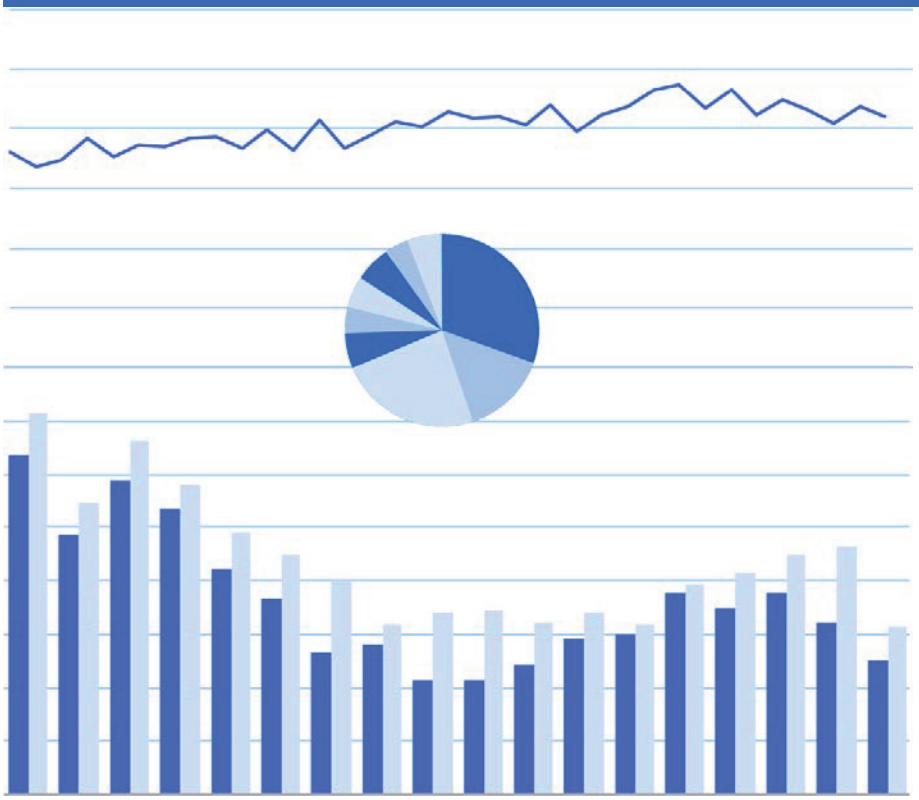
Deutsches
Kinderkrebsregister

Jahresbericht / Annual Report 2017

German Childhood Cancer Registry



Deutsches
Kinderkrebsregister

Jahresbericht
Annual Report
2017

(1980-2016)

Deutsches Kinderkrebsregister DKKR
German Childhood Cancer Registry GCCR

JG|U UNIVERSITÄTSmedizin. MAINZ
IMBEI Institut für Medizinische Biometrie Epidemiologie und Informatik

Jahresbericht / Annual Report 2017 (1980-2016)

April 2018

Deutsches Kinderkrebsregister am
Institut für Medizinische Biometrie, Epidemiologie
und Informatik (IMBEI)
Universitätsmedizin
der Johannes Gutenberg-Universität Mainz
55101 Mainz

Telefon: +49 6131 17-3111
Fax: +49 6131 17-4462
E-Mail: info@kinderkrebsregister.de

www.kinderkrebsregister.de

Mitarbeiter / Staff *

Wissenschaftliche Mitarbeiter

PD Dr. Peter Kaatsch (Leiter)
PD Dr. Claudia Spix (1.stv.Leiterin)
Dr. Desiree Grabow (2.stv.Leiterin)
Cornelia Becker, M.A., M.Sc.

Medizinische Dokumentation

Claudia Bremensdorfer
Monika Lückel
Claudia Trübenbach

Basisdokumentation

Anita Endesfelder
Julia Flamme
Martina Hick
Doris Weil

Langzeitnachbeobachtung

Marianne Brömmel

IT, Anwendungsentwicklung

Joshua Janis
Jürgen Hehl
Thomas Ziegler

Impressum

Herausgeber:

Deutsches Kinderkrebsregister
(Leitung: PD Dr. Peter Kaatsch)

Kein Druckexemplar - Nur als PDF im Internet erschienen

Zitierweise: Kaatsch P, Grabow D, Spix C. German Childhood Cancer Registry - Annual Report 2017 (1980-2016). Institute of Medical Biostatistics, Epidemiology and Informatics (IMBEI) at the University Medical Center of the Johannes Gutenberg University Mainz, 2018.

* zum Teil über andere Drittmittel finanziert / partly financed by additional external funds

2 Vorwort / Foreword

Das Deutsche Kinderkrebsregister legt hiermit wieder einen Jahresbericht vor, der nur über das Internet verfügbar ist. Alle Berichte, auch die, die in zweijährigem Abstand als Druckexemplare erscheinen, sind unter http://www.kinderkrebsregister.de abrufbar.

This time the German Childhood Cancer Registry presents an Annual Report available only via the internet. All reports, including those available in print every other year, can be retrieved online under http://www.kinderkrebsregister.de.

Wir möchten bei dieser Gelegenheit unseren herzlichen Dank den betroffenen Familien, das heißt den Eltern sowie den Patienten, aussprechen. Ohne deren Einwilligung zur Datenweitergabe an das Deutsche Kinderkrebsregister wäre die hohe Vollzähligkeit der Erfassung von Krebs im Kindes- und Jugendalter mit mittlerweile über 60.000 erfassten Neuerkrankungen nicht möglich. Auch deren Bereitschaft zur Teilnahme an Befragungen und die grundsätzliche Offenheit ehemaliger Patientinnen und Patienten, im Rahmen der Langzeitnachbeobachtung Informationen direkt an uns zu geben, ist bemerkenswert und verdient Respekt und Dankbarkeit.

We would like to take this opportunity to express our warmest thanks to the affected families, i.e. the parents and patients. Only their consent to have their data passed on to the German Childhood Cancer Registry makes it possible to have such a high completeness with almost 60,000 new cases of cancer in childhood and adolescence registered. The patients' and parents willingness to participate in surveys and the former patients' general openness to pass on information to us within the framework of the long-term follow-up is remarkable and deserves our respect and gratitude.

Ebenso ist der lang bewährte Informationsverbund, der zwischen unserem Register, den behandelnden Kliniken und den in der deutschen pädiatrischen Onkologie und Hämatologie durchgeführten klinischen GPOH-Studien besteht, eine wesentliche Basis unserer Arbeit. Auch dafür unseren herzlichen Dank!

Similarly, the long-established information network between our registry, the treating hospitals, and the clinical trials of the German Society of Pediatric Oncology and Hematology, is crucial for our work. Our sincere thanks for this good collaboration!

Die papierbasierte Archivierung der Patientenakten am Deutschen Kinderkrebsregister wurde prospektiv auf eine elektronische Archivierung umgestellt. Seit Mitte 2017 erfolgt grundsätzlich keine Archivierung mehr von papierenen Unterlagen.

The paper based archiving of patient records at the German Childhood Cancer Registry was prospectively changed to electronic archiving. Since the middle of 2017 we stopped archiving paper records.

Eine Ergebnis-Übersicht zu den wichtigsten Kennzahlen (Inzidenzen, Überlebenswahrscheinlichkeiten, Zweitneoplasien etc.) findet sich auf Seite 4 dieses Berichtes. Die Datenlage zu Zweitneoplasien wird immer vollständiger, damit werden auch die Risikoabschätzungen immer höher: nach derzeitigem Wissen müssen 8,4% der Patienten innerhalb von 30 Jahren mit einer erneuten Erkrankung rechnen, besonders betroffen sind Patienten mit Hodgkin-Lymphomen, Vorläuferzell-Lymphomen, Ependymomen, Medulloblastomen und PNET. Zu diesem Thema liegt eine neue Veröffentlichung vor (51).

An overview of the results with key figures (incidence, survival probability, subsequent neoplasms etc.) can be found on page 5 of this report. The data available on subsequent neoplasms is increasingly complete, which also leads to higher risk estimates: based on current knowledge patients must expect an 8.4% risk of another malignant disease within 30 years of their first diagnosis; particularly under risk are patients with Hodgkin lymphoma, precursor cell lymphoma, ependymoma, medulloblastoma and PNET. (51) presents a new publication on the topic

Die Sichtbarkeit des Deutschen Kinderkrebsregisters ist nach unserer Einschätzung weiterhin national und international hoch. Beispielsweise können Vorträge genannt werden bei der Jubiläumsveranstaltung des Schweizer Kinderkrebsregisters, auf der ESLCCC -Tagung in Edinburgh (European Symposium on Late Complications after Child-hood Cancer) oder vor Kinderonkologen in Paraguay.

We consider the German Childhood Cancer Registry to be highly visible nationally and internationally, which is demonstrated by several activities. For instance, staff members gave presentations at the anniversary meeting of the Swiss Childhood Cancer Registry, at the ESLCCC-meeting in Edinburgh (European Symposium on Late Complications after Childhood Cancer), or a meeting of Paraguayan pediatric oncologists.

Auch in EU-Projekten und internationalen Datenvergleichsprojekten spielt das Deutsche Kinderkrebsregister mit dessen Mitarbeiterinnen und Mitarbeitern weiterhin eine wesentliche Rolle. So hat das Deutsche Kinderkrebsregister seine Daten zur weltweiten Sammlung aller Kinderkrebserkrankungen beigetragen, die 2017 von der Internationalen Krebsforschungsagentur veröffentlicht wurde (IICC3, 47,52).

In diesem Zusammenhang erscheinen einige Publikationen unter Beteiligung des Deutschen Kinderkrebsregisters erwähnenswert: Übersichten der EUROCARE 5-Studie zu Überlebenszeitvergleichen bei Kindern und Jugendlichen mit Krebs in Europa (41,42) und die ersten Ergebnisse der Studie Pan-CareSurFup zu Spätfolgen nach Krebs im Kindesalter in Europa (39,49).

Im Rahmen der in den einzelnen Bundesländern erfolgenden Umsetzung des Krebsfrüherkennungs- und -Registergesetzes (KFRG) (19) sind wir damit beschäftigt, den seit einigen Jahren durchgeführten Datenaustausch mit den einzelnen Landeskrebsregistern nun unter Berücksichtigung der aktualisierten Gesetze zu realisieren. Wo dies noch gesetzlich möglich ist, leiten wir - unter Berücksichtigung der jeweiligen Register- und Datenschutzgesetzgebung - weiterhin die an das Deutsche Kinderkrebsregister erfolgten Meldungen grundsätzlich an die Krebsregister der Länder weiter (Tab. 10).

Wir wünschen eine informative Lektüre des Jahresberichtes und sind für Anregungen zur Optimierung unserer Berichterstattung offen.

Mainz, April 2018

Furthermore, the German Childhood Cancer Registry and its staff members play an important role in EU projects and international data collections. The German Childhood Cancer Registry contributed its data to the world wide collection of childhood cancer cases published in 2017 by the International Agency for Research on Cancer (IICC3, 47, 52)

In this context, some publications, to which the German Childhood Cancer Registry contributed, seem worth mentioning: Overviews of the EUROCARE 5-study on survival time comparisons in children and adolescents in Europe (41,42) and the first results of the PanCareSurFup study on late effects after cancer in children and adults in Europe (39,49).

The federal states are updating their federal laws on cancer registration according to the national “Krebsfrüherkennungs- und -Registergesetz” (KFRG) (19). Data exchanges have been carried out with the individual state cancer registries for several years, and we are working on adapting this exchange to the new laws. Where still possible under the law, we continue to transfer cases reported to the German Childhood Cancer Registry to the cancer registries of the federal states, taking the specific registry laws and data protection legislations into account (Table 10).

We hope you find this annual report an informative reading, and we are open for suggestions for improving our reporting.

