

Munich Cancer Registry



- ▶ [Baseline statistics](#)
- ▶ [Selection Matrix](#)
- ▶ [Homepage](#)
- ▶ [Deutsch](#)

Munich Cancer Registry at Munich Cancer Center
Marchioninstr. 15
Munich, 81377
Germany

<http://www.tumorregister-muenchen.de/en>

Cancer statistics: Survival

C50: Breast cancer (women)

Year of diagnosis	1988-2012
Patients	57,128
Diseases	60,160
Cases evaluated	33,692
Creation date	03/25/2014
Export date	02/12/2014
Population (females)	2.3 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv_C50f_E.pdf

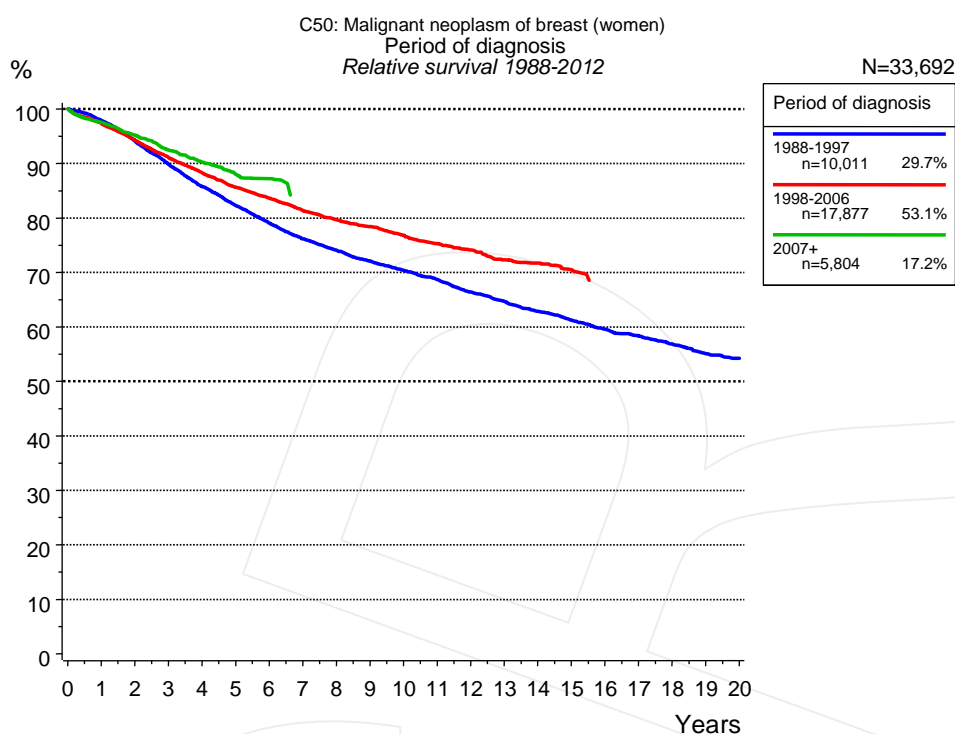


Figure 1a. Relative survival of patients with breast cancer (women) by period of diagnosis. Included in the evaluation are 33,692 cases diagnosed between 1988 and 2012.

The presented survival curves are derived from clinical records with valid follow-up informations, which means that death certificate cases (DCO) cases are omitted from the analysis. With this one restriction, the MCR has provided population-based statistics since 1988, collecting data on all cancer cases in the region of southern Bavaria. Historical data of previous time periods can be heavily selected, therefore, univariate survival comparisons of the presented time periods must be carefully considered. Nonetheless, all calculable survival curves are depicted to facilitate the comparison of long time follow-up analyses of relative survival between particular cancers.

Years	Period of diagnosis					
	1988-1997 n=10,011		1998-2006 n=17,877		2007+ n=5,804	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	96.2	97.9	95.6	97.3	95.9	97.6
2	91.0	94.1	91.0	94.3	92.2	95.2
3	85.5	89.9	86.5	91.1	88.2	92.4
4	80.2	85.8	82.5	88.3	84.8	90.2
5	75.6	82.3	78.7	85.6	81.5	88.1
6	71.5	79.1	75.6	83.6	79.6	87.2
7	67.7	76.2	72.3	81.3		
8	64.7	74.1	69.7	79.6		
9	61.9	72.1	67.5	78.4		
10	59.4	70.4	64.9	76.8		
11	57.0	68.7	62.5	75.3		
12	54.1	66.4	60.3	74.1		
13	51.7	64.7	57.8	72.3		
14	49.3	62.9	56.3	71.7		
15	47.1	61.2	54.3	70.5		
16	45.0	59.6				
17	43.1	58.3				
18	41.2	56.9				
19	39.0	55.1				
20	37.8	54.3				

Table 1b. Observed (obs.) and relative (rel.) survival of patients with breast cancer (women) by period of diagnosis for period 1988-2012 (N=33,692).

