

Sister Study First DCIS or Invasive Breast Cancer Events ¹ and Characteristics: Data Release 10.1 ²

	N	% of cohort
Total Cases	4,292	8.4
Breast Cancer Subtype for 1st DCIS or Invasive Diagnosis	N	% of cases
Invasive ³	3,393	79.1
Ductal only (no lobular component) ⁴	2,363	55.1
Lobular only (no ductal component) ⁴	297	6.9
Ductal and lobular ^{4,5}	226	5.3
Inflammatory ⁶	8	0.2
Paget's ⁷	12	0.3
Phyllodes ⁸	5	0.1
Other/unknown if ductal or lobular ⁹	482	11.2
<i>In situ</i>	889	20.7
Ductal only (no lobular component) ¹⁰	866	20.2
Ductal and lobular ^{5,10}	16	0.4
Paget's ⁷	5	0.1
Other ¹¹	2	0.1
Invasiveness unknown ¹²	10	0.2
Stage at 1st DCIS or Invasive Diagnosis ¹³		
0	816	21.7
I	1,966	52.3
II	760	20.2
III	198	5.3
IV	22	0.6
<i>Unknown, missing, cannot stage</i>	530	
Estrogen Receptor (ER) Status: 1st DCIS or Invasive Breast Cancer ¹³		
Positive	3,124	85.0
Negative	546	14.8
Borderline	7	0.2
<i>Unknown, missing, not performed</i>	615	
Progesterone Receptor (PR) Status: 1st DCIS or Invasive Breast Cancer ¹³		
Positive	2,607	72.9
Negative	961	26.9
Borderline	7	0.2
<i>Unknown, missing, not performed</i>	717	
HER2 Amplification Status: 1st DCIS or Invasive Breast Cancer ¹³		
Positive	394	12.8
Negative	2,639	85.8
Borderline	41	1.3
<i>Unknown, missing, not performed</i>	1,218	
Combined ER, PR, HER2 Status: 1st DCIS or Invasive Breast Cancer ¹³		
Triple negative (ER-, PR-, and HER2-)	301	8.4
Not triple negative	3,268	91.6
<i>Unknown, missing, not performed</i>	723	

Characteristic	N (total = 4,292)	% of cases
Diagnosis Confirmation ¹⁴		
Medical	3,564	83.0
NDI Plus or death certificate only	45	1.0
None	683	15.9
Race/Ethnicity ¹⁵		
Non-Hispanic White	3,671	85.6
Non-Hispanic Black	353	8.2
Hispanic	157	3.7
Other	110	2.6
Missing	1	
Age (in years) at 1st DCIS or Invasive Breast Cancer ¹⁶		
Under 50	407	9.5
50-64	1,925	44.9
65 and older	1,960	45.7
Menopausal Status at 1st DCIS or Invasive Breast Cancer		
Pre-menopausal	649	15.1
Post-menopausal	3,642	84.9
Unknown	1	

Abbreviations: BrCa= Breast cancer; DCIS=Ductal carcinoma *in situ*; MR = Medical report (medical record and/or pathology report)

¹ Breast cancer events (1st DCIS or invasive) are defined by the following ICD10 codes: D05.1 (ductal carcinoma *in situ*), C50 (all invasive breast cancer), and D48.6 (neoplasm of uncertain behavior of breast)

² Data release 10.1 includes events from follow-up phases that closed **on or before 10/12/2020**, excluding all data from participants who have withdrawn their data from the study (n=4). To be considered a breast cancer event, breast must be the primary site, and the cancer diagnosis must have occurred after the participant's baseline date. Consequently, Data Release 10.1 breast cancer events for 1st DCIS or invasive diagnosis exclude a) through c) below:

- a) Breast cancers diagnosed prior to participant's baseline date. [Total (n=59): Invasive ductal (n=32); invasive lobular (n=1), invasive ductal and lobular (n=1), invasive, unknown if ductal or lobular (n=5), and DCIS (n=20)];
- b) Breast cancers diagnosed with unknown timing relative to baseline [Total (n=17): Invasive, unknown if ductal or lobular (n=10); DCIS (n=6); and *in situ* ductal and lobular (n=1)];
- c) Unknown primary cancer diagnoses where breast was unlikely to be the primary site, but the possibility could not be ruled out (n=5)

³ Includes 'presumed invasive' (i.e. a carcinoma *in situ* with positive nodes)(n=1)

⁴ Ductal only, Lobular only, and Ductal and Lobular exclude inflammatory breast cancer and Paget's

⁵ Includes BrCa events with a) tumors with mixed ductal and lobular characteristics and/or b) multiple tumors of different histology (e.g. a ductal only tumor and a lobular only tumor)

⁶ Inflammatory – Ductal (n=7), Ductal and Lobular (n=1), Lobular (n=0)

⁷ Paget's - Invasive: Ductal (n=11), Lobular (n=1); *in situ*: Ductal (n=5)

⁸ Phyllodes is neither ductal nor lobular; it is a sarcoma

⁹ Includes: a) Invasive but unknown if ductal or lobular (n=477), these are typically self-report without MR confirmation; b) Invasive type "neither ductal nor lobular, not otherwise specified" (n=4), these are typically self-report without MR confirmation; and c) Per MR, presumed invasive - *in situ* tumor, positive nodes (n=1)

¹⁰ *in situ* Ductal only and *in situ* Ductal and Lobular exclude *in situ* Paget's

¹¹ Excludes all with lobular-only origin, these are typically self-report without MR confirmation

¹² Invasiveness unknown includes: a) Unknown if DCIS or invasive ductal (n=8); and b) Per MR, unable to determine if DCIS or atypical ductal hyperplasia (n=2)

¹³ Priority for stage and ER/PR/HER2 status when diagnosis is reported by multiple sources: Medical record > Breast Cancer Follow-Up Form

¹⁴ Medical confirmation of reported breast cancer is generally from medical records but may only include pathology report; National Death Index (NDI) Plus or death certificate confirmation is specific to cases that do not have medical confirmation

¹⁵ Race/ethnicity: precedence given to Hispanic ethnicity first, then Black race, then Other race, then White

¹⁶ For those missing age at diagnosis (n=31), age was imputed as the midpoint of the range of plausible ages at diagnosis