PD Dr. Peter Kaatsch

Dr. D. Grabow

PD Dr. C. Spix

4 Ergebnis-Übersicht / Overview of Results

Meldungen von Fällen unter 15 Jahren im Jahr 2016 (Meldungen aus 63 Kliniken) **:**	1741
Meldungen von Fällen unter 18 Jahren im Jahr 2016 (Meldungen aus 63 Kliniken) **:**	2111
Durchschnittliche Meldungen von Fällen unter 15 Jahren pro Jahr: (ermittelt aus den Jahren 2007-2016)	1761
vor dem 15. Geburtstag erkrankt ...	eines von 409 Neugeborenen
Jungen / Mädchen	970 / 792
Meldungen von unter 5-Jährigen	787
Meldungen von 5- unter 10-Jährigen	458
Meldungen von 10- unter 15-Jährigen	517
Lymphatische Leukämien (LL)	440
Durchschnittliche Meldungen von Fällen im Alter von 15- unter 18 Jahren pro Jahr: (ermittelt aus den Jahren 2009-2016)	363
Zahl aller Meldungen unter 15 bzw. 18 Jahren von Beginn der Erfassung im Jahr 1980 bis 2016:	61954
in Langzeitnachbeobachtung befindlich	35270

Bevölkerung im Alter von unter 15 / unter 18 Jahren (Million):	
in 2016	10,7 / 13,1
im Durchschnitt (in den Jahren 2007-2016 / 2009-2016)	10,9 / 13,3

Prognose der Fälle im Alter von unter 15 Jahren:

82 % überleben derzeit eine Krebserkrankung mindestens 15 Jahre

90 % überleben derzeit eine lymphatische Leukämie (LL) mindestens 15 Jahre

Insgesamt ca. 420 Todesfälle pro Jahr innerhalb von 15 Jahren nach Diagnose

Zweitneoplasien nach einer im Kindesalter (unter 15) aufgetretenen Ersterkrankung:

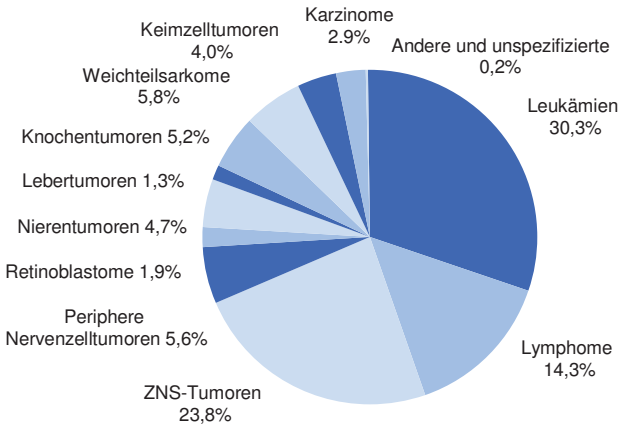
8,4 % der Patienten erkranken innerhalb von 30 Jahren nach Diagnose erneut an Krebs

Insgesamt sind über 1300 Patienten mit Folgeneoplasien registriert

Durchschnittliche Meldungen von Fällen unter 15 Jahren pro Jahr nach Bundesländern:
(ermittelt aus den Jahren 2007-2016)

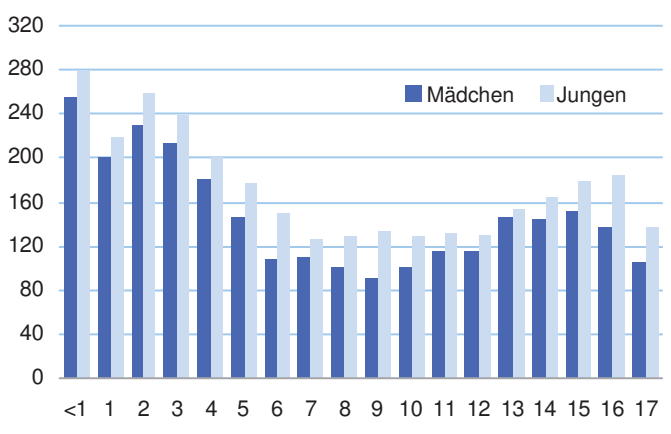
	Alle Erkrankungen	Leukämien		Alle Erkrankungen	Leukämien
Schleswig-Holstein	64	21	Bayern	280	96
Hamburg	38	12	Saarland	18	6
Niedersachsen	172	58	Berlin	68	24
Bremen	12	4	Brandenburg	45	15
Nordrhein-Westfalen	402	126	Mecklenburg-Vorpommern	28	9
Hessen	135	46	Sachsen	87	26
Rheinland-Pfalz	89	27	Sachsen-Anhalt	43	13
Baden-Württemberg	239	76	Thüringen	39	12

Relative Häufigkeiten der an das Deutsche Kinderkrebsregister gemeldeten Erkrankungsfälle nach Diagnose-Hauptgruppen*



ZNS: Zentrales Nervensystem

Alters- und geschlechtsspezifische Erkrankungsraten pro 1 Million*



*2009-2016, basierend auf insgesamt 16964 unter 18-jährigen Patienten

Reported cases aged under 15 years in 2016 (Reported cases from 63 hospitals) **:**	1741
Reported cases aged under 18 years in 2016 (Reported cases from 63 hospitals) **:**	2111
Average reported cases aged under 15 per year: (calculated from the years 2007-2016)	1761
diagnosed before the 15th birthday ...	one out of 409 new born children
Boys / Girls	970 / 792
Reported cases aged under 5	787
Reported cases aged between 5 and under 10	458
Reported cases aged between 10 and under 15	517
Lymphoid leukaemias (LL)	440
Average reported cases aged between 15 years and under 18 years per year: (calculated from the years 2009-2016)	363
Number of all reported cases aged under 15 or under 18 years from the beginning of registration in 1980 until 2016:	61954
in long-term surveillance (LTS)	35270

Population aged under 15 / under 18 (per million):	
in 2016	10.7 / 13.1
average (in the years 2007-2016 / 2009-2016)	10.9 / 13.3

Prognosis of cases aged under 15 years:

82 % currently survive a cancer diagnosis at least 15 years

90 % currently survive a lymphoid leukaemia (LL) at least 15 years

Approx. 420 deaths per year within 15 years after diagnosis

Second neoplasms after initial cancer diagnosis in childhood (aged under 15):

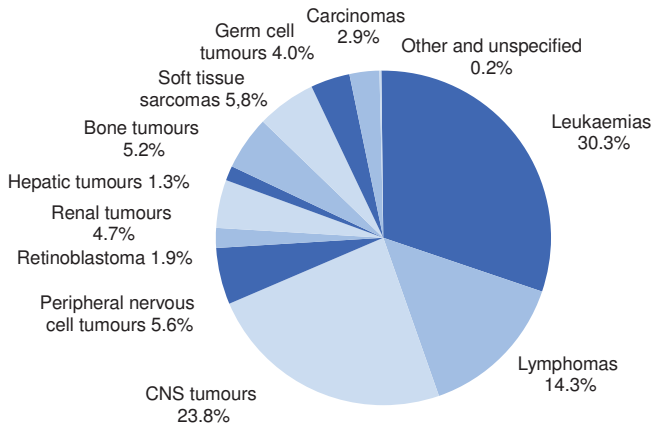
8.4 % of patients diagnosed with cancer are diagnosed again within 30 years

More than 1300 patients registered with second neoplasms

Average reported cases aged under 15 years per year by federal state:
(calculated from the years 2007-2016)

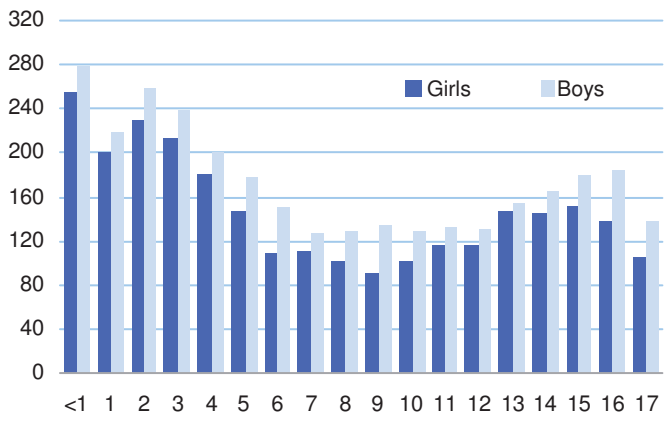
	All diseases	Leukaemias		All diseases	Leukaemias
Schleswig-Holstein	64	21	Bavaria	280	96
Hamburg	38	12	Saarland	18	6
Lower Saxony	172	58	Berlin	68	24
Bremen	12	4	Brandenburg	45	15
North Rhine-Westphalia	402	126	Mecklenburg-Western Pomerania	28	9
Hesse	135	46	Saxony	87	26
Rhineland-Palatinate	89	27	Saxony-Anhalt	43	13
Baden-Württemberg	239	76	Thuringia	39	12

Relative frequencies of registered cases reported to the German Childhood Cancer Registery by the main diagnosis groups*



CNS: Central nervous system

Age- and sex specific incidence rates per million*



*2009-2016, based on 16964 patients under 18

15 to 17 year old adolescents

Im Jahresbericht 2013/14 wurden erstmals die Auswertungen zu den seit 2009 systematisch mit erfassten 15- bis 17-Jährigen präsentiert. Im vorliegenden Bericht sind jetzt Daten über 8 Jahre erhältlich. Erkennbar ist, dass die Meldungen der 16-Jährigen und ganz besonders der 17-Jährigen nicht vollzählig sind. Diese Fälle werden zum Teil außerhalb der Kinder- und Jugendonkologie behandelt, wo die Meldung an das Deutsche Kinderkrebsregister nicht verpflichtend ist.
Zur Präsentation zuverlässiger Zahlen zur Überlebenswahrscheinlichkeit ist die Datenlage noch nicht ausreichend.

In the annual report 2013/14 we presented analyses for cases aged 15-17, which have been registered since 2009, for the first time. The current report makes data for the last 8 years available. It is becoming clear, that the 16-year olds, and even more so the 17-year olds, are not complete. Some of these cases are treated outside of pediatric oncology units, where reporting to the GCCR is not mandatory.

There is not yet sufficient data to present survival probabilities.

I Leukaemias, myeloproliferative and myelodysplastic diseases (p. 16)

Diese hämatologischen Erkrankungen sind die häufigsten bösartigen Erkrankungen im Kindes- und Jugendalter. Betroffen ist bis unter 15 eines von 1250 Kindern, Jungen etwa 20% öfter als Mädchen. Etwa die Hälfte der Erkrankungen tritt bereits vor dem Schulalter auf. Bei Kindern und Jugendlichen überwiegen die akuten Formen, bei Erwachsenen chronische Formen, die bei Kindern sehr selten sind. Auf der Basis internationaler Vergleiche gehen wir von nahezu 100% Vollzähligkeit der Erfassung aus.

These hematological diseases are the most frequent malignant diseases in childhood and adolescence. One child out of 1250 under 15 years is affected, boys ca. 20% more often than girls. About half of the cases are 5 years and below. Children and adolescents show mostly acute forms, whereas adults show mostly chronic forms, which are very rare in children. Based on international comparisons we assume completeness is close to 100%.

Die häufigste Form, die lymphatische Leukämie (früher ALL), nahm Deutschland und Europa bis Mitte der 2000er langsam zu (ca. 0,7% pro Jahr), seitdem sehen wir in Deutschland keinen weiteren Anstieg, Ähnliches gilt für Europa. Fast 98% aller lymphatischen Leukämien sind Vorläuferzell-Leukämien, dies ist damit die bei Kindern und Jugendlichen häufigste Einzeldiagnose überhaupt (ca. 25% aller Krebserkrankungen unter 15 Jahren). Sie hat einen typischen Altersgipfel im Alter von 2-4. Die Prognose ist gut (90% Langzeitüberlebende, mindestens 15 Jahre).

The most frequent form, lymphoid leukaemia (used to be ALL), slowly increased until the mid-2000s in Germany and Europe (ca. 0.7% p.a.), in Germany we see no further increase, similarly for Europe. Almost 98% of all lymphoid leukaemias are precursor cell leukaemias, which makes it the most frequent single diagnosis in childhood and adolescence. It shows a typical age peak at ages 2-4. The prognosis is good (90% long-term survivors for more than 15 years).

