

## SUPPLEMENTARY TABLES

**Supplementary Table 2. Percentage of use of radiation, chemotherapy, and hormone therapy by age and severity of disease.**

	Radiation Received				Chemo Received				Hormone TX Received			
	20–44	45–55	56–69	70–90	20–44	45–55	56–69	70–90	20–44	45–55	56–69	70–90
<b>AJCC Stage – Clinical</b>												
Stage 0	38.8	51.9	56.7	50.6	3.4	2.1	1.4	0.7	43.8	55.4	56.7	44.9
Stage 1	59.7	66.4	69.3	57.6	57.3	40.0	25.9	8.4	68.3	76.2	79.8	74.7
Stage 2	56.5	64.9	62.8	46.2	87.2	79.9	68.1	25.7	57.2	63.2	69.0	68.6
Stage 3	66.1	70.8	68.4	49.1	97.6	95.4	90.4	45.1	51.5	48.6	57.3	60.0
Stage 4	44.6	38.5	38.7	32.2	81.1	73.3	59.2	34.3	46.6	52.3	57.0	61.0
Undetermined	55.1	61.7	60.9	51.0	63.3	49.5	33.0	12.4	47.9	57.1	60.4	57.4
<b>Tumor grade</b>												
a. Grade 1	62.7	74.1	76.8	61.0	34.8	24.4	14.0	4.1	76.8	80.9	82.8	72.6
b. Grade 2	61.6	68.0	71.7	56.9	57.5	41.6	29.6	10.5	71.6	76.3	77.9	72.6
c. Grade 3	58.9	65.6	67.4	55.8	79.9	68.4	56.6	28.0	45.1	48.3	52.3	50.9
d. Other/missing	36.3	40.6	37.5	34.8	47.6	35.3	26.1	11.8	42.5	53.6	60.7	57.9
<b>Positive nodes</b>												
a. None	53.3	63.5	66.0	57.7	57.7	40.1	25.7	9.8	56.9	66.6	72.3	70.0
b. 1 to 3	62.6	64.9	64.8	54.7	89.9	83.8	67.6	31.6	65.3	71.2	75.3	75.4
c. 4 to 10	71.3	77.2	72.5	59.5	96.8	94.3	88.6	54.7	61.2	63.2	69.8	63.4
d. More than 10	64.5	69.2	70.0	62.8	95.9	93.4	90.7	55.3	42.2	55.2	70.3	70.0

**Supplementary Table 3. Observed to expected mortality by age at BC diagnosis (patients with all stage disease at diagnosis included).**

Age Group and Follow-up Period	N (PY-FU)	Observed Deaths	Expected Deaths	SMR	95% C.I.
Age 20 to 44 years	5,589				
1-year mortality	(5,400.2)	48	7.8	6.16	4.59 to 8.09
3-year mortality	(14,684.5)	252	22.6	11.14	9.83 to 12.59
5-year mortality	(22,458.8)	436	37.0	11.78	10.72 to 12.93
10-year mortality	(36,241.8)	700	72.3	9.68	8.99 to 10.42
Age 45 to 55 years	12,499				
1-year mortality	(11,911.2)	142	39.2	3.63	3.06 to 4.26
3-year mortality	(32,507.2)	547	115.0	4.76	4.37 to 5.17
5-year mortality	(49,856.5)	874	190.0	4.60	4.30 to 4.91
10-year mortality	(80,564.4)	1362	366.7	3.71	3.52 to 3.92
Age 56 to 69 years	19,035				
1-year mortality	(18,019.2)	367	155.3	2.36	2.13 to 2.61
3-year mortality	(47,481.7)	1121	437.9	2.56	2.41 to 2.71
5-year mortality	(71,447.5)	1742	720.0	2.48	2.37 to 2.60
10-year mortality	(111,298.2)	2925	1294.7	2.26	2.18 to 2.34

Age 70 to 90 years	15,386				
1-year mortality	(14,200.7)	771	519.5	1.48	1.38 to 1.59
3-year mortality	(36,627.7)	2105	1392.7	1.51	1.45 to 1.58
5-year mortality	(54,052.9)	3334	2113.6	1.58	1.52 to 1.63
10-year mortality	(80,727.1)	5597	3310.9	1.69	1.65 to 1.74

Abbreviation: PY-FU: Person years of follow-up censoring at time of death or date of last contact.

**Supplementary Table 4. Observed to expected mortality by age at BC diagnosis (limited to patients with Stage 0/1 disease).**

Age Group and Follow-up Period	N (PY-FU)	Observed Deaths	Expected Deaths	SMR	95% C.I.
Age 20 to 44 years	2,272				
1-year mortality	(2,208.9)	2	3.5	0.57	0.10 to 1.89
3-year mortality	(6,130.8)	19	9.8	1.94	1.20 to 2.97
5-year mortality	(9,499.2)	48	16.3	2.94	2.20 to 3.87
10-year mortality	(15,362.0)	101	32.5	3.11	2.54 to 3.76
Age 45 to 55 years	6,189				
1-year mortality	(5,983.2)	16	21.2	0.75	0.45 to 1.19
3-year mortality	(16,435.1)	64	59.0	1.08	0.84 to 1.38
5-year mortality	(25,323.4)	122	98.7	1.23	1.03 to 1.47
10-year mortality	(40,383.6)	248	191.7	1.29	1.14 to 1.46
Age 56 to 69 years	9,962				
1-year mortality	(9,578.0)	54	89.9	0.60	0.46 to 0.78
3-year mortality	(25,336.1)	216	234.4	0.92	0.80 to 1.05
5-year mortality	(38,122.5)	374	378.4	0.99	0.89 to 1.09
10-year mortality	(57,855.8)	763	696.0	1.09	1.02 to 1.18
Age 70 to 90 years	7,320				
1-year mortality	(6,914.3)	119	269.7	0.44	0.37 to 0.53
3-year mortality	(18,069.1)	493	656.4	0.75	0.69 to 0.82
5-year mortality	(26,722.0)	915	1015.6	0.90	0.84 to 0.96
10-year mortality	(38,949.8)	1764	1611.1	1.09	1.05 to 1.15

Abbreviation: PY-FU: Person years of follow-up censoring at time of death or date of last contact.