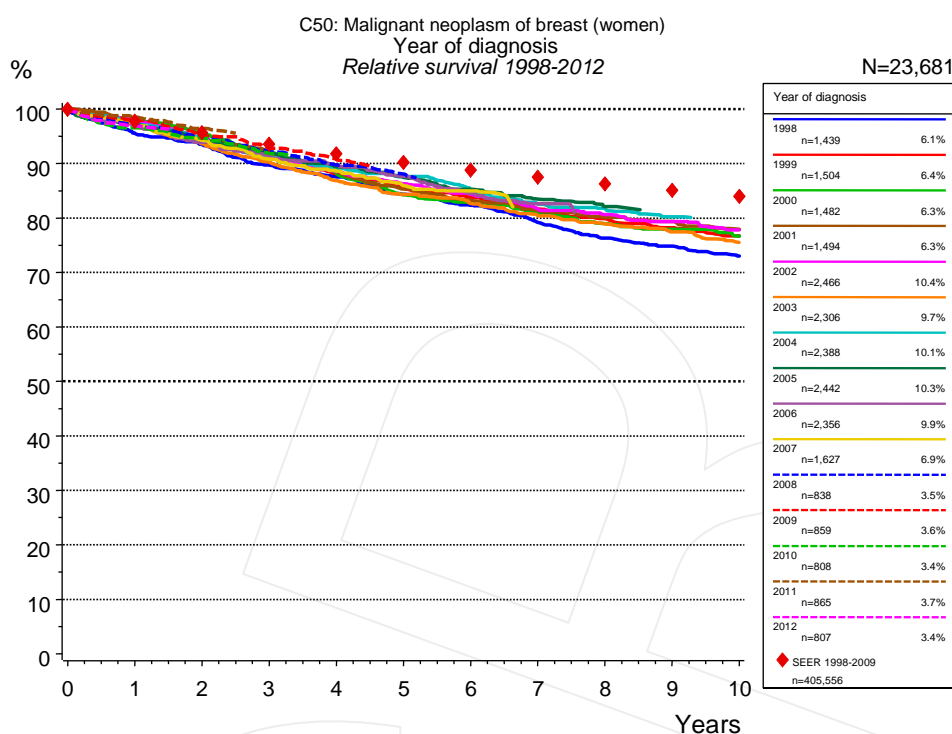


Figure 1c. Relative survival of patients with breast cancer (women) by year of diagnosis. Included in the evaluation are 23,681 cases diagnosed between 1998 and 2012.

The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2009, and are represented by red diamonds in order to facilitate comparisons between MCR and SEER.

		Year of diagnosis													
		1998 n=1,439		1999 n=1,504		2000 n=1,482		2001 n=1,494		2002 n=2,466		2003 n=2,306		2004 n=2,388	
Years		obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1		93.7	95.5	95.5	97.2	96.0	97.8	96.1	97.7	96.2	98.0	95.5	97.2	95.8	97.4
2		90.2	93.4	91.0	94.2	92.2	95.5	91.4	94.4	91.1	94.4	90.4	93.6	91.3	94.5
3		85.2	89.7	86.8	91.5	87.1	91.9	87.6	91.9	86.5	91.2	85.7	90.2	86.6	91.1
4		81.6	87.5	82.2	88.1	82.3	88.2	83.1	88.5	82.7	88.6	81.1	86.9	83.5	89.2
5		77.4	84.3	78.5	85.5	77.1	84.2	79.0	85.3	79.2	86.3	77.4	84.3	80.8	87.6
6		74.3	82.3	75.6	83.8	74.6	82.8	76.0	83.3	76.2	84.4	74.6	82.6	77.1	85.1
7		70.3	79.1	72.6	81.6	71.7	80.9	73.2	81.4	72.4	81.7	71.5	80.5	73.6	82.5
8		66.7	76.3	69.8	79.8	68.9	79.0	70.9	80.1	70.1	80.6	68.9	78.9	71.7	81.7
9		64.3	74.8	67.4	78.2	66.8	77.9	69.2	79.4	68.0	79.3	66.4	77.5	69.2	80.2
10		61.7	73.0	65.1	76.7	64.5	76.6	66.8	77.9	65.1	77.8	63.6	75.5		

		Year of diagnosis													
cont'd		2005 n=2,442		2006 n=2,356		2007 n=1,627		2008 n=838		2009 n=859		2010 n=808		2011 n=865	
Years		obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1		95.5	97.2	95.3	96.9	95.5	97.4	95.7	97.2	96.4	98.0	95.2	96.6	97.0	98.5
2		91.1	94.3	91.0	93.9	91.1	94.2	91.9	94.8	92.4	95.3	91.8	94.6	93.5	96.4
3		87.4	91.9	87.1	91.2	86.6	90.8	88.1	92.3	88.7	92.9	87.9	91.8		
4		83.7	89.4	84.2	89.7	83.3	88.6	84.4	89.7	85.4	90.8				
5		80.5	87.5	80.9	87.7	79.7	85.9	81.5	88.0						
6		77.3	85.3	76.6	84.5	77.7	85.0								
7		74.4	83.4	73.7	82.6										
8		71.8	82.1												

Year of diagnosis		
<i>cont'd</i>		
2012		
n=807		
Years	obs. %	rel. %
0	100.0	100.0
1	95.5	96.9

Table 1d. Observed (obs.) and relative (rel.) survival of patients with breast cancer (women) by year of diagnosis for period 1998-2012 (N=23,681).

