Munich Cancer Registry

- Survival
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- *Deutsch*

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

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

Cancer statistics: Baseline statistics

C32, C10.1: Larynx cancer

Year of diagnosis	1998-2013
Patients	2,182
Diseases	2,184
Creation date	05/19/2015
Export date	12/30/2014
Population	4.64 m

http://www.tumorregister-muenchen.de/en/facts/base/base_C32__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 4.64 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, May 2015

[#] 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 2014 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 (ICD-10 2015) used for specifying cancer site

Code	Description
C32.-	Malignant neoplasm of larynx
C32.0	Glottis
C32.1	Supraglottis
C32.2	Subglottis
C32.3	Laryngeal cartilage
C32.8	Overlapping lesion of larynx
C32.9	Larynx, unspecified

... or ...

Topography codes (ICD-O-3 2000) used for specifying cancer site

Code	Description
C10.1	Anterior surface of epiglottis

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	106	4	3.8	32.1	69.8	92.5	
1999	100	7	7.0	36.0	66.0	96.0	
2000	94	5	5.3	38.3	68.1	96.8	
2001	87	2	2.3	37.9	69.0	98.9	
2002	178	14	7.9	38.2	66.9	97.8	#
2003	151	11	7.3	35.1	65.6	98.0	
2004	144	14	9.7	35.4	64.6	97.2	
2005	150	5	3.3	36.7	57.3	94.0	
2006	135	7	5.2	34.8	55.6	97.0	
2007	154	10	6.5	35.7	55.2	84.4	# ##
2008	178	12	6.7	37.1	48.9	77.0	
2009	174	12	6.9	32.2	44.8	75.3	
2010	150	6	4.0	36.0	43.3	78.0	
2011	159	10	6.3	26.4	49.1	73.0	
2012	149	10	6.7	30.2	27.5	69.1	
2013	75	12	16.0	37.3	32.0	98.7	###
1998-2013	2184	141	6.5	34.8	54.7	87.6	

\# 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	106	94	12	88.7
1999	100	85	15	85.0
2000	94	77	17	81.9
2001	87	77	10	88.5
2002	178	153	25	86.0
2003	151	130	21	86.1
2004	144	128	16	88.9
2005	150	136	14	90.7
2006	135	113	22	83.7
2007	154	131	23	85.1
2008	178	155	23	87.1
2009	174	153	21	87.9
2010	150	133	17	88.7
2011	159	125	34	78.6
2012	149	133	16	89.3
2013	75	57	18	76.0
1998-2013	2184	1880	304	86.1

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 4.64 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	94	12	8.5	1.0	5.3	0.5	7.6	0.8	8.8	0.9
1999	85	15	7.6	1.3	4.7	0.7	6.7	1.0	7.7	1.2
2000	77	17	6.8	1.4	4.3	1.0	6.1	1.2	7.2	1.4
2001	77	10	6.6	0.8	4.1	0.4	5.8	0.6	6.7	0.7
2002	153	25	8.2	1.3	5.2	0.6	7.2	0.9	8.0	1.1
2003	130	21	6.9	1.1	4.2	0.5	5.9	0.8	6.8	0.9
2004	128	16	6.8	0.8	4.0	0.5	5.7	0.7	6.7	0.7
2005	136	14	7.2	0.7	4.2	0.4	6.0	0.6	6.9	0.6
2006	113	22	5.9	1.1	3.6	0.6	5.0	0.9	5.6	1.0
2007	131	23	5.9	1.0	3.5	0.6	4.9	0.8	5.7	0.9
2008	155	23	7.0	1.0	3.9	0.6	5.6	0.8	6.8	0.9
2009	153	21	6.9	0.9	3.8	0.4	5.4	0.6	6.5	0.7
2010	133	17	5.9	0.7	3.3	0.3	4.7	0.5	5.5	0.6
2011	125	34	5.5	1.4	2.9	0.8	4.1	1.1	5.0	1.2
2012	133	16	5.8	0.7	3.2	0.4	4.5	0.5	5.4	0.6
2013	57	18	2.5	0.8	1.2	0.4	1.8	0.6	2.3	0.6
1998-2013	1880	304	6.3	1.0	3.7	0.5	5.2	0.7	6.1	0.9

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	106	61.8	10.6	32.9	85.8	48.5	54.9	59.3	70.1	76.1
1999	100	64.0	11.2	26.1	87.7	50.9	56.8	64.5	71.2	76.9
2000	94	61.6	13.4	19.7	90.8	46.0	53.3	61.1	69.7	80.0
2001	87	63.7	10.5	42.5	93.7	49.4	57.7	62.3	69.6	77.6
2002	178	63.1	10.0	37.0	91.2	50.4	56.5	62.2	68.8	76.3
2003	151	63.9	10.6	39.8	94.4	50.5	55.6	63.8	70.5	78.4
2004	144	63.7	10.8	33.8	90.9	48.6	57.6	64.1	70.9	78.4
2005	150	63.8	10.3	32.6	89.6	51.0	56.8	64.2	70.0	77.1
2006	135	63.5	10.0	35.4	90.0	51.5	57.8	62.8	69.7	76.3
2007	154	64.1	10.3	39.2	87.5	50.1	56.5	64.2	70.7	78.6
2008	178	66.1	11.0	32.9	97.5	51.9	57.8	66.2	72.7	79.8
2009	174	66.1	11.4	30.0	94.8	52.1	57.8	66.7	74.1	80.1
2010	150	66.1	9.9	42.5	89.5	52.3	58.7	66.7	72.7	78.6
2011	159	66.3	10.8	25.9	90.2	53.3	59.0	67.5	73.2	80.7
2012	149	65.3	10.8	41.0	89.5	51.8	58.1	65.4	72.8	80.5
2013	75	68.6	9.4	50.3	85.6	54.5	61.1	70.0	75.8	81.7
1998-2013	2184	64.5	10.8	19.7	97.5	50.8	57.2	64.4	71.7	78.8

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	94	61.7	10.6	32.9	85.8	48.5	54.6	59.8	69.6	75.3
1999	85	64.1	10.3	38.4	87.7	51.3	57.2	64.5	71.0	76.6
2000	77	62.1	11.9	38.3	89.6	49.0	53.7	60.6	68.3	80.0
2001	77	63.3	9.8	42.6	93.7	51.7	57.8	61.9	68.9	75.4
2002	153	62.1	9.6	37.0	89.6	49.5	56.1	61.7	68.0	74.6
2003	130	63.3	10.1	39.8	88.4	50.4	55.6	63.5	69.5	75.8
2004	128	64.0	10.5	40.8	90.9	48.6	57.8	64.2	70.9	78.6
2005	136	64.2	10.0	39.7	89.6	51.4	57.0	64.3	70.5	77.4
2006	113	63.2	10.1	35.4	90.0	48.8	57.5	62.7	69.6	74.0
2007	131	64.7	9.9	42.3	87.5	51.3	57.0	64.6	71.5	78.5
2008	155	67.0	10.6	45.0	97.5	52.9	58.9	66.8	74.6	79.8
2009	153	65.7	10.5	34.6	88.2	52.1	57.8	66.7	73.7	79.1
2010	133	65.7	9.7	42.5	89.5	52.0	58.6	66.7	72.3	78.4
2011	125	66.9	9.9	42.0	86.5	54.0	59.6	68.2	73.2	80.7
2012	133	65.3	11.0	41.0	89.5	52.0	57.6	64.4	72.8	80.7
2013	57	69.7	8.7	50.3	85.2	57.7	62.8	70.5	76.3	81.7
1998-2013	1880	64.6	10.4	32.9	97.5	51.3	57.4	64.5	71.5	78.5