Akute myeloische Leukämien (AML) sind deutlich seltener und haben eine schlechtere Prognose (71% Langzeitüberlebende); die seit den 1980ern erzielten Verbesserungen der Therapie sind erheblich und es werden weiter Verbesserungen erzielt.

Acute myeloid leukaemias (AML) are much less frequent and have a worse prognosis (71% long-term survivors); the improvements in therapy since the 1980s are considerable and keep increasing.

Das myelodysplastische Syndrom (MDS) wurde erst seit Anfang des Jahrtausends (mit Veröffentlichung der ICD-O-3) als bösartig (maligne) klassifiziert. Erkrankungs- und Überlebenszahlen davor sind damit nicht repräsentativ. Ein Teil der MDS entwickelt sich zu einer AML weiter. Es gab unterschiedliche Ansätze, wie in diesem Falle mit der Zählung zu verfahren ist. Zeitliche Vergleiche und Vergleiche mit anderen Registern sind daher problematisch.

The myelodysplastic syndrome (MDS) was reclassified as malignant since the 2000s (introduction of ICD-O-3). Numbers of cases and survival are not representative before this. Some MDS cases progress to an AML. There were different approaches of counting such cases; as a consequence comparisons over time or across registries are problematic.

Die AML und MDS stellen zusammen gut 16% der zweiten und weiteren Krebserkrankungen (subsequent neoplasms (SN)) innerhalb von 30 Jahren nach einer Krebsdiagnose im Kindesalter.

More than 16% of the second and subsequent neoplasms (SN) within 30 years of diagnosis are AML or MDS.

II Lymphomas and reticuloendothelial neoplasms (p. 22)

Lymphome (eines von 4000 Kindern unter 15) treten im Allgemeinen im Jugend- und Erwachsenenalter und nur selten bei Kleinkindern auf.
Wir gehen von nahezu 100% Vollzähligkeit der Erfassung aus. Von Hodgkin-Lymphomen sind Jungen ca. 50% häufiger betroffen. Bei Patienten mit Hodgkin Lymphom ist die Prognose bereits seit vielen Jahrzehnten gut (derzeit 97% Langzeitüberlebende), daher sind bei dieser Erkrankung die Spätfolgen der Therapie besonders ausführlich erforscht. Hodgkin Lymphom-Patienten sind überdurchschnittlich oft von SN betroffen, fast 16% in den ersten 30 Jahren nach Diagnose.
Burkitt-Lymphome (BL) zählen zu den Non-Hodgkin-Lymphomen (NHL), werden aber für internationale Vergleichbarkeit separat dargestellt. Jungen sind von NHL mehr als doppelt so oft betroffen, von Burkitt-Lymphomen mehr als 5-mal so oft. Die Prognose ist gut (86% bzw. 92% Langzeitüberlebende). Das Risiko einer Folgeneoplasie ist nach NHL überdurchschnittlich hoch, besonders nach Vorläuferzell-Lymphomen (22% Risiko).
Unspezifizierte Lymphome werden fast nie gemeldet, dies spricht für die Qualität der Diagnostik und der Meldungen.

Lymphomas (one child in 4000 under 15) occur mostly in adolescents and adults, while they are rare in small children.
We assume completeness is close to 100%. Hodgkin lymphomas are about 50% more frequent in boys. Patients with Hodgkin lymphoma have shown a good prognosis for decades (current long-term survival is 97%), so for this entity late effects are particularly well known. Patients with Hodgkin lymphoma are especially frequently affected by SN (almost 16% within the first 30 years).

Burkitt lymphomas (BL) are a subgroup of the Non-Hodgkin lymphomas (NHL); they are presented separately for international comparisons. Boys are affected by NHL more than twice as often as girls, five times as often by Burkitt lymphoma. The prognosis of NHL is good (NHL/BL 86%/92% long-term survivors). The SN risk after NHL is above average, especially after precursor cell lymphoma (22% risk).

Unspecified lymphomas are rarely reported, this shows the high quality of diagnosis and reports.

III CNS and miscellaneous intracranial and intraspinal neoplasms (p. 28)

Bei den Tumoren des zentralen Nervensystems (ZNS, Hirntumore), eines von 1600 Kindern unter 15 ist betroffen, handelt es sich um eine heterogene Gruppe von Krebserkrankungen mit bösartigen (malignen) und nichtmalignen Formen. Internationale Vergleiche deuten auf eine gewisse Untererfassung der nichtmalignen Formen hin. Der beobachtete Anstieg der Erkrankungszahlen zeigt die stetig verbesserte Vollzähligkeit der Erfassung, besonders bei Astrozytomen und sonstigen Gliomen. Jungen sind etwa 20% häufiger betroffen als Mädchen. Die scheinbar seit 1990 schlechter werdende Prognose bei den „sonstigen Gliomen“ ist auf erhebliche Änderungen in der Zusammensetzung dieser Gruppe zurückzuführen, was durch die zunehmende Vollzähligkeit und Veränderungen in der Klassifikation bedingt ist.
Das Risiko eines SN innerhalb von 30 Jahren ist nach Astrozytomen und anderen Gliomen sowie Kraniopharyngiomen ungewöhnlich niedrig und mit 34% nach Medulloblastomen außergewöhnlich hoch. ZNS-Tumoren stellen 23% aller SN in den ersten 30 Jahren nach einer Diagnose im Kindesalter, dabei handelt es sich mehrheitlich um Meningiome, gefolgt von den Astrozytomen.

Tumours of the central nervous system (CNS, brain tumours) affect one child in 1600 under 15. They are a heterogeneous group of neoplasms, including malignant and non-malignant forms. Based on international comparisons we assume especially the non-malignant forms to be slightly underreported. The observed increase in cases shows improvements in completeness of registration, especially regarding astrocytomas and other gliomas. Boys have an about 20% higher incidence. The seemingly worsening prognosis of “other gliomas” since 1990 is due to considerable changes in the composition of this group due to improvements in completeness and classification changes.

The risk of an SN after intracranial and intraspinal embryonal tumours is unusually low after astrocytoma, other gliomas, and craniopharyngiomas, while after Medulloblastoma it is unusually high (34%). 23% of all SN in the 30 years after primary diagnosis are CNS tumours, most of these are meningiomas, followed by astrocytomas.

IV Neuroblastoma and other peripheral nervous cell tumours (p. 41)

Neuroblastome gehören zu den embryonalen Tumoren, die vor allem bei Kleinkindern auftreten. Betroffen ist eines von 6000 Kindern unter 15, Jungen erkranken etwa 40% häufiger als Mädchen. Wir gehen von nahezu 100% Vollzähligkeit der Erfassung aus. Insgesamt überleben etwa 76% der Fälle langfristig, jedoch haben Patienten mit fortgeschrittener Erkrankung (Stadium IV) nach wie vor eine relativ schlechte Prognose, auch wenn für diese Gruppe seit den 1980ern erhebliche Verbesserungen erzielt wurden.

Neuroblastomas are embryonal tumours, which are observed mainly in small children. It affects one child in 6000 under 15, boys have an about 40% higher incidence than girls. We assume completeness is close to 100%. Overall long-term survival is 76%, but patients with advanced disease (stage IV) still have a rather bad prognosis, although it has improved considerably since the 1980ies.

Bei Neuroblastomen kann sich bei einem Teil der Erkrankungsfälle (insbesondere mit niedrigem Stadium bis etwa zum 2. Geburtstag) der Tumor spontan zurückbilden. Während eines Modellprojekts zur Früherkennung (1995-2000) wurden daher viele zusätzliche Fälle diagnostiziert, was zu einem erkennbaren Anstieg der Erkrankungszahlen führte. Es folgte jedoch nicht die erhoffte Mortalitätssenkung, so dass die Früh-erkennung als nicht zielführend verworfen wurde. Die erhöhte Aufmerksamkeit und die weitere Verbreitung von Ultraschalldiagnostik führten seither auch ohne Screening zu einem Anstieg der gemeldeten Erkrankungszahlen.

A subset of neuroblastomas (especially low stages before the 2nd birthday) is capable of spontaneous regression. During the screening evaluation project 1995-2000 this led to a considerable number of additional cases, which is visible in the trend graphic. However, screening did not lead to the intended drop in mortality, so it was not introduced. The increased attention and the extended usage of ultrasound diagnostics have since led to an increase in the number of reported cases even without screening.

Folgeneoplasien sind nach Neuroblastomen selten, ihrerseits treten sie fast nie als Folgeneoplasien auf.

Subsequent neoplasms are rare after neuroblastoma, which are in turn almost never reported as SN.

V Retinoblastoma (p. 42)

Retinoblastome, unter 17.000 Kindern unter 15 tritt ein Fall auf, gehören zu den embryonalen Tumoren von denen ältere Kinder (ab ca. 10 Jahren) kaum betroffen sind. Auf der Basis internationaler Vergleiche gehen wir von hoher Vollzähligkeit der Erfassung aus. Das Retinoblastom ist eine der Erkrankungen, bei denen Genetik und Vererbung eine große Rolle spielen, besonders bei beidseitig auftretenden Retinoblastomen. Grundsätzlich sollten beim Auftreten der Erkrankung Familienmitglieder mit untersucht werden.

One child in 17,000 under 15 is affected with a Retinoblastoma. These are embryonal tumours which rarely affect older children (10 years or older). Based on international comparisons we assume completeness is high. Retinoblastoma has a known genetic cause and can be inherited, especially bilateral cases. When a case is diagnosed, family members should also be examined.

Retinoblastome treten fast nie als Folgeneoplasien auf.

Retinoblastomas are very rare as SN.

VI Renal Tumours (p. 43)

Fast alle Nierentumoren im Kindesalter sind Nephroblastome (Wilmstumor). Ein Kind von 7400 bis 14 Jahre ist betroffen, Mädchen etwa 10% häufiger. Auf der Basis internationaler Vergleiche gehen wir von nahezu 100% Vollzähligkeit der Erfassung aus. Die Prognose ist gut (93% Langzeitüberlebende). Nach einem Nephroblastom ist das Risiko einer Folgeneoplasie unterdurchschnittlich, ihrerseits treten diese nur extrem selten als Folgeneoplasie auf. Nierenkarzinome, meist im Erwachsenenalter beobachtet, treten nur selten und wenn, dann bei älteren Kindern und Jugendlichen auf, bei Jungen 40% häufiger.

Almost all renal tumours in childhood are nephro- blastomas (Wilm's tumour). One child under 15 in 7400 is affected, girls about 10% more often. Based on international comparisons we assume completeness is close to 100%. The prognosis is good (93% long-term survivors).
The risk of a subsequent neoplasm is below average, nephroblastoma is hardly ever reported as an SN.

Renal carcinomas, usually observed in adults, are occasionally diagnosed in older children and adolescents; boys are affected 40% more often.

Folgeneoplasien nach Nierenkarzinomen wurden nur selten gemeldet, ihrerseits als Folgeneoplasie treten sie vereinzelt auf.
Unspezifizierte Nierentumoren wurden keine gemeldet, dies spricht für die Qualität der Diagnostik und der Meldungen.

Subsequent neoplasms after renal carcinomas are rare, renal carcinomas as subsequent neoplasms do occur occasionally.
No unspecified renal tumours were reported, this shows the high quality of diagnoses and reports.

VII Hepatic tumours (p. 46)

Fast alle Lebertumoren im Kindesalter (ein Fall unter 33.000 Kindern bis 14 Jahre) sind Hepatoblastome. Jungen sind 40% häufiger betroffen als Mädchen. Wir gehen von guter Vollzähligkeit der Erfassung aus, die seit der Gründung eines Lebertumorregisters für Kinder im Jahre 2011 erkennbar weiter verbessert wurde. Die Prognose ist moderat (79% Langzeitüberlebende) und seit den 1980ern erheblich verbessert.
Folgeneoplasien sind nach Hepatoblastomen sehr selten, ihrerseits treten sie fast nie als Folgeneoplasien auf. Leberkarzinome, meist im Erwachsenenalter beobach- tet, treten nur sehr selten und wenn, dann bei älteren Kindern und Jugendlichen auf.
Folgeneoplasien nach Leberkarzinomen wurden nur selten gemeldet, ihrerseits als Folgeneoplasie treten sie vereinzelt auf.
Unspezifizierte Lebertumoren wurden keine gemeldet, dies spricht für die Qualität der Diagnostik und der Meldungen.