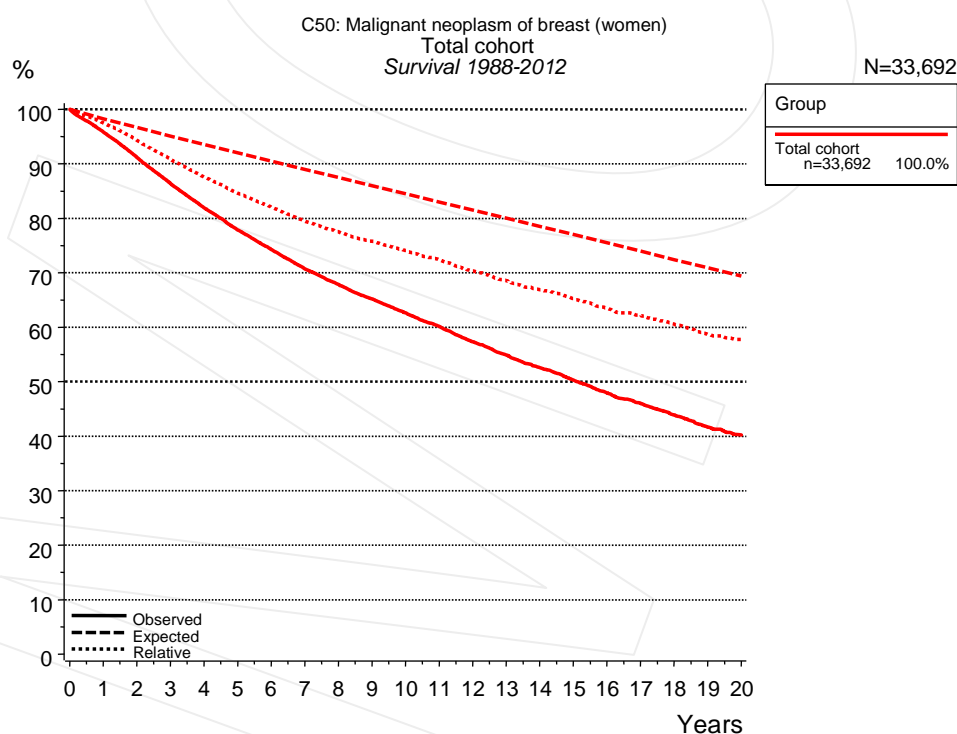


Figure 2a. Observed, expected and relative survival of the total cohort with breast cancer (women). Included in the evaluation are 33,692 cases diagnosed between 1988 and 2012.

Years	Group	
	Total cohort n=33,692	
	obs. %	rel. %
0	100.0	100.0
1	95.8	97.5
2	91.2	94.3
3	86.4	90.8
4	81.9	87.6
5	77.8	84.6
6	74.2	82.0
7	70.7	79.4
8	67.8	77.5
9	65.2	75.8
10	62.6	74.1
11	60.1	72.4
12	57.3	70.3
13	54.9	68.6
14	52.5	66.9
15	50.3	65.2
16	47.9	63.5
17	46.0	62.1
18	43.9	60.6
19	41.6	58.7
20	40.2	57.8

Table 2b. Observed (obs.) and relative (rel.) survival of the total cohort with breast cancer (women) for period 1988-2012 (N=33,692).

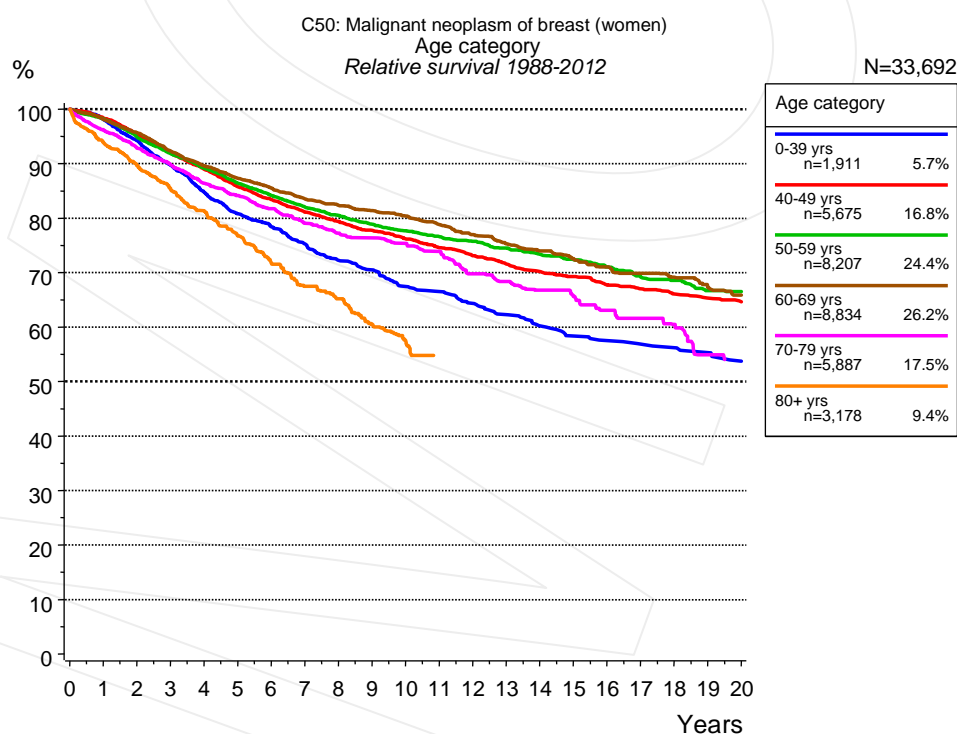


Figure 3a. Relative survival of patients with breast cancer (women) by age category. Included in the evaluation are 33,692 cases diagnosed between 1988 and 2012.