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	12	63.3	11.5	47.2	84.5	52.0	56.0	58.0	71.9	78.6
1999	15	63.6	15.7	26.1	84.4	49.4	52.1	68.9	75.6	79.8
2000	17	59.2	19.0	19.7	90.8	29.9	46.0	66.7	70.1	84.2
2001	10	66.8	15.4	42.5	92.0	43.7	56.2	68.7	77.0	86.6
2002	25	68.8	10.8	48.3	91.2	54.3	61.1	67.7	76.3	81.2
2003	21	67.7	12.7	48.8	94.4	52.7	56.5	64.9	77.3	82.8
2004	16	61.4	13.0	33.8	84.6	41.2	54.1	62.2	70.8	78.0
2005	14	59.6	11.8	32.6	79.0	45.3	55.4	62.4	66.5	68.5
2006	22	65.2	9.5	49.1	83.7	54.6	58.4	63.3	69.9	82.2
2007	23	60.5	12.3	39.2	87.0	48.9	49.9	59.2	67.3	80.3
2008	23	60.0	12.4	32.9	84.9	47.3	51.6	59.9	70.0	72.1
2009	21	69.1	16.6	30.0	94.8	54.1	62.0	68.0	80.1	89.4
2010	17	69.4	11.0	47.2	86.1	55.9	62.9	71.4	77.4	84.6
2011	34	64.0	13.4	25.9	90.2	46.9	56.9	67.4	72.9	76.3
2012	16	65.7	8.9	45.1	77.1	51.8	61.5	67.1	71.7	77.1
2013	18	65.1	10.9	50.5	85.6	52.8	55.4	62.0	73.1	85.4
1998-2013	304	64.4	13.1	19.7	94.8	49.1	55.9	64.3	73.3	81.2

Table 4

Age distribution by 5-year age group and gender for period 1998-2013 (incl. DCO)

Age at diagnosis Years	Cases n	%	Cum.%	Males n	%	Cum.%	Females n	%	Cum.%
15-19	1	0.0	0.0			0.0	1	0.3	0.3
20-24	0	0.0	0.0			0.0			0.3
25-29	4	0.2	0.2			0.0	4	1.3	1.6
30-34	6	0.3	0.5	2	0.1	0.1	4	1.3	3.0
35-39	13	0.6	1.1	10	0.5	0.6	3	1.0	3.9
40-44	46	2.1	3.2	40	2.1	2.8	6	2.0	5.9
45-49	119	5.4	8.7	102	5.4	8.2	17	5.6	11.5
50-54	221	10.1	18.8	192	10.2	18.4	29	9.5	21.1
55-59	325	14.9	33.7	279	14.8	33.2	46	15.1	36.2
60-64	400	18.3	52.0	350	18.6	51.9	50	16.4	52.6
65-69	376	17.2	69.2	338	18.0	69.8	38	12.5	65.1
70-74	311	14.2	83.4	270	14.4	84.2	41	13.5	78.6
75-79	192	8.8	92.2	163	8.7	92.9	29	9.5	88.2
80-84	108	4.9	97.2	86	4.6	97.4	22	7.2	95.4
85+	62	2.8	100.0	48	2.6	100.0	14	4.6	100.0
All ages	2184	100.0		1880	100.0		304	100.0	

Included in the statistics are 44.0% multiple primaries in males and 40.5% in females.

Table 5

Age-specific incidence, DCO rate and proportion of all cancers
for period 1998-2013

Age at diagnosis Years	Males n	Females n	Males Age-spec. incid.	Females Age-spec. incid.	Males DCO rate n=109 %	Females DCO rate n=32 %	Males Prop.all cancers n=158258 %	Females Prop.all cancers n=153136 %
0- 4			0.0	0.0				
5- 9			0.0	0.0				
10-14			0.0	0.0				
15-19		1	0.0	0.1				0.3
20-24			0.0	0.0				
25-29		4	0.0	0.2				0.4
30-34	2	4	0.1	0.2			0.1	0.2
35-39	10	3	0.4	0.1	10.0		0.4	0.1
40-44	40	6	1.5	0.2		16.7	1.2	0.1
45-49	102	17	4.3	0.7	5.9	5.9	1.9	0.2
50-54	191	29	9.5	1.4	3.1	6.9	2.2	0.3
55-59	279	46	15.2	2.4	3.9		1.9	0.3
60-64	350	50	19.7	2.7	3.1	2.0	1.6	0.3
65-69	338	38	21.4	2.2	5.9	5.3	1.2	0.2
70-74	270	41	21.1	2.7	6.3	12.2	1.0	0.2
75-79	163	29	19.7	2.4	6.1	13.8	0.8	0.2
80-84	86	22	17.2	2.4	15.1	36.4	0.6	0.1
85+	48	14	14.1	1.6	29.2	57.1	0.5	0.1
All ages	1879	304			5.8	10.5	1.2	0.2
Incidence								
Raw			6.3	1.0				
WS			3.7	0.5				
ES			5.2	0.7				
BRD-S			6.1	0.9				

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 1998-2013
MALES

Diagnosis	Observed n	Expected n	SIR	LCL 95%	UCL 95%		EAR	DCO %
C03-C06 Oral cavity	17	0.9	19.4	11.3	31.0	#	28.1	11.8
C09-C10 Oropharynx	23	1.1	20.8	13.2	31.3	#	38.2	13.0
C12-C13 Hypopharynx	12	0.6	19.6	10.2	34.3	#	19.9	
C15 Oesophagus	22	1.7	12.9	8.1	19.6	#	35.4	9.1
C16 Stomach	9	3.6	2.5	1.1	4.8	#	9.4	
C17 Small intestine	5	0.4	11.1	3.6	25.9	#	7.9	
C18 Colon	19	8.6	2.2	1.3	3.5	#	18.1	
C19-C20 Rectum	12	5.1	2.3	1.2	4.1	#	12.0	16.7
C22 Liver	16	2.5	6.5	3.7	10.5	#	23.6	6.3
C23-C24 Bile	3	0.8	3.5	0.7	10.3		3.8	33.3
C25 Pancreas	8	3.1	2.6	1.1	5.1	#	8.5	25.0
C30-C31 Sinuses	4	0.2	26.6	7.2	68.1	#	6.7	
C32 Larynx	2	1.0	1.9	0.2	7.0		1.7	
C33-C34 Lung	92	10.8	8.5	6.9	10.5	#	141.6	9.8
C43 Malign. melanoma	3	3.6	0.8	0.2	2.4		-1.1	
C61 Prostate	25	27.1	0.9	0.6	1.4		-3.6	
C64 Kidney	10	3.2	3.1	1.5	5.7	#	11.8	10.0
C65 Renal pelvis	2	0.4	5.7	0.7	20.5		2.9	
C67 Bladder	7	3.8	1.9	0.7	3.8		5.7	
C73 Thyroid	2	0.6	3.1	0.4	11.2		2.4	
C76-C79 CUP	5	1.5	3.3	1.1	7.8	#	6.1	
C82-C85 NHL	5	3.5	1.4	0.5	3.3		2.6	
C90 Mult. myeloma	3	1.1	2.7	0.6	7.9		3.3	
Other primaries	4	1.0	4.0	1.1	10.1	#	5.2	
Not observed	0	5.1	0.0	0.0	0.7	#	-8.8	
All mult. primaries	310	91.3	3.4	3.0	3.8	#	381.2	7.4

Patients	1307
Median age at second malignancy (years)	67.0
Person-years	5736
Mean observation time (years)	4.4
Median observation time (years)	3.3

