Munich Cancer Registry

- Survival
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Munich Cancer Registry at Munich Cancer Center
Marchioninistr. 15
Munich, 81377
Germany

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

Cancer statistics: Baseline statistics

C25: Pancreas cancer

Year of diagnosis	1998-2012
Patients	10,025
Diseases	10,025
Creation date	03/20/2014
Export date	02/12/2014
Population	4.5 m

http://www.tumorregister-muenchen.de/en/facts/base/base_C25__E.pdf

Global Statements about the statistics on the Internet − Baseline Statistics (grey button), Survival (red button)

In these analyses, the clinics and physicians of Upper Bavaria and the city and county of Landshut[#], with a total of 4.5 million inhabitants, account for the frequency of cancer diseases[##] and the achieved long term results. Additionally, the long term survival evaluated by the Munich Cancer Registry (MCR) is compared with the results of the population-based registry in the USA (SEER), which is useful for checking the consistency of the data on an international level.

In comparing several tables, inconsistent figures may be detected. This is based on the fact that different patient cohorts are included in the base calculation, for example when proportions of multiple tumors or DCO-cases[###] are concerned. In other cases the individual tumor diagnosis is the basis for calculation, for example with incidence.

The foot notes describe the currentness of the data. The baseline statistics and survival data are updated annually. This yearly analysis comprises the Annual Report of the MCR. The time-delayed acquisition of data and the occasionally high DCO-rates indicate optimizing reserves, among others, because of current financial and legal conditions that hinder the analyses.

Clinics and physicians have access to essentially more detailed data, with which they can check, compare and in the best case optimize their own data and results.

We would be pleased to receive corrections, critique and useful suggestions. Just send an e-mail to tumor@ibe.med.uni-muenchen.de.

Munich Cancer Registry, March 2014

[#] Base data has been collected since 1998. An increase in new diseases is apparent, which is an effect of two extensions in the MCR catchment area (from a base population of 2.51 million to 3.96 in 2002, and to 4.52 million in 2007). Death certificates from 2013 are incorporated into these analyses.

[##] Due to the high frequency and good prognosis of non-malignant skin cancer (C44), no systematic ascertainment is performed for this diagnosis. C44 is not designated as a primary, but rather as a secondary tumor.

[###] DCO (death certificate only) identifies a cancer case that first becomes available to the MCR through the death certificate. A high proportion of DCO cases (≥5%) in particular cancer types indicate insufficient participation of specific cancer specializations.

ICD-10 codes used for specifying cancer site

ICD-10	Description
C25.-	Malignant neoplasm of pancreas
C25.0	Head of pancreas
C25.1	Body of pancreas
C25.2	Tail of pancreas
C25.3	Pancreatic duct
C25.4	Endocrine pancreas
C25.7	Other parts of pancreas
C25.8	Overlapping lesion of pancreas
C25.9	Pancreas, unspecified

INCIDENCE

Table 1

Patient cohorts by year of diagnosis including DCO cases and multiple primaries, and with proportion of deaths and active follow-up

Year of diagnosis	Cases n	DCO cases n	Prop. DCO %	Prop. mult. primaries %	Prop. deaths %	Prop. actively followed %	
1998	309	97	31.4	8.4	97.7	99.7	
1999	361	120	33.2	12.7	96.4	98.9	
2000	323	126	39.0	10.5	97.5	100.0	
2001	406	151	37.2	11.6	96.6	98.8	
2002	664	272	41.0	17.3	96.7	99.5	#
2003	612	211	34.5	17.2	96.4	99.3	#
2004	663	215	32.4	15.7	95.3	99.2	#
2005	716	206	28.8	19.8	94.7	99.2	#
2006	735	201	27.3	17.7	95.0	99.2	#
2007	818	224	27.4	17.1	93.9	98.0	# ##
2008	882	241	27.3	20.6	93.5	95.4	
2009	895	237	26.5	21.5	91.2	94.7	
2010	930	218	23.4	20.2	89.4	95.6	
2011	901	234	26.0	22.4	84.2	93.3	
2012	810	228	28.1	21.4	71.9	98.5	###
1998-2012	10025	2981	29.7	18.2	91.6	97.5	

\# The increases of incident cases in 2002 and 2007 reflect the expansion to additional registry areas.

Since 2007 the percentage of actively followed patients sharply declined compared to the previous years. This is a consequence of ambiguous data protection rules that currently forbid cancer registries in Bavaria to obtain the essential life status informations from competent registration offices.

Please be aware that data of recent annual patient cohorts may not yet be fully processed. Therefore, the presented figures and tables are potentially related to different time periods as pointed out in the respective headlines or legends.

Table 1a

Patient cohorts by year of diagnosis and gender
including DCO cases

Year of diagnosis	All n	Males n	Females n	Prop. males %
1998	309	139	170	45.0
1999	361	184	177	51.0
2000	323	153	170	47.4
2001	406	195	211	48.0
2002	664	312	352	47.0
2003	612	301	311	49.2
2004	663	296	367	44.6
2005	716	350	366	48.9
2006	735	372	363	50.6
2007	818	415	403	50.7
2008	882	415	467	47.1
2009	895	452	443	50.5
2010	930	444	486	47.7
2011	901	436	465	48.4
2012	810	401	409	49.5
1998-2012	10025	4865	5160	48.5

Table 2

Incidence measures by year of diagnosis and gender including DCO cases
(with respect to registry area expansion from 2.51 to 3.96 m as of 2002,
and from 3.96 to 4.52 m as of 2007, respectively)

Year of diagnosis	Males n	Females n	Males Inc. raw	Fem. Inc. raw	Males Inc. WS	Fem. Inc. WS	Males Inc. ES	Fem. Inc. ES	Males Inc. BRD-S	Fem. Inc. BRD-S
1998	139	170	12.5	14.5	7.4	5.7	11.3	8.8	14.9	12.1
1999	184	177	16.4	14.9	9.6	5.6	14.8	8.8	20.1	12.3
2000	153	170	13.4	14.2	7.8	5.6	12.0	8.7	15.7	11.8
2001	195	211	16.8	17.3	9.7	7.1	14.7	10.9	19.1	14.5
2002	312	352	16.7	18.0	9.4	6.6	14.2	10.4	18.2	14.2
2003	301	311	16.1	15.8	8.8	6.3	13.3	9.7	17.3	12.7
2004	296	367	15.7	18.6	8.5	6.9	12.8	10.7	16.6	14.5
2005	350	366	18.5	18.4	9.6	7.1	14.5	10.9	19.1	14.4
2006	372	363	19.4	18.1	10.3	6.5	15.5	10.1	20.1	13.8
2007	415	403	18.7	17.5	9.8	6.5	14.8	10.0	19.0	13.2
2008	415	467	18.6	20.1	9.4	7.4	14.2	11.3	18.6	15.1
2009	452	443	20.3	19.0	10.0	6.8	15.2	10.5	19.8	14.1
2010	444	486	19.7	20.8	9.3	7.2	14.2	11.2	19.0	15.5
2011	436	465	19.1	19.7	8.9	7.0	13.5	10.8	17.7	14.5
2012	401	409	17.6	17.3	8.3	6.1	12.7	9.4	16.8	12.7
1998-2012	4865	5160	17.7	18.0	9.2	6.6	13.9	10.3	18.3	13.8

The computation of the incidence measures includes all primaries, irrespective of first or subsequent malignancy.

Table 3

Age distribution parameters by year of diagnosis (All)
(incl. DCO)

Year of diagnosis	Cases n	Mean	Std. dev.	Min.	Max.	10%	25%	Median 50%	75%	90%
1998	309	71.8	12.5	28.2	98.1	55.0	62.9	73.5	80.4	86.6
1999	361	72.3	11.7	27.6	98.8	56.4	64.2	74.1	80.5	86.3
2000	323	71.1	13.0	21.7	98.5	54.0	61.8	73.1	80.4	86.9
2001	406	71.5	11.7	35.1	97.7	56.4	63.8	71.8	80.3	87.0
2002	664	72.2	11.8	35.3	98.6	56.1	63.7	73.2	80.9	87.3
2003	612	71.4	12.1	33.2	98.4	55.3	63.2	72.7	80.2	87.3
2004	663	72.4	11.4	38.5	100	57.6	64.6	72.5	81.4	86.6
2005	716	72.1	11.6	36.2	99.8	57.9	64.2	71.9	80.8	86.2
2006	735	72.4	12.0	12.3	97.7	57.7	64.8	73.6	81.5	86.3
2007	818	72.2	11.9	25.6	97.2	55.5	64.1	72.6	81.2	87.1
2008	882	72.7	12.2	22.9	98.5	56.3	65.5	73.3	81.9	87.1
2009	895	72.9	11.6	27.9	102	57.5	65.4	73.4	82.1	87.1
2010	930	73.2	11.3	16.9	98.6	57.8	66.5	74.1	81.9	86.6
2011	901	73.1	11.4	34.6	99.1	57.8	67.0	73.7	81.7	87.0
2012	810	73.0	11.7	0.0	101	57.4	66.8	74.1	81.2	86.7
1998-2012	10025	72.4	11.8	0.0	102	56.7	64.8	73.3	81.3	86.9