Almost all hepatic tumours in childhood (one in 33,000 children until 14 years is affected) are hepatoblastomas. Boys have a 40% higher incidence. We assume completeness is good and has visibly improved further since a hepatic tumour registry for children was funded in 2011. The prognosis is moderate (79% long-term survivors) and has been improving considerably since the 1980ies.
Subsequent neoplasms are rare; hepatoblastomas hardly ever are subsequent neoplasms.
Hepatic carcinomas, usually observed in adults, are occasionally diagnosed in older children and adolescents.
SN are rarely reported, hepatic carcinomas occasionally occur as SN.

Unspecified hepatic tumours were not reported, this shows the high quality of diagnoses and reports.

VIII Malignant bone tumours (p. 48)

Knochensarkome (ein Kind von 9700 unter 15) sind typisch für ältere Kinder und Jugendliche. Die besonders häufigen Typen sind Osteosarkome und Ewingsarkome. Auf der Basis internationaler Vergleiche gehen wir von hoher Vollzähligkeit der Erfassung aus.
Knochentumore stellen 5% aller Folgeneoplasien innerhalb von 30 Jahren nach einer Krebsdiagnose im Kindesalter, dabei überwiegen Osteosarkome.
Unspezifizierte Knochentumoren wurden fast keine gemeldet, dies spricht für die Qualität der Diagnostik und der Meldungen.

Bone sarcomas (one case in 9700 children under 15) are typical for older children and adolescents. The most frequent forms are osteosarcoma and Ewing sarcomas. Based on international comparisons we assume completeness is high.
5% of all subsequent neoplasms within 30 years of the first neoplasm are bone tumours, mostly osteosarcoma.
Unspecified bone tumours are rarely reported, this shows the high quality of diagnoses and reports.

IX Soft tissue and other extraosseous sarcomas (p. 52)

Weichteilsarkome können in allen Altersklassen auftreten, betroffen ist ein Kind bis 14 Jahre von 7200. Das häufigste Weichteilsarkom im Kindesalter ist das Rhabdomyosarkom. Auf der Basis internationaler Vergleiche gehen wir von hoher Vollzähligkeit der Erfassung aus. Jungen sind etwa 20% häufiger betroffen als Mädchen. Die Prognose ist unterdurchschnittlich (70% Langzeitüberlebende).
Weichteilsarkompatienten sind durchschnittlich häufig von Folgeneoplasien betroffen, etwa 6% aller Folgeneoplasien innerhalb von 30 Jahren nach einer Krebsdiagnose im Kindesalter sind ihrerseits Weichteilsarkome.

Soft tissue sarcomas occur in all ages in childhood (one child under 15 in 7200). The most frequent type in childhood is rhabdomyosarcoma. Based on international comparisons we assume completeness is high. Boys have a 20% higher incidence than girls. The prognosis is below average (70% long-term survivors).

Soft tissue sarcoma patients have an average risk of a subsequent neoplasm; about 6% of all subsequent neoplasms within 30 years after a primary neoplasm are soft tissue sarcomas.

X Germ cell tumours, trophoblastic tumours and neoplasms of gonads (p. 59)

Keimzelltumoren sind eine heterogene Gruppe von Krebserkrankungen (bis unter 15 ein Kind von 13.000). Einige treten häufiger mit beginnender Pubertät auf, andere sind typisch für das Kleinkindalter, so dass sie vom 4.-7. Lebensjahr eher selten sind. Wir gehen von hoher Vollzähligkeit der Erfassung aus. Mädchen sind bis 14 Jahre etwa 30% häufiger betroffen. Bei den intrakranialen Formen (im Gehirn lokalisiert) hat es seit etwa 2000 (neue Diagnoseklassifikation ICD-O-3) Zuordnungsänderungen gegeben, so dass einige Keimzelltumoren seither der Hauptgruppe der Hirntumoren (ZNS) zugeordnet werden. Insgesamt ist die Langzeitprognose gut (93%).

Germ cell tumours are a heterogeneous group of neoplasms; one child under 15 in 13,000 is affected. Some become more frequent as puberty sets in, others are typical for infants, so they are rare from the 4th to 7th year of life. We assume completeness is high. Girls under 15 have about 30% higher incidence. Some intracranial forms (localized in the brain) have been reclassified as brain tumours (CNS) since about 2000 (new diagnosis classification ICD-O-3. In general the prognosis is good (93% long-term survivors).

Das Risiko einer Folgeneoplasie innerhalb von 30 Jahren ist durchschnittlich. Keimzelltumoren sind als Folgeneoplasien eher selten.

The risk of an SN is average. Germ cell tumours are rare as SN.

XI Other malignant epithelial neoplasms and malignant melanomas (p. 67)

Dies ist eine heterogene Gruppe von Neoplasien. Karzinome treten im Allgemeinen erst im Erwachsenenalter auf. Die häufigsten dieser seltenen Erkrankungen im Kindesalter sind Karzinome der Nebennierenrinde, der Schilddrüse (Verbesserung der Erfassung ab 1996), des Nasopharynx (Nasen-Rachenraum) und das maligne Melanom („schwarzer“ Hautkrebs). Einige Karzinome bei Kindern sind deutlich untererfasst, jedoch nicht die Nasopharynx-Karzinome und Schilddrüsenkarzinome. Seit 2011 werden Appendix-Karzinoide als maligne eingestuft, daraus erklärt sich die seitdem erheblich gestiegene Anzahl der Meldungen von Appendixkarzinomen. Bei den malignen Melanomen konnte die Erfassung im Laufe der Jahre erheblich verbessert werden, jedoch sind sie vermutlich weiterhin untererfasst. Mammakarzinome wurden primär keine gemeldet. Schilddrüsenkarzinome haben eine gute Prognose (94% Langzeitüberlebende).

This is a heterogeneous group of rare cancers. Carcinomas are usually observed in adults. The most frequent among them in childhood are adrenocortical carcinoma, thyroid carcinoma (improved reporting since 1996), nasopharyngeal carcinoma, and malignant melanoma. Some carcinomas in children are clearly underreported, though not nasopharyngeal carcinomas and thyroid carcinomas. Appendix carcinoids have been reclassified as malignant in 2011, which explains the sudden considerable increase in reported appendix carcinomas since then. The reporting of malignant melanoma has improved over the years, but we assume they continue to be underreported. Breast carcinomas have not been reported as primary neoplasms. Thyroid carcinomas have a good prognosis (94% long-term survivors).

Nach Karzinomen werden überdurchschnittlich häufig Folgeneoplasien gemeldet. Sie stellen ihrerseits ein Drittel aller Folgeneoplasien innerhalb von 30 Jahren nach Erstdiagnose, besonders zu nennen sind hier Schilddrüsenkarzinome, Hautkarzinome (überwiegend keine malignen Melanome), Mammakarzinome und Darmkrebs. Schon bei den unter 15-Jährigen sind gut 10% aller gemeldeten Schilddrüsentumore SN.

Carcinoma patients have an above average SN risk. One third of all subsequent neoplasms within 30 years are carcinomas, particularly thyroid carcinoma, skin carcinoma (mostly not malignant melanoma), breast carcinoma and colon carcinoma. Among the thyroid cancer cases under 15, more than 10% are SN.

XII Other and unspecified neoplasms (p. 76)

Dies ist eine heterogene Gruppe von sonst nicht zuzuordnenden, bei Kindern sehr seltenen bösartigen Krebserkrankungen (ein Fall pro 250.000 Kinder unter 15). Der häufigste Einzeltumor hiervon ist das Lungenblastom.

This is a heterogeneous group of very rare neoplasms in childhood not classifiable anywhere else (one child under 15 in 250,000). The most frequent tumour among these is pulmonary blastoma.

Systematische Darstellung epidemiologischer Kenngrößen der ICCC-3 Diagnosen / Systematic Presentation of Descriptive Measures for ICCC-3 Diagnoses

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Cases in Germany aged under 15 years (1980-2016): 59048

Selected characteristics Germany 2007-2016

Relative frequency:	17613 / 17613 = 100 %
Relative frequency of trial patients:	95.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	7915	9698	17613
Standardized rate *:	155.9	180.5	168.5
Cumulative incidence:	2258	2624	2446
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	1841	6025	4575	5172
Incidence rate:	267.0	218.0	127.3	133.9

Median age at diagnosis: 5 years 9 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	85 %	83 %	82 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
4232	100.0 %	33.7	492

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

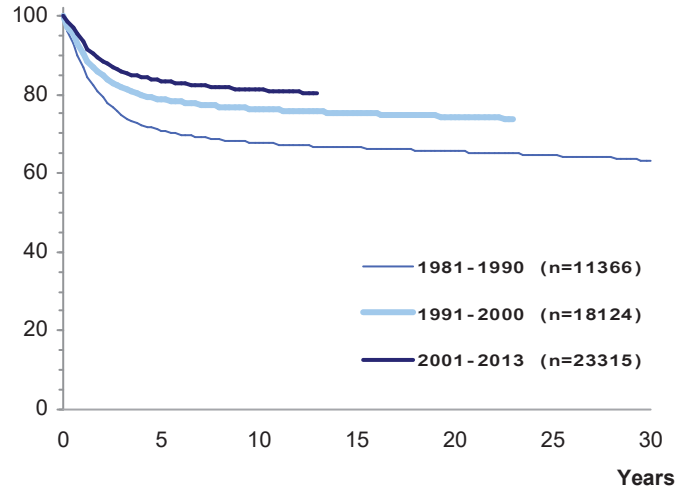
All Malignancies

SN after all malignancies

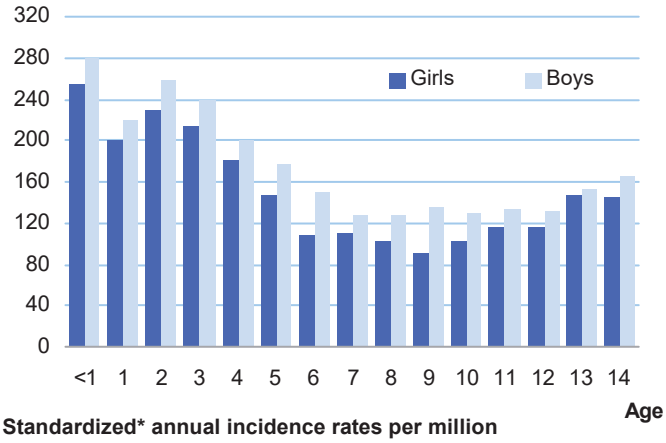
N	% of all 1245 SN	Cumulative incidence
1245	100.0 %	8.4 %

* Standard: Segi world standard population

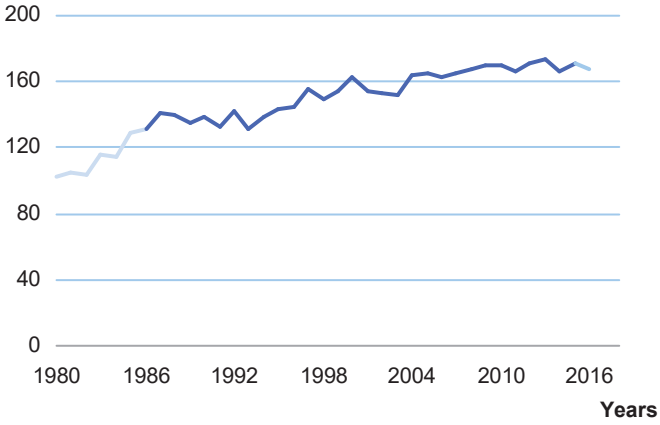
Survival probabilities by year of diagnosis Germany 1981-2013



