Munich Cancer Registry



- ▶ Survival
- ▶ Selection Matrix
- ▶ Homepage

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

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

Cancer statistics: Baseline statistics

C12, C13: Hypopharynx cancer

Year of diagnosis	1998-2012
Patients	1,387
Diseases	1,387
Creation date	03/20/2014
Export date	02/12/2014
Population	4.5 m



http://www.tumorregister-muenchen.de/en/facts/base/base_C1213E.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.

Some remarks regarding this cancer type

As a general rule, these few results from the TRM form the basis of sophisticated analyses. For head and neck tumors this is not the case. Therefore the results for head and neck tumors should be interpreted with caution. In part this is due to problems of classification because of limited specific details of locality. Additionally, with advanced tumors in a close topographic location it is often not possible to determine the exact ICD localization of a tumor.

ICD-10 codes used for specifying cancer site

ICD-10	Description
C12 C13 C13.0 C13.1 C13.2 C13.8 C13.9	Malignant neoplasm of piriform sinus Malignant neoplasm of hypopharynx Postcricoid region Aryepiglottic fold, hypopharyngeal aspect Posterior wall of hypopharynx Overlapping lesion of hypopharynx Hypopharynx, 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

				Prop.		Prop.
		DCO	Prop.	mult.	Prop.	actively
Year of	Cases	cases	DCO	primaries	deaths	followed
diagnosis	n	'n	%	્ર	%	%
1998	61			24.6	88.5	100.0
1999	68	5	7.4	29.4	85.3	98.5
2000	66	2	3.0	22.7	87.9	97.0
2001	67	3	4.5	25.4	82.1	97.0
2002	92	4	4.3	23.9	85.9	97.8 #
2003	98	1	1.0	36.7	84.7	100.0 #
2004	83	2	2.4	31.3	88.0	100.0 #
2005	114	7	6.1	30.7	71.9	98.2 #
2006	99	3	3.0	22.2	75.8	100.0 #
2007	123	7	5.7	28.5	76.4	95.9 # ##
2008	126	7	5.6	25.4	74.6	89.7
2009	113	4	3.5	20.4	70.8	87.6
2010	109	7	6.4	32.1	65.1	89.9
2011	99	3	3.0	31.3	51.5	86.9
2012	69	5	7.2	27.5	43.5	100.0 ###
1998-2012	1387	60	4.3	27.6	74.8	95.3

[#] 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	All	Males	Females	Prop. males	
diagnosis	n	n	n	%	
1998	61 /	56	5	91.8	
1999	68	62	6	91.2	
2000	66	59	7	89.4	
2001	67	60	7	89.6	
2002	92	85	7	92.4	
2003	98	91	7 /	92.9	
2004	83	73	10/	88.0	
2005	114	99	15	86.8	
2006	99	87	12	87.9	
2007	123	106	17	86.2	
2008	126	106	20	84.1	
2009	113	99	14	87.6	
2010	109	97	12	89.0	
2011	99	86	13	86.9	
2012	69	59	10	85.5	
1998-2012	1387	1225	162	88.3	

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)

			Males	Fem.	Males	Fem.	Males	Fem.	Males	Fem.
Year of	Males	Females	Inc.	Inc.	Inc.	Inc.	Inc.	Inc.	Inc.	Inc.
diagnosis	n	n	raw	raw	WS	WS	ES	ES	BRD-S	BRD-S
1998	56	5	5.1	0.4	3.3	0.2	4.5	0.2	4.8	0.3
1999	62	6	5.5	0.5	3.7	0.3	5.1	0.4	5.7	0.5
2000	59	7	5.2	0.6	3.5	0.3	4.9	0.4	5.4	0.5
2001	60	7	5.2	0.6	3.5	0.4	4.7	0.6	5.1	0.6
2002	85	7	4.6	0.4	3.0	0.2	4.1	0.3	4.3	0.3
2003	91	7 /	4.9	0.4	3.2	0.2	4.5	0.3	4.7	0.3
2004	73	10 /	3.9	0.5	2.6	0.3	3.5	0.4	3.7	0.4
2005	99	15 <	5.2	0.8	3.4	0.4	4.5	0.6	5.1	0.7
2006	87	12	4.5	0.6	2.9	0.4	4.0	0.5	4.4	0.5
2007	106	17	4.8	0.7	2.9	0.5	4.0	0.7	4.5	0.7
2008	106	20	4.8	0.9	3.0	0.5	4.1	0.6	4.5	0.7
2009	99	14	4.4	0.6	2.7	0.3	3.7	0.4	4.1	0.5
2010	97	12	4.3	0.5	2.6	0.3	3.6	0.4	4.0	0.4
2011	86	13	3.8	0.6	2.1	0.3	3.0	0.4	3.5	0.5
2012	59	10	2.6	0.4	1.4	0.2	2.0	0.3	2.4	0.4
1998-2012	1225	162	4.5	0.6	2.8	0.3	3.9	0.4	4.3	0.5



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

Table 3 $\label{eq:Age_distribution_parameters} \mbox{ Age distribution parameters by year of diagnosis (All)} \mbox{ (incl. DCO)}$

Year of	Cases		Std.					Median		
diagnosis	n	Mean	dev.	Min.	Max.	10%	25%	50%	75%	90%
1998	61	59.4	9.2	37.3	86.7	48.6	54.0	58.1	64.5	70.7
1999	68	59.4	10.1	44.2	87.0	49.6	51.2	56.9	64.5	75.6
2000	66	59.4	10.2	43,1	88.6	49.3	52.1	57.6	65.3	78.8
2001	67	59.0	8.6	29.2	80.9	48.3	53.3	58.2	65.5	69.9
2002	92	58.8	8.4	39.2	77.7	47.0	52.7	58.5	64.4	68.8
2003	98	58.9	9.2	39.6	81.2	47.1	52.8	57.4	66.1	72.6
2004	83	58.5	9.8	38.5	87.8	47.0	52.0	58.9	63.9	69.4
2005	114	60.9	9.5	45.8	84.8	48.1	53.4	61.9	67.4	72.0
2006	99	60.0	9.6	30.6	86.2	49.1	54.5	58.8	66.4	71.6
2007	123	61.5	9.9	30.1	86.0	49.1	53.7	62.6	67.3	74.7
2008	126	62.7	9.7	35.5	91.4	50.4	57.7	61.8	68.3	74.1
2009	113	62.3	9.9	42.7	87.9	49.6	54.1	62.3	70.1	72.9
2010	109	60.3	10.8	35.1	92.3	46.7	52.2	58.9	69.0	73.6
2011	99	64.0	10.3	40.6	91.6	49.3	56.2	64.2	71.8	75.7
2012	69	66.0	11.1	39.9	91.7	48.6	60.7	66.1	73.9	78.7
1998-2012	1387	60.9	9.9	29.2	92.3	48.4	53.5	60.5	67.5	74.0