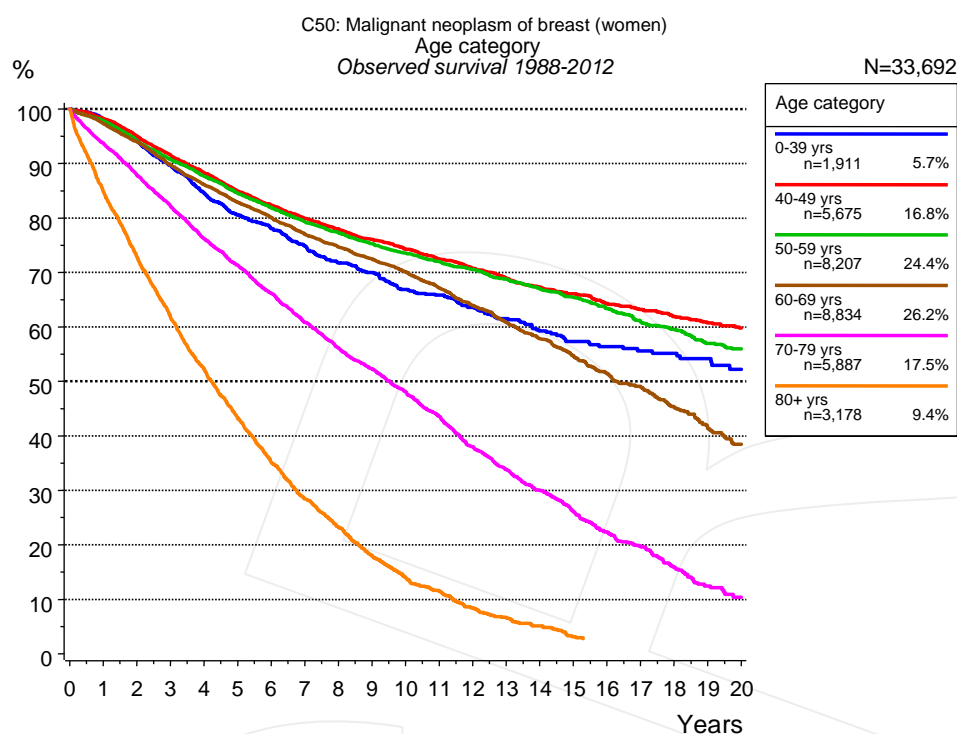


Figure 3b. Observed survival of patients with breast cancer (women) by age category. Included in the evaluation are 33,692 cases diagnosed between 1988 and 2012.

Years	Age category											
	0-39 yrs n=1,911		40-49 yrs n=5,675		50-59 yrs n=8,207		60-69 yrs n=8,834		70-79 yrs n=5,887		80+ yrs n=3,178	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	98.1	98.1	98.2	98.4	97.8	98.2	97.2	98.1	93.7	96.2	84.8	93.9
2	94.1	94.2	95.0	95.4	94.2	94.9	93.9	95.7	87.8	92.9	72.8	89.7
3	89.5	89.7	91.5	92.0	90.7	91.9	89.7	92.3	82.2	89.8	61.9	85.3
4	84.6	84.8	88.3	89.0	87.6	89.2	86.1	89.6	76.2	86.4	52.2	81.3
5	80.5	80.8	84.9	85.8	84.5	86.4	82.9	87.3	71.3	84.1	43.3	76.8
6	78.0	78.4	82.3	83.4	81.8	84.2	80.0	85.5	66.2	81.7	35.1	71.7
7	74.9	75.2	79.8	81.1	79.3	82.1	77.0	83.5	60.8	79.0	28.4	67.5
8	71.8	72.3	77.9	79.4	77.3	80.5	74.7	82.4	56.1	77.2	23.2	65.2
9	70.0	70.5	76.1	77.7	75.2	78.9	72.5	81.4	52.3	76.3	18.0	60.5
10	66.9	67.4	74.3	76.2	73.6	77.7	70.1	80.4	48.0	75.3	14.0	57.5
11	65.8	66.5	72.4	74.6	71.9	76.6	67.1	78.8	43.6	73.9		
12	63.6	64.3	70.7	73.1	70.5	75.7	63.9	77.0	38.0	69.8		
13	61.5	62.3	68.9	71.6	68.8	74.5	60.8	75.3	33.8	68.4		
14	59.2	60.2	67.3	70.2	67.0	73.4	57.8	74.0	30.0	66.8		
15	57.3	58.3	66.1	69.3	65.3	72.4	54.7	72.6	26.0	65.6		
16	56.4	57.5	64.3	67.8	63.4	71.1	51.4	71.0	22.3	63.1		
17	55.6	56.9	63.2	67.0	60.8	69.2	49.0	69.9	19.6	61.6		
18	55.1	56.2	61.9	66.1	59.5	68.6	45.2	69.1	15.9	60.5		
19	54.2	55.3	60.7	65.3	56.9	66.7	41.4	67.3	12.5	54.9		
20	52.2	53.7	59.8	64.6	56.0	66.5	38.4	65.9				

Table 3c. Observed (obs.) and relative (rel.) survival of patients with breast cancer (women) by age category for period 1988-2012 (N=33,692).

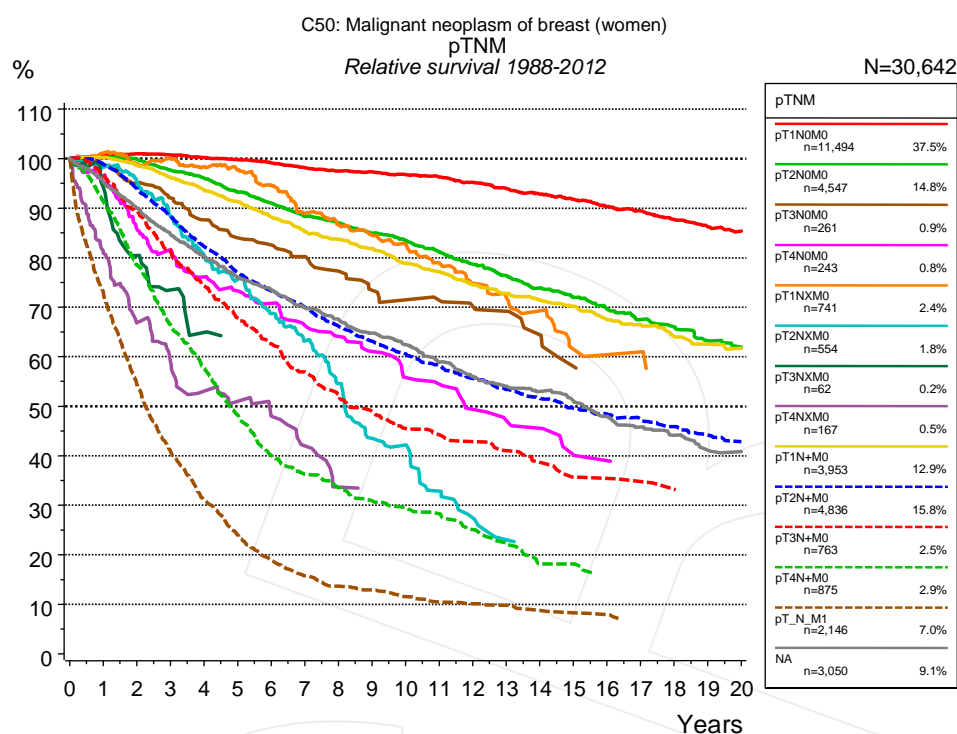


Figure 4a. Relative survival of patients with breast cancer (women) by pTNM. For 32,554 of 33,692 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 30,642 cases an evaluable classification was established. The grey line represents the subgroup of 3,050 patients with missing values regarding pTNM (9.1% of 33,692 patients, the percent values of all other categories are related to n=30,642).