Table 3a

Age distribution parameters by year of diagnosis (MALES)
(incl. DCO)

Year of diagnosis	Cases n	Mean	Std. dev.	Min.	Max.	10%	25%	Median 50%	75%	90%
1998	139	68.3	11.4	36.3	97.7	53.3	58.9	69.8	75.7	80.4
1999	184	69.0	11.7	27.6	93.0	53.9	61.3	69.2	78.0	84.1
2000	153	69.0	11.8	41.1	97.8	54.2	60.2	69.3	78.0	84.6
2001	195	68.7	11.7	35.1	94.0	55.0	61.3	68.5	78.1	84.6
2002	312	68.8	11.8	35.3	97.5	53.8	61.6	69.1	76.9	82.8
2003	301	69.4	11.3	33.2	98.0	55.1	63.0	69.3	77.0	82.9
2004	296	69.3	11.1	38.5	94.9	54.5	62.9	69.5	76.8	84.2
2005	350	69.7	10.8	36.2	98.5	56.3	62.4	69.1	78.2	83.7
2006	372	69.3	12.0	12.3	94.8	55.5	62.1	70.2	77.1	83.4
2007	415	69.6	11.7	25.6	95.5	53.3	62.1	69.9	77.9	85.1
2008	415	70.3	11.7	22.9	94.5	54.7	63.3	70.5	79.3	84.8
2009	452	70.5	11.1	29.0	102	55.6	63.5	70.9	78.5	84.6
2010	444	71.2	10.7	42.2	98.6	57.4	64.3	71.7	79.1	84.6
2011	436	71.2	11.0	38.8	96.2	56.4	64.8	72.3	78.5	84.5
2012	401	71.0	11.3	0.0	96.8	56.1	64.6	72.3	78.8	84.4
1998-2012	4865	69.9	11.4	0.0	102	54.9	62.7	70.6	78.1	84.2

Table 3b

Age distribution parameters by year of diagnosis (FEMALES)
(incl. DCO)

Year of diagnosis	Cases n	Mean	Std. dev.	Min.	Max.	10%	25%	Median 50%	75%	90%
1998	170	74.6	12.7	28.2	98.1	56.5	66.1	77.6	84.2	87.4
1999	177	75.8	10.6	45.8	98.8	60.6	69.2	76.7	84.0	88.1
2000	170	73.1	13.8	21.7	98.5	53.8	65.5	76.7	81.5	87.5
2001	211	74.1	11.1	38.6	97.7	58.3	67.4	74.6	81.8	88.0
2002	352	75.2	11.0	38.1	98.6	61.0	68.2	76.7	82.4	88.2
2003	311	73.3	12.6	37.1	98.4	55.6	63.8	76.0	82.7	88.6
2004	367	74.8	11.0	38.8	100	60.1	67.1	75.9	83.3	88.0
2005	366	74.4	11.8	36.3	99.8	60.2	66.3	75.0	82.4	90.6
2006	363	75.5	11.1	32.2	97.7	60.4	68.5	76.9	84.5	87.9
2007	403	74.9	11.6	37.8	97.2	59.1	67.6	75.8	84.1	88.6
2008	467	74.8	12.2	23.8	98.5	58.7	67.7	76.0	84.5	88.0
2009	443	75.2	11.7	27.9	101	59.5	67.5	76.7	84.0	88.6
2010	486	75.0	11.5	16.9	97.6	59.6	69.4	76.2	83.7	87.3
2011	465	74.8	11.6	34.6	99.1	58.9	68.4	75.8	83.7	88.0
2012	409	74.9	11.8	19.5	101	59.3	69.0	75.9	83.3	88.6
1998-2012	5160	74.8	11.7	16.9	101	59.1	67.7	76.1	83.6	88.2

Table 4

Age distribution by 5-year age group and gender for period 1998-2012 (incl. DCO)

Age at diagnosis Years	Cases n	%	Cum.%	Males n	%	Cum.%	Females n	%	Cum.%
0-4	1	0.0	0.0	1	0.0	0.0			0.0
5-9	0	0.0	0.0			0.0			0.0
10-14	1	0.0	0.0	1	0.0	0.0			0.0
15-19	3	0.0	0.0	1	0.0	0.1	2	0.0	0.0
20-24	4	0.0	0.1	1	0.0	0.1	3	0.1	0.1
25-29	10	0.1	0.2	6	0.1	0.2	4	0.1	0.2
30-34	14	0.1	0.3	6	0.1	0.3	8	0.2	0.3
35-39	45	0.4	0.8	25	0.5	0.8	20	0.4	0.7
40-44	104	1.0	1.8	62	1.3	2.1	42	0.8	1.5
45-49	221	2.2	4.0	141	2.9	5.0	80	1.6	3.1
50-54	404	4.0	8.0	249	5.1	10.1	155	3.0	6.1
55-59	660	6.6	14.6	394	8.1	18.2	266	5.2	11.2
60-64	1087	10.8	25.5	662	13.6	31.8	425	8.2	19.5
65-69	1387	13.8	39.3	792	16.3	48.1	595	11.5	31.0
70-74	1659	16.5	55.9	849	17.5	65.6	810	15.7	46.7
75-79	1567	15.6	71.5	737	15.1	80.7	830	16.1	62.8
80-84	1403	14.0	85.5	517	10.6	91.3	886	17.2	80.0
85+	1455	14.5	100.0	421	8.7	100.0	1034	20.0	100.0
All ages	10025	100.0		4865	100.0		5160	100.0	

Included in the statistics are 23.4% multiple primaries in males and 20.1% in females.

Table 5

Age-specific incidence, DCO rate and proportion of all cancers
for period 1998-2012

Age at diagnosis Years	Males n	Females n	Males Age-spec. incid.	Females Age-spec. incid.	Males DCO rate n=1212 %	Females DCO rate n=1769 %	Males Prop.all cancers n=146755 %	Females Prop.all cancers n=142297 %
0- 4	1		0.1	0.0	100.0		0.3	
5- 9			0.0	0.0				
10-14	1		0.1	0.0			0.7	
15-19	1	2	0.1	0.1			0.3	0.7
20-24	1	3	0.1	0.2			0.2	0.6
25-29	6	4	0.3	0.2			0.7	0.4
30-34	6	8	0.3	0.4		12.5	0.4	0.4
35-39	25	20	1.1	0.9	12.0	10.0	1.2	0.6
40-44	62	42	2.6	1.8	4.8	2.4	2.1	0.7
45-49	141	80	6.5	3.8	8.5	6.3	2.9	1.0
50-54	249	155	13.5	8.2	17.7	4.5	3.1	1.5
55-59	394	266	23.2	14.9	13.7	9.8	2.9	2.1
60-64	662	425	40.2	24.4	14.8	12.7	3.2	2.6
65-69	792	595	54.0	37.1	15.2	16.6	3.1	3.4
70-74	849	810	73.3	58.7	19.1	17.8	3.5	4.8
75-79	737	830	97.8	75.9	30.8	31.9	3.9	5.1
80-84	517	886	113.9	102.6	42.7	49.9	4.1	6.0
85+	421	1034	135.7	126.2	63.4	69.9	4.6	6.5
All ages	4865	5160			24.9	34.3	3.3	3.6
Incidence								
Raw			17.7	18.0				
WS			9.2	6.6				
ES			13.9	10.3				
BRD-S			18.3	13.8				

The age-specific incidence characterizes the disease risk in a particular age group. The age distribution depends on the patient population frequency in each age group and reflects the tangible clinical picture of everyday patients care (see following chart).

Table 6a

Standardized incidence ratio (SIR, with 95% confidence limits),
excess absolute risk (EAR) and DCO rate of second primaries
for period 1998-2012
MALES

Diagnosis		Observed n	Expected n	SIR	LCL 95%	UCL 95%		EAR	DCO %
C15	Oesophagus	2	0.9	2.2	0.3	8.1		3.7	
C16	Stomach	14	2.1	6.6	3.6	11.1	#	39.7	14.3
C17	Small intestine	4	0.2	16.8	4.6	43.0	#	12.6	
C18	Colon	14	5.0	2.8	1.5	4.7	#	30.0	21.4
C19-C20	Rectum	4	2.9	1.4	0.4	3.6		3.8	
C22	Liver	3	1.4	2.2	0.4	6.3		5.4	
C33-C34	Lung	19	6.0	3.1	1.9	4.9	#	43.3	31.6
C46,C49	Soft tissue	3	0.3	11.4	2.3	33.2	#	9.1	
C61	Prostate	25	15.3	1.6	1.1	2.4	#	32.4	52.0
C64	Kidney	6	1.8	3.4	1.2	7.4	#	14.1	
C67	Bladder	2	2.2	0.9	0.1	3.3		-0.6	
C82-C85	NHL	3	2.0	1.5	0.3	4.4		3.4	
Other primaries		8	3.2	2.5	1.1	4.9	#	15.9	25.0
Not observed		0	8.0	0.0	0.0	0.5	#	-26.6	
All mult. primaries		107	51.3	2.1	1.7	2.5	#	186.1	24.3

Patients	2884
Mean age at second malignancy (years)	72.1
Person-years	2994
Mean observation time (years)	1.0
Median observation time (years)	0.5

The occurrence of second malignancy is statistically significant.