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 1998-2013
FEMALES

Diagnosis	Observed n	Expected n	SIR	LCL 95%	UCL 95%	EAR	DCO %
C03-C06 Oral cavity	3	0.1	53.4	11.0	156.0 #	33.6	
C09-C10 Oropharynx	5	0.0	118.9	38.6	277.5 #	56.6	
C15 Oesophagus	3	0.1	57.5	11.9	167.9 #	33.6	
C18 Colon	4	0.8	4.9	1.3	12.4 #	36.2	
C33-C34 Lung	13	0.6	20.1	10.7	34.4 #	141.0	
C50 Breast	5	2.8	1.8	0.6	4.1	24.6	
C54 Corpus uteri	2	0.5	4.0	0.5	14.3	17.1	
C76-C79 CUP	3	0.1	21.2	4.4	61.8 #	32.6	
Other primaries	5	1.2	4.1	1.3	9.5 #	43.1	20.0
Not observed	0	2.6	0.0	0.0	1.4	-29.4	
All mult. primaries	43	8.9	4.8	3.5	6.5 #	388.9	2.3

Patients	204
Median age at second malignancy (years)	68.9
Person-years	876
Mean observation time (years)	4.3
Median observation time (years)	3.4

The occurrence of second malignancy is statistically significant.

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

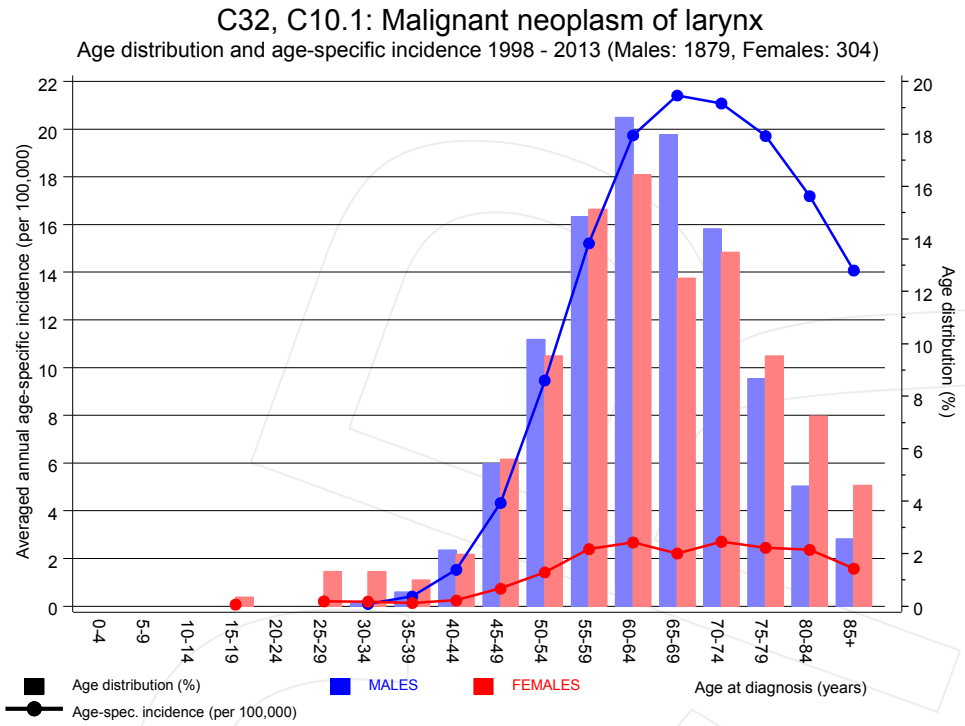


Figure 7. Age distribution and age-specific incidence

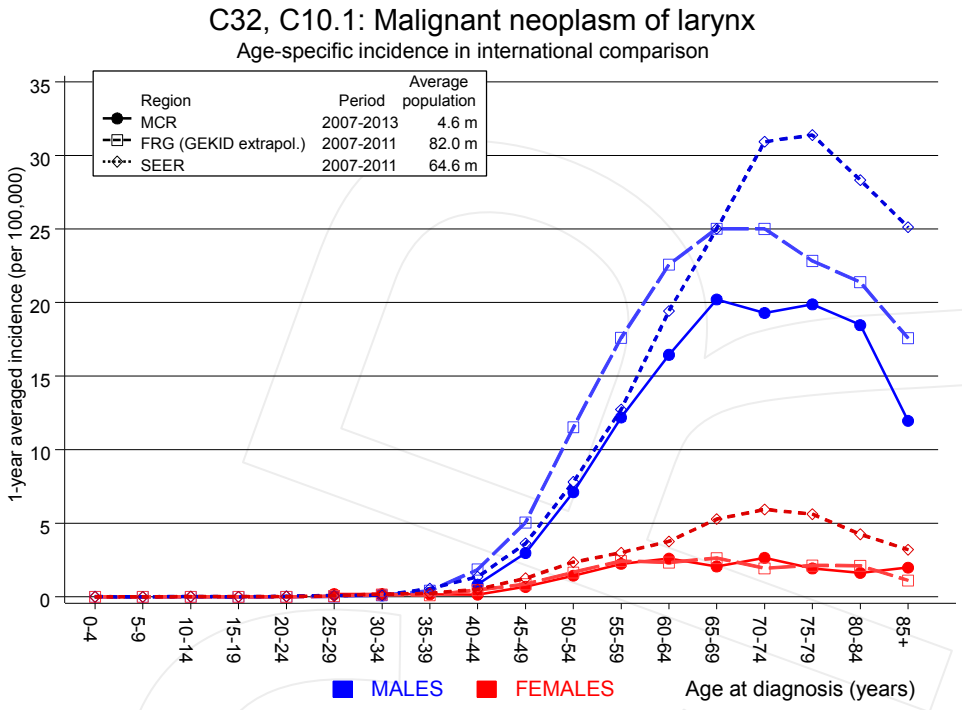


Figure 7a. Age-specific incidence in MCR registry areas compared to Germany (FRG, GEKID extrapolation) and SEER (Surveillance, Epidemiology, and End Results, USA).

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, 2014. http://www.gekid.de. Last access: 02/11/2015

Surveillance, Epidemiology, and End Results (SEER) Program SEER*Stat Database: Incidence - SEER 18 Regs Research Data, released April 2014, based on the November 2013 submission. http://www.seer.cancer.gov.