Table 3a

Age distribution parameters by year of diagnosis (MALES)

(incl. DCO)

Year of	Cases		Std.					Median		
diagnosis	n	Mean	dev.	Min.	Max.	10%	25%	50%	75%	90%
1998	56	58.2	7.8	37.3	76.7	47.6	53.7	57.6	63.4	68.9
1999	62	59.3	10.3	44.2	87.0	49.6	51.1	56.9	64.8	74.6
2000	59	58.8	9.8	45.2	88.6	49.3	51.2	57.2	64.3	71.2
2001	60	59.4	8.9	29.2	80.9	48.8	53.2	59.5	65.8	70.0
2002	85	58.4	8.2	39.2	77.7	47.0	52.4	57.7	64.0	68.4
2003	91	59.0	9.0	39.6	81.2	48.4	52.9	57.4	66.2	71.4
2004	73	57.4	9.4	38.5	83.9	46.2	51.1	57.1	63.5	66.8
2005	99	60.5	9.5	45.8	84.8	47.7	53.0	61.6	67.4	70.5
2006	87	59.7	9.5	30.6	85.0	48.9	54.5	58.6	66.2	71.6
2007	106	62.1	9.8	41.0	86.0	49.3	53.7	64.0	67.9	76.3
2008	106	62.0	8.7	40.7	84.5	50.4	56.6	61.6	67.9	71.8
2009	99	61.9	9.9	42.7	87.9	49.6	54.0	61.6	69.6	72.9
2010	97	60.3	10.5	38.7	92.3	46.7	52.5	58.9	68.4	73.6
2011	86	63.8	10.4	40.6	86.3	49.2	54.2	64.5	71.8	75.5
2012	59	66.1	11.3	39.9	91.7	47.7	60.7	67.2	74.5	78.7
1998-2012	1225	60.6	9.7	29.2	92.3	48.3	53.2	60.2	67.3	73.5

Table 3b

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

Year of	Cases		Std.					Median		
diagnosis	n	Mean	dev.	Min.	Max.	10%	25%	50%	75%	90%
1998	5	73.4	12.9	59.4	86.7	59.4	60.7	75.4	84.9	86.7
1999	6	59.7	9.1	51.2	75.6	51.2	53.1	57.9	62.6	75.6
2000	7	63.9	13.5	43,1	81.3	43.1	56.9	60.4	79.9	81.3
2001	7	55.0	4.1	47.3	60.0	47.3	53.8	55.1	57.5	60.0
2002	7	63.9	9.4	45.5	73.0	45.5	60.5	66.0	71.6	73.0
2003	7	57.2	12.7	43.6	79.8	43.6	44.7	57.4	65.6	79.8
2004	10	66.9	9.5	56.5	87.8	57.7	60.3	64.8	71.4	82.0
2005	15	64.0	9.6	47.8	81.5	51.5	57.6	64.3	68.5	77.5
2006	12	62.8	10.3	51.6	86.2	52.7	54.4	60.8	70.7	71.5
2007	17	57.9	9.8	30.1	68.0	44.6	54.0	59.8	63.1	67.6
2008	20	66.7	13.2	35.5	91.4	52.7	60.6	66.5	72.5	86.6
2009	14	65.5	9.4	46.5	79.9	49.3	60.2	68.5	71.9	74.4
2010	12	60.3	13.4	35.1	82.4	48.8	49.6	62.7	69.6	71.8
2011	13	65.7	10.0	54.5	91.6	57.2	58.6	62.8	67.7	75.7
2012	10	65.8	10.6	52.5	90.6	53.4	60.3	64.2	69.1	80.9
1998-2012	162	63.3	11.1	30.1	91.6	49.8	57.3	62.6	69.1	77.5

Age at									
diagnosis	Cases			Males			Females		
Years	n	%	Cum.%	n	06	Cum.%	n	%	Cum.%
25-29	1	0.1	0.1	1	0.1	0.1			0.0
30-34	2	0.1	0.2	/ 1	0.1	0.2	1	0.6	0.6
35-39	11	0.8	1.0	9	0.7	0.9	2	1.2	1.9
40-44	34	2.5	3.5	30	2.4	3.3	4	2.5	4.3
45-49	139	10.0	13.5	129	10.5	13.9	10	6.2	10.5
50-54	236	17.0	30.5	219	17.9	31.8	17	10.5	21.0
55-59	240	17.3	47.8	214	17.5	49.2	26	16.0	37.0
60-64	259	18.7	66.5	222	18.1	67.3	37	22.8	59.9
65-69	222	16.0	82.5	196	16.0	83.3	26	16.0	75.9
70-74	122	8.8	91.3	105	8.6	91.9	17	10.5	86.4
75-79	70	5.0	96.3	60	4.9	96.8	10	6.2	92.6
80-84	34	2.5	98.8	30	2.4	99.3	4	2.5	95.1
85+	17	1.2	100.0	9	0.7	100.0	8	4.9	100.0
All ages	1387	100.0		1225	100.0		162	100.0	

Included in the statistics are 35.2% multiple primaries in males and 45.7% in females.