Observed second primaries with count 1 are pooled in category "Other primaries".

Table 6b

Standardized incidence ratio (SIR, with 95% confidence limits),
excess absolute risk (EAR) and DCO rate of second primaries
for period 1998-2012
FEMALES

Diagnosis		Observed n	Expected n	SIR	LCL 95%	UCL 95%		EAR	DCO %
C16	Stomach	9	1.4	6.6	3.0	12.5	#	26.5	33.3
C17	Small intestine	2	0.2	12.9	1.6	46.7	#	6.4	
C18	Colon	8	3.7	2.2	0.9	4.3		14.9	50.0
C19-C20	Rectum	4	1.6	2.5	0.7	6.4		8.3	50.0
C23-C24	Bile	6	0.5	11.2	4.1	24.3	#	19.0	16.7
C33-C34	Lung	11	2.4	4.5	2.2	8.1	#	29.7	27.3
C50	Breast	19	10.2	1.9	1.1	2.9	#	30.5	21.1
C54	Corpus uteri	3	2.0	1.5	0.3	4.4		3.6	66.7
C56	Ovary	10	1.5	6.7	3.2	12.4	#	29.6	70.0
C64	Kidney	3	0.9	3.3	0.7	9.7		7.3	33.3
C82-C85	NHL	2	1.4	1.5	0.2	5.3		2.2	50.0
C91-C96	Leukaemia	2	0.6	3.6	0.4	13.0		5.0	100.0
Other primaries		5	1.6	3.2	1.0	7.5	#	11.9	40.0
Not observed		0	7.2	0.0	0.0	0.5	#	-25.1	
All mult. primaries		84	35.1	2.4	1.9	3.0	#	169.7	38.1

Patients	2860
Mean age at second malignancy (years)	74.6
Person-years	2880
Mean observation time (years)	1.0
Median observation time (years)	0.5

The occurrence of second malignancy is statistically significant.

Observed second malignancies with count 1 are pooled in category "Other primaries".

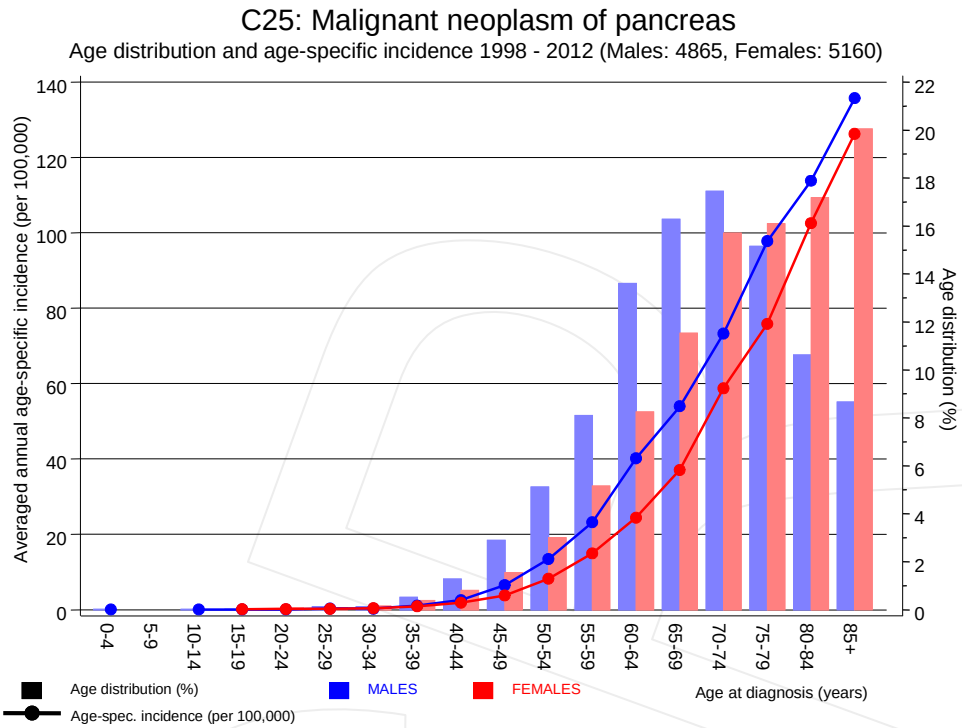


Figure 7. Age distribution and age-specific incidence

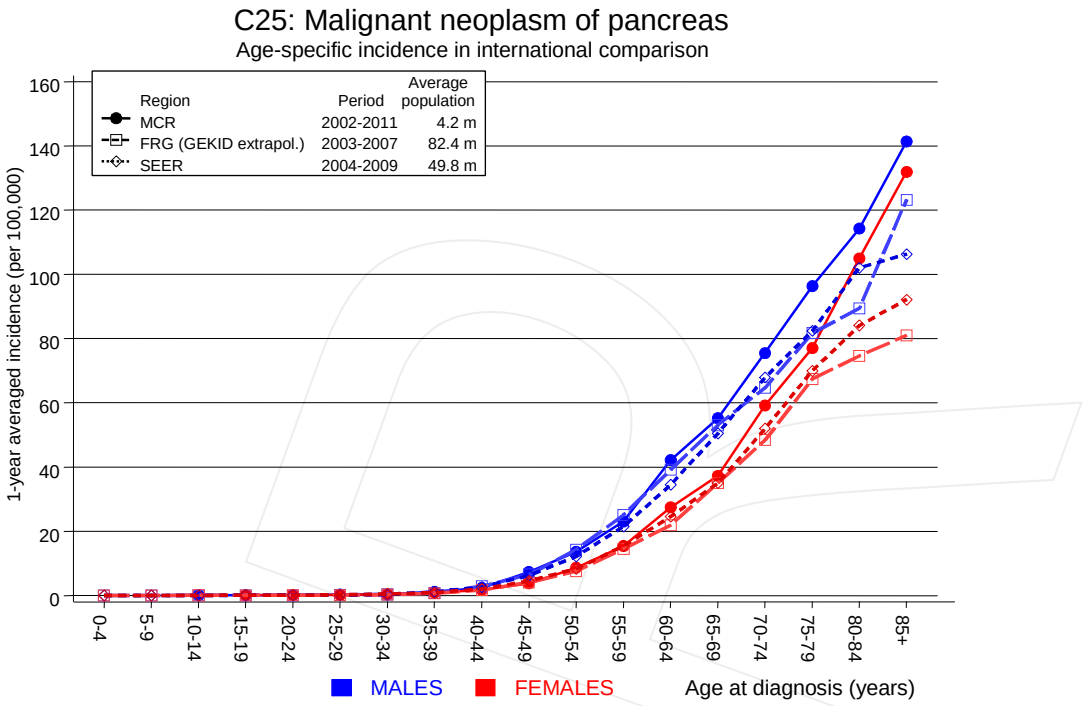


Figure 7a. Age-specific incidence in MCR registry areas compared to Germany (FRG, GEKID extrapolation) and SEER (Surveillance, Epidemiology, and End Results, USA).

Reference:

Extrapolated age-specific patient population of Germany, data status middle of 2010. Association of Population-based Cancer Registries in Germany (GEKID e.V.). Berlin, 2011. http://www.gekid.de. Last access: 05/12/2011

Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Incidence - SEER 18 Regs Research Data, released April 2012, based on the November 2011 submission. http://www.seer.cancer.gov.