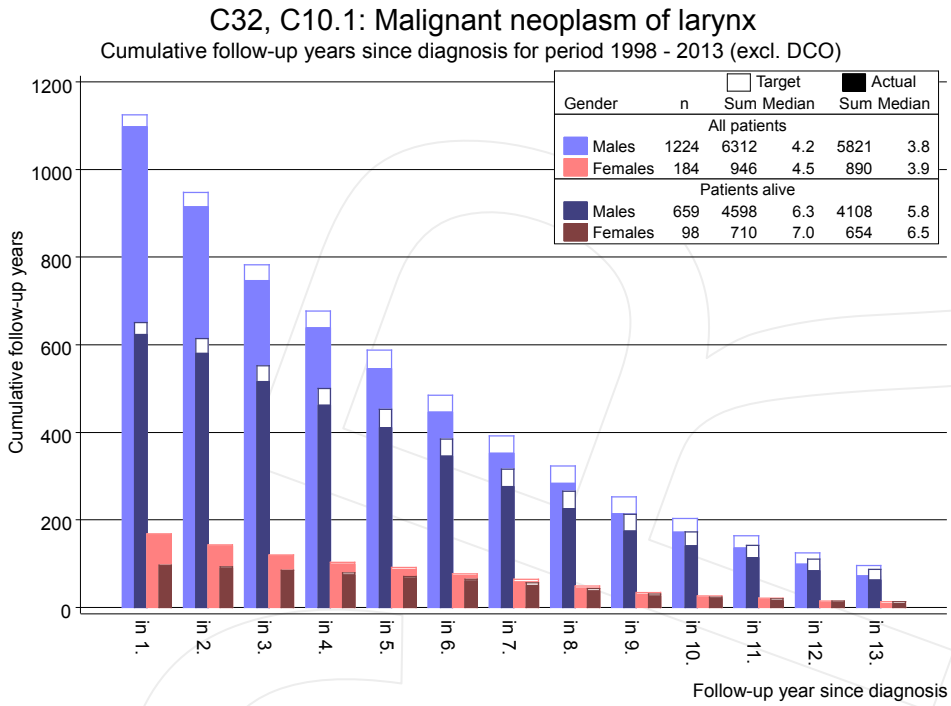
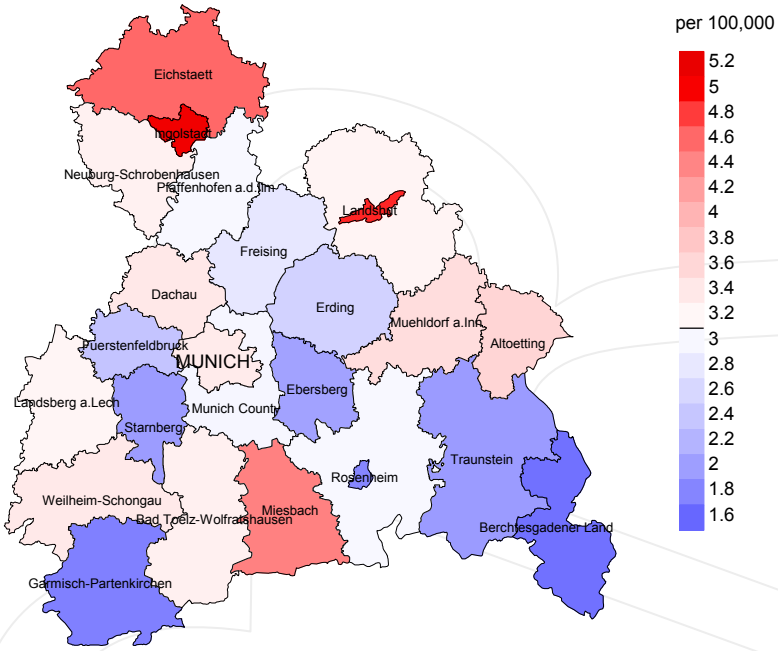


Figure 8. Cumulative follow-up years depending on time since diagnosis

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) 2007 - 2013: Males



Average incidence (world standard population) 2007 - 2013: Females

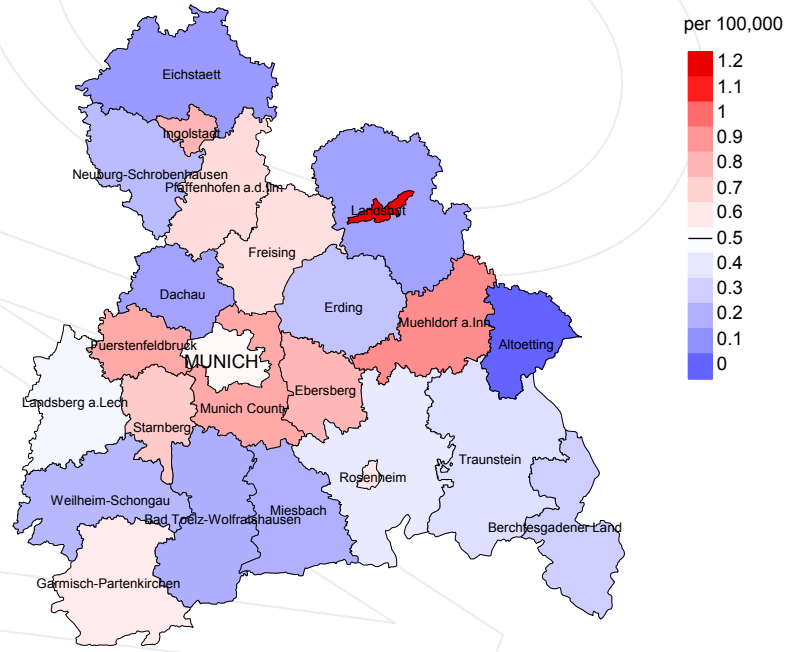
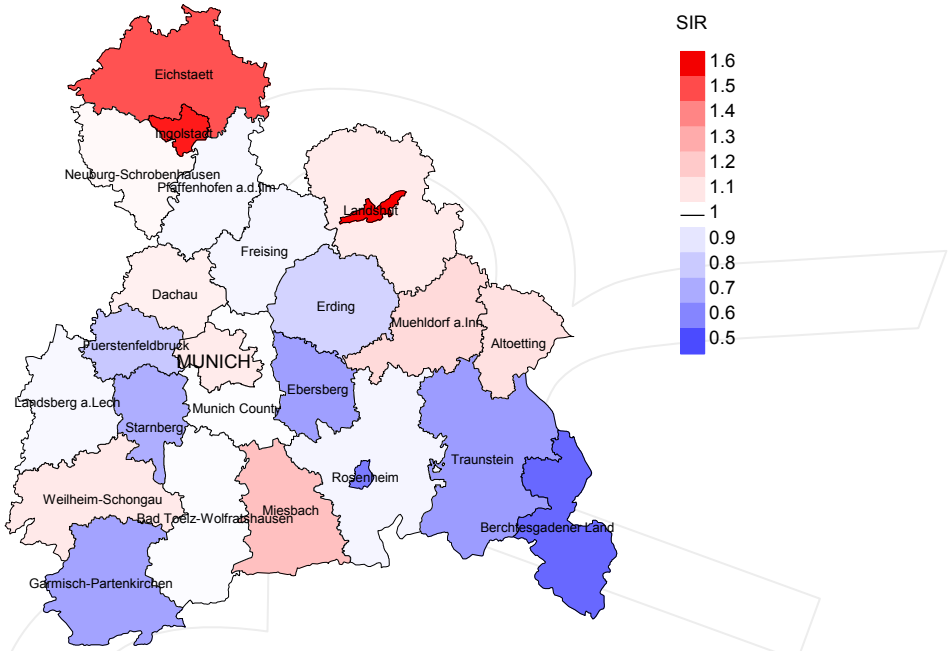


Figure 9a. Map of cancer incidence (world standard population, incl. DCO cases) by county averaged for period 2007 to 2013. According to their individual incidence rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 3.1/100,000 WS N=887, females 0.5/100,000 WS N=152).

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 64,928 female residents (averaged) in the period from 2007 to 2013 a total of 7 women were identified with newly diagnosed larynx cancer. Therefore, the mean incidence rate for this cancer type in this area can be calculated at 0.8/100,000 (world standard population). Though, the value of this parameter may vary with an underlying probability of 99% between 0.2 and 2.2/100,000.