Years	pTNM															
	pT1N0M0 n=11,494		pT2N0M0 n=4,547		pT3N0M0 n=261		pT4N0M0 n=243		pT1NXM0 n=741		pT2NXM0 n=554		pT3NXM0 n=62			
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	99.5	100.5	98.5	100.1	96.1	98.5	92.1	96.6	96.3	101.1	90.9	98.3	85.1	94.2		
2	98.8	100.9	96.6	99.8	90.7	95.1	77.8	85.7	89.6	98.9	81.3	95.2	66.6	80.4		
3	97.4	100.7	92.8	97.6	85.7	92.0	71.0	81.6	86.2	100.0	69.4	88.3	54.2	73.4		
4	95.7	100.2	89.7	96.0	79.8	87.6	63.2	76.1	80.9	98.3	58.2	80.2	44.0	64.9		
5	94.0	99.8	85.6	93.2	74.6	84.0	58.4	73.3	76.6	97.8	50.7	75.6				
6	92.2	99.1	82.0	91.0	72.1	82.5	54.3	70.8	70.5	94.5	42.5	68.7				
7	90.0	98.2	78.1	88.3	68.7	80.2	49.1	66.3	63.6	88.9	36.1	63.2				
8	88.1	97.5	75.6	87.0	64.4	77.3	45.6	64.1	59.3	86.6	28.8	54.6				
9	86.6	97.3	72.4	84.9	60.4	73.4	42.0	61.0	55.8	84.5	21.5	43.5				
10	84.8	96.8	69.8	83.5	57.8	71.5	37.1	55.7	52.3	82.6	19.6	42.1				
11	82.9	96.2	66.6	81.2	56.8	71.4	35.4	54.4	47.7	78.9	14.4	32.8				
12	80.6	95.2	63.2	78.7	54.6	70.1	30.9	49.3	43.5	74.8	11.5	27.4				
13	78.1	94.0	60.2	76.4	53.5	69.2	28.6	47.0	40.1	71.9	9.3	23.0				
14	75.8	92.8	57.1	73.9	49.2	64.4	27.4	45.5	37.7	69.2						
15	73.5	91.7	54.6	72.0	44.1	58.0	23.6	40.1	32.2	61.4						
16	71.0	90.3	51.7	69.7	42.0	56.1	22.3	39.0	30.6	60.4						
17	68.9	89.4	49.0	67.5			20.9	37.6	30.6	61.0						
18	66.2	87.7	47.1	66.0					27.2	56.5						
19	63.8	86.2	43.9	63.2					27.2	55.3						
20	62.0	85.3	42.0	62.0					27.2	54.0						

cont'd	pTNM													
	pT4NXM0 n=167		pT1N+M0 n=3,953		pT2N+M0 n=4,836		pT3N+M0 n=763		pT4N+M0 n=875		pT_N_M1 n=2,146		NA n=3,050	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	73.5	80.9	99.2	100.2	97.5	98.9	95.2	96.6	88.0	91.3	71.0	72.6	93.1	95.2
2	55.4	66.8	96.6	98.6	91.3	93.9	86.8	89.3	73.1	78.5	52.0	54.2	86.4	90.0
3	44.8	59.1	93.2	96.2	84.6	88.3	77.7	81.2	59.9	66.3	38.2	40.7	79.9	84.6
4	37.1	53.0	89.6	93.6	77.6	82.2	70.0	74.3	50.3	57.7	28.6	31.0	74.5	80.3
5	32.9	51.0	86.3	91.3	71.5	77.0	63.1	67.8	40.7	48.2	21.7	24.0	69.2	75.9
6	28.1	48.0	82.4	88.2	67.1	73.3	57.5	62.6	32.8	40.0	16.8	18.9	65.9	73.4
7	23.1	42.0	78.5	85.2	63.0	69.9	51.6	56.9	28.9	36.3	13.7	15.7	61.6	69.8
8	17.1	33.7	76.1	83.6	58.7	66.2	46.7	52.3	26.0	33.5	11.7	13.6	58.6	67.6
9			73.5	81.8	55.1	63.1	43.2	49.0	23.3	30.9	10.9	12.9	55.1	64.7
10			69.6	78.7	52.0	60.6	39.6	45.5	21.8	29.5	9.5	11.5	52.1	62.4
11			67.3	77.2	49.2	58.3	37.8	44.2	20.3	28.2	8.4	10.4	48.3	58.9
12			64.1	74.5	46.2	55.6	36.2	42.8	17.6	25.1	7.9	10.1	44.9	56.0
13			61.6	72.7	43.6	53.4	34.2	41.0	15.2	22.3	7.6	9.8	42.5	54.0
14			59.5	71.3	41.4	51.6	32.0	38.6	12.0	18.1	6.5	8.7	40.8	53.0
15			57.6	70.2	39.2	49.6	28.8	35.7	12.0	18.1	6.0	8.3	38.5	50.9
16			54.4	67.4	37.5	48.4	28.8	35.4	10.3	16.3	5.7	7.9	35.5	47.9
17			52.5	66.4	35.9	47.2	27.9	34.8	10.3	16.1			33.2	45.7
18			49.8	64.0	34.3	45.8	26.8	33.2					31.3	44.1
19			47.6	62.5	32.3	44.1	25.6	31.8					28.4	41.1
20			46.2	61.7	30.9	42.8							27.8	40.8

Table 4b. Observed (obs.) and relative (rel.) survival of patients with breast cancer (women) by pTNM for period 1988-2012 (N=30,642).