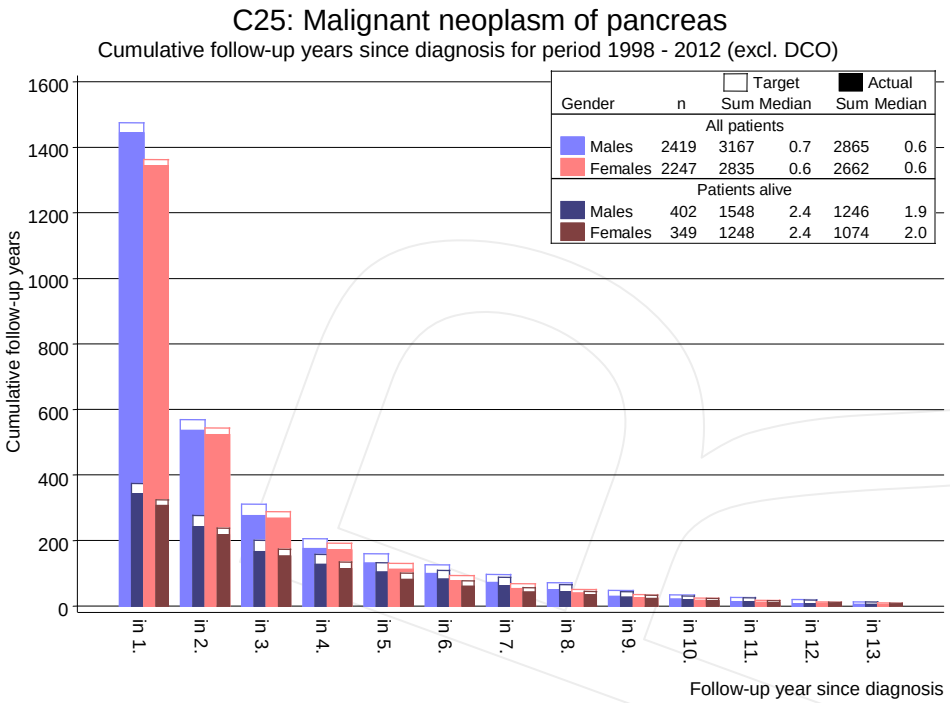
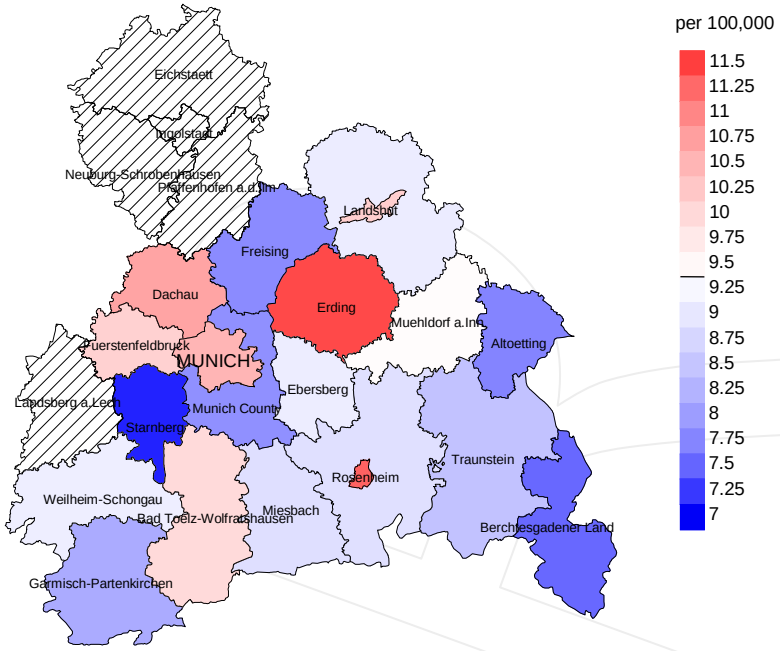


Figure 8. Cumulative follow-up years depending on time since diagnosis

The increase of the lost to follow-up rate can be interpreted as a consequence of a declining number of survivors over time.

Average incidence (world standard population) 2003 - 2008: Males



Average incidence (world standard population) 2003 - 2008: Females

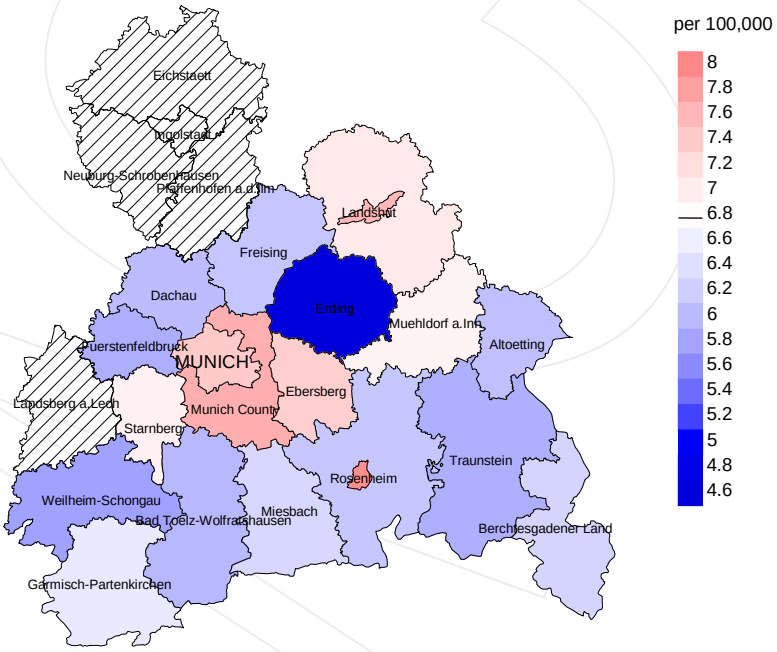
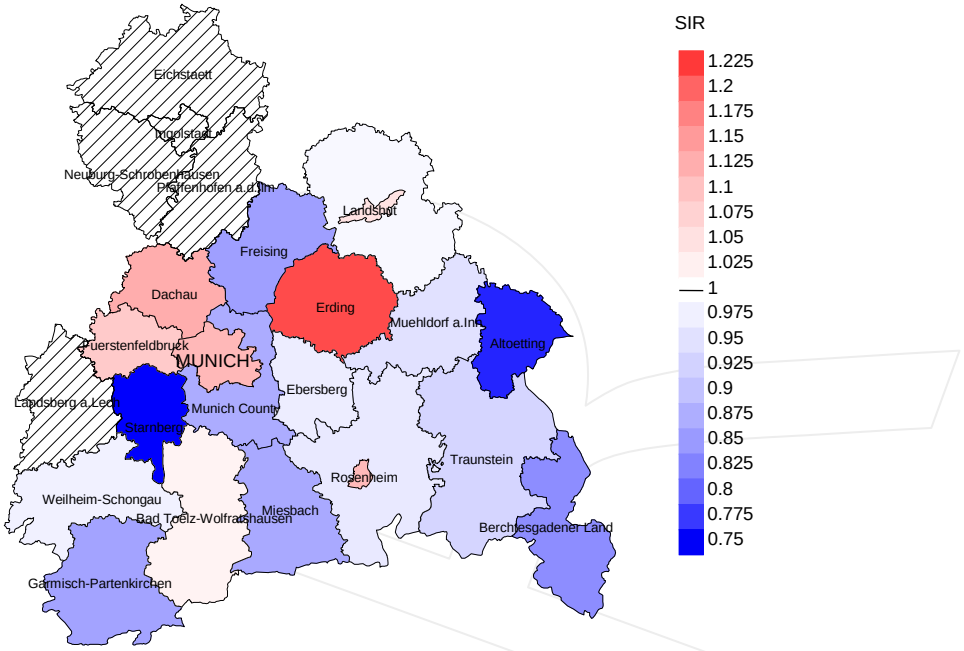


Figure 9a. Map of cancer incidence (world standard population, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual incidence rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 9.4/100,000 WS N=2,055, females 6.8/100,000 WS N=2,184). Since cancer data are not available in some counties until 2007, the local incidence rates were not calculated, and the map tiles show as shaded.

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 63,131 female residents (averaged) in the period from 2003 to 2008 a total of 63 women were identified with newly diagnosed pancreas cancer. Therefore, the mean incidence rate for this cancer type in this area can be calculated at 7.4/100,000 (world standard population). Though, the value of this parameter may vary with an underlying probability of 99% between 5.0 and 10.5/100,000.

Standardized incidence ratio (SIR) 2003 - 2008: Males



Standardized incidence ratio (SIR) 2003 - 2008: Females

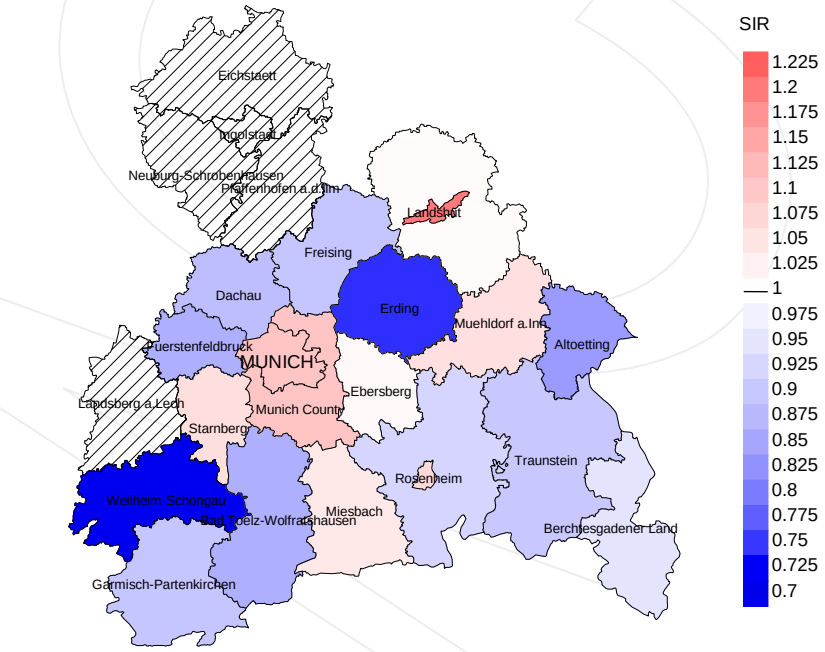


Figure 9b. Map of standardized incidence ratio (SIR, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual SIR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=2,055, females N=2,184). Since cancer data are not available in some counties until 2007, the local SIR values were not calculated, and the map tiles show as shaded.

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 63,131 female residents (averaged) in the period from 2003 to 2008 a total of 63 women were identified with newly diagnosed pancreas cancer. Therefore, the mean standardized incidence ratio (SIR) for this cancer type in this area can be calculated at 1.01. Though, the value of this parameter may vary with an underlying probability of 99% between 0.72 and 1.39, and is therefore not statistically striking.