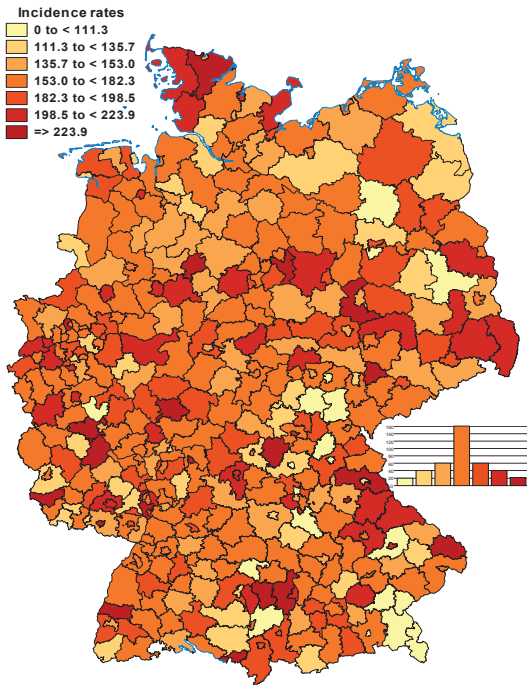
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



16 I Leukaemias, myeloproliferative and myelodysplastic diseases

(a) Lymphoid leukaemias
(b) Acute myeloid leukaemias
(c) Chronic myeloproliferative diseases
(d) Myelodysplastic syndrome and other myeloproliferative disease
(e) Unspecified and other specified leukaemias

Cases in Germany aged under 15 years (1980-2016): 20031

Selected characteristics Germany 2007-2016

Relative frequency:	5713 / 17613 = 32.4 %
Relative frequency of trial patients:	99.1 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	2567	3146	5713
Standardized rate *:	52.0	59.8	56.0
Cumulative incidence:	740	858	800
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	287	2608	1606	1212
Incidence rate:	41.6	94.4	44.7	31.4

Median age at diagnosis: 4 years 11 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	89 %	87 %	86 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

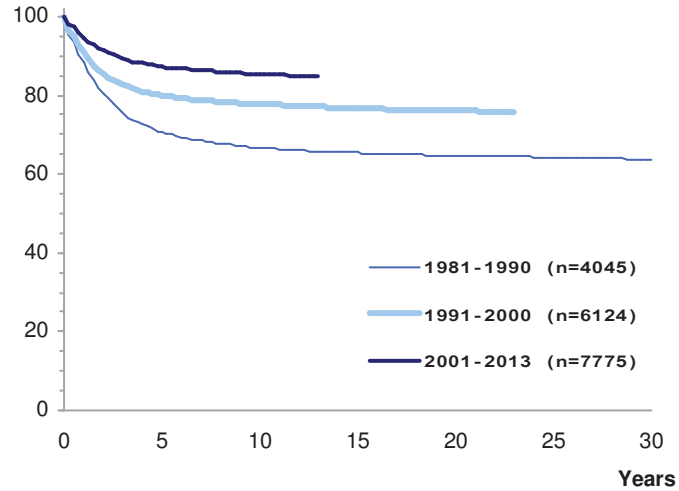
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
1340	31.7 %	10.6	155

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
I Leukaemias, myeloproliferative and myelodysplastic diseases

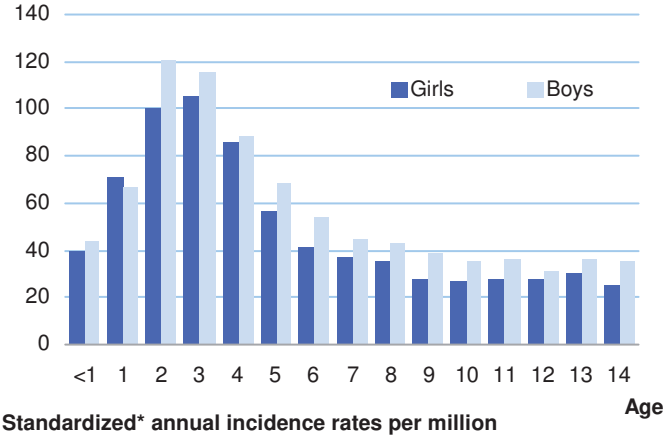
SN after I			I as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
443	35.6 %	8.0 %	258	20.7 %	0.7 %

* Standard: Segi world standard population

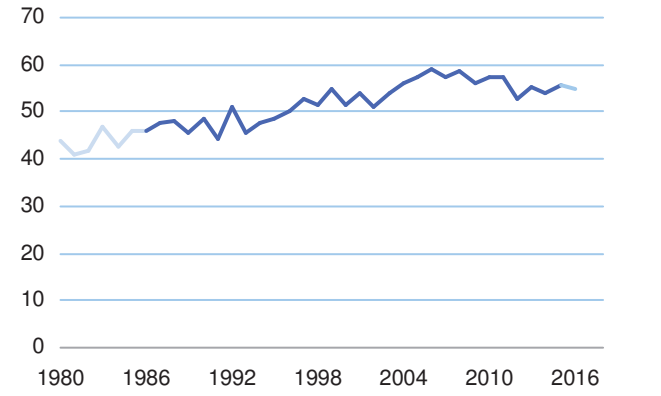
Survival probabilities by year of diagnosis Germany 1981-2013



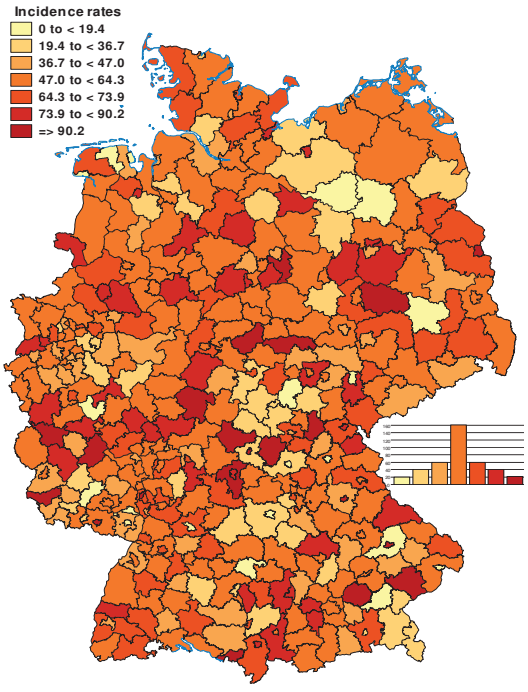
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 15893

Selected characteristics Germany 2007-2016

Relative frequency:	4398 / 17613 = 25 %
Relative frequency of trial patients:	99.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	1963	2435	4398
Standardized rate *:	40.2	46.5	43.4
Cumulative incidence:	568	666	618
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	113	2197	1289	799
Incidence rate:	16.4	79.5	35.9	20.7
Median age at diagnosis:				4 years 9 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	92 %	91 %	90 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

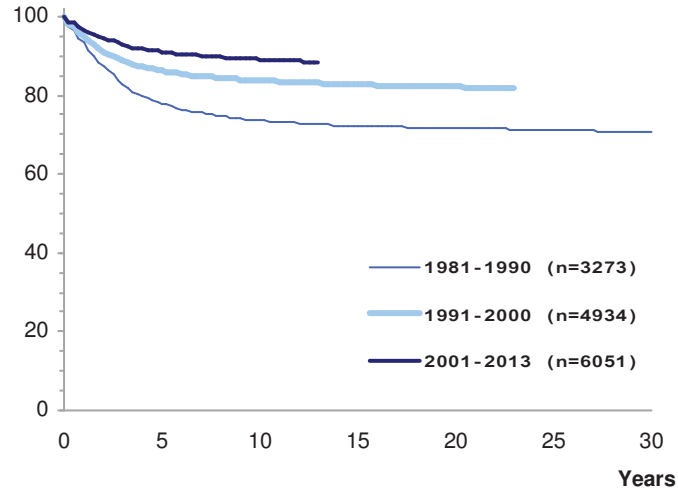
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
812	19.2 %	6.5	94

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
I (a) Lymphoid leukaemias

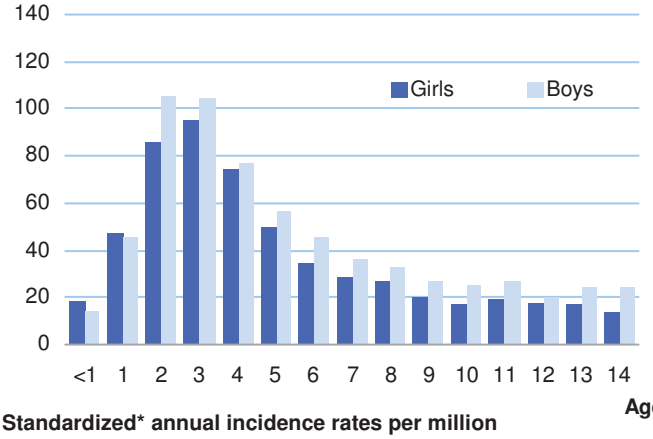
SN after I (a)			I (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
368	29.6 %	7.6 %	49	3.9 %	0.1 %

* Standard: Segi world standard population

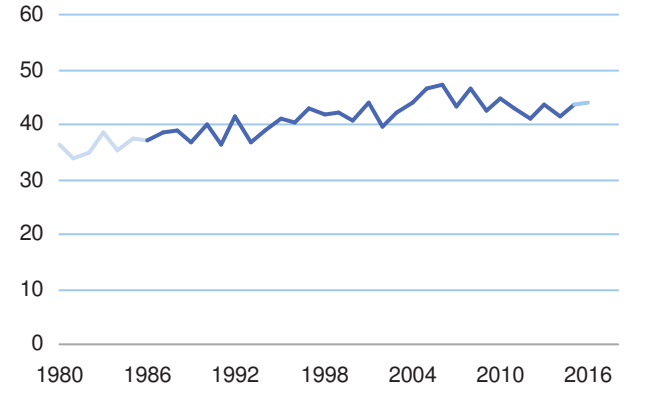
Survival probabilities by year of diagnosis Germany 1981-2013



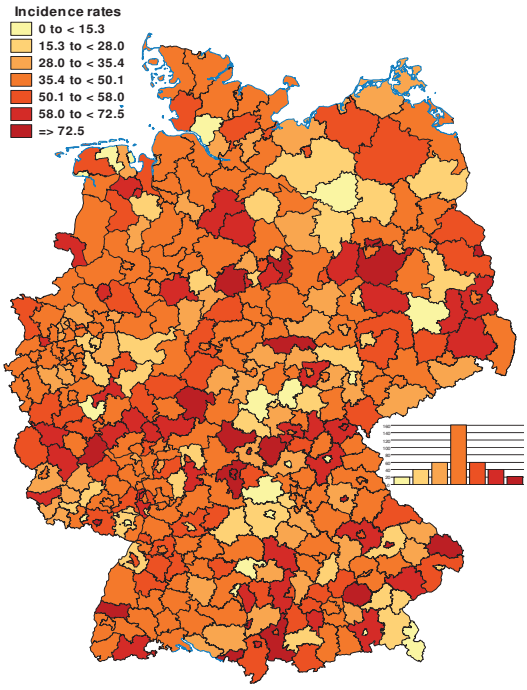
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



18 I (a) Lymphoid leukaemias - Extended ICCC-3

Germany 2007-2016	N	%
Lymphoid leukaemias	**4398**	**100.0**
1 Precursor cell leukaemias	4294	97.6
2 Mature B-cell leukaemias	102	2.3
3 Mature T-cell and NK cell leukaemias	2	0.0
4 Lymphoid leukaemia, NOS	0	0.0

1 Precursor cell leukaemias

Cases in Germany aged under 15 years (1980-2016): 15507

Selected characteristics Germany 2007-2016

Relative frequency:	4294 / 17613 = 24.4 %
Relative frequency of trial patients:	99.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	1939	2355	4294
Standardized rate *:	39.7	45.1	42.5
Cumulative incidence:	561	644	604

Sex ratio (m/f): 1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	112	2175	1236	771
Incidence rate:	16.2	78.7	34.4	20.0