Table 5

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

Age at diagnosis Years 0- 4 5- 9 10-14	Males n	Females n	Age- spec.	Females Age- spec. incid. 0.0 0.0 0.0		Females DCO rate n=10 %	cancers	Females Prop.all cancers n=142297
15-19			0.0	0.0				
20-24			0.0	0.0				
25-29	1		0.1	0.0			0.1	
30-34	1	1 4	0.0	0.0			0.1	0.1
35-39	9	2	0.4	0.1		50.0	0.4	0.1
40-44	30	4	1.2	0.2	3.3		1.0	0.1
45-49	129	10	6.0	0.5	3.1	10.0	2.6	0.1
50-54 55-59	219 214	17 26	11.8 12.6	0.9 1.5	4.1 1.9	3.8	2.7 1.6	0.2 0.2
60-64	222	37	13.5	2.1	2.3	8.1	1.1	0.2
65-69	196	26	13.4	1.6	3.6	0.1	0.8	0.1
70-74	105	17	9.1	1.2		5.9	0.4	0.1
75-79	60	10 /	8.0	0.9	3.3	10.0	0.3	0.1
80-84	30	4	6.6	0.5	16.7	25.0	0.2	0.0
85+	9	8	2.9	1.0	44.4	12.5	0.1	0.0
All ages	1225	162			4.1	6.2	0.8	0.1
All ages	1223	102			4.1	0.2	0.8	0.1
Incidence								
Raw			4.5	0.6				
WS			2.8	0.3				
ES			3.9	0.4				
BRD-S			4.3	0.5				

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

	Observed	Expected		LCL	UCL		DCO
Diagnosis	n	n	SIR	95%	95%	EAR	%
C03-C06 Oral cavity	12 /	0.4	33.7	17.4	58.9 #	50.6	8.3
C09-C10 Oropharynx	21	0.5	44.9	27.8	68.6 #	89.3	
C15 Oesophagus	20	0.6	34.0	20.8	52.5 #	84.4	10.0
C16 Stomach	3	1.0	2.9	0.6	8.6	8.6	
C18 Colon	/5	2.5	2.0	0.7	4.7	11.0	
C19-C20 Rectum	/ 3	1.7	1.8	0.4	5.2	5.7	
C22 Liver	/ 3	0.8	3.9	0.8	11.3	9.7	
C25 Pancreas	2	0.9	2.2	0.3	7.9	4.7	
C32 Larynx	5	0.4	13.2	4.3	30.8 #	20.1	
C33-C34 Lung	41	3.4	11.9	8.6	16.2 #	163.3	12.2
C61 Prostate	10	8.2	1.2	0.6	2.2	7.8	10.0
C64 Kidney	4	1.1	3.7	1.0	9.6 #	12.7	50.0
C65 Renal pelvis	2	0.1	21.1	2.6	76.1 #	8.3	
C67 Bladder	4	1.0	4.1	1.1	10.4 #	13.1	
C73 Thyroid	2	0.3	7.7	0.9	27.9	7.6	50.0
C76-C79 CUP	2	0.4	4.5	0.5	16.3	6.8	
Other primaries	4	1.6	2.6	0.7	6.6	10.6	25.0
Not observed	0	3.6	0.0	0.0	1.0	-15.8	
All mult. primaries	143	28.3	5.0	4.3	5.9 #	498.5	9.1

Patients	908
Mean age at second malignancy (years)	64.6
Person-years	2300
Mean observation time (years)	2.5
Median observation time (years)	1.6

The occurrence of second malignancy is statistically significant.

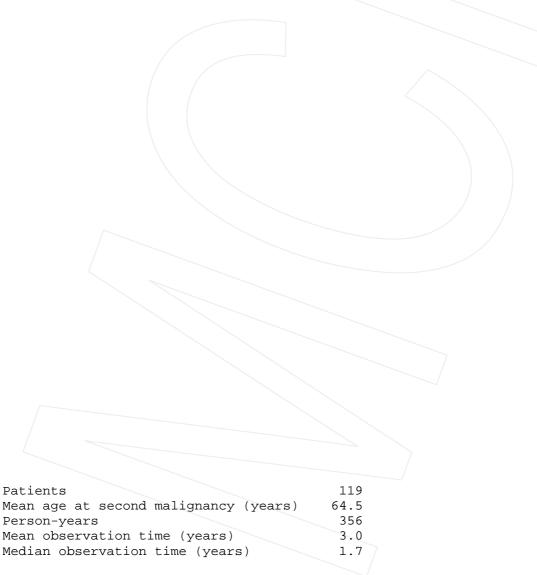
Observed second primaries with count 1 are pooled in category "Other primaries".

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

	Observed	Expected	LCL	UCL		DCO
Diagnosis	n	n	SIR 95%	95%	EAR	%
C09-C10 Oropharynx	7	0.0	355.3 142.8	732.0 #	196.3	
C15 Oesophagus C33-C34 Lung	3 5	0.0	136.8 28.2 19.3 6.3	399.7 # 45.1 #	83.7 133.3	20.0/
C50 Breast	4	1.2	3.3 0.9	8.6	78.9	20.0
Other primaries	6	0.4	13.5 4.9	29.3 #	156.2	33.3
Not observed	0	1.4	0.0 0.0	2.6	-39.4	
All mult. primaries	25	3.3	7.5 4.8	11.0 #	608.9	12.0



The occurrence of second malignancy is statistically significant.

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

C12, C13: Malignant neoplasm of hypopharynx incl. piriform sinus Age distribution and age-specific incidence 1998 - 2012 (Males: 1225, Females: 162)

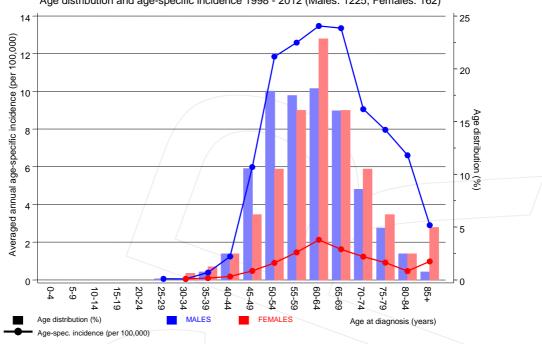


Figure 7. Age distribution and age-specific incidence



C12, C13: Malignant neoplasm of hypopharynx incl. piriform sinus Age-specific incidence in international comparison

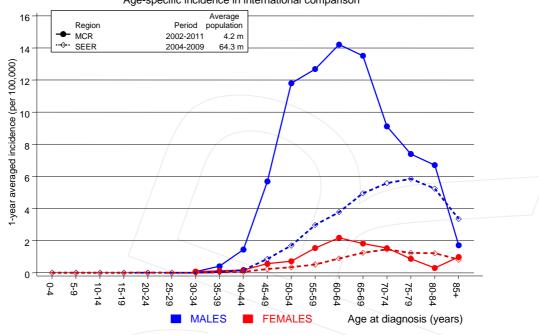
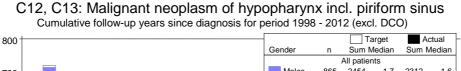


Figure 7a. Age-specific incidence in MCR registry areas compared to SEER (Surveillance, Epidemiology, and End Results, USA).