MORTALITY

Table 10a

Patient cohorts of incident cancers by year of diagnosis, follow-up status, proportion of DCO, deaths among the annual cohorts, and proportion of available death certificates (with respect to registry area expansion from 2.51 to 3.96 m as of 2002, and from 3.96 to 4.52 m as of 2007, respectively)

Year of diagnosis	Incident cases n	Prop. actively followed %	Prop. DCO %	Deaths n	Prop. deaths %	Prop. deaths with death certific. %
1998	309	99.7	31.4	302	97.7	94.7
1999	361	98.9	33.2	348	96.4	95.1
2000	323	100.0	39.0	315	97.5	97.1
2001	406	98.8	37.2	392	96.6	98.2
2002	664	99.5	41.0	642	96.7	98.1
2003	612	99.3	34.5	590	96.4	98.5
2004	663	99.2	32.4	632	95.3	98.3
2005	716	99.2	28.8	678	94.7	99.3
2006	735	99.2	27.3	698	95.0	98.9
2007	818	98.0	27.4	768	93.9	99.6
2008	882	95.4	27.3	825	93.5	99.0
2009	895	94.7	26.5	816	91.2	98.9
2010	930	95.6	23.4	831	89.4	98.6
2011	901	93.3	26.0	759	84.2	98.9
2012	810	98.5	28.1	582	71.9	97.9
1998-2012	10025	97.5	29.7	9178	91.6	98.4

Table 10b

Annual cohorts of incident cancers and deaths, proportion of death certificates and cases deceased the same year of cancer diagnosis
(incl. DCO)
(with respect to registry area expansion from 2.51 to 3.96 m as of 2002, and from 3.96 to 4.52 m as of 2007, respectively)

Year of diagnosis/ death	Incident cases n	Deaths n	Prop. deaths with death certific. %	Deaths in same year n	Prop. deaths in same year %
1998	309	314	96.5	176	57.0
1999	361	354	95.2	222	61.5
2000	323	336	97.0	192	59.4
2001	406	370	95.9	242	59.6
2002	664	495	98.6	391	58.9
2003	612	524	98.9	351	57.4
2004	663	524	98.1	368	55.5
2005	716	567	97.9	370	51.7
2006	735	642	99.2	410	55.8
2007	818	667	99.1	427	52.2
2008	882	707	99.6	474	53.7
2009	895	697	98.9	463	51.7
2010	930	775	99.4	486	52.3
2011	901	787	98.9	495	54.9
2012	810	726	99.6	450	55.6
1998-2012	10025	8485	98.5	5517	55.0

Table 10c

Annual cohorts of deaths, proportion of cancer-related and not cancer-related deaths, and cancer recorded on death certificates (incl. DCO)
(with respect to registry area expansion from 2.51 to 3.96 m as of 2002, and from 3.96 to 4.52 m as of 2007, respectively)

Year of death	Deaths n	Prop. cancer-related %	Prop. not cancer-related %	Prop. cancer recorded on death certificate %
1998	314	90.8	9.2	99.0
1999	354	90.7	9.3	98.8
2000	336	94.3	5.7	98.8
2001	370	95.1	4.9	99.7
2002	495	95.8	4.2	98.8
2003	524	97.3	2.7	99.8
2004	524	98.1	1.9	99.2
2005	567	97.2	2.8	99.6
2006	642	98.0	2.0	99.2
2007	667	97.5	2.5	99.4
2008	707	97.7	2.3	98.9
2009	697	97.0	3.0	98.8
2010	775	97.4	2.6	98.6
2011	787	96.7	3.3	99.2
2012	726	96.3	3.7	99.3
1998-2012	8485	96.5	3.5	99.1

Table 11a

Means of age at death according to the grouping in Table 10
MALES

Year of death	Deaths n	Age at death (all causes) Years	Age at death (cancer-related) Years	Age at death (not cancer-related) Years	Age at death (according to death certificate) Years
1998	144	69.1	68.9	71.7	69.2
1999	179	70.1	69.4	76.2	70.1
2000	162	70.1	69.7	78.1	70.1
2001	170	70.4	70.6	67.3	70.5
2002	232	70.0	69.6	76.4	69.9
2003	263	69.2	69.1	75.1	69.4
2004	254	70.2	70.2	73.3	70.1
2005	286	70.6	70.6	71.9	70.9
2006	312	70.8	70.9	67.6	70.9
2007	320	70.2	70.0	77.0	70.1
2008	362	70.5	70.5	70.5	70.6
2009	355	70.8	70.8	70.0	71.0
2010	380	71.3	71.1	75.8	71.3
2011	387	72.0	71.9	74.8	72.1
2012	360	71.8	71.6	75.8	71.8
1998-2012	4166	70.6	70.5	73.8	70.7

Deaths of patients are considered to be cancer-related, in case that fact was recorded on the death certificate, or patients had suffered from metastasis or recurrence.

Table 11b

Means of age at death according to the grouping in Table 10
FEMALES

Year of death	Deaths n	Age at death (all causes) Years	Age at death (cancer-related) Years	Age at death (not cancer-related) Years	Age at death (according to death certificate) Years
1998	170	75.6	75.0	80.0	76.0
1999	175	77.6	77.2	81.5	78.0
2000	174	74.6	74.2	79.1	74.9
2001	200	75.0	74.7	81.3	75.6
2002	263	76.0	75.6	86.5	76.0
2003	261	74.5	74.1	85.0	74.6
2004	270	75.4	75.5	72.2	75.5
2005	281	74.9	74.7	80.8	75.0
2006	330	75.5	75.6	75.3	75.6
2007	347	74.6	74.6	74.1	74.5
2008	345	75.8	75.5	84.9	75.6
2009	342	75.5	75.3	82.9	75.4
2010	395	75.2	75.0	83.0	75.2
2011	400	76.1	76.1	75.7	76.1
2012	366	75.8	75.5	82.7	75.8
1998-2012	4319	75.4	75.3	80.8	75.5

By 2010, life expectancy for a newborn male in Germany is 77.5 years compared with 82.6 years for his female counterpart.

Deaths of patients are considered to be cancer-related, in case that fact was recorded on the death certificate, or patients had suffered from metastasis or recurrence.

Table 12a

Mortality measures (cancer-related death) and mortality-incidence-index
by year of death
MALES

Year of death	Deaths n	Mort. raw	MI-Index raw	Mort. WS	MI-Index WS	Mort. ES	MI-Index ES	Mort. BRD-S	MI-Index BRD-S
1998	134	12.1	0.96	7.2	0.98	11.0	0.97	14.7	0.99
1999	161	14.4	0.88	8.4	0.87	13.0	0.88	17.7	0.88
2000	155	13.6	1.01	7.8	1.00	12.0	1.00	16.1	1.03
2001	162	14.0	0.83	7.9	0.81	12.4	0.84	16.4	0.86
2002	220	11.8	0.71	6.6	0.70	10.1	0.71	13.1	0.72
2003	258	13.8	0.86	7.5	0.85	11.3	0.85	14.6	0.84
2004	250	13.3	0.84	7.0	0.82	10.7	0.83	14.2	0.86
2005	277	14.6	0.79	7.5	0.78	11.4	0.79	15.5	0.81
2006	305	15.9	0.82	8.0	0.77	12.2	0.79	16.4	0.82
2007	310	14.0	0.75	7.1	0.73	10.8	0.73	14.2	0.74
2008	356	16.0	0.86	7.9	0.84	12.0	0.85	16.1	0.86
2009	342	15.3	0.76	7.6	0.77	11.6	0.76	15.0	0.76
2010	368	16.3	0.83	7.8	0.84	11.9	0.84	15.9	0.84
2011	370	16.2	0.85	7.5	0.84	11.5	0.85	15.2	0.86
2012	347	15.2	0.87	7.0	0.85	10.7	0.85	14.4	0.86
1998-2012	4015	14.6	0.83	7.5	0.81	11.4	0.82	15.1	0.83

Table 12b

Mortality measures (cancer-related death) and mortality-incidence-index
by year of death
FEMALES

Year of death	Deaths n	Mort. raw	MI-Index raw	Mort. WS	MI-Index WS	Mort. ES	MI-Index ES	Mort. BRD-S	MI-Index BRD-S
1998	151	12.8	0.89	5.2	0.91	8.0	0.91	10.8	0.90
1999	160	13.5	0.90	4.7	0.84	7.6	0.86	11.1	0.90
2000	162	13.5	0.95	5.2	0.93	8.2	0.95	11.0	0.94
2001	190	15.6	0.90	6.2	0.88	9.7	0.89	13.0	0.90
2002	254	13.0	0.72	4.7	0.71	7.4	0.71	10.2	0.72
2003	252	12.8	0.81	4.9	0.78	7.6	0.79	10.2	0.81
2004	264	13.4	0.72	4.8	0.69	7.5	0.70	10.3	0.71
2005	274	13.8	0.75	5.3	0.74	8.1	0.75	10.8	0.75
2006	324	16.1	0.89	5.7	0.88	9.0	0.89	12.4	0.90
2007	340	14.7	0.84	5.4	0.83	8.3	0.83	11.3	0.85
2008	335	14.4	0.72	5.2	0.70	8.1	0.72	10.8	0.71
2009	334	14.4	0.75	5.0	0.74	7.8	0.74	10.7	0.75
2010	387	16.5	0.80	5.8	0.80	9.0	0.80	12.4	0.80
2011	391	16.6	0.84	5.5	0.79	8.7	0.80	12.1	0.83
2012	352	14.9	0.86	5.1	0.83	8.0	0.85	10.9	0.86
1998-2012	4170	14.5	0.81	5.2	0.79	8.2	0.80	11.2	0.81