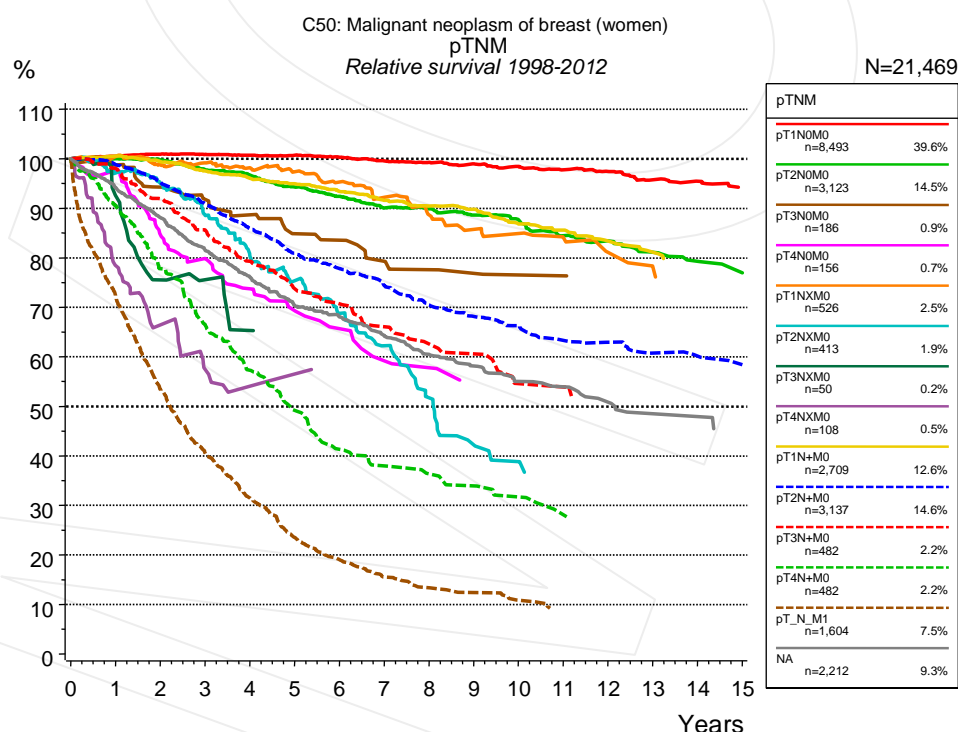


Figure 4c. Relative survival of patients with breast cancer (women) by pTNM. For 23,136 of 23,681 cases diagnosed between 1998 and 2012 valid data could be obtained for this item. For a total of 21,469 cases an evaluable classification was established. The grey line represents the subgroup of 2,212 patients with missing values regarding pTNM (9.3% of 23,681 patients, the percent values of all other categories are related to n=21,469).

Years	pTNM													
	pT1N0M0 n=8,493		pT2N0M0 n=3,123		pT3N0M0 n=186		pT4N0M0 n=156		pT1NXM0 n=526		pT2NXM0 n=413		pT3NXM0 n=50	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	99.5	100.5	98.3	100.0	96.1	98.7	92.9	97.7	95.8	100.4	89.5	97.1	83.5	92.6
2	98.8	100.9	96.4	99.7	89.6	94.3	76.2	84.6	89.7	98.8	80.5	95.0	62.4	75.5
3	97.7	100.9	92.8	97.7	84.8	91.8	68.8	79.8	85.7	99.2	68.6	88.5	55.3	75.6
4	96.3	100.7	90.2	96.7	80.2	88.7	60.4	73.7	81.1	98.2	57.4	80.3	44.5	65.3
5	95.1	100.7	86.3	94.2	74.3	84.9	54.5	69.3	76.8	97.4	49.7	75.4		
6	93.5	100.3	83.1	92.4	72.0	83.6	49.7	65.7	72.1	95.3	41.6	68.8		
7	91.5	99.5	79.4	90.1	66.9	79.3	43.7	59.2	67.0	92.2	34.7	62.2		
8	90.0	99.3	77.7	89.9	64.2	77.6	42.1	57.8	61.8	88.7	26.7	51.7		
9	88.3	98.9	75.2	88.6	62.4	76.8	38.1	54.1	57.6	85.7	20.5	42.2		
10	86.4	98.4	72.8	87.5	60.2	76.5			55.3	84.9	17.8	38.8		
11	84.4	97.8	68.7	84.4	60.2	76.4			52.5	84.1				
12	82.6	97.4	66.2	83.4					48.9	81.1				
13	79.7	95.7	63.3	81.1					45.2	78.0				
14	78.1	95.5	61.0	79.3										
15			59.3	76.9										

cont'd Years	pTNM													
	pT4NXM0 n=108		pT1N+M0 n=2,709		pT2N+M0 n=3,137		pT3N+M0 n=482		pT4N+M0 n=482		pT_N_M1 n=1,604		NA n=2,212	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	70.8	78.4	99.5	100.5	97.3	98.8	96.4	98.0	87.0	90.6	70.7	72.3	92.1	94.1
2	54.5	66.4	97.3	99.3	92.7	95.4	88.9	91.9	71.9	77.8	51.2	53.4	84.6	88.1
3	42.5	57.5	94.6	97.5	87.0	90.9	81.3	85.6	59.5	66.6	38.2	40.6	77.1	81.5
4	36.8	54.1	92.0	96.0	80.9	85.9	74.2	79.3	49.5	57.3	29.1	31.5	71.0	76.0
5	35.1	56.5	90.0	95.0	75.0	80.9	68.1	73.7	41.1	49.2	21.4	23.5	64.7	70.3
6			87.3	93.4	71.0	77.9	64.3	70.7	33.5	41.3	17.0	19.0	61.8	68.1
7			84.5	91.6	66.8	74.4	59.4	66.1	29.9	38.0	13.6	15.6	57.7	64.3
8			82.3	90.4	62.2	70.4	55.7	62.6	27.5	36.3	11.7	13.4	53.5	60.5
9			80.6	89.8	59.2	68.1	53.5	60.6	25.4	33.9	10.6	12.4	50.9	58.1
10			76.7	86.8	56.7	66.3	47.1	54.6	23.1	31.7	9.0	10.8	47.5	55.0
11			74.7	85.6	53.4	63.3	47.1	53.9	20.2	28.1	7.5	9.1	46.1	53.9
12			71.6	83.4	51.9	62.9	44.0	51.1					42.8	50.8
13			68.8	81.1	49.2	60.7	44.0	49.9					40.7	48.5
14					48.1	60.1							40.7	47.9
15					46.5	58.4								