Reference:

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.



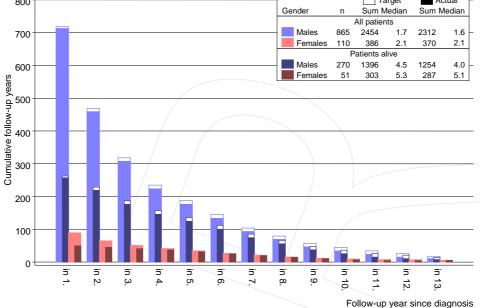
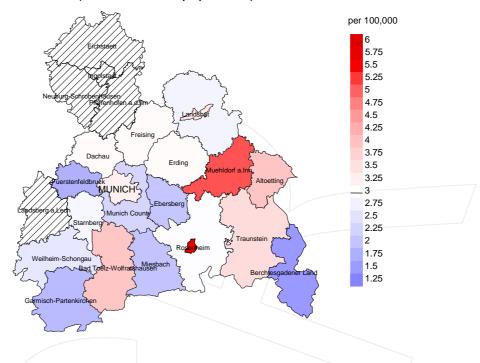


Figure 8. Cumulative follow-up years depending on time since diagnosis

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

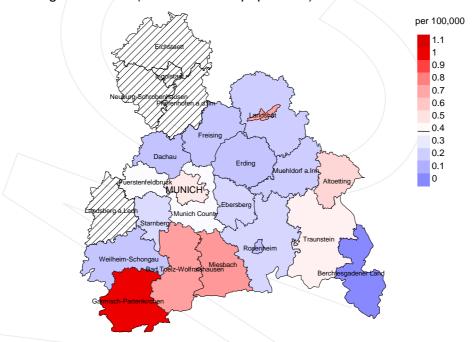
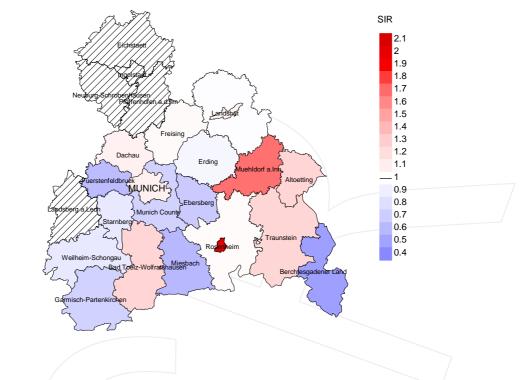


Figure 9a. Map of cancer incidence (world standard population, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual incidence rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 3.0/100,000 WS N=532, females 0.4/100,000 WS N=80). 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 2 women were identified with newly diagnosed hypopharynx cancer. Therefore, the mean incidence rate for this cancer type in this area can be calculated at 0.2/100,000 (world standard population). Though, the value of this parameter may vary with an underlying probability of 99% between 0.0 and 1.4/100,000.

Standardized incidence ratio (SIR) 2003 - 2008: Males



Standardized incidence ratio (SIR) 2003 - 2008: Females

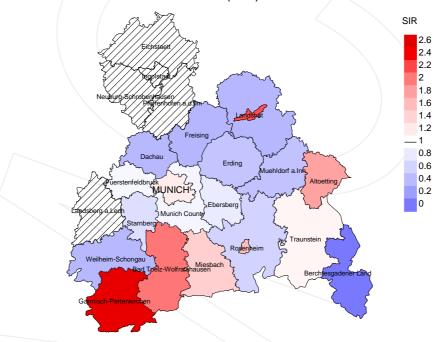


Figure 9b. Map of standardized incidence ratio (SIR, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual SIR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=532, females N=80). 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 2 women were identified with newly diagnosed hypopharynx cancer. Therefore, the mean standardized incidence ratio (SIR) for this cancer type in this area can be calculated at 0.82. Though, the value of this parameter may vary with an underlying probability of 99% between 0.04 and 3.80, 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)

		Prop.				Prop. deaths
	Incident	actively	Prop.		Prop.	with death
Year of	cases	followed	DCO	Deaths	deaths	certific.
diagnosis	n	%	%	n	%	%
1998	61	100.0		54	88.5	98.1
1999	68	98.5	7.4	58	85.3	94.8
2000	66	97.0	3.0	58	87.9	91.4
2001	67	97.0	4.5	55	82.1	98.2
2002	92	97.8	4.3	79	85.9	94.9
2003	98	100.0	1.0	83	84.7	96.4
2004	83	100.0	2.4	73	88.0	94.5
2005	114	98.2	6.1	82	71.9	97.6
2006	99	100.0	3.0	75	75.8	98.7
2007	123	95.9	5.7	94	76.4	96.8
2008	126	89.7	5.6	94	74.6	98.9
2009	113	87.6	3.5	80	70.8	97.5
2010	109	89.9	6.4	71	65.1	98.6
2011	99	86.9	3.0	51	51.5	96.1
2012	69	100.0	7.2	30	43.5	93.3
1998-2012	1387	95.3	4.3	1037	74.8	96.6

Table 10b

Annual cohorts of incident cancers and deaths, proportion of death certificates and cases deceased the same year of cancer diagnosis (incl. DCO)