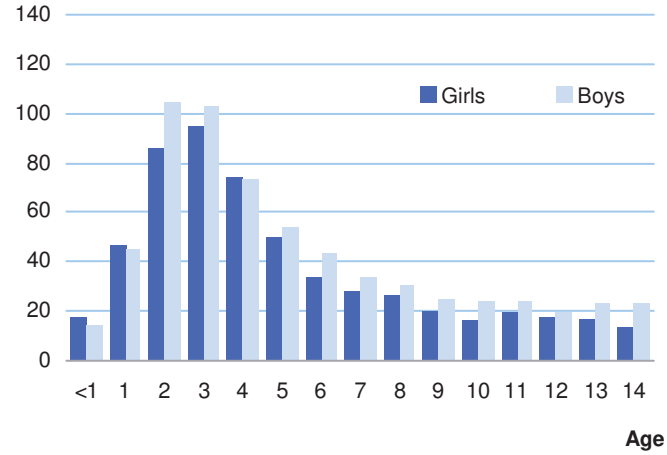
Median age at diagnosis: 4 years 8 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Precursor cell leukaemias

SN after I (a) 1			**I (a) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
359	28.8 %	7.6 %	44	3.5 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Mature B-cell leukaemias

Cases in Germany aged under 15 years (1980-2016): 383

Selected characteristics Germany 2007-2016

Relative frequency:	102 / 17613 = 0.6 %
Relative frequency of trial patients:	99.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	23	79	102
Standardized rate *:	0.4	1.4	0.9
Cumulative incidence:	7	21	14

Sex ratio (m/f): 3.4

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	1	21	52	28
Incidence rate:	0.1	0.8	1.4	0.7

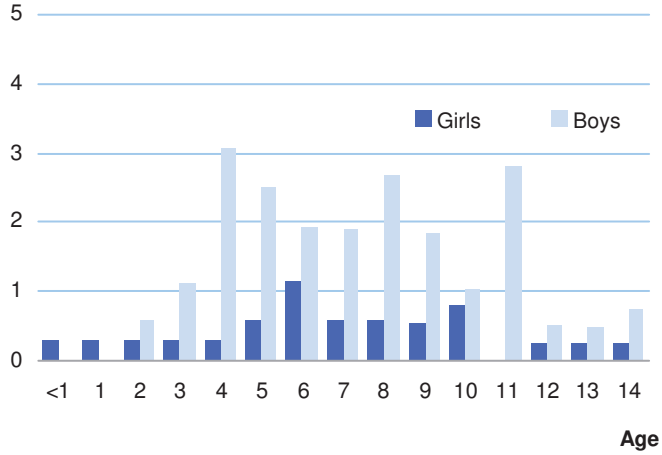
Median age at diagnosis: 7 years 10 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Mature B-cell leukaemias

SN after I (a) 2			**I (a) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
9	0.7 %	8.6 %	5	0.4 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 2790

Selected characteristics Germany 2007-2016

Relative frequency:	722 / 17613 = 4.1 %
Relative frequency of trial patients:	97.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	345	377	722
Standardized rate *:	6.9	7.2	7.1
Cumulative incidence:	98	103	101
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	114	271	137	200
Incidence rate:	16.5	9.8	3.8	5.2

Median age at diagnosis: 4 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	73 %	72 %	71 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

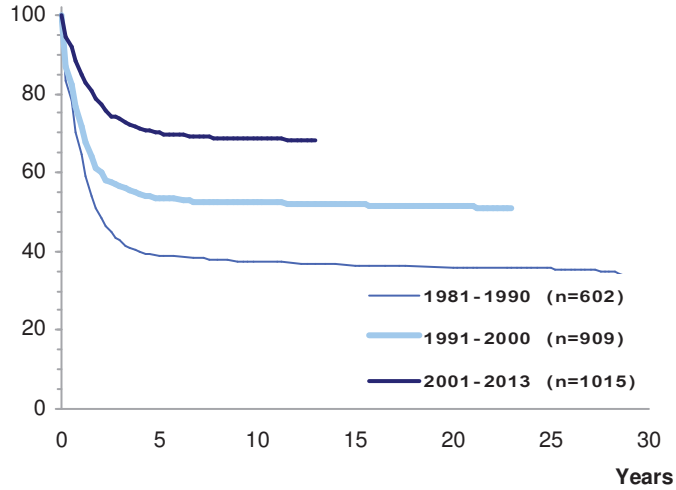
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
392	9.3 %	3.1	45

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
I (b) Acute myeloid leukaemias

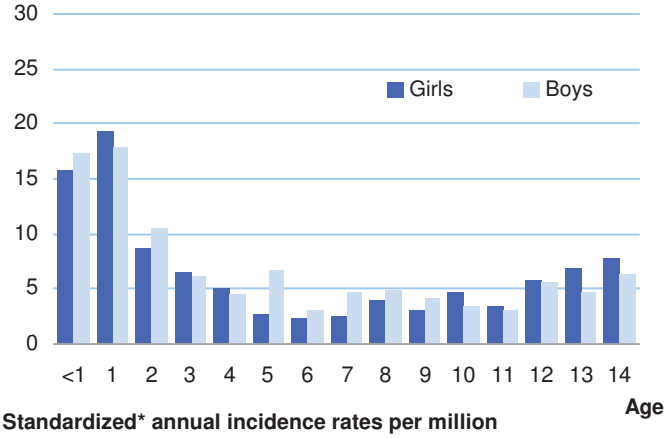
SN after I (b)			**I (b) as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
54	4.3 %	9.5 %	139	11.2 %	0.4 %

* Standard: Segi world standard population

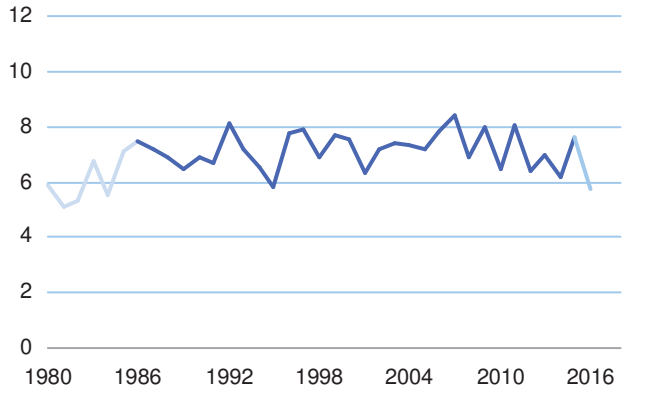
Survival probabilities by year of diagnosis Germany 1981-2013



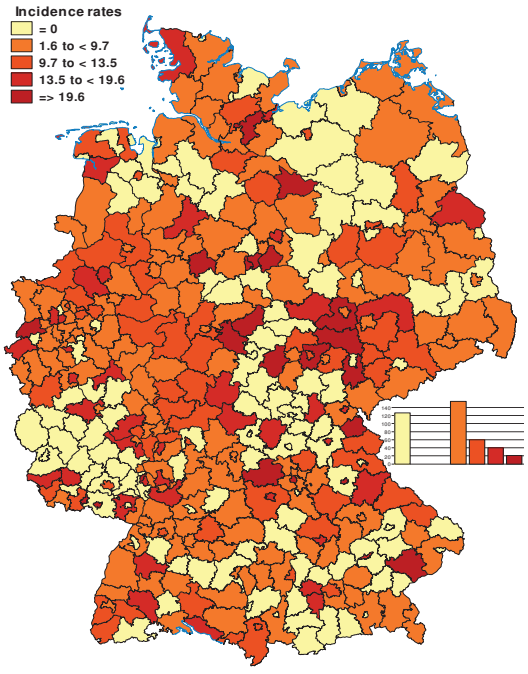
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



20 I (c) Chronic myeloproliferative diseases

Cases in Germany aged under 15 years (1980-2016): 273

Selected characteristics Germany 2007-2016

Relative frequency:	77 / 17613 = 0.4 %
Relative frequency of trial patients:	87.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	34	43	77
Standardized rate *:	0.6	0.7	0.7
Cumulative incidence:	9	11	10
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	1	9	26	41
Incidence rate:	0.1	0.3	0.7	1.1

Median age at diagnosis: 10 years 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	96 %	96 %	96 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

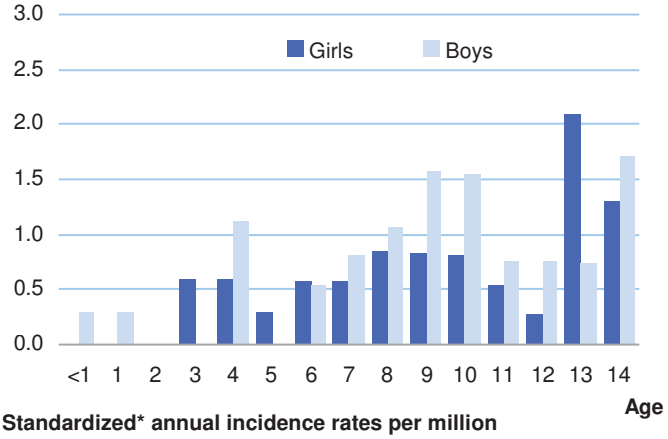
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
33	0.8 %	0.2	4

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
I (c) Chronic myeloproliferative diseases

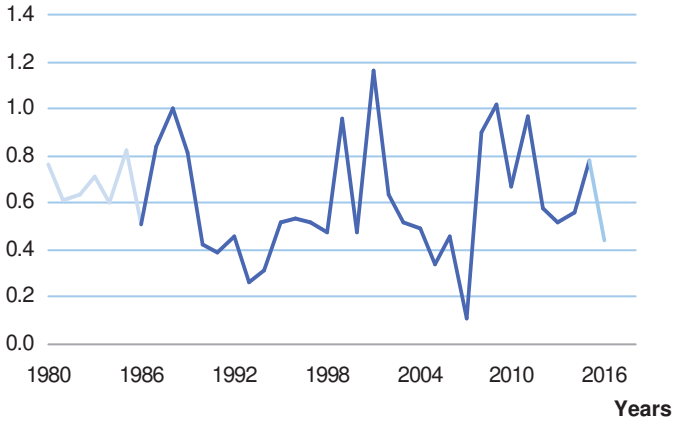
SN after I (c)			I (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
5	0.4 %	-	4	0.3 %	0.0 %

* Standard: Segi world standard population

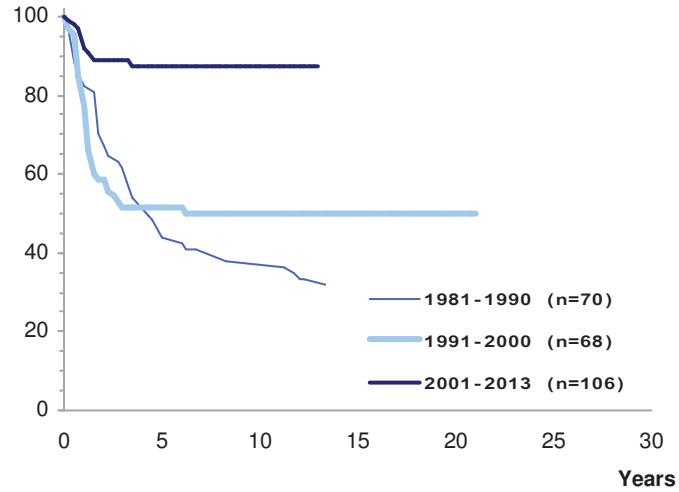
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 881

Selected characteristics Germany 2007-2016

Relative frequency:	451 / 17613 = 2.6 %
Relative frequency of trial patients:	99.1 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	194	257	451
Standardized rate *:	3.7	4.7	4.2
Cumulative incidence:	55	69	62
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	45	118	136	152
Incidence rate:	6.5	4.3	3.8	3.9

Median age at diagnosis: 7 years 3 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	82 %	79 %	76 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
85	2.0 %	0.7	10

