

**Table 2.1. Cohort studies of DES use during pregnancy and breast cancer**

Reference study location study name	Cohort description	Exposure assessment	Organ site (ICD-9 code 174)	Exposure categories	Number of cases	Relative risk (RR) (95% CI) or p value	Adjustment for potential confounders	Comment
Colton et al. (1993) US Women's Health Study	3028 exposed, 3029 unexposed women; exposure period 1940-1960; followed through 1989	Medical Record	Breast cancer incidence (174)	DES unexposed exposed	185 40	1.00 (reference) 1.35 (1.05-1.74)	Age at entry to follow-up, study center, age at menarche, age at first term delivery, and history of miscarriage before first term delivery	Retrospective and prospective design.; Active and passive follow-up through vital statistics
Colton et al. (1993) US Women's Health Study	Same as above	Same as above	Breast cancer mortality (174)	DES Unexposed exposed	52 40	1.00 (reference) 1.27 (0.84-1.91)	Same as above	Same as above
Calle et al., (1996) US nationwide and Puerto Rico; American Cancer Society (ACS) Study	501 536 pregnant women in US and Puerto Rico, 3.9% of whom were exposed to DES, enrolled in 1982 by volunteers, vital status ascertained through 1991	Interview	Breast cancer mortality (174)	DES Unexposed exposed	1496 78	1.00 (reference) 1.35 (1.07– 1.69)	Race, age at interview, family history of breast cancer, body mass index, education, smoking, alcohol, breast cysts, age at menarche, age at first live birth, age periods stopped, oral contraceptive use, estrogen replacement therapy, spontaneous abortion	Active and passive follow-up through US National Death Index; 91% follow-up

**Table 2.1. Cohort studies of DES use during pregnancy and breast cancer**

Reference study location study name	Cohort description	Exposure assessment	Organ site (ICD-9 code 174)	Exposure categories	Number of cases	Relative risk (RR) (95% CI) or p value	Adjustment for potential confounders	Comment
Titus-Ernstoff et al., (2001) US multi-centre NCI Combined Cohort Study*	3290 exposed, 3205 unexposed women; combined Dieckmann Study and Mothers Study cohort participants; exposure period 1940–1960	Medical record or clinical trial record	Breast cancer incidence (174)	DES unexposed exposed	221 290	1.00 (reference) 1.25 (1.05– 1.50)	Age, cohort, calendar year, education, family history of breast cancer, age at menarche, oral contraceptive use, number of pregnancy losses, age at first full term birth, parity, menopausal status, hormone replacement therapy	Retrospective design; Active and passive follow-up achieved for 84% of women in initial studies
Titus-Ernstoff et al., (2006a) US multi-centre US NCI Combined Cohort Study*	3857 exposed, 3818 unexposed; combined Dieckmann study and Women’s Health Study participants; followed through January 1, 2000	Medical record or clinical trial record	Breast cancer mortality (174)	DES unexposed exposed	86 110	1.00 (reference) 1.38 (1.03– 1.85)	Year of birth, cohort, year of study entry, calendar year, BMI, family history of breast cancer, age at first pregnancy, parity	Retrospective and 7 years prospective follow-up; active and passive follow-up through US National Death Index; follow-up for 91% of initially ascertained cohort

\*Hospitals in Hanover NH and Boston MA, private practice in Portland ME, Mayo Clinic in Rochester MN