Table 13

Age distribution of age at death (cancer-related) for period 1998-2012
(**incl. multiple primaries**)

Age at death Years	Cases n	%	Cum.%	Males n	%	Cum.%	Females n	%	Cum.%
0-4	1	0.0	0.0	1	0.0	0.0			0.0
5-9	0	0.0	0.0			0.0			0.0
10-14	0	0.0	0.0			0.0			0.0
15-19	1	0.0	0.0	1	0.0	0.0			0.0
20-24	1	0.0	0.0	1	0.0	0.1			0.0
25-29	3	0.0	0.1	1	0.0	0.1	2	0.0	0.0
30-34	6	0.1	0.1	4	0.1	0.2	2	0.0	0.1
35-39	26	0.3	0.5	17	0.4	0.6	9	0.2	0.3
40-44	68	0.8	1.3	40	1.0	1.6	28	0.7	1.0
45-49	141	1.7	3.0	92	2.3	3.9	49	1.2	2.2
50-54	299	3.7	6.7	180	4.5	8.4	119	2.9	5.0
55-59	519	6.3	13.0	315	7.8	16.2	204	4.9	9.9
60-64	858	10.5	23.5	524	13.0	29.3	334	8.0	17.9
65-69	1170	14.3	37.8	692	17.2	46.5	478	11.5	29.4
70-74	1361	16.6	54.4	708	17.6	64.1	653	15.7	45.0
75-79	1346	16.4	70.9	632	15.7	79.9	714	17.1	62.2
80-84	1215	14.8	85.7	469	11.7	91.6	746	17.9	80.0
85+	1171	14.3	100.0	339	8.4	100.0	832	20.0	100.0
All ages	8186	100.0		4016	100.0		4170	100.0	

Included in the statistics are 23.4% multiple primaries in males and 20.1% in females.

Table 14

Age-specific mortality (cancer-related) and proportion of all cancers
for period 1998-2012
(**incl. multiple primaries**)

Age at death Years	Males n	Females n	Males Age-spec. mortal.	MI-index	Females Age-spec. mortal.	MI-index	Males Prop.all cancers %	Females Prop.all cancers %
0- 4	1		0.1	1.00	0.0		3.2	
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19	1		0.1	1.00	0.0		2.4	
20-24	1		0.1	1.00	0.0		1.2	
25-29	1	2	0.1	0.17	0.1	0.50	1.0	1.8
30-34	4	2	0.2	0.67	0.1	0.25	2.3	0.9
35-39	17	9	0.7	0.68	0.4	0.45	4.4	1.8
40-44	40	28	1.7	0.65	1.2	0.67	4.9	2.6
45-49	92	49	4.3	0.65	2.3	0.61	5.4	2.6
50-54	180	119	9.7	0.72	6.3	0.77	5.9	4.1
55-59	315	204	18.5	0.80	11.5	0.77	5.7	4.6
60-64	524	334	31.8	0.79	19.2	0.79	6.3	5.5
65-69	692	478	47.2	0.87	29.8	0.80	6.2	6.2
70-74	708	653	61.1	0.83	47.4	0.81	5.7	7.3
75-79	632	714	83.9	0.86	65.3	0.86	5.2	7.2
80-84	469	746	103.3	0.91	86.4	0.84	4.7	7.1
85+	339	832	109.3	0.81	101.6	0.80	4.2	6.6
All ages	4016	4170					5.4	6.2
Mortality								
Raw			14.6	0.83	14.5	0.81		
WS			7.5	0.81	5.2	0.79		
ES			11.4	0.82	8.2	0.80		
BRD-S			15.1	0.83	11.2	0.81		
PYLL-70								
per 100,000			67.9		43.4			
ES			59.7		36.5			
AYLL-70			9.0		8.7			

The rates underestimate the prognosis if other synchronous cancers are prognostic unfavorable.

Table 15a

Multiple primaries in deaths in period 1998-2012
MALES

Diagnosis	Total n	Total %↓	Pre n	Pre ←%	Syn-chron ±30d n	Syn-chron ±30d ←%	Post n	Post ←%
C09-C10 Oropharynx	15	1.6	13	86.7			2	13.3
C16 Stomach	59	6.4	29	49.2	21	35.6	9	15.3
C17 Small intestine	9	1.0	2	22.2	6	66.7	1	11.1
C18 Colon	107	11.6	79	73.8	19	17.8	9	8.4
C19-C20 Rectum	46	5.0	35	76.1	9	19.6	2	4.3
C32 Larynx	17	1.8	14	82.4	2	11.8	1	5.9
C33-C34 Lung	59	6.4	28	47.5	16	27.1	15	25.4
C43 Malign. melanoma	49	5.3	47	95.9	1	2.0	1	2.0
C44 Skin others	48	5.2	37	77.1	5	10.4	6	12.5
C61 Prostate	270	29.2	230	85.2	14	5.2	26	9.6
C62 Testis	9	1.0	9	100.0				
C64 Kidney	29	3.1	22	75.9	6	20.7	1	3.4
C65 Renal pelvis	9	1.0	6	66.7	1	11.1	2	22.2
C67 Bladder	80	8.6	69	86.3	5	6.3	6	7.5
C70-C72 CNS cancer	13	1.4	7	53.8	1	7.7	5	38.5
C82-C85 NHL	23	2.5	19	82.6	4	17.4		
C91-C96 Leukaemia	11	1.2	5	45.5	3	27.3	3	27.3
Other primaries	72	7.8	41	56.9	19	26.4	12	16.7
All mult. primaries	925	100.0	692	74.8	132	14.3	101	10.9

Multiple primaries with number of cases n<9 are pooled in category "Other primaries".

ICD-10 C44 (Other malignant neoplasms of skin) is not systematically recorded by MCR and therefore not considered for evaluation as a particular primary but at least as a multiple malignancy.

Table 15b

Multiple primaries in deaths in period 1998-2012
FEMALES

Diagnosis		Total n	Total %↓	Pre n	Pre ←%	Syn-chron ±30d n	Syn-chron ±30d ←%	Post n	Post ←%
C16	Stomach	42	5.1	23	54.8	15	35.7	4	9.5
C17	Small intestine	8	1.0	3	37.5	4	50.0	1	12.5
C18	Colon	92	11.2	66	71.7	17	18.5	9	9.8
C19-C20	Rectum	34	4.1	26	76.5	4	11.8	4	11.8
C23-C24	Bile	8	1.0	2	25.0	4	50.0	2	25.0
C33-C34	Lung	36	4.4	13	36.1	7	19.4	16	44.4
C43	Malign. melanoma	36	4.4	34	94.4	1	2.8	1	2.8
C44	Skin others	31	3.8	28	90.3	2	6.5	1	3.2
C50	Breast	260	31.7	234	90.0	9	3.5	17	6.5
C53	Cervix uteri	22	2.7	18	81.8	2	9.1	2	9.1
C54	Corpus uteri	45	5.5	43	95.6	1	2.2	1	2.2
C56	Ovary	44	5.4	24	54.5	6	13.6	14	31.8
C64	Kidney	31	3.8	25	80.6	5	16.1	1	3.2
C67	Bladder	29	3.5	27	93.1	1	3.4	1	3.4
C70-C72	CNS cancer	12	1.5	10	83.3	1	8.3	1	8.3
C76-C79	CUP	8	1.0	5	62.5	2	25.0	1	12.5
C82-C85	NHL	16	2.0	12	75.0	3	18.8	1	6.3
C91-C96	Leukaemia	10	1.2	5	50.0	3	30.0	2	20.0
Other primaries		56	6.8	43	76.8	7	12.5	6	10.7
All mult. primaries		820	100.0	641	78.2	94	11.5	85	10.4

Multiple primaries with number of cases n<8 are pooled in category "Other primaries".

ICD-10 C44 (Other malignant neoplasms of skin) is not systematically recorded by MCR and therefore not considered for evaluation as a particular primary but at least as a multiple malignancy.