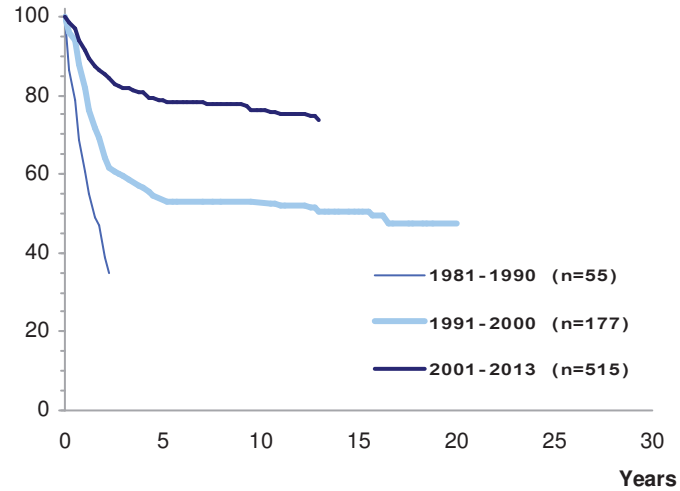
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

I (d) Myelodysplastic syndrome and other myeloproliferative diseases

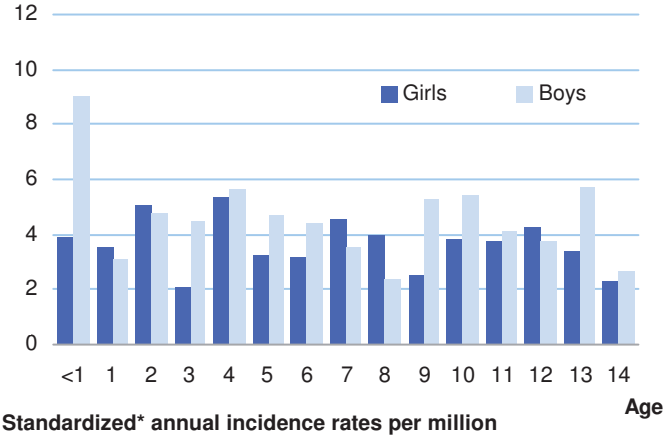
SN after I (d)			I (d) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
8	0.6 %	4.6 %	64	5.1 %	0.2 %

* Standard: Segi world standard population

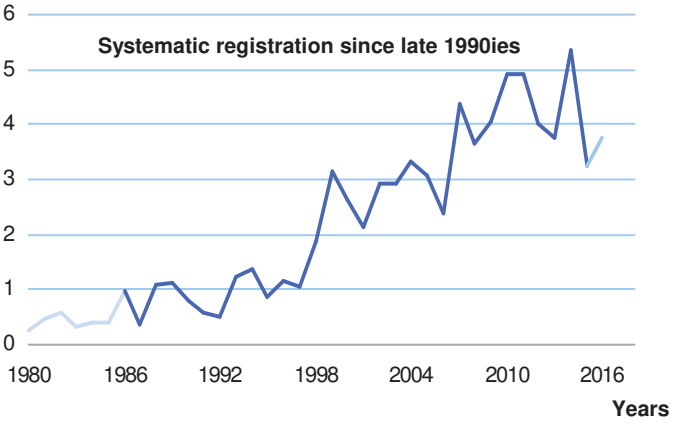
Survival probabilities by year of diagnosis Germany 1981-2013



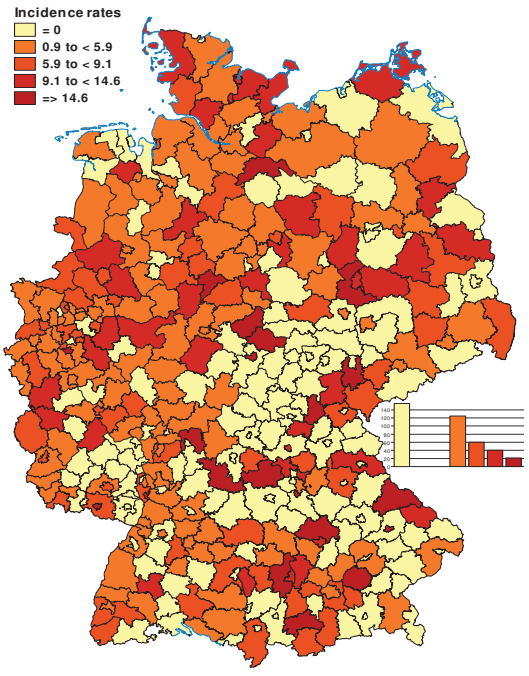
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



22 II Lymphomas and reticuloendothelial neoplasms

(a) Hodgkin lymphomas
(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)
(c) Burkitt lymphoma
(d) Miscellaneous lymphoreticular neoplasms
(e) Unspecified lymphomas

Cases in Germany aged under 15 years (1980-2016): 6862

Selected characteristics Germany 2007-2016

Relative frequency:	1889 / 17613 = 10.7 %
Relative frequency of trial patients:	97.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	608	1281	1889
Standardized rate *:	10.3	21.3	15.9
Cumulative incidence:	166	337	253
Sex ratio (m/f):			2.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	11	232	601	1045
Incidence rate:	1.6	8.4	16.7	27.1

Median age at diagnosis: 10 years 8 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	94 %	93 %	92 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

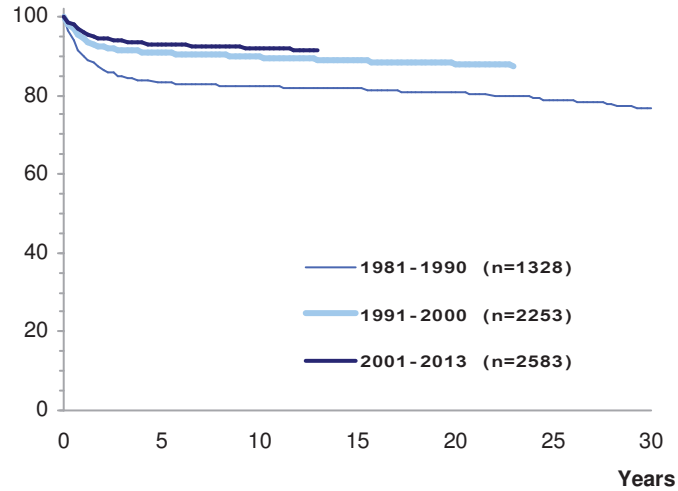
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
241	5.7 %	1.8	27

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
II Lymphomas and reticuloendothelial neoplasms

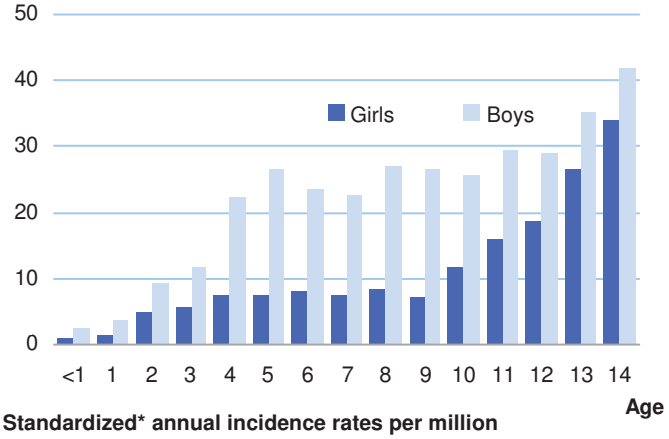
SN after II			II as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
220	17.7 %	13.0 %	92	7.4 %	0.4 %

* Standard: Segi world standard population

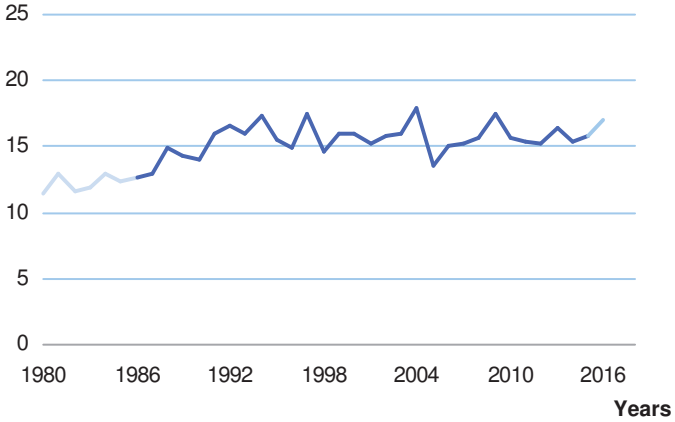
Survival probabilities by year of diagnosis Germany 1981-2013



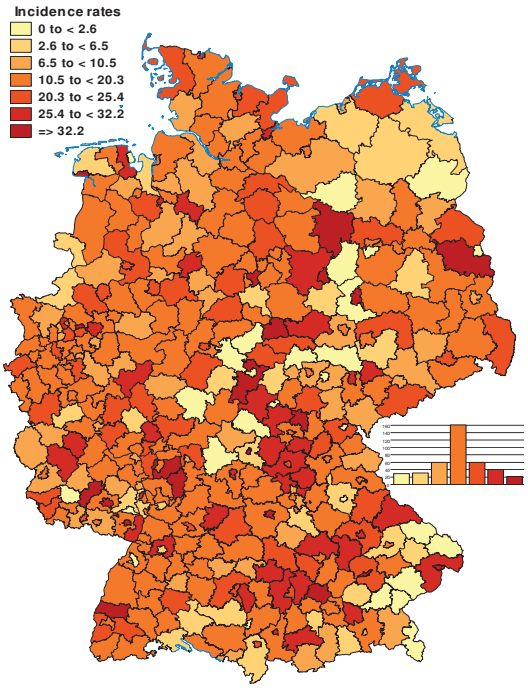
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 2856

Selected characteristics Germany 2007-2016

Relative frequency:	820 / 17613 = 4.7 %
Relative frequency of trial patients:	97.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	327	493	820
Standardized rate *:	5.2	7.8	6.5
Cumulative incidence:	87	127	108
Sex ratio (m/f):			1.5

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	34	186	600
Incidence rate:	0.0	1.2	5.2	15.5

Median age at diagnosis: 12 years 5 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	99 %	98 %	97 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

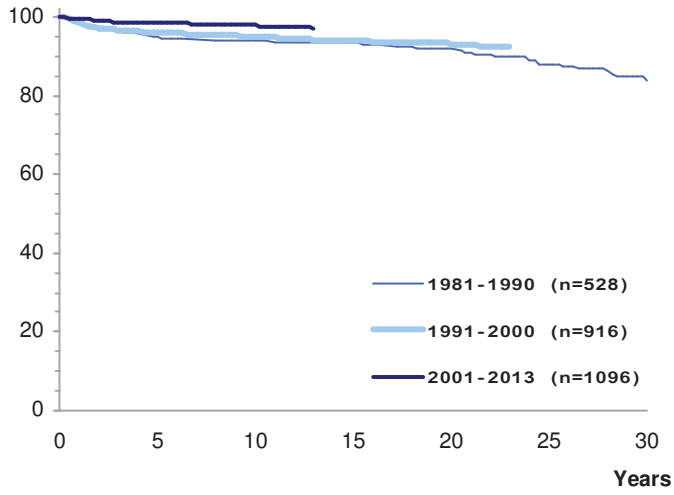
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
50	1.2 %	0.3	6

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
II (a) Hodgkin lymphomas

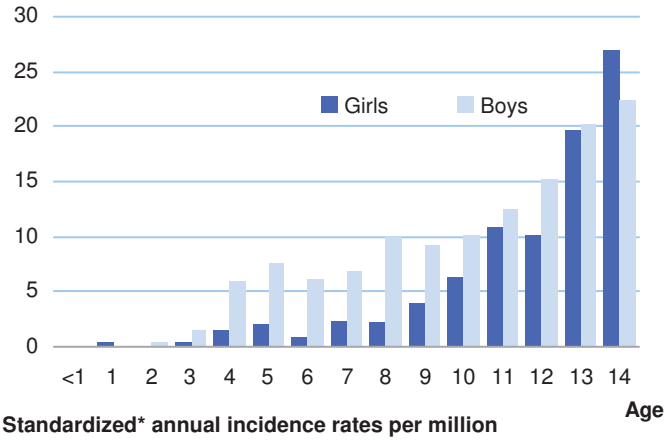
SN after II (a)			II (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
116	9.3 %	15.9 %	21	1.7 %	0.1 %