Table 4d. Observed (obs.) and relative (rel.) survival of patients with breast cancer (women) by pTNM for period 1998-2012 (N=21,469).

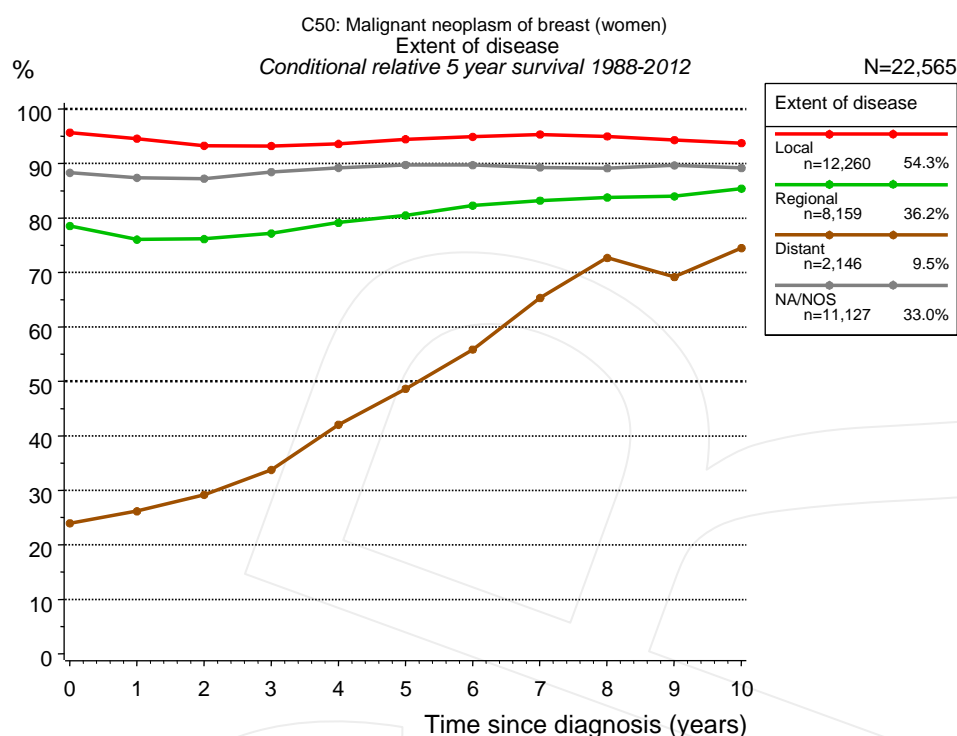


Figure 4e. Conditional relative 5-year survival of patients with breast cancer (women) by extent of disease. For 32,554 of 33,692 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 22,565 cases an evaluable classification was established. The grey line represents the subgroup of 11,127 patients with missing values regarding extent of disease (33.0% of 33,692 patients, the percent values of all other categories are related to n=22,565).

Years	Extent of disease							
	Local		Regional		Distant		NA/NOS	
	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs
0	12,260	95.7	8,159	78.5	2,146	24.0	11,127	88.3
1	11,512	94.6	7,526	76.0	1,421	26.2	10,319	87.4
2	10,303	93.3	6,506	76.1	961	29.2	9,282	87.2
3	9,043	93.2	5,525	77.2	644	33.7	8,197	88.4
4	7,898	93.6	4,654	79.1	438	42.0	7,203	89.2
5	6,858	94.5	3,911	80.5	295	48.6	6,211	89.7
6	5,922	94.9	3,292	82.3	200	55.9	5,310	89.7
7	5,245	95.3	2,841	83.2	153	65.3	4,622	89.3
8	4,688	95.0	2,455	83.8	115	72.7	3,975	89.1
9	4,158	94.3	2,093	84.0	99	69.2	3,389	89.6
10	3,673	93.7	1,796	85.4	77	74.5	2,891	89.2

Table 4f. Conditional relative 5-year survival of patients with breast cancer (women) by extent of disease for period 1988-2012 (N=22,565).

Conditional relative survival rates refer to the relative survival probability, in this case for 5 years after cancer diagnosis, compared to the age- and sex-matched population (=100%) under the condition of being alive for a certain time period (x-axis in Figure 4c). The results illustrate to what extent the cancer induced mortality of particular subgroups declines in the subsequent years after detection of the malignancy. For instance, according to the presented survival statistics, patients in the subgroup extent of disease="Local", who are alive at least 3 years after cancer diagnosis, the conditional relative 5-year survival rate is 93.2% (n=9,043).

