

Sister Study First DCIS or Invasive Breast Cancer Events<sup>1</sup> and Characteristics: Data Release 9.0<sup>2</sup>

	N	% of cohort
<b>Total Cases</b>	<b>3,999</b>	<b>7.9</b>
<b>Breast Cancer Subtype for 1st DCIS or Invasive Diagnosis</b>	<b>N</b>	<b>% of cases</b>
Invasive <sup>3</sup>	3,128	78.2
Ductal only (no lobular component) <sup>4</sup>	2,196	54.9
Lobular only (no ductal component) <sup>4</sup>	271	6.8
Ductal and lobular <sup>4,5</sup>	214	5.4
Inflammatory <sup>6</sup>	6	0.2
Paget's <sup>7</sup>	10	0.3
Phyllodes <sup>8</sup>	5	0.1
Other/unknown if ductal or lobular <sup>9</sup>	426	10.7
<i>In situ</i>	857	21.4
Ductal only (no lobular component) <sup>10</sup>	832	20.8
Ductal and lobular <sup>5,10</sup>	18	0.5
Paget's <sup>7</sup>	5	0.1
Other <sup>11</sup>	2	0.1
Invasiveness unknown <sup>12</sup>	14	0.4
<b>Stage at 1<sup>st</sup> DCIS or Invasive Diagnosis<sup>13</sup></b>		
0	781	22.0
I	1,847	52.1
II	714	20.1
III	181	5.1
IV	23	0.6
<i>Unknown, missing, cannot stage</i>	453	
<b>Estrogen Receptor (ER) Status: 1st DCIS or Invasive Breast Cancer<sup>13</sup></b>		
Positive	2,905	84.9
Negative	511	14.9
Borderline	7	0.2
<i>Unknown, missing, not performed</i>	576	
<b>Progesterone Receptor (PR) Status: 1st DCIS or Invasive Breast Cancer<sup>13</sup></b>		
Positive	2,410	72.8
Negative	894	27.0
Borderline	8	0.2
<i>Unknown, missing, not performed</i>	687	
<b>HER2 Amplification Status: 1st DCIS or Invasive Breast Cancer<sup>13</sup></b>		
Positive	377	13.2
Negative	2,435	85.3
Borderline	44	1.5
<i>Unknown, missing, not performed</i>	1,143	
<b>Combined ER, PR, HER2 Status: 1st DCIS or Invasive Breast Cancer<sup>13</sup></b>		
Triple negative (ER-, PR-, and HER2-)	289	8.7
Not triple negative	3,043	91.3
<i>Unknown, missing, not performed</i>	667	

Characteristic	N (total = 3,999)	% of cases
<b>Diagnosis Confirmation</b> <sup>14</sup>		
Medical	3,224	80.6
NDI Plus or death certificate only	45	1.1
None	730	18.3
<b>Race/Ethnicity</b> <sup>15</sup>		
Non-Hispanic White	3,426	85.7
Non-Hispanic Black	316	7.9
Hispanic	150	3.8
Other	106	2.7
Missing	1	
<b>Age (in years) at 1st DCIS or Invasive Breast Cancer</b> <sup>16</sup>		
Under 50	404	10.1
50-64	1,831	45.8
65 and older	1,764	44.1
<b>Menopausal Status at 1st DCIS or Invasive Breast Cancer</b>		
Pre-menopausal	625	15.7
Post-menopausal	3,356	84.3
Unknown	18	

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

- <sup>1</sup> 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)
- <sup>2</sup> Data release 9.0 includes events from follow-up phases that closed **on or before 9/30/2019**, excluding all data from participants who have withdrawn their data from the study (n=3). 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 9.0 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=57): Invasive ductal (n=31); invasive lobular (n=1), invasive ductal and lobular (n=1), invasive, unknown if ductal or lobular (n=5), and DCIS (n=19)];
  - b) Breast cancers diagnosed with unknown timing relative to baseline [Total (n=22): Invasive, unknown if ductal or lobular (n=11); DCIS (n=10); 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)
- <sup>3</sup> Includes 'presumed invasive' (i.e. a carcinoma *in situ* with positive nodes)(n=2)
- <sup>4</sup> Ductal only, Lobular only, and Ductal and Lobular exclude inflammatory breast cancer and Paget's
- <sup>5</sup> 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)
- <sup>6</sup> Inflammatory – Ductal (n=5), Ductal and Lobular (n=1), Lobular (n=0)
- <sup>7</sup> Paget's - Invasive: Ductal (n=9), Lobular (n=1); *in situ*: Ductal (n=5)
- <sup>8</sup> Phyllodes is neither ductal nor lobular; it is a sarcoma
- <sup>9</sup> Includes: a) Invasive but unknown if ductal or lobular (n=420), 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=2)
- <sup>10</sup> *in situ* Ductal only and *in situ* Ductal and Lobular exclude *in situ* Paget's
- <sup>11</sup> Excludes all with lobular-only origin, these are typically self-report without MR confirmation
- <sup>12</sup> Invasiveness unknown includes: a) Unknown if DCIS or invasive ductal (n=10); b) Both ductal and lobular but unknown if invasive or *in situ* (n=1); and c) Per MR, unable to determine if DCIS or atypical ductal hyperplasia (n=3)
- <sup>13</sup> Priority for stage and ER/PR/HER2 status when diagnosis is reported by multiple sources: Medical record>Breast Cancer Follow-Up Form
- <sup>14</sup> 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
- <sup>15</sup> Race/ethnicity: precedence given to Hispanic ethnicity first, then Black race, then Other race, then White
- <sup>16</sup> For those missing age at diagnosis (n=27), age was imputed as the midpoint of the range of plausible ages at diagnosis