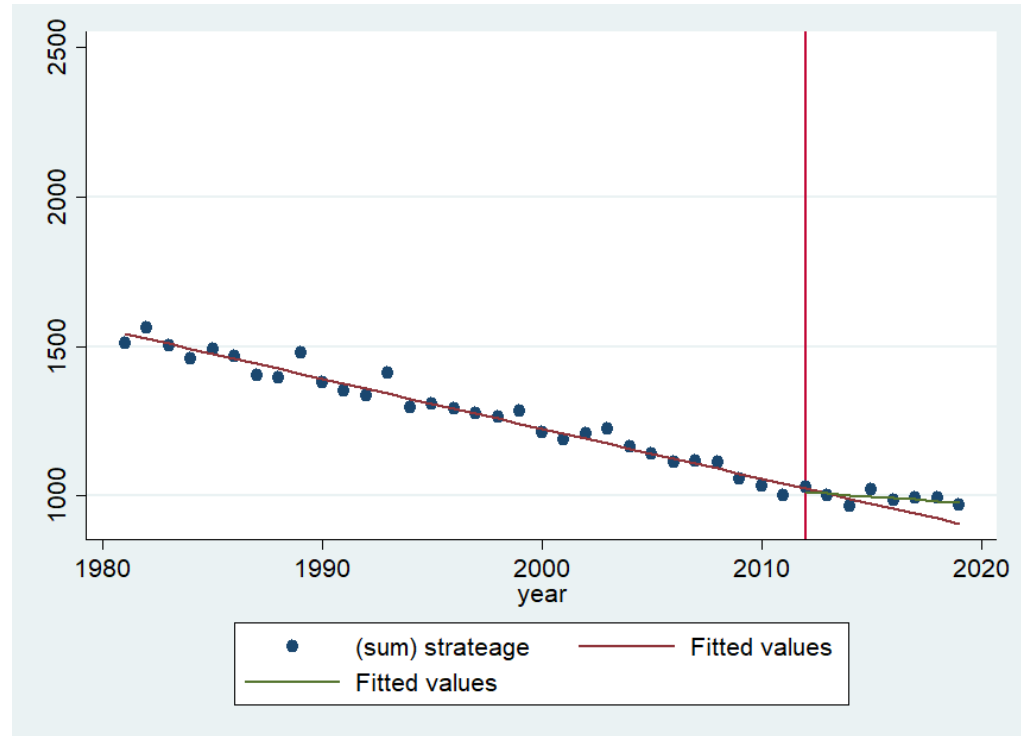
		Male				Female			
		'Observed'	Expected	Excess (n)	Excess (%)	'Observed'	Expected	Excess (n)	Excess (%)
Scotland	2012	6,294	6,332	<b>-38</b>	<b>-0.6%</b>	4,006	3,904	<b>102</b>	<b>2.5%</b>
	2013	6,165	6,137	<b>27</b>	<b>0.4%</b>	3,921	3,795	<b>126</b>	<b>3.2%</b>
	2014	5,984	5,947	<b>37</b>	<b>0.6%</b>	3,894	3,693	<b>201</b>	<b>5.2%</b>
	2015	6,197	5,775	<b>422</b>	<b>6.8%</b>	3,931	3,600	<b>331</b>	<b>8.4%</b>
	2016	6,520	5,610	<b>910</b>	<b>14.0%</b>	4,116	3,509	<b>608</b>	<b>14.8%</b>
	2017	6,319	5,436	<b>884</b>	<b>14.0%</b>	4,020	3,408	<b>612</b>	<b>15.2%</b>
	2018	6,455	5,251	<b>1,204</b>	<b>18.7%</b>	4,150	3,304	<b>846</b>	<b>20.4%</b>
	2019	6,462	5,074	<b>1,387</b>	<b>21.5%</b>	4,169	3,204	<b>964</b>	<b>23.1%</b>
	TOTAL 2012-2019	50,396	45,561	<b>4,834</b>	<b>9.6%</b>	32,206	28,416	<b>3,790</b>	<b>11.8%</b>
England & Wales	2012	51,171	48,627	<b>2,545</b>	<b>5.0%</b>	33,401	31,785	<b>1,616</b>	<b>4.8%</b>
	2013	52,027	46,916	<b>5,110</b>	<b>9.8%</b>	33,040	30,916	<b>2,123</b>	<b>6.4%</b>
	2014	51,508	45,295	<b>6,213</b>	<b>12.1%</b>	33,009	30,101	<b>2,908</b>	<b>8.8%</b>
	2015	52,308	43,735	<b>8,574</b>	<b>16.4%</b>	33,286	29,323	<b>3,963</b>	<b>11.9%</b>
	2016	52,565	42,192	<b>10,373</b>	<b>19.7%</b>	33,993	28,530	<b>5,463</b>	<b>16.1%</b>
	2017	52,248	40,485	<b>11,763</b>	<b>22.5%</b>	33,014	27,697	<b>5,317</b>	<b>16.1%</b>
	2018	53,124	38,772	<b>14,352</b>	<b>27.0%</b>	33,702	26,855	<b>6,848</b>	<b>20.3%</b>
	2019	52,002	36,988	<b>15,014</b>	<b>28.9%</b>	33,088	25,963	<b>7,125</b>	<b>21.5%</b>
	TOTAL 2012-2019	416,952	343,010	<b>73,942</b>	<b>17.7%</b>	266,533	231,169	<b>35,364</b>	<b>13.3%</b>