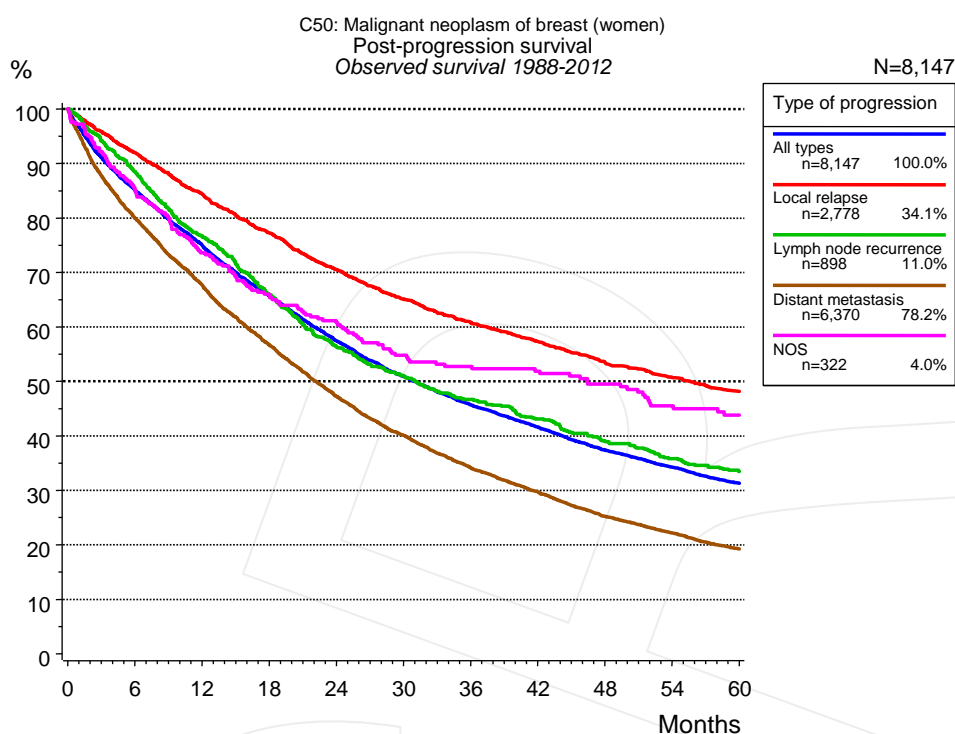


Figure 5a. Observed post-progression survival of 8,147 patients with breast cancer (women) diagnosed between 1988 and 2012 (incl. M1). These 8,147 patients with documented progression events during their course of disease represent 24.2% of the totally 33,692 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=1,062, 3.2%). Multiple progression types on different sites are included in the evaluation even when not occurring synchronously. The NOS (not otherwise specified) class is included under the condition, that it is the one and only progression type during the course of disease.

Medical record documentation often lacks the linguistic severity to distinguish between local relapse, regional lymph node metastasis and distant spread in solid cancers. Frequently, the statement “not specified” is the only information in registries regarding relapse of the disease. The category “All types” denotes all cases who suffered from at least one relapse during the course of disease (incl. primary M1-status). Although, the real number of relapsed patients is likely to be much higher. The accumulated percentage of patients with local relapse or distant metastasis exceeds the 100% value because patients are potentially considered in more than one subgroup.

Months	Type of progression				
	All types n=8,147 %	Local relapse n=2,778 %	Lymph node recurrence n=898 %	Distant metastasis n=6,370 %	NOS n=322 %
0	100.0	100.0	100.0	100.0	100.0
12	75.0	84.4	76.7	67.7	73.6
24	57.4	70.5	56.4	47.3	60.7
36	45.7	60.8	46.7	34.1	52.7
48	37.4	53.5	39.1	25.2	49.5
60	31.3	48.1	33.5	19.3	43.8

Table 5b. Observed post-progression survival of patients with breast cancer (women) for period 1988-2012 (N=8,147).

Shortcuts

AS	Assembled survival chart (observed, expected, relative)
CS	Conditional survival
DCO	Death certificate only. The death certificate provides the only notification to the registry.
MCR	Munich Cancer Registry, Germany (Tumorregister München)
NA	Not available
NCI	National Cancer Institute, USA
NOS	Not otherwise specified
OS	Observed/overall survival (Kaplan-Meier estimate)
PPS	Post-progression survival
RS	Relative Survival. Ratio of observed and expected survival (derived from the normal population)
SEER	Surveillance, Epidemiology, and End Results, USA
TTP	Time to progression Date of entry: Date of diagnosis Event (Progression): First local recurrence, lymph node relapse or distant metastasis, unspecified recurrence First all-cause recurrence is illustrated by survival curves (Kaplan-Meier estimate). First local recurrence, lymph node relapse or distant metastasis are depicted cumulatively, where applicable ("reverse" Kaplan-Meier estimate).
UICC	Union for International Cancer Control, Geneva

Recommended Citation

Munich Cancer Registry. Survival C50: Breast cancer (women) [Internet]. 2014 [updated 2014 Mar 25; cited 2014 May 1]. Available from: http://www.tumorregister-muenchen.de/en/facts/surv/surv_C50f_E.pdf

Copyright

The content of the public web site provided by the Munich Cancer Registry is available worldwide and free of charge. All documents are free to download, utilize, copy, print-out and distribute, providing that the MCR is referenced.

Disclaimer

The Munich Cancer Registry reserves the right to not be responsible for the topicality, correctness, completeness or quality of the information provided. Liability claims regarding damage caused by the use of any information provided, including any kind of information which is incomplete or incorrect, will therefore be rejected.

Index of figures and tables

Fig./Tbl.	Page
1a Relative survival by period of diagnosis (chart)	2
1b Survival by period of diagnosis (table)	2
1c Relative survival by year of diagnosis (chart)	3
1d Survival by year of diagnosis (table)	3
2a Survival of total cohort (chart)	4
2b Survival of total cohort (table)	5
3a Relative survival by age category (chart)	5
3b Observed survival by age category (chart)	6
3c Survival by age category (table)	6
4a Relative survival by pTNM 1988+ (chart)	7
4b Survival by pTNM 1988+ (table)	7
4c Relative survival by pTNM 1998+ (chart)	8
4d Survival by pTNM 1998+ (table)	9
4e Conditional survival by extent of disease (chart)	10
4f Conditional survival by extent of disease (table)	10
5a Observed post-progression survival (chart)	11
5b Observed post-progression survival (table)	11