Supplementary Table 1. Participant characteristics at baseline (1976 NHS / 1989 NHSII) by hysterectomy status

	NHS		NHSII	
	No Hysterectomy (N=88,339, 86%)	**Hysterectomy (N=13,862; 14%)**	**No hysterectomy (N=108,129; 96%)**	**Hysterectomy (N=3,970; 4%)**
Mean (SD)				
Age (years)	41.6 (7.1)	46.3 (5.9)	34.6 (4.6)	38.9 (3.1)
BMI (kg/m2)	23.6 (4.1)	24.1 (4.1)	24.0 (4.9)	25.3 (5.3)
Age at menarche	12.5 (1.7)	12.4 (1.9)	12.4 (1.4)	12.2 (1.5)
Parity*	3.1 (1.5)	3.5 (1.7)	2.1 (0.9)	2.2 (0.9)
Age at first birth*	25.1 (3.3)	24.7 (3.1)	25.6 (4.0)	22.9 (3.5)
Breastfeeding (years)*	0.6 (0.9)	0.5 (0.8)	1.1 (1.1)	0.7 (0.9)
Duration OC use (years)†	2.0 (3.2)	1.3 (2.6)	3.6 (3.5)	3.4 (3.1)
Frequency (%)				
Nulliparous	6.6	5.0	31.1	11.0
Talc Use	32.2	32.2	--	--
Ever OC use	50.9	38.5	83.0	90.8
Family history of breast cancer	5.7	6.6	5.9	7.3
Family history of ovarian cancer	2.2	2.5	1.5	1.8
Smoking status				
Never	43.9	45.3	65.7	59.5
Past	23.5	22.6	21.3	22.2
Current	32.6	32.2	13.1	18.3
Postmenopausal	12.2	5.9	0.4	0.3
Tubal Ligation	12.4	0.1	15.9	10.7
Oophorectomy				
Unilateral	0.2	16.7	0.0	22.7
Unknown	0.1	25.8	0.0	0.8

*Among parous women only

†Among oral contraceptive (OC) users only

Supplementary Table 2. Participant characteristics at baseline (1976 NHS / 1989 NHSII) by oophorectomy status

	NHS		NHSII	
	No oophorectomy (N=96,806; 97%)	Oophorectomy (N=2,515; 3%)	No oophorectomy (N=112,159; 99%)	Oophorectomy (N=909; 1%)
Mean (SD)				
Age (years)	42.1 (7.1)	46.8 (5.8)	34.7 (4.7)	39.0 (3.2)
BMI (kg/m2)	23.7 (4.1)	24.1 (4.0)	24.1 (5.0)	25.3 (5.2)
Age at menarche	12.5 (1.8)	12.5 (1.8)	12.4 (1.4)	12.2 (1.5)
Parity*	3.1 (1.5)	3.2 (1.6)	2.1 (0.9)	2.1 (0.8)
Age at first birth*	25.1 (3.3)	24.6 (3.0)	25.5 (4.0)	22.9 (3.5)
Breastfeeding (years)*	0.5 (0.9)	0.4 (0.7)	1.1 (1.1)	0.7 (0.8)
Duration OC use (yrs)†	2.0 (3.2)	1.0 (2.4)	3.6 (3.5)	3.3 (3.0)
Frequency (%)				
Nulliparous	6.4	7.4	30.6	12.9
Talc Use	32.6	39.4	--	--
Ever OC use	49.9	33.8	83.1	90.9
Family history of breast cancer	5.9	6.7	5.9	7.7
Family history of ovarian cancer	2.3	2.3	1.5	2.6
Smoking status				
Never	44.1	43.9	65.5	57.4
Past	23.5	22.1	21.3	24.6
Current	32.4	34.0	13.2	17.9
Postmenopausal	12.0	7.0	0.4	1.0
Tubal Ligation				
Yes	11.3	0.7	15.7	9.4
Hysterectomy				
Yes	8.2	92.0	2.7	99.2
Unknown	0.8	0.2	0.9	0.8

*Among parous women only

†Among oral contraceptive (OC) users only

Supplementary Table 3. Hazard Ratios (HR) and 95% confidence intervals (CI) for ovarian cancer for tubal ligation, hysterectomy, and unilateral oophorectomy by selected characteristics, NHS and NHSII

	Tubal ligation			Hysterectomy			Unilateral oophorectomy		
	Cases	MV-adjusted HR (95%CI)	P-het	Cases	MV-adjusted HR (95%CI)	P-het	Cases	MV-adjusted HR (95%CI)	P-het
By family history of breast/ovarian cancer									
No	1052	0.80 (0.67, 0.97)	0.23	893	0.85 (0.69, 1.05)	0.10	883	0.62 (0.46, 0.85)	0.21
Yes	212	0.57 (0.36, 0.91)		199	0.54 (0.33, 0.89)		201	1.10 (0.62,1.97)	
By OC use									
Never	648	0.84 (0.64, 1.12)	0.63	553	0.87 (0.67, 1.13)	0.18	552	0.65 (0.45, 0.94)	0.81
Ever	616	0.71 (0.57, 0.88)		539	0.73 (0.53, 0.99)		532	0.73 (0.49, 1.08)	
By PMH use (Postmenopausal)									
Never PMH users	396	0.64 (0.44,0.92)	0.18	316	0.81 (0.54, 1.20)	0.27	278	0.57 (0.30, 1.08)	0.98
Ever PMH users	454	0.90 (0.68, 1.19)		333	1.10 (0.77, 1.57)		394	0.68 (0.47, 0.98)	
By Talc use (NHS)									
Never Talc users	664	0.90 (0.71,1.14)	0.23	556	0.80 (0.61, 1.04)	0.63	544	0.72 (0.50, 1.04)	0.46
Ever Talc Users	335	0.66 (0.46, 0.94)		308	1.05 (0.75, 1.49)		309	0.53 (0.31,0.89)	
By tubal ligation									
No		--		942	0.80 (0.65, 0.97)	0.75	931	0.75 (0.56, 0.99)	0.17
Yes		--		150	0.74 (0.38, 1.43)		153	0.28 (0.10, 0.79)	
By hysterectomy									
No	856	0.73 (0.60, 0.89)	0.75		--		850	0.86 (0.55, 1.35)	0.33
Yes	236	0.74 (0.45, 1.20)			--		214	0.62 (0.44, 0.88)	
By oophorectomy									
No	1018	0.78 (0.65, 0.93)	0.17	1000	0.83 (0.67, 1.02)	0.33		--	
Yes	66	0.43 (0.14, 1.37)		64	0.77 (0.34, 1.72)			--	

Adjusted for age, time period, cohort, BMI (continuous), nulliparity, parity (continuous), age at first birth (continuous), oral contraceptive use (never, <1 year, 1-5 years, 5-10 years, 10+years), age at menarche(<12, 12, 13, 14+), menopausal status (premenopausal/unknown, postmenopausal), family history of breast and ovarian cancer (yes/no), smoking status (never, past, current), talc use (yes, no) (NHS only), estrogen PMH use (never, past <5 years, past 5+ years, current <5 years, current 5+ years), estrogen and progesterone PMH use (yes,no), other PMH use(yes, no), and the other surgeries (tubal ligation yes/no, hysterectomy yes/no, oophorectomy yes/no).