			Prop.		
			deaths		Prop.
Year of	Incident		with death	Deaths in	deaths in
diagnosis/	cases	Deaths	certific.	same year	same year
death	n	/ n /	%	n	%
1998	61	45	88.9	13	21.3
1999	68	61	91.8	17	25.0
2000	66	50	96.0	11	16.7
2001	67	55	87.3	/ 10	14.9
2002	92	68	98.5	18	19.6
2003	98	75	96.0	12	12.2
2004	83	84	95.2	16	19.3
2005	114	66	95.5	19	16.7
2006	99	96	99.0	23	23.2
2007	123	116	99.1	27	22.0
2008	126	102	98.0	28	22.2
2009	/113	93	98.9	_ 20	17.7
2010	109	98	99.0	23	21.1
2011	99	91	98.9	21	21.2
2012	69	105	99.0	22	31.9
1998-2012	1387	1205	96.8	280	20.2

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)

				Prop. cancer	
		Prop.	Prop.	recorded	
		/ -	not cancer-	on death	
V	Dootha	cancer-			
Year of	Deaths	related	related	certificate	
death	n	%	%	%	
1998	45	80.0	20.0	95.0	
1999	61	80.3	19.7	96.4	
2000	50	88.0	12.0	93.8	
2001	55	78.2	21.8	89.6	
2002	68	91.2	8.8	98.5	
2003	75	85.3	14.7	97.2	
2004	84	82.1	17.9	91.3	
2005	66	89.4	10.6	95.2	
2006	96	88.5	11.5	93.7	
2007	116	86.2	13.8	93.9	
2008	102	89.2	10.8	96.0	
2009	93	82.8	17.2	96.7	
2010	98	88.8	11.2	94.8	
2011	91	79.1	20.9	85.6	
2012	105	81.9	18.1	93.3	
1998-2012	1205	85.0	15.0	94.0	

Table 11a $\begin{tabular}{ll} Means of age at death according to the grouping in Table 10 \\ \hline MALES \end{tabular}$

					Age at
		Age at	Age at	Age at	death
		death	death	death	(according
		(all	(cancer-	(not cancer-	to death
Year of	Deaths	causes)	related)	related)	certificate)
death	n	Years	Years	Years	Years
1998	38	59.7	58.1	65.8	60.3
1999	54	60.0	60.3	58.9	60.2
2000	47	62.1	61.1	68.5	62.3
2001	47	60.7	58.4	69.1	60.0
2002	62	60.6	60.4	63.2	60.4
2003	68	62.8	62.3	65.5	62.8
2004	75	61.1	59.9	66.7	60.2
2005	62	62.9	63.1	60.8	62.9
2006	86	62.9	62.2	67.6	62.3
2007	99	62.1	61.5	65.4	61.7
2008	86	63.8	63.3	67.8	64.0
2009	78	65.1	65.4	62.9	65.3
2010	91/	63.1	62.3	69.8	62.8
2011	81	65.6	65.0	67.9	65.6
2012	95	66.3	65.5	69.3	66.0
1998-2012	1069	62.9	62.3	66.4	62.8
	1005	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	02.0	00.1	

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

					Age at
		Age at	Age at	Age at	death
		death	death	death	(according
		(all	(cancer-	(not cancer-	to death
Year of	Deaths	causes)	related)	related)	certificate)
death	n	Years	Years	Years	Years
1998	7	67.0	64.0	85.2	67.0
1999	7	63.3	66.8	54.4	65.1
2000	3	58.3	58.3		58.3
2001	8	64.2	64.6	63.2	64.1
2002	6	67.6	66.3	73.8	67.6
2003	7	61.8	58.9	79.1	61.8
2004	9	67.7	68.4	65.4	69.8
2005	4	65.0	60.0	69.9	69.7
2006	10	68.4	68.4		68.4
2007	17	65.7	64.9	71.0	65.7
2008	16	66.3	66.9	61.9	66.6
2009	15	69.8	70.3	68.7	70.5
2010	7/	61.2	57.8	81.5	57.7
2011	1,0	62.7	62.0	65.3	61.9
2012	10	71.4	71.4		71.4
1998-2012	136	66.1	65.7	68.1	66.4



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	Deaths	Mort.	MI-Index	Mort.	MI-Index	Mort.	MI-Index	Mort.	MI-Index
death	n	raw	raw	WS	WS	ES	ES	BRD-S	BRD-S
1998	30	2.7	0.54	1.7	0.53	2.4	0.54	2.7	0.56
1999	44	3.9	0.71	2.5	0.67	3.5	0.68	3.8	0.67
2000	41	3.6	0.69	2.3	0.66	3.3	0.68	3.8	0.71
2001	37	3.2	0.62	2.2	0.62	3.0	0.64	3.3	0.64
2002	57	3.1	0.67	2.0	0.65	2.7	0.66	2.9	0.68
2003	58	3.1	0.64	1.9	0.58	2.6	0.58	2.9	0.62
2004	62	3.3	0.85	2.1	0.82	3.0	0.85	3.1	0.84
2005	57	3.0	0.58	1.8	0.54	2.5	0.56	2.9	0.57
2006	75	3.9	0.86	2.4	0.83	3.4	0.85	3.8	0.87
2007	85	3.8	0.80	2.4	0.82	3,3	0.82	3.7	0.81
2008	77	3.5	0.73	2.0	0.68	2.9	0.70	3.3	0.73
2009	67	3.0	0.68	1.7	0.64	2.4	0.65	2.8	0.69
2010	81	3.6	0.84	2.2	0.82	3.0	0.83	3.4	0.85
2011	64	2.8	0.74	1.6	0.76	2.3	0.76	2.6	0.73
2012	76	3.3	1.29	1.8	1.29	2.6	1.32	3.1	1.30
1998-2012	911	3.3	0.74	2.0	0.72	2.8	0.73	3.2	0.75

Table 12b Mortality measures (cancer-related death) and mortality-incidence-index by year of death FEMALES

