

**Table S1.** Overall rates of breast cancer in women without a benign breast disease and adjusted rate ratios of breast cancer by subtype of benign breast disease by year, age, and time at index mammogram.

	No benign breast disease	Unknown		Non-proliferative		Proliferative	
	Cases/ Women	Cases/Women	Adjusted Rate Ratio (95%CI)	Cases/ Women	Adjusted Rate Ratio (95%CI)	Cases/Women	Adjusted Rate Ratio (95%CI)
Year at index mammogram							
1996-2000	2 776/ 117 837	41/ 1 180	1.37 (1.01-1.87)	41/ 945	1.45 (1.06-1.97)	13/ 162	2.31 (1.34-3.98)
2001-2005	5 042/ 237 613	50/ 1 379	1.55 (1.17-2.05)	78/ 2 092	1.47 (1.17-1.84)	28/ 514	2.03 (1.40-2.95)
2006-2010	2 715/ 210 947	40/ 1 695	1.89 (1.38-2.58)	62/ 2 602	1.87 (1.45-2.40)	26/ 859	2.32 (1.58-3.41)
2011-2015	733/ 194 082	14/ 1 620	2.74 (1.61-4.64)	35/ 3 609	3.08 (2.20-4.33)	14/ 1 170	3.72 (2.19-6.32)
Age at index mammogram							
50-54	6 477/ 455 833	78/ 2 928	1.68 (1.34-2.10)	112/ 4 628	1.55 (1.29-1.87)	43/ 1 370	2.14 (1.59-2.89)
55-59	2 938/ 146 256	36/ 1 301	1.36 (0.98-1.89)	47/ 1 895	1.39 (1.04-1.85)	24/ 577	2.50 (1.67-3.73)
60-64	1 645/ 118 008	27/ 1 071	2.03 (1.39-2.97)	41/ 1 607	2.57 (1.88-3.50)	11/ 474	2.79 (1.54-5.06)
65-69	206/ 40 382	4/ 574	1.80 (0.67-4.85)	16/ 1118	3.98 (2.39-6.62)	3/ 284	3.61 (1.15-11.28)
Time since index mammogram							
≤ 4 years	4 096/ 242 557	57/ 2 042	1.76 (1.35-2.28)	109/ 4 167	2.09 (1.73-2.53)	35/ 1 373	2.13 (1.53-2.98)
> 4 and ≤ 8 years	3 990/ 179 167	50/ 1 533	1.53 (1.16-2.02)	69/ 2 478	1.41 (1.11-1.79)	28/ 651	2.41 (1.66-3.50)
> 8 and ≤ 12 years	2 337/ 188 399	28/ 1 328	1.59 (1.10-2.31)	28/ 1 558	1.46 (1.00-2.12)	13/ 475	2.45 (1.42-4.23)
>12 years	843/ 150 356	10/ 971	1.75 (0.94-3.26)	10/ 1045	1.70 (0.91-3.17)	5/ 206	4.38 (1.82-10.55)