Table 16

Age-specific mortality (cancer-related) and proportion of all cancers
for period 1998-2012
(**Singular primaries only** *)

Age at death Years	Males n	Females n	Males Age-spec. mortal.	MI-index	Females Age-spec. mortal.	MI-index	Males Prop.all cancers %	Females Prop.all cancers %
0- 4	1		0.1	1.00	0.0		3.8	
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19	1		0.1	1.00	0.0		2.6	
20-24	1		0.1	1.00	0.0		1.3	
25-29	1	2	0.1	0.17	0.1	0.50	1.1	1.9
30-34	4	2	0.2	0.67	0.1	0.25	2.3	1.1
35-39	16	8	0.7	0.67	0.4	0.44	4.5	1.8
40-44	37	25	1.5	0.66	1.1	0.71	4.9	2.7
45-49	87	43	4.0	0.66	2.0	0.61	5.7	2.6
50-54	169	111	9.1	0.73	5.9	0.79	6.3	4.6
55-59	283	185	16.7	0.81	10.4	0.78	5.9	4.9
60-64	473	299	28.7	0.80	17.2	0.80	6.7	6.0
65-69	579	406	39.5	0.89	25.3	0.82	6.4	6.5
70-74	566	555	48.8	0.85	40.2	0.83	5.8	7.7
75-79	489	591	64.9	0.88	54.0	0.85	5.3	7.5
80-84	353	623	77.7	0.90	72.1	0.84	4.8	7.5
85+	266	695	85.8	0.82	84.9	0.81	4.3	6.8
All ages	3326	3545					5.6	6.5
Mortality								
Raw			12.1	0.83	12.4	0.81		
WS			6.3	0.82	4.5	0.80		
ES			9.5	0.83	7.0	0.80		
BRD-S			12.4	0.84	9.5	0.81		
PYLL-70								
per 100,000			61.9		39.1			
ES			54.6		33.0			
AYLL-70			9.3		8.9			

* See corresponding tables with multiple primaries.

Table 17

Age-specific mortality (cancer-related) and proportion of all cancers
for period 1998-2012
(**Single primaries only** *)

Age at death Years	Males n	Females n	Males Age-spec. mortal.	MI-index	Females Age-spec. mortal.	MI-index	Males Prop.all cancers %	Females Prop.all cancers %
0- 4	1		0.1	1.00	0.0		4.0	
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19	1		0.1	1.00	0.0		2.6	
20-24	1		0.1	1.00	0.0		1.4	
25-29	1	2	0.1	0.17	0.1	0.50	1.2	2.1
30-34	4	2	0.2	0.67	0.1	0.25	2.4	1.2
35-39	16	7	0.7	0.67	0.3	0.44	4.7	1.7
40-44	36	25	1.5	0.64	1.1	0.71	5.1	2.9
45-49	85	41	3.9	0.67	1.9	0.59	5.9	2.8
50-54	165	110	8.9	0.73	5.8	0.80	6.8	5.1
55-59	281	181	16.5	0.81	10.2	0.77	6.4	5.4
60-64	464	296	28.2	0.81	17.0	0.80	7.5	6.9
65-69	564	398	38.4	0.88	24.8	0.82	7.2	7.5
70-74	553	541	47.7	0.84	39.2	0.84	6.7	8.9
75-79	477	578	63.3	0.88	52.8	0.84	6.4	8.7
80-84	340	615	74.9	0.89	71.2	0.83	5.8	8.8
85+	258	685	83.2	0.80	83.6	0.81	5.2	7.8
All ages	3247	3481					6.4	7.4
Mortality								
Raw			11.8	0.83	12.1	0.81		
WS			6.2	0.82	4.4	0.80		
ES			9.3	0.82	6.9	0.80		
BRD-S			12.1	0.83	9.3	0.81		
PYLL-70								
per 100,000			60.8		38.3			
ES			53.6		32.3			
AYLL-70			9.3		8.9			

* See corresponding tables with multiple primaries.

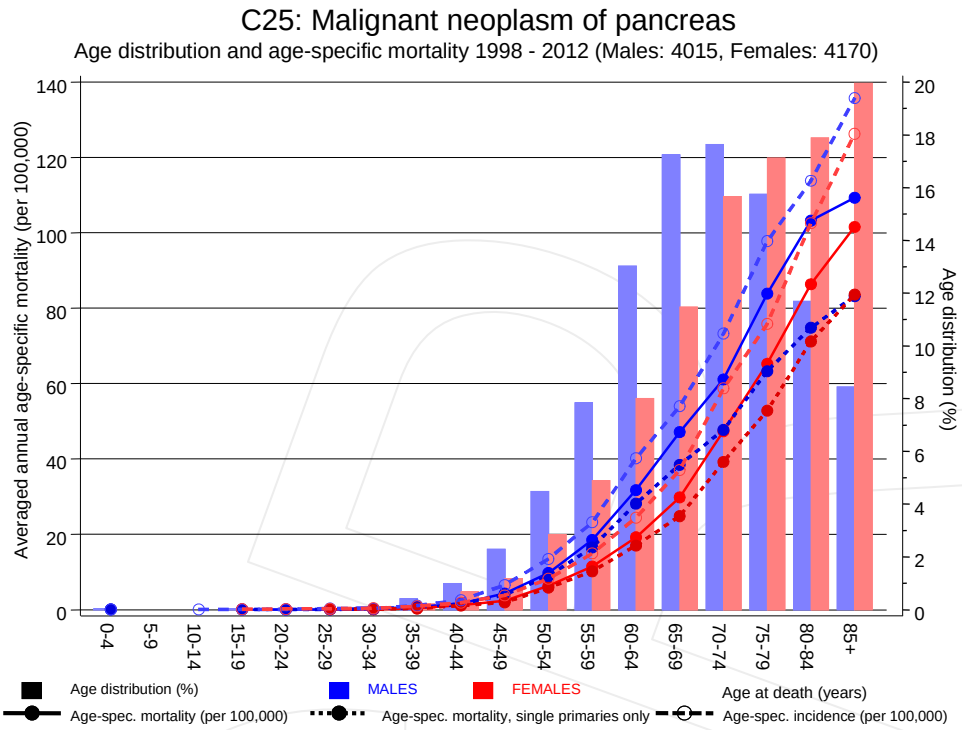
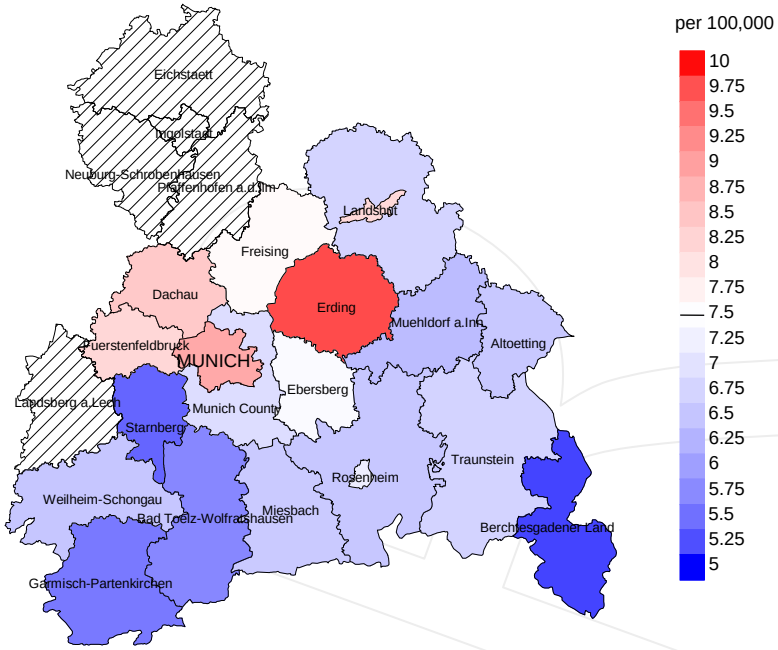


Figure 18. Distribution of age at death (bars) and age-specific mortality (all patients: solid line, patients with single primaries: dotted line). The age-specific incidence is additionally plotted for comparison (dashed line).

The difference between age at diagnosis (Table 3) and age at pancreas cancer-related death (see Table 10) should be considered.