Year of	Deaths	Mort.	MI-Index	Mort.	MI-Index	Mort.	MI-Index	Mort.	MI-Index
death	n	raw	raw	WS	WS	ES	ES	BRD-S	BRD-S
1998	6	0.5	1.20	0.3	1.92	0.4	1.66	0.4	1.30
1999	5	0.4	0.83	0.2	0.60	0.3	0.64	0.4	0.76
2000	3	0.2	0.43	0.2	0.49	0.2	0.48	0.2	0.45
2001	6	0.5	0.86	0.3	0.63	0.3	0.62	0.4	0.79
2002	5	0.3	0.71	0.1	0.66	0.2	0.71	0.2	0.70
2003	6	0.3	0.86	0.2	0.90	0.3	0.91	0.3	0.89
2004	7	0.4	0.70	0.2	0.69	0.2	0.67	0.3	0.73
2005	2	0.1	0.13	0.1	0.15	0.1	0.15	0.1	0.13
2006	10	0.5	0.83	0.2	0.68	0.3	0.65	0.4	0.71
2007	15	0.6	0.88	0.4	0.74	0.5	0.80	0.6	0.87
2008	14	0.6	0.70	0.3	0.71	0.4	0.71	0.5	0.70
2009	10	0.4	0.71	0.2	0.61	0.3	0.61	0.3	0.63
2010	6	0.3	0.50	0.2	0.60	0.2	0.59	0.2	0.54
2011	8	0.3	0.62	0.2	0.68	0.3	0.67	0.3	0.64
2012	10	0.4	1.00	0.2	0.79	0.3	0.84	0.3	0.86
1998-2012	113	0.4	0.70	0.2	0.66	0.3	0.66	0.3	0.67

Table 13

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

Age at									
death	Cases			Males			Females		
Years	n	%	Cum.%	n	%	Cum.%	n	%	Cum.%
35-39	7	0.7	0.7	5	0.5	0.5	2	1.8	1.8
40-44	14	1.4	2.1	/13	1.4	2.0	1	0.9	2.7
45-49	68	6.6	8.7	63	6.9	8.9	5	4.4	7.1
50-54	142	13.9	22.6	133	14.6	23.5	9	8.0	15.0
55-59	205	20.0	42.6	189	20.7	44.2	16	14.2	29.2
60-64	198	19.3	61.9	172	18.9	63.1	26	23.0	52.2
65-69	164	16.0	77.9	143	15.7	78.8	21	18.6	70.8
70-74	107	10.4	88.4	94	10.3	89.1	13	11.5	82.3
75-79	67	6.5	94.9	62	6.8	95.9	5	4.4	86.7
80-84	37	3.6	98.5	31	3.4	99.3	6	5.3	92.0
85+	15	1.5	100.0	6	0.7	100.0	9	8.0	100.0
All ages	1024	100.0		911	100.0		113	100.0	

Included in the statistics are 35.2% multiple primaries in males and 45.7% in females.

Table 14

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

			Males		Females		Males	Females
Age at	Malag	Ecmolog	Age-		Age-		_	Prop.all
death		Females	_ /	MT indox	spec.	MT indor	cancers %	cancers %
Years	n	n	mortar.	MI-index	mortar.	MI-IIIGEX	6	6
0- 4			0.0		0.0			
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19			0.0		0.0			
20-24			0.0		0.0			
25-29			0.0		0.0			
30-34			0.0		0.0			
35-39	5	2	0.2	0.56	0.1	1.00	1.3	0.4
40-44	13	1	0.5	0.43	0.0	0.25	1.6	0.1
45-49	63	5	2.9	0.49	0.2	0.50	3.7	0.3
50-54	133	9	7.2	0.61	0.5	0.53	4.3	0.3
55-59	189	16	11.1		0.9		3.4	0.4
60-64	172	26	10.4		1.5	0.70	2.1	0.4
65-69	143	21	9.7		1.3	0.81	1.3	0.3
70-74	94	13	8.1		0.9	0.76	0.8	0.1
75-79	62	5	8.2		0.5	0.50	0.5	0.1
80-84	31	6	6.8		0.7	1.50	0.3	0.1
85+	6	9	1.9	0.67	1.1	1.13	0.1	0.1
7.7.7	011	112					1 0	0.0
All ages	911	113					1.2	0.2
Mortality								
Raw			3.3	0.74	0.4	0.70		
WS			2.0	0.71	0.1	0.66		
ES			2.8		0.2	0.66		
BRD-S			3.2	0.75	0.3			
BRB B			3.2	0.75	0.5	0.07		
PYLL-70								
per 100,000			33.4		3.3			
ES			30.3		2.8			
AYLL-70			11.5		10.1			

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

Table 15a

Multiple primaries in deaths in period 1998-2012

MALES

					Syn- chron	Syn- chron		
	Total	Total	Pre	Pre	±30d	±30d	Post	Post
Diagnosis	n /	%↓	n	←%	n	~ %	n	← %
C03-C06 Oral cavity	52	13.1	27	51.9	4	7.7	21	40.4
C09-C10 Oropharynx	42	10.6	8	19.0	19	45.2	15	35.7
C12-C13 Hypopharynx	23	5.8			5	21.7	18	78.3
C15 Oesophagus	/ 51	12.8	8	15.7	8	15.7	35	68.6
C16 Stomach	6	1.5	1	16.7			5	83.3
C18 Colon	15 /	3.8	9	60.0			6	40.0
C19-C20 Rectum	6	1.5	2	33.3			4	66.7
C22 Liver	8	2.0			2	25.0	6	75.0
C25 Pancreas	4	1.0	1	25.0	1	25.0	2	50.0
C32 Larynx	3	0.8					3	100.0
C33-C34 Lung	73	18.3	11	15.1	13	17.8	49	67.1
C43 Malign. melanoma	4	1.0	3	75.0	1	25.0		
C44 Skin others	26	6.5	10	38.5	3	11.5	13	50.0
C61 Prostate	20	5.0	12	60.0	2	10.0	6	30.0
C64 Kidney	7	1.8	3	42.9	1	14.3	/ 3	42.9
C67 Bladder	13	3.3	8	61.5			5	38.5
C73 Thyroid	3	0.8			1	33.3	2	66.7
C76-C79 CUP	13	3.3	9	69.2			4	30.8
C91-C96 Leukaemia	4	1.0	3	75.0			1	25.0
Other primaries	25	6.3	12	48.0	4	16.0	9	36.0
All mult. primaries	398	100.0	127	31.9	64	16.1	207	52.0