Standardized incidence ratio (SIR) 2007 - 2013: Males



Standardized incidence ratio (SIR) 2007 - 2013: Females

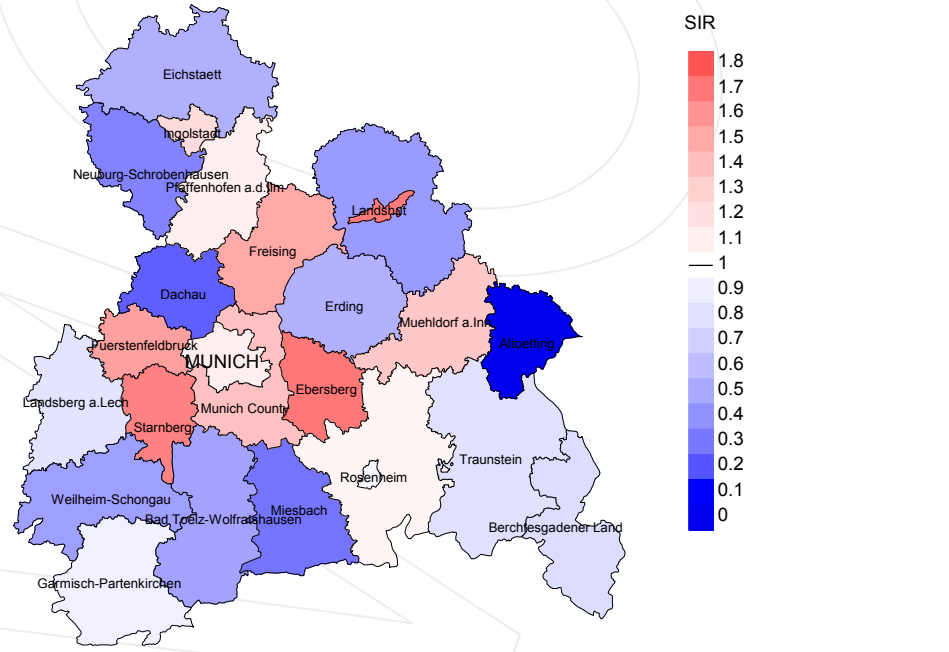


Figure 9b. Map of standardized incidence ratio (SIR, incl. DCO cases) by county averaged for period 2007 to 2013. According to their individual SIR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=887, females N=152).

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 64,642 female residents (averaged) in the period from 2007 to 2013 a total of 7 women were identified with newly diagnosed larynx cancer. Therefore, the mean standardized incidence ratio (SIR) for this cancer type in this area can be calculated at 1.70. Though, the value of this parameter may vary with an underlying probability of 99% between 0.50 and 4.17, 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 4.64 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	106	92.5	3.8	74	69.8	91.9
1999	100	96.0	7.0	66	66.0	97.0
2000	94	96.8	5.3	64	68.1	90.6
2001	87	98.9	2.3	60	69.0	90.0
2002	178	97.8	7.9	119	66.9	100.0
2003	151	98.0	7.3	99	65.6	97.0
2004	144	97.2	9.7	93	64.6	97.8
2005	150	94.0	3.3	86	57.3	96.5
2006	135	97.0	5.2	75	55.6	96.0
2007	154	84.4	6.5	85	55.2	98.8
2008	178	77.0	6.7	87	48.9	95.4
2009	174	75.3	6.9	78	44.8	100.0
2010	150	78.0	4.0	65	43.3	95.4
2011	159	73.0	6.3	78	49.1	94.9
2012	149	69.1	6.7	41	27.5	92.7
2013	75	98.7	16.0	24	32.0	95.8
1998-2013	2184	87.6	6.5	1194	54.7	96.1

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 4.64 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	106	68	94.1	8	7.5
1999	100	94	87.2	13	13.0
2000	94	68	98.5	7	7.4
2001	87	67	86.6	9	10.3
2002	178	118	94.9	29	16.3
2003	151	105	99.0	19	12.6
2004	144	111	98.2	22	15.3
2005	150	100	95.0	18	12.0
2006	135	126	96.0	15	11.1
2007	154	139	97.8	20	13.0
2008	178	157	98.1	23	12.9
2009	174	137	97.8	24	13.8
2010	150	131	96.9	25	16.7
2011	159	112	98.2	20	12.6
2012	149	150	96.0	23	15.4
2013	75	140	98.6	16	21.3
1998-2013	2184	1823	96.3	291	13.3

Table 10c

Annual cohorts of deaths, proportion of cancer-related and non-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 4.64 m as of 2007, respectively)

Year of death	Deaths n	Prop. cancer-related %	Prop. non-cancer-related %	Prop. cancer recorded on death certificate %
1998	68	64.7	35.3	84.4
1999	94	62.8	37.2	82.9
2000	68	61.8	38.2	82.1
2001	67	65.7	34.3	84.5
2002	118	66.9	33.1	81.3
2003	105	62.9	37.1	84.6
2004	111	70.3	29.7	83.5
2005	100	71.0	29.0	90.5
2006	126	61.9	38.1	77.7
2007	139	71.2	28.8	87.5
2008	157	71.3	28.7	87.0
2009	137	69.3	30.7	81.3
2010	131	74.0	26.0	85.8
2011	112	67.9	32.1	87.3
2012	150	66.0	34.0	82.6
2013	140	64.3	35.7	81.2
1998-2013	1823	67.4	32.6	84.0

Table 11a

Medians 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 (non-cancer-related) Years	Age at death (according to death certificate) Years
1998	58	67.0	64.7	69.4	66.6
1999	83	68.2	66.9	69.3	64.7
2000	58	66.6	64.3	73.7	66.8
2001	56	65.9	62.8	73.5	62.6
2002	101	67.4	67.3	73.0	67.3
2003	89	66.7	65.5	70.5	66.1
2004	96	67.4	65.2	73.8	65.6
2005	87	71.2	69.7	74.0	69.5
2006	113	69.9	67.9	76.3	68.0
2007	120	68.0	67.5	73.0	68.0
2008	144	70.5	68.7	77.0	69.6
2009	127	72.9	70.8	76.5	71.3
2010	119	70.1	69.9	74.9	69.0
2011	97	71.4	71.6	70.5	71.1
2012	132	74.3	72.6	77.3	73.0
2013	121	72.6	70.5	76.1	70.9
1998-2013	1601	70.0	68.2	74.4	68.7

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

Medians 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 (non-cancer-related) Years	Age at death (according to death certificate) Years
1998	10	68.3	66.5	72.0	62.0
1999	11	72.8	79.2	65.8	72.8
2000	10	72.8	69.8	79.9	66.9
2001	11	81.0	79.2	84.9	81.0
2002	17	75.1	71.2	80.2	73.4
2003	16	71.9	66.8	78.4	71.5
2004	15	74.1	72.9	76.2	70.9
2005	13	64.4	66.5	53.1	65.5
2006	13	70.2	70.1	72.0	70.1
2007	19	69.3	69.3	69.3	69.3
2008	13	71.4	71.4	81.5	70.8
2009	10	65.8	64.5	88.3	65.7
2010	12	83.4	75.2	90.0	79.4
2011	15	74.1	76.7	69.3	75.4
2012	18	72.3	72.3	77.9	72.3
2013	19	75.1	75.1	78.1	75.1
1998-2013	222	72.1	71.6	76.6	71.5

