**Supplementary Table 1**. Occurrence of breast cancer in women after benign breast disease by age group in the Oxford record linkage study area: time between admission for BBD and admission for breast cancer, number of women with breast cancer in the reference cohort, observed (Obs) number of women with cancer in the BBD cohort, expected (Exp) number of women with cancer in the BBD, ratio of rate of BBD cohort to that in the reference cohort, with 95% confidence intervals for the rate ratio

Age (y)	Time intervals <sup>1</sup>	Obs	Ехр	Adjusted rate ratio <sup>2</sup> (95% confidence interval)
18-49	All (1934)	575	321.2	2.2 (2.0-2.4)
	1st month	68	9.4	54.2 (7.8-118.0)
	1-11 months	34	12.5	4.0 (2.7-6.0)
	1-4 years	103	56.1	2.3 (1.8-2.8)
	5-9 years	118	73.1	2.0 (1.6-2.4)
	10-19 years	187	123.6	1.8 (1.5-2.0)
	20+ years	67	46.6	1.5 (1.2-2.0)
50-59	All (926)	158	61.8	2.6 (2.1-3.1)
	1st month	16	1.4	16.0 (7.1-35.6)
	1-11 months	20	4.6	5.0 (2.9-8.4)
	1-4 years	44	14.6	2.8 (2.0-4.0)
	5-9 years	31	16.0	1.97 (1.3-2.9)
	10-19 years	39	19.8	2.0 (1.4-2.8)
	20+ years	9	5.4	1.7 (0.8-3.5)
60-69	All (627)	85	18.3	3.9 (3.0-5.0)
	1st month	17	0.8	28.1 (12.8-60.0)
	1-11 months	11	1.4	8.4 (3.8-16.7)
	1-4 years	20	5	3.2 (1.7-5.5)
	5-9 years	24	6.1	3.3 (2.0-5.3)
	10-19 years	13	4.4	2.1 (0.9-4.0)
70 and	All (955)	32	8.8	4.2 (2.9-5.9)
over	1st month	12	0.4	33.6 (16.0-64.3)
	1-11 months	6	1.0	5.0 (1.6-12.0)
	1-4 years	6	3.0	2.7 (1.2-5.4)
	5-9 years	7	2.9	3.2 (1.4-6.1)
	10-19 years	2	1.5	2.0 (0.4-6.0)

The number of women admitted with BBD aged 18-49 was 60,468; aged 50-59 was 15,603; aged 60-69 was 6,517 and aged 70 and over was 3,876.

<sup>1</sup> Number of women with breast cancer in the reference cohort (in parentheses)

<sup>2</sup> Adjusted for age in 5-year age bands, time period in single calendar years and district of residence

**Supplementary Table 2**.. Occurrence of breast cancer in women after benign breast disease by age group in the English dataset: all time intervals between admission for BBD and admission for breast cancer, total number of women with breast cancer in the reference cohort, observed (Obs) number with breast cancer in the BBD cohort, expected (Exp) number with breast cancer in the BBD cohort, ratio of rate of BBD cohort to that in the reference cohort, with 95% confidence intervals for the rate ratio; and percentage of women with BBD who subsequently had breast cancer

Age (years)	Time interval <sup>1</sup>	Obs	Ехр	Rate ratio <sup>2</sup> (95% CI)	% total with breast cancer
18-49	All (60468)	691	247.9	3.4 (3.1-3.7)	1.14
50-59	All (17176)	564	204.3	3.1 (2.8-3.4)	3.28
60-69	All (7306)	279	87.2	3.4 (3.0-3.8)	3.82
70 and over	All (4318)	213	50.6	4.3 (3.7-4.9)	4.93

<sup>1</sup> Number of women with breast cancer in the reference cohort (in parentheses)

<sup>2</sup> Adjusted for age in 5-year age bands, time period in single calendar years and district of residence