Multiple primaries with number of cases n<3 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 $\label{eq:multiple primaries in deaths in period 1998-2012 }$ FEMALES

	Total	Total	Pre	Pre	Syn- chron ±30d	Syn- chron ±30d	Post	Post
Diagnosis	n	%↓	n	←%	n	←%	n	~ %
C03-C06 Oral cavity	8	12.7	8	100.0				
C07-C08 Salivary gland	1	1.6	1	100.0				
C09-C10 Oropharynx	6	9.5	3	50.0	3	50.0		
C15 Oesophagus	/ 7	/11.1			4	57.1	3	42.9
C16 Stomach	/ 1	1.6					1	100.0
C18 Colon	/ 1	1.6					1	100.0
C19-C20 Rectum	/ 1	1.6					1	100.0
C30-C31 Sinuses	_ 1	1.6					1	100.0
C32 Larynx	3	4.8	2	66.7			1	33.3
C33-C34 Lung	12	19.0			2	16.7	10	83.3
C50 Breast	12	19.0	8	66.7	2	16.7	2	16.7
C51 Vulva	2	3.2	1	50.0			1	50.0
C53 Cervix uteri	1	1.6	1	100.0				
C54 Corpus uteri	2	3.2	1	50.0			1	50.0
C70-C72 CNS cancer	1	1.6			1	100.0		
C73 Thyroid	2	3.2	2	100.0				
C82-C85 NHL	1	1.6	1	100.0				
C91-C96 Leukaemia	1	1.6					1	100.0
32 3 == 33	_	•					_	
All mult. primaries	63	100.0	28	44.4	12	19.0	23	36.5

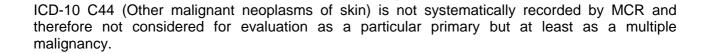


Table 16

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

(Singular primaries only *)

Age at death	Maleg	Females	Males Age- spec.		Females Age- spec.		Males Prop.all cancers	Females Prop.all cancers
Years	nares	n		MI-index		MT-index		%
icars	11	11	mortar.	MI IIIGEX	mortar.	MI IIIGEX	•	•
0- 4			0.0		0.0			
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19			0.0		0.0			
20-24			0.0		0.0			
25-29			0.0		0.0			
30-34			0.0		0.0			
35-39	4		0.2	0.50	0.0		1.1	
40-44	11	1	0.5	0.44	0.0	0.25	1.5	0.1
45-49	54	3	2.5	0.50	0.1	0.43	3.5	0.2
50-54	114	7	6.2	0.59	0.4	0.64	4.2	0.3
55-59	165	13	9.7	0.90	0.7	0.65	3.4	0.3
60-64	141	19	8.6	0.77	1.1	0.66	2.0	0.4
65-69	110	17	7.5	0.73	1.1	0.81	1.2	0.3
70-74	74	8	6.4	0.97	0.6	0.73	0.8	0.1
75-79	49	/4	6.5	1.11	0.4	0.57	0.5	0.1
80-84	16	/ 5	3.5		0.6	1.67	0.2	0.1
85+	5	5	1.6	0.71	0.6	1.25	0.1	0.0
All ages	743	82					1.3	0.2
Mortality								
Raw			2.7		0.3			
WS			1.7		0.2			
ES			2.3		0.2			
BRD-S			2.6	0.75	0.2	0.67		
PYLL-70								
per 100,000			28.4		2.3			
ES			25.8		2.0			
AYLL-70			11.7		9.4			

^{*} 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	Malag	Eomolog	Males Age-		Females Age-		Males Prop.all cancers	Females Prop.all cancers
death Years	mares n	Females n		MI-index	spec.	MT indox		%
ieals	11	11	mortar.	MI-IIIQEX	mortar.	MI-IIIGEX	6	6
0- 4			0.0		0.0			
5- 9			0.0		0.0			
10-14			0.0		0.0			
15-19			0.0		0.0			
20-24			0.0		0.0			
25-29			0.0		0.0			
30-34			0.0		0.0			
35-39	4		0.2	0.57	0.0		1.2	
40-44	10	1	0.4	0.48	0.0	0.33	1.4	0.1
45-49	51	1	2.4	0.50	0.0	0.17	3.6	0.1
50-54	99	5	5.4	0.56	0.3	0.50	4.1	0.2
55-59	143	11	8.4	0.86	0.6	0.58	3.3	0.3
60-64	118	17	7.2	0.72	1.0	0.65	1.9	0.4
65-69	89	14	6.1	0.67	0.9	0.74	1.1	0.3
70-74	52	6	4.5	0.83	0.4	0.60	0.6	0.1
75-79	30	2	4.0	0.77	0.2	0.29	0.4	0.0
80-84	13	4	2.9		0.5	2.00	0.2	0.1
85+	5	4	1.6	0.71	0.5	1.00	0.1	0.0
All ages	614	65					1.2	0.1
Mortality				0.60	0 0	0 61		
Raw			2.2		0.2			
WS			1.4		0.1	0.57		
ES			1.9		0.2	0.58		
BRD-S			2.1	0.69	0.2	0.58		
PYLL-70								
per 100,000			24.9		1.8			
ES			22.7		1.5			
AYLL-70			12.0		8.9			

^{*} See corresponding tables with multiple primaries.