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	37	3.3	0.39	2.0	0.37	2.9	0.39	3.8	0.44
1999	52	4.6	0.61	2.9	0.61	4.2	0.63	5.2	0.68
2000	37	3.2	0.48	2.0	0.47	2.9	0.48	3.4	0.48
2001	40	3.5	0.52	2.1	0.52	3.0	0.52	3.4	0.51
2002	68	3.6	0.44	2.1	0.40	3.1	0.43	3.9	0.49
2003	56	3.0	0.43	1.8	0.42	2.5	0.43	3.0	0.44
2004	68	3.6	0.53	2.0	0.50	3.0	0.52	3.6	0.54
2005	60	3.2	0.44	1.6	0.39	2.5	0.41	3.4	0.48
2006	73	3.8	0.65	2.0	0.57	3.0	0.60	3.9	0.70
2007	84	3.8	0.64	2.0	0.59	3.0	0.61	3.6	0.64
2008	101	4.5	0.65	2.3	0.60	3.5	0.61	4.4	0.65
2009	88	3.9	0.58	1.9	0.51	3.0	0.55	3.9	0.61
2010	88	3.9	0.66	2.0	0.61	2.9	0.63	3.7	0.67
2011	63	2.8	0.50	1.3	0.45	1.9	0.47	2.5	0.50
2012	85	3.7	0.64	1.7	0.54	2.7	0.59	3.5	0.65
2013	73	3.2	1.28	1.6	1.28	2.3	1.28	3.0	1.29
1998-2013	1073	3.6	0.57	1.9	0.52	2.9	0.55	3.6	0.60

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	7	0.6	0.58	0.3	0.63	0.5	0.60	0.5	0.58
1999	7	0.6	0.47	0.2	0.34	0.4	0.39	0.6	0.47
2000	5	0.4	0.29	0.2	0.20	0.3	0.25	0.4	0.28
2001	4	0.3	0.40	0.1	0.17	0.1	0.24	0.3	0.38
2002	11	0.6	0.44	0.2	0.41	0.4	0.41	0.5	0.42
2003	10	0.5	0.48	0.3	0.51	0.4	0.51	0.5	0.49
2004	10	0.5	0.63	0.2	0.40	0.3	0.45	0.4	0.55
2005	11	0.6	0.79	0.3	0.67	0.4	0.69	0.5	0.75
2006	5	0.2	0.23	0.1	0.18	0.2	0.20	0.2	0.23
2007	15	0.6	0.65	0.3	0.47	0.4	0.53	0.5	0.60
2008	11	0.5	0.48	0.2	0.33	0.3	0.36	0.3	0.38
2009	7	0.3	0.33	0.2	0.39	0.2	0.39	0.3	0.34
2010	9	0.4	0.53	0.1	0.35	0.2	0.39	0.3	0.41
2011	13	0.6	0.38	0.2	0.25	0.3	0.29	0.4	0.34
2012	14	0.6	0.88	0.2	0.64	0.4	0.68	0.5	0.77
2013	17	0.7	0.94	0.3	0.69	0.4	0.74	0.6	0.88
1998-2013	156	0.5	0.51	0.2	0.40	0.3	0.43	0.4	0.47

Table 13

Age distribution of age at death (cancer-related) for period 1998-2013
(**incl. multiple primaries**)

Age at death Years	Cases n	%	Cum.%	Males n	%	Cum.%	Females n	%	Cum.%
35-39	2	0.2	0.2	1	0.1	0.1	1	0.6	0.6
40-44	8	0.6	0.8	8	0.7	0.8			0.6
45-49	30	2.4	3.2	27	2.5	3.3	3	1.9	2.6
50-54	83	6.7	10.0	75	7.0	10.3	8	5.1	7.7
55-59	127	10.3	20.3	114	10.6	20.9	13	8.3	16.0
60-64	185	15.0	35.3	168	15.6	36.5	17	10.9	26.9
65-69	243	19.7	54.9	218	20.2	56.7	25	16.0	42.9
70-74	182	14.7	69.7	152	14.1	70.8	30	19.2	62.2
75-79	171	13.9	83.5	146	13.5	84.3	25	16.0	78.2
80-84	116	9.4	92.9	101	9.4	93.7	15	9.6	87.8
85+	87	7.1	100.0	68	6.3	100.0	19	12.2	100.0
All ages	1234	100.0		1078	100.0		156	100.0	

Included in the statistics are 44.0% multiple primaries in males and 40.5% in females.

Table 14

Age-specific mortality (cancer-related) and proportion of all cancers
for period 1998-2013
(**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			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	1	1	0.0	0.10	0.0	0.33	0.3	0.2
40-44	8		0.3	0.20	0.0		0.9	
45-49	27	3	1.1	0.26	0.1	0.18	1.5	0.1
50-54	75	8	3.7	0.39	0.4	0.28	2.3	0.3
55-59	114	13	6.2	0.41	0.7	0.28	1.9	0.3
60-64	168	17	9.5	0.48	0.9	0.34	1.9	0.3
65-69	218	25	13.8	0.64	1.4	0.66	1.8	0.3
70-74	152	30	11.9	0.56	2.0	0.73	1.1	0.3
75-79	146	25	17.7	0.90	2.1	0.86	1.1	0.2
80-84	101	15	20.2	1.17	1.6	0.68	0.9	0.1
85+	68	19	19.9	1.42	2.1	1.36	0.8	0.1
All ages	1078	156					1.3	0.2
Mortality								
Raw			3.6	0.57	0.5	0.51		
WS			1.9	0.53	0.2	0.40		
ES			2.9	0.55	0.3	0.43		
BRD-S			3.6	0.60	0.4	0.47		
PYLL-70								
per 100,000			20.2		2.2			
ES			17.9		1.9			
AYLL-70			8.8		8.8			

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

Table 15a

Multiple primaries in deaths in period 1998-2013
MALES

Diagnosis	Total n	Total %↓	Pre n	Pre ←%	Syn-chron ±30d n	Syn-chron ±30d ←%	Post n	Post ←%
C03-C06 Oral cavity	45	6.0	12	26.7	8	17.8	25	55.6
C09-C10 Oropharynx	37	4.9			8	21.6	29	78.4
C12-C13 Hypopharynx	24	3.2	3	12.5	4	16.7	17	70.8
C15 Oesophagus	41	5.4	4	9.8	7	17.1	30	73.2
C16 Stomach	21	2.8	2	9.5	2	9.5	17	81.0
C18 Colon	49	6.5	15	30.6	1	2.0	33	67.3
C19-C20 Rectum	22	2.9	3	13.6	1	4.5	18	81.8
C22 Liver	18	2.4			2	11.1	16	88.9
C25 Pancreas	16	2.1			3	18.8	13	81.3
C32 Larynx	41	5.4			4	9.8	37	90.2
C33-C34 Lung	182	24.1	25	13.7	21	11.5	136	74.7
C43 Malign. melanoma	10	1.3	4	40.0	1	10.0	5	50.0
C44 Skin others	34	4.5	11	32.4	4	11.8	19	55.9
C61 Prostate	71	9.4	30	42.3	7	9.9	34	47.9
C64 Kidney	14	1.9	3	21.4	1	7.1	10	71.4
C67 Bladder	37	4.9	12	32.4	1	2.7	24	64.9
C76-C79 CUP	17	2.2	5	29.4			12	70.6
C82-C85 NHL	14	1.9	3	21.4	3	21.4	8	57.1
Other primaries	63	8.3	22	34.9	2	3.2	39	61.9
All mult. primaries	756	100.0	154	20.4	80	10.6	522	69.0

Multiple primaries with number of cases 1 to 7 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 1998-2013
FEMALES