Average mortality (world standard population) 2003 - 2008: Males



Average mortality (world standard population) 2003 - 2008: Females

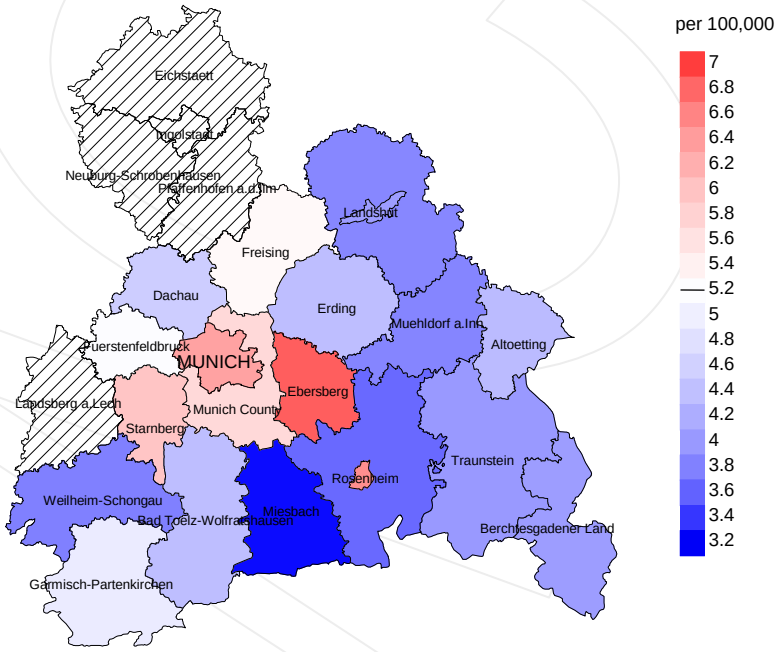
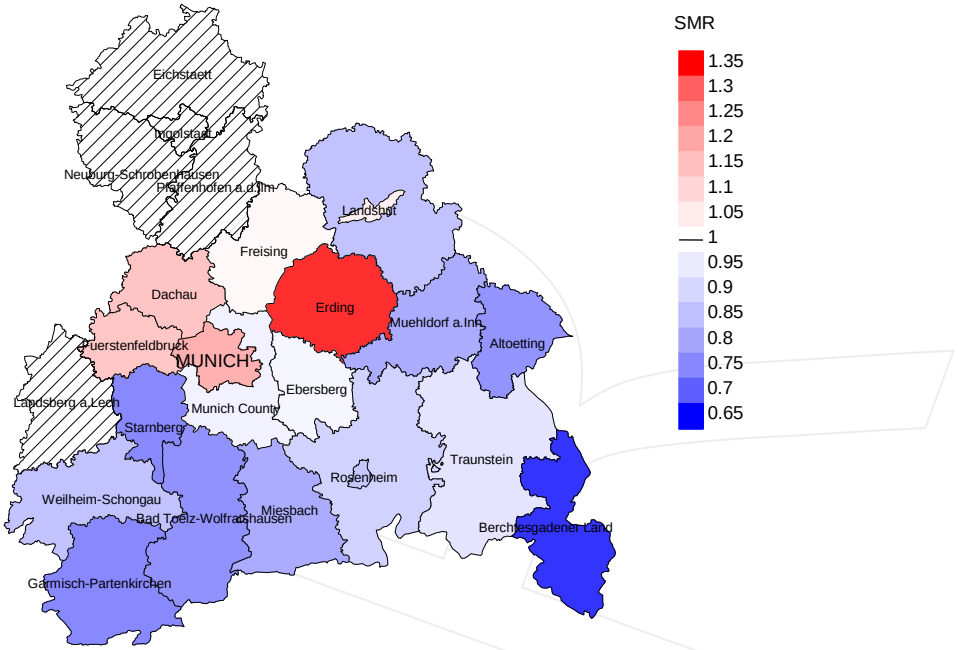


Figure 19a. Map of cancer mortality (world standard population) by county averaged for period 2003 to 2008. According to their individual mortality rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 7.5/100,000 WS N=1,685, females 5.2/100,000 WS N=1,731). Since cancer data are not available in some counties until 2007, the local mortality rates were not calculated, and the map tiles show as shaded.

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 63,131 female residents (averaged) in the period from 2003 to 2008 a total of 60 women died from pancreas cancer. Therefore, the mean mortality rate for this cancer type in this area can be calculated at 6.8/100,000 (world standard population). Though, the value of this parameter may vary with an underlying probability of 99% between 4.6 and 9.9/100,000.

Standardized mortality ratio (SMR) 2003 - 2008: Males



Standardized mortality ratio (SMR) 2003 - 2008: Females

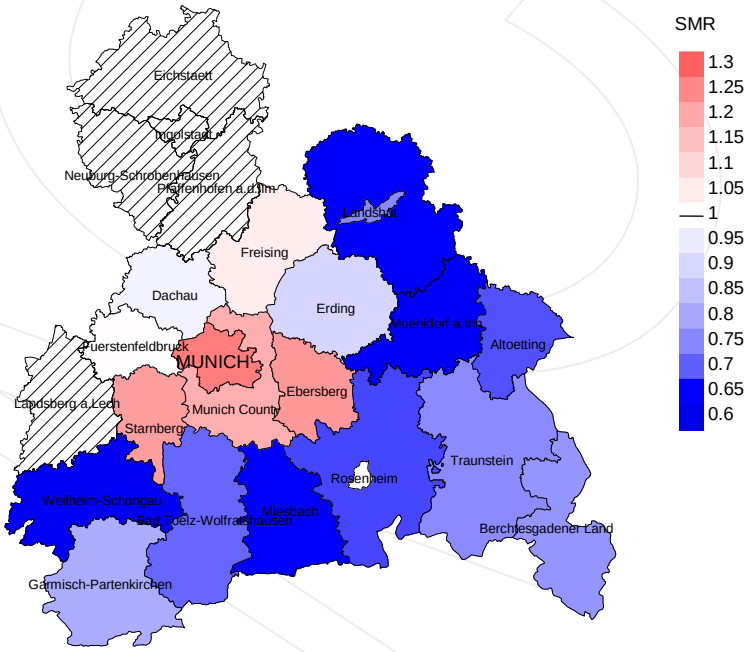


Figure 19b. Map of standardized mortality ratio (SMR, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual SMR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=1,685, females N=1,731). Since cancer data are not available in some counties until 2007, the local SMR values were not calculated, and the map tiles show as shaded.

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 63,131 female residents (averaged) in the period from 2003 to 2008 a total of 60 women died from pancreas cancer. Therefore, the mean standardized mortality ratio (SMR) for this cancer type in this area can be calculated at 1.22. Though, the value of this parameter may vary with an underlying probability of 99% between 0.86 and 1.69, and is therefore not statistically striking.

Statistical Notes

In all tables and figures the respective reference values should be carefully considered. The incidence rates include diagnoses (with multiple primary), and death certificate only (DCO) cases. For mortality statistics patients, diagnoses and progressive course of disease are presented. In the calculations, all courses of disease are considered whereby progressions occurred and/or death certificate identified progressive cancers were ascertained. Additionally there are three groups of disease course to consider:

1. **All multiple primaries included**

   The mortality statistic describes the tumor-specific death, independent of any malignancy. The patient perspective, induced secondary malignancies, and the problem of multiple malignancies from the same primary tumor all have reasons for their inclusion.

2. **First singular primary** (no information about other prior or synchronous malignancy)

   The mortality statistic describes the tumor-related death for patients who have no therapeutic restrictions due to a previous or synchronous cancer. These statistics are comparable to studies that have exclusion criteria based on a second malignancy.

3. **Single primary** (no information about other prior, syn- or metachronous malignancy)

   The mortality statistic describes the tumor-specific death that occurs without any impact through secondary primaries, earlier, synchronous, later or induced. Precisely the difference between disease group 1 and 2 highlight the magnitude of the problem of secondary malignancies.

For this reason differences appear concerning official mono-causal mortality statistics. To judge the maximum deviation, 2 further tables are presented. In the first table the distribution of secondary malignancies before, at or after the described cancer are shown, that could be an alternative cause of death. In the second table, the age-specific mortality rates for all courses of disease, without designation of secondary malignancies are shown.

A previously minimally acknowledged statistic is the **age at death**, which allows for a good assessment of the quality of classification of the apparent tumor-specific death. For assumed tumor-independent deaths, the age of death should be estimated from the age of diagnosis and the normal life expectancy, whereas tumor-dependent deaths can be estimated from the age of diagnosis plus the average tumor-specific life expectancy. The comparison of different tumors demonstrates this association, if the causes of cancer and the competing cause of death are independent of each other (e.g. breast and colon versus head/neck and lung).

The index from mortality and incidence (Mortality-Incidence ratio, **MI-index**) is a statistic that allows for the evaluation of the quality of data. For diseases with poor prognoses, comparable values are obtained from all age groups, because to a large extent, the numerator and denominator contain the same cases. For tumors with a good prognosis, increasing and decreasing incidence and age-specific differences in prognosis can more strongly alter the MI- index. Additionally, attention should be paid to the confidence intervals where fewer cases are reported.

The complexity of problems identified here emphasizes the importance of relative survival data for the appropriate analysis of long term results.

As a measurement of the burden of disease, the number of potential life years loss due to premature deaths in a cohort can be calculated (**PYLL**, potential years of life lost, standardized per 100,000 persons or per European standard) as well as the average loss of life years per individual (**AYLL**, average years of life lost). Depending upon the analytic aim (health economy, prevention, health care research) different methods exist for the generation of these measurements. In the results presented here, the age for a premature death is considered to be before 70 years, according to the guidelines of the OECD and the WHO (as seen in the abbreviation PYLL-70 or AYLL-70).

Shortcuts

AYLL-70	Average years of life lost prior to age 70 given a person dies before that age
BRD-S	German standard population
DCO	Death certificate only
EAR	Excess absolute risk = excess cancer cases (O - E) per 10,000 person-years
ES	European standard population (old)
FRG	Federal Republic of Germany
GEKID	Association of Population-based Cancer Registries in Germany (Gesellschaft der epidemiologischen Krebsregister in Deutschland e.V.)
LCL	Lower confidence limit
MI-index	Ratio between mortality and incidence
MCR	Munich Cancer Registry (Tumorregister München)
PYLL-70	Potential years of life lost prior to age 70 given a person dies before that age
SEER	Surveillance, Epidemiology, and End Results (USA)
SIR	Standardized incidence ratio
SMR	Standardized mortality ratio
UCL	Upper confidence limit
WS	World standard population

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Munich Cancer Registry. Baseline statistics C25: Pancreas cancer [Internet]. 2014 [updated 2014 Mar 20; cited 2014 May 1]. Available from: http://www.tumorregister-muenchen.de/en/facts/base/base_C25__E.pdf

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