C12, C13: Malignant neoplasm of hypopharynx incl. piriform sinus Age distribution and age-specific mortality 1998 - 2012 (Males: 911, Females: 113)

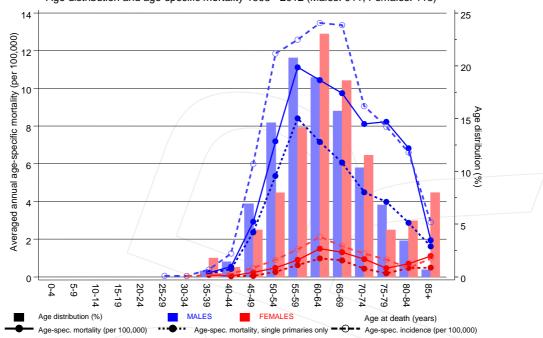
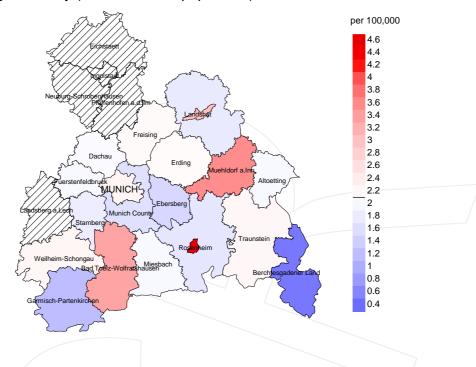


Figure 18. Distribution of age at death (bars) and age-specific mortality (all patients: solid line, patients with single primaries: dotted line). The age-specific incidence is additionally plotted for comparison (dashed line).

The difference between age at diagnosis (Table 3) and age at hypopharynx 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

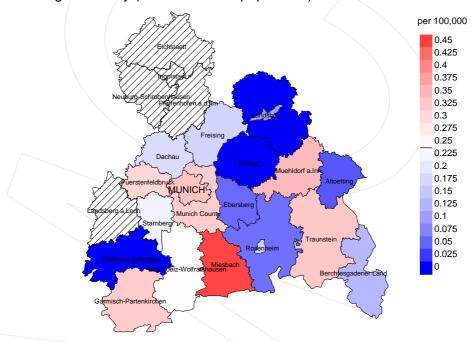
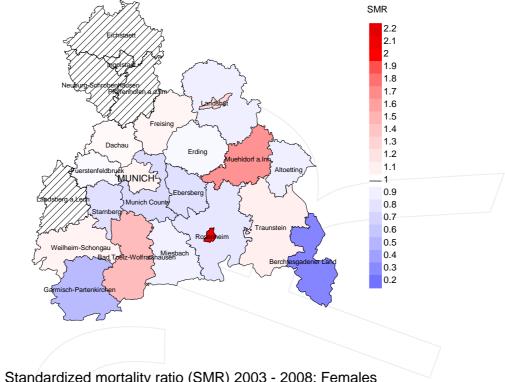


Figure 19a. Map of cancer mortality (world standard population) by county averaged for period 2003 to 2008. According to their individual mortality rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 2.1/100,000 WS N=394, females 0.2/100,000 WS N=53). 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 1 women died from hypopharynx cancer. Therefore, the mean mortality rate for this cancer type in this area can be calculated at 0.1/100,000 (world standard population). Though, the value of this parameter may vary with an underlying probability of 99% between 0.0 and 0.4/100,000.

Standardized mortality ratio (SMR) 2003 - 2008: Males



Standardized mortality ratio (SMR) 2003 - 2008: Females

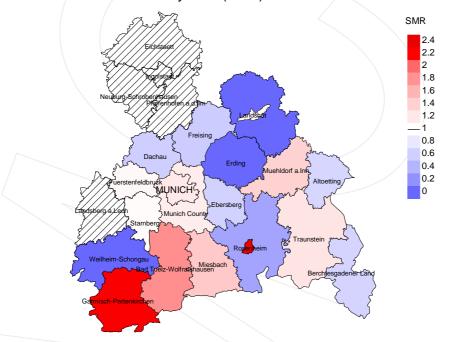


Figure 19b. Map of standardized mortality ratio (SMR, incl. DCO cases) by county averaged for period 2003 to 2008. According to their individual SMR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=394, females N=53). 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 1 women died from hypopharynx cancer. Therefore, the mean standardized mortality ratio (SMR) for this cancer type in this area can be calculated at 0.63. Though, the value of this parameter may vary with an underlying probability of 99% between 0.00 and 4.66, 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

Recommended Citation

Munich Cancer Registry. Baseline statistics C12, C13: Hypopharynx cancer [Internet]. 2014 [updated 2014 Mar 20; cited 2014 May 1]. Available from: http://www.tumorregister-muenchen.de/en/facts/base/base_C1213E.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

I.	Page
Pts cohorts, DCO, mult. prim., follow-up / yr	4
Gender distribution by year of diagnosis	5
Incidence by year of diagnosis	6
Age distribution parameters by year of diagnosis	7
Age distribution by 5-year age group and gender	9
Age-specific incidence and DCO rate	10
Standardized incidence ratio of second primaries	11
Age distribution and age-specific incidence (chart)	13
Age-specific incidence internationally (chart)	14
Cumulative follow-up years (chart)	15
Map of cancer incidence (WS) by county (chart)	16
Standardized incidence ratio (SIR) by county (chart)	17
Pts incident cohorts and mortality / yr	18
Incidence and mortality by year of diagnosis	19
Cancer-related deaths, death certification available / yr	20
Means of age at death / yr	21
Mortality by year of death	23
Distribution of age at death	24
Age-specific mortality	25
Multiple primaries in deaths	26
Age-specific mortality (first primaries)	28
Age-specific mortality (single primaries)	29
Age distribution and age-specific mortality (chart)	30
Map of cancer mortality (WS) by county (chart)	31
Standardized mortality ratio (SMR) by county (chart)	32
	Pts cohorts, DCO, mult. prim., follow-up / yr Gender distribution by year of diagnosis Incidence by year of diagnosis Age distribution parameters by year of diagnosis Age distribution by 5-year age group and gender Age-specific incidence and DCO rate Standardized incidence ratio of second primaries Age distribution and age-specific incidence (chart) Age-specific incidence internationally (chart) Cumulative follow-up years (chart) Map of cancer incidence (WS) by county (chart) Standardized incidence ratio (SIR) by county (chart) Pts incident cohorts and mortality / yr Incidence and mortality by year of diagnosis Cancer-related deaths, death certification available / yr Means of age at death / yr Mortality by year of death Distribution of age at death Age-specific mortality Multiple primaries in deaths Age-specific mortality (first primaries) Age-specific mortality (single primaries) Age distribution and age-specific mortality (chart) Map of cancer mortality (WS) by county (chart)