Diagnosis	Total n	Total %↓	Pre n	Pre ←%	Syn-chron ±30d n	Syn-chron ±30d ←%	Post n	Post ←%
C03-C06 Oral cavity	6	5.4	3	50.0			3	50.0
C09-C10 Oropharynx	18	16.2	8	44.4	3	16.7	7	38.9
C12-C13 Hypopharynx	3	2.7	1	33.3			2	66.7
C15 Oesophagus	4	3.6	2	50.0			2	50.0
C16 Stomach	2	1.8	1	50.0			1	50.0
C18 Colon	9	8.1	2	22.2	2	22.2	5	55.6
C19-C20 Rectum	2	1.8					2	100.0
C33-C34 Lung	22	19.8	3	13.6	2	9.1	17	77.3
C43 Malign. melanoma	2	1.8					2	100.0
C44 Skin others	3	2.7					3	100.0
C50 Breast	15	13.5	7	46.7	1	6.7	7	46.7
C51 Vulva	2	1.8					2	100.0
C53 Cervix uteri	2	1.8	1	50.0			1	50.0
C54 Corpus uteri	3	2.7					3	100.0
C67 Bladder	2	1.8	1	50.0			1	50.0
C70-C72 CNS cancer	2	1.8					2	100.0
C76-C79 CUP	3	2.7					3	100.0
C82-C85 NHL	2	1.8	1	50.0			1	50.0
C91-C96 Leukaemia	2	1.8					2	100.0
Other primaries	7	6.3	3	42.9	1	14.3	3	42.9
All mult. primaries	111	100.0	33	29.7	9	8.1	69	62.2

Multiple primaries with number of cases 1 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 1998-2013
(**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			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	1	1	0.0	0.11	0.0	0.33	0.3	0.2
40-44	7		0.3	0.19	0.0		0.9	
45-49	17	2	0.7	0.20	0.1	0.13	1.0	0.1
50-54	59	7	2.9	0.35	0.3	0.26	2.1	0.3
55-59	98	11	5.3	0.41	0.6	0.29	1.9	0.3
60-64	128	14	7.2	0.45	0.7	0.39	1.7	0.3
65-69	177	18	11.2	0.64	1.0	0.60	1.8	0.3
70-74	119	17	9.3	0.63	1.1	0.55	1.1	0.2
75-79	110	22	13.3	0.93	1.9	1.10	1.1	0.3
80-84	80	9	16.0	1.33	1.0	0.56	1.0	0.1
85+	51	17	15.0	2.04	1.9	1.70	0.8	0.2
All ages	847	118					1.3	0.2
Mortality								
Raw			2.8	0.57	0.4	0.50		
WS			1.5	0.51	0.2	0.38		
ES			2.3	0.54	0.2	0.42		
BRD-S			2.9	0.59	0.3	0.46		
PYLL-70								
per 100,000			15.9		1.8			
ES			14.1		1.6			
AYLL-70			8.8		9.2			

* See corresponding tables with multiple primaries.

Table 17

Age-specific mortality (cancer-related) and proportion of all cancers
for period 1998-2013
(**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			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	1		0.0	0.13	0.0		0.3	
40-44	6		0.2	0.18	0.0		0.8	
45-49	15	1	0.6	0.19	0.0	0.08	1.0	0.1
50-54	43	6	2.1	0.32	0.3	0.24	1.6	0.3
55-59	65	6	3.5	0.34	0.3	0.21	1.4	0.2
60-64	81	9	4.6	0.36	0.5	0.29	1.2	0.2
65-69	98	11	6.2	0.44	0.6	0.46	1.2	0.2
70-74	57	7	4.4	0.39	0.5	0.25	0.6	0.1
75-79	56	13	6.8	0.55	1.1	0.72	0.7	0.2
80-84	43	6	8.6	0.81	0.6	0.46	0.7	0.1
85+	25	13	7.3	1.09	1.5	1.30	0.5	0.1
All ages	490	72					0.9	0.1
Mortality								
Raw			1.6	0.40	0.2	0.36		
WS			0.9	0.37	0.1	0.27		
ES			1.3	0.39	0.1	0.30		
BRD-S			1.6	0.41	0.2	0.33		
PYLL-70								
per 100,000			11.0		1.1			
ES			9.8		1.0			
AYLL-70			9.6		9.0			

* See corresponding tables with multiple primaries.

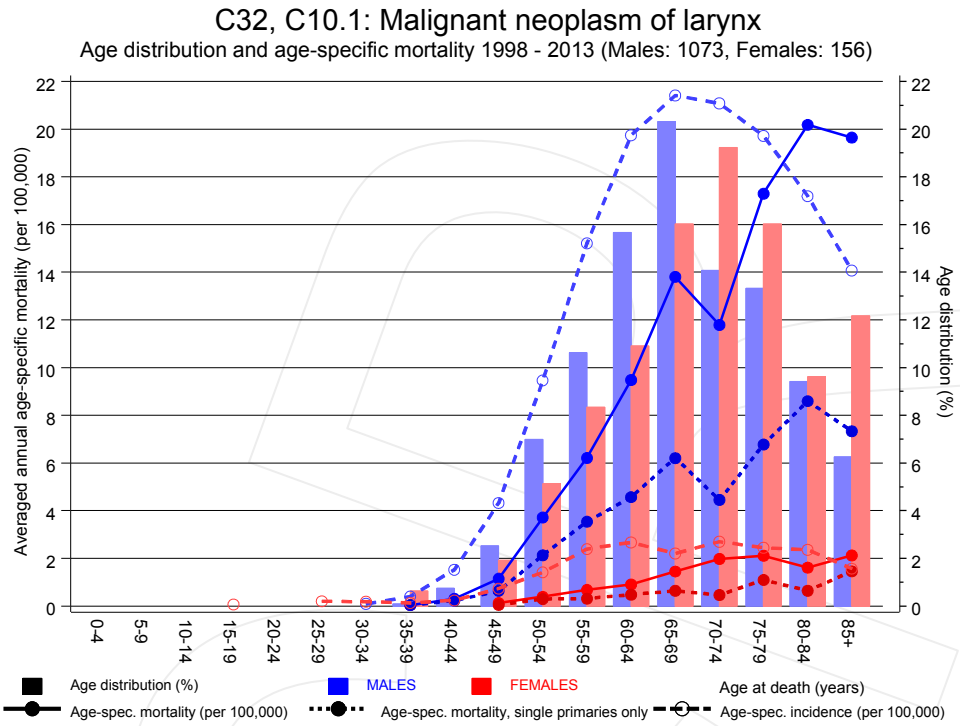
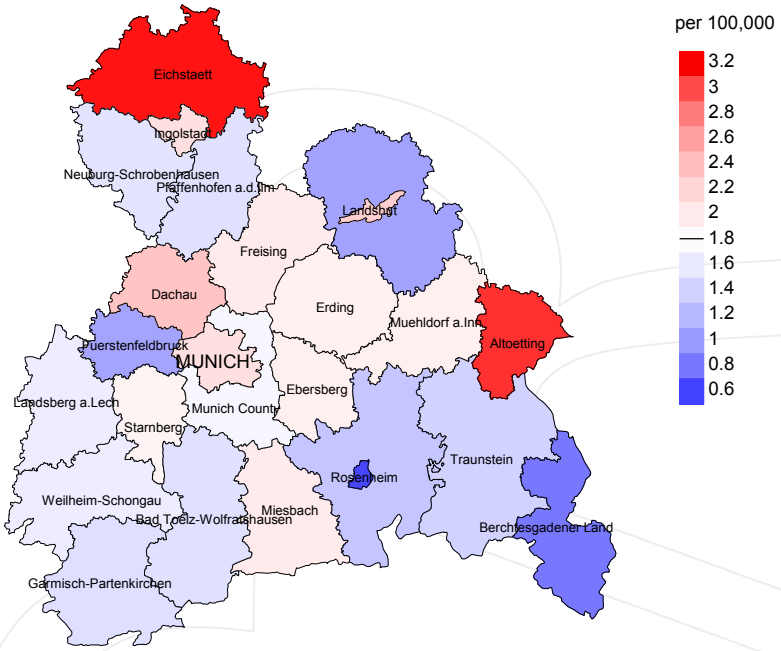


Figure 18. Distribution of age at death (bars) and age-specific mortality (all patients: solid line, patients with single primaries: dotted line). The age-specific incidence is additionally plotted for comparison (dashed line).