Figure S4. 'Observed' vs. expected (based on linear trend 1981-2011) deaths

a) Males, Scotland

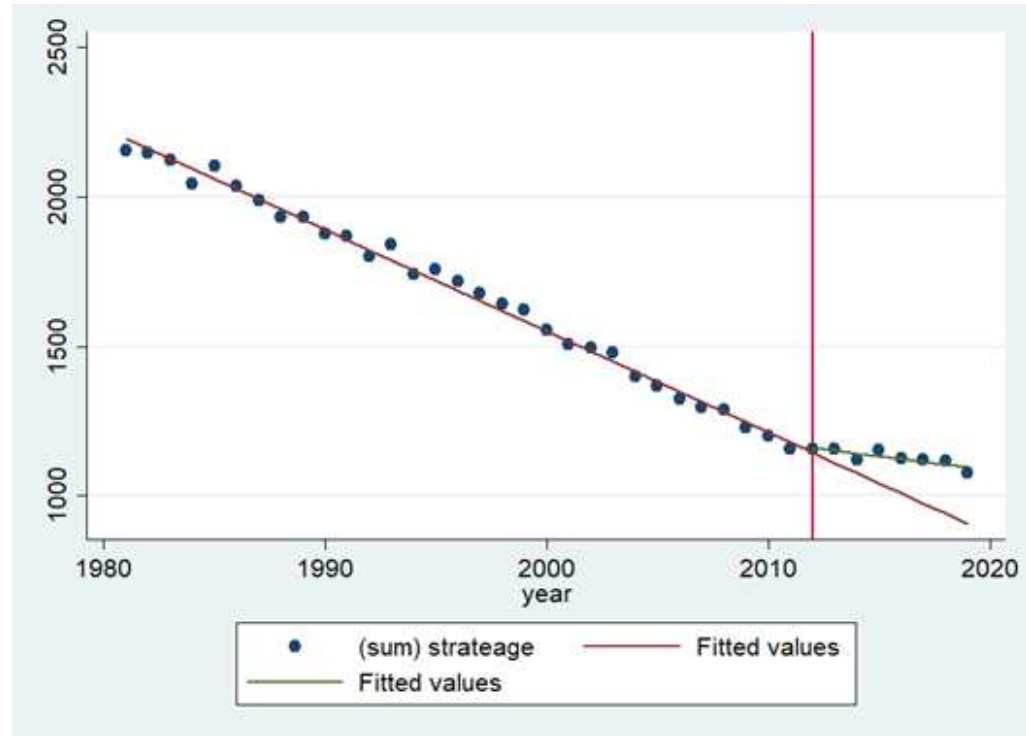


## b) Females, Scotland





## c) Males, England &amp; Wales



## d) Females, England &amp; Wales