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

Average mortality (world standard population) 2007 - 2013: Males



Average mortality (world standard population) 2007 - 2013: Females

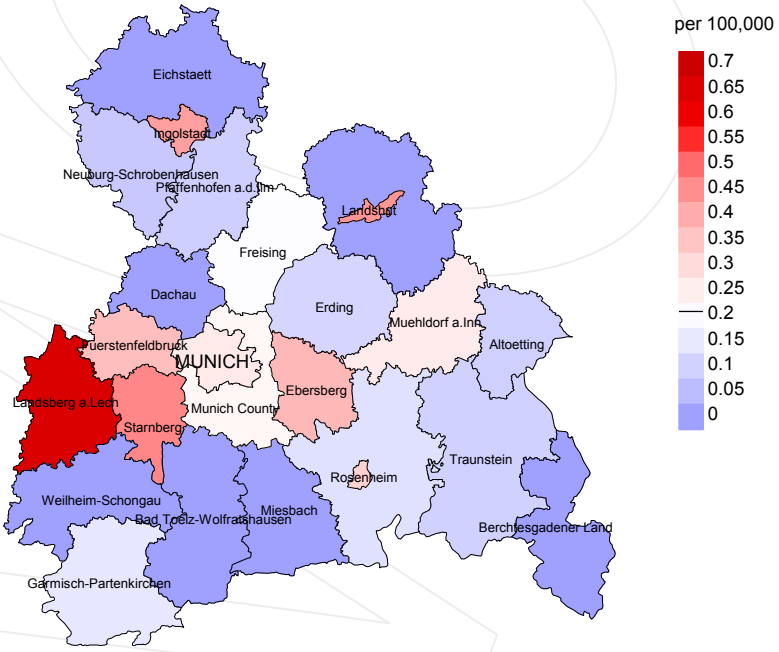
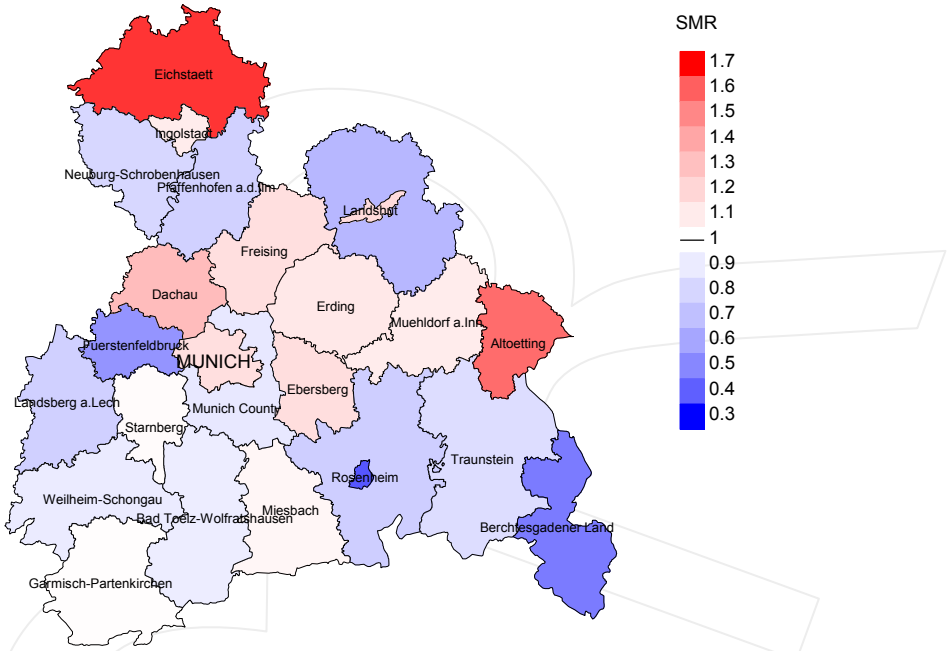


Figure 19a. Map of cancer mortality (world standard population) by county averaged for period 2007 to 2013. According to their individual mortality rates, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population mean (males 1.8/100,000 WS N=573, females 0.2/100,000 WS N=83).

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 64,928 female residents (averaged) in the period from 2007 to 2013 a total of 4 women died from larynx cancer. Therefore, the mean mortality rate for this cancer type in this area can be calculated at 0.4/100,000 (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 mortality ratio (SMR) 2007 - 2013: Males



Standardized mortality ratio (SMR) 2007 - 2013: Females

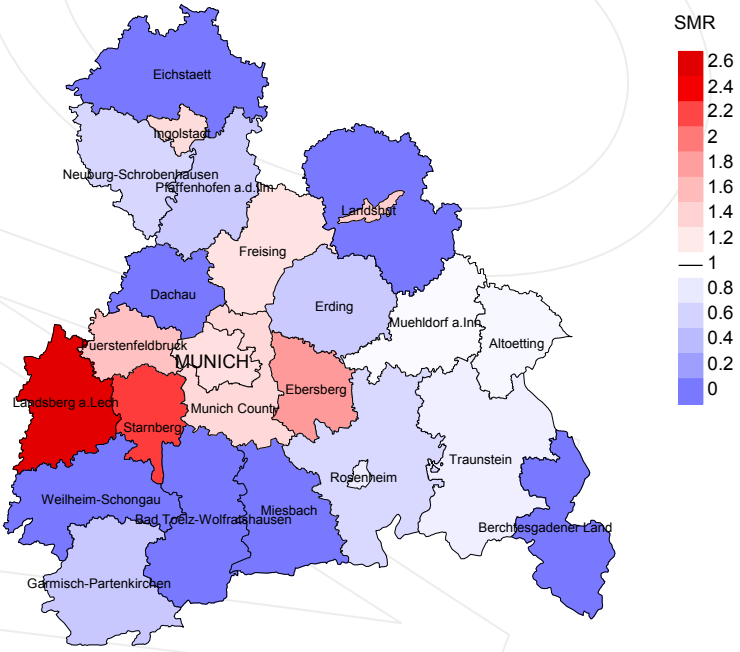


Figure 19b. Map of standardized mortality ratio (SMR, incl. DCO cases) by county averaged for period 2007 to 2013. According to their individual SMR values, the counties are displayed in different red and blue color temperatures where the fine white color indicates the population overall of 1.0 (males N=573, females N=83).

The results should be interpreted with caution! E.g., in county Ebersberg with a population of 64,642 female residents (averaged) in the period from 2007 to 2013 a total of 4 women died from larynx cancer. Therefore, the mean standardized mortality ratio (SMR) for this cancer type in this area can be calculated at 1.82. Though, the value of this parameter may vary with an underlying probability of 99% between 0.31 and 5.74, 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 cancer-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

FRG	Federal Republic of Germany
GEKID	Association of Population-based Cancer Registries in Germany (Gesellschaft der epidemiologischen Krebsregister in Deutschland e.V.)
MCR	Munich Cancer Registry (Tumorregister München)
SEER	Surveillance, Epidemiology, and End Results (USA)
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)
LCL	Lower confidence limit
MI-index	Ratio between mortality and incidence
PYLL-70	Potential years of life lost prior to age 70 given a person dies before that age
SIR	Standardized incidence ratio
SMR	Standardized mortality ratio
UCL	Upper confidence limit
WS	World standard population

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