* Standard: Segi world standard population

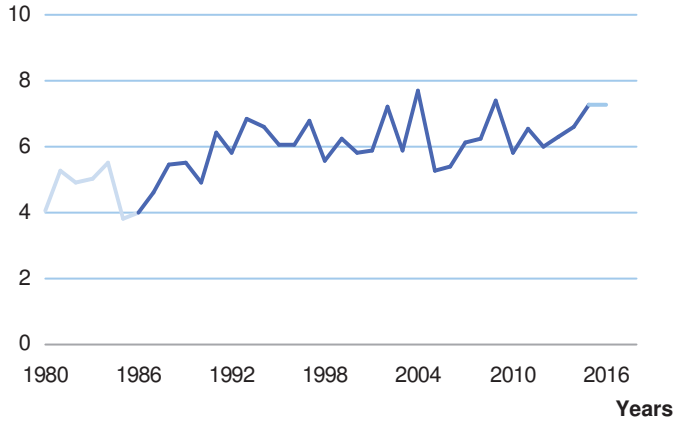
Survival probabilities by year of diagnosis Germany 1981-2013



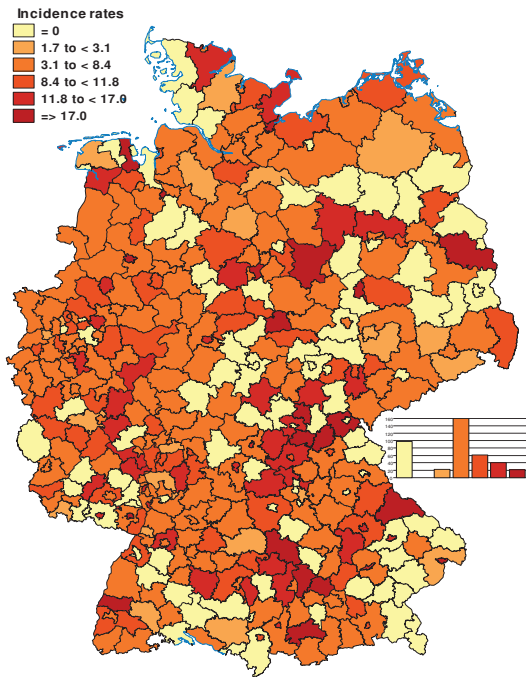
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



24 II (b) Non-Hodgkin lymphomas (except Burkitt lymphoma)

Cases in Germany aged under 15 years (1980-2016): 2678

Selected characteristics Germany 2007-2016

Relative frequency:	738 / 17613 = 4.2 %
Relative frequency of trial patients:	96.9 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	221	517	738
Standardized rate *:	4.0	8.7	6.4
Cumulative incidence:	62	136	100
Sex ratio (m/f):			2.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	6	126	264	342
Incidence rate:	0.9	4.6	7.3	8.9

Median age at diagnosis: 9 years 5 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	89 %	87 %	86 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
140	3.3 %	1.0	16

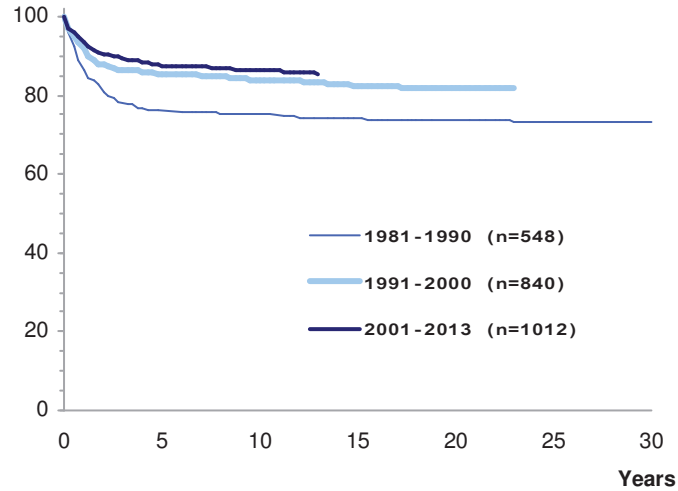
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

II (b) Non-Hodgkin lymphomas (except Burkitt lymphoma)

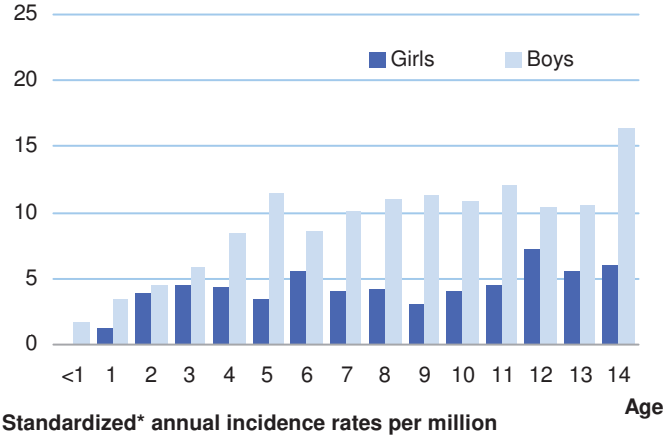
SN after II (b)			**II (b) as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
87	7.0 %	13.5 %	60	4.8 %	0.3 %

* Standard: Segi world standard population

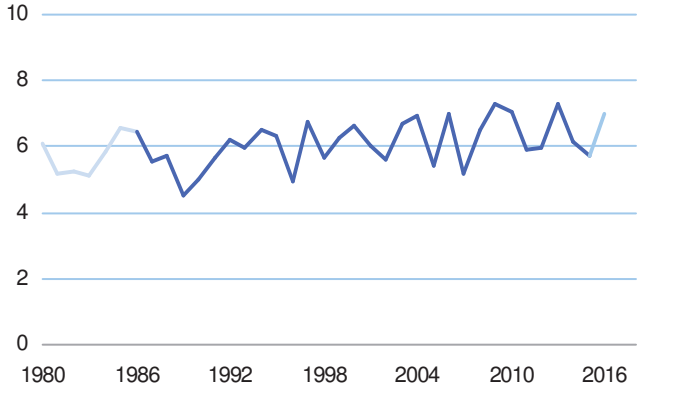
Survival probabilities by year of diagnosis Germany 1981-2013



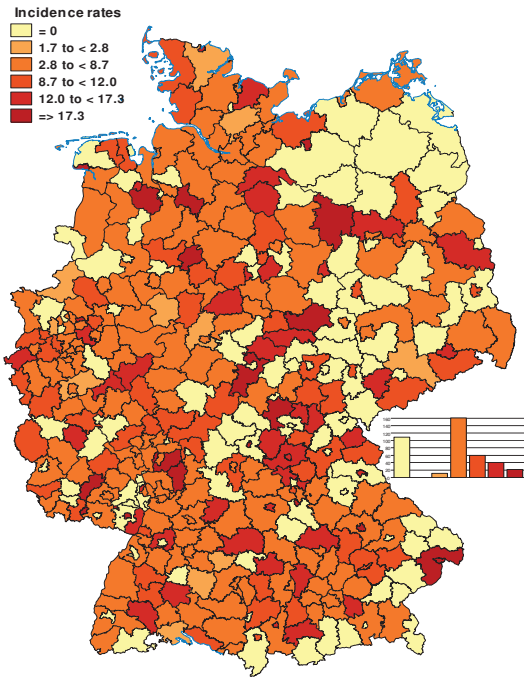
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Germany 2007-2016	N	%
Non-Hodgkin lymphomas (except Burkitt lymphoma)	**738**	**100.0**
1 Precursor cell lymphomas	261	35.4
2 Mature B-cell lymphomas (except Burkitt lymphoma)	142	19.2
3 Mature T-cell and NK-cell lymphomas	143	19.4
4 Non-Hodgkin lymphomas, NOS	192	26.0

1 Precursor cell lymphomas

Cases in Germany aged under 15 years (1980-2016): 1051

Selected characteristics Germany 2007-2016

Relative frequency:	261 / 17613 = 1.5 %
Relative frequency of trial patients:	94.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	80	181	261
Standardized rate *:	1.5	3.2	2.3
Cumulative incidence:	23	48	36

Sex ratio (m/f): 2.3

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	4	61	100	96
Incidence rate:	0.6	2.2	2.8	2.5

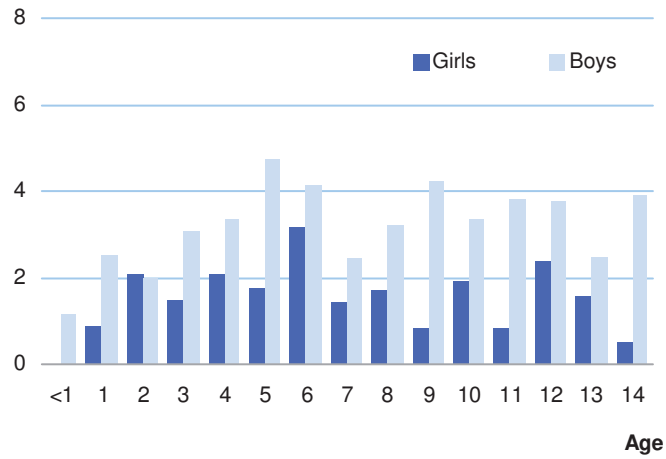
Median age at diagnosis: 8 years 0 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Precursor cell lymphomas

SN after II (b) 1			**II (b) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
52	4.2 %	21.8 %	17	1.4 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Mature B-cell lymphomas (except Burkitt lymphoma)

Cases in Germany aged under 15 years (1980-2016): 439

Selected characteristics Germany 2007-2016

Relative frequency:	142 / 17613 = 0.8 %
Relative frequency of trial patients:	97.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	49	93	142
Standardized rate *:	0.9	1.5	1.2
Cumulative incidence:	14	24	19

Sex ratio (m/f): 1.9

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	11	48	83
Incidence rate:	0.0	0.4	1.3	2.1

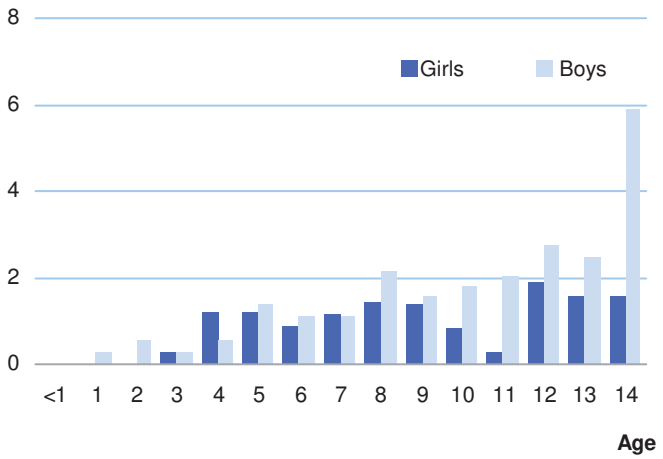
Median age at diagnosis: 11 years 3 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Mature B-cell lymphomas (except Burkitt lymphoma)

SN after II (b) 2			**II (b) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
10	0.8 %	5.3 %	16	1.3 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



26 II (b) Non-Hodgkin lymphomas (except Burkitt lymphoma) - Extended ICCC-3

Germany 2007-2016	N	%
Non-Hodgkin lymphomas (except Burkitt lymphoma)	**738**	**100.0**
1 Precursor cell lymphomas	261	35.4
2 Mature B-cell lymphomas (except Burkitt lymphoma)	142	19.2
3 Mature T-cell and NK-cell lymphomas	143	19.4
4 Non-Hodgkin lymphomas, NOS	192	26.0

3 Mature T-cell and NK-cell lymphomas

Cases in Germany aged under 15 years (1980-2016): 487

Selected characteristics Germany 2007-2016

Relative frequency:	143 / 17613 = 0.8 %
Relative frequency of trial patients:	98.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	47	96	143
Standardized rate *:	0.8	1.6	1.2
Cumulative incidence:	13	25	19

Sex ratio (m/f): 2.0

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases:	1	24	38	80
Incidence rate:	0.1	0.9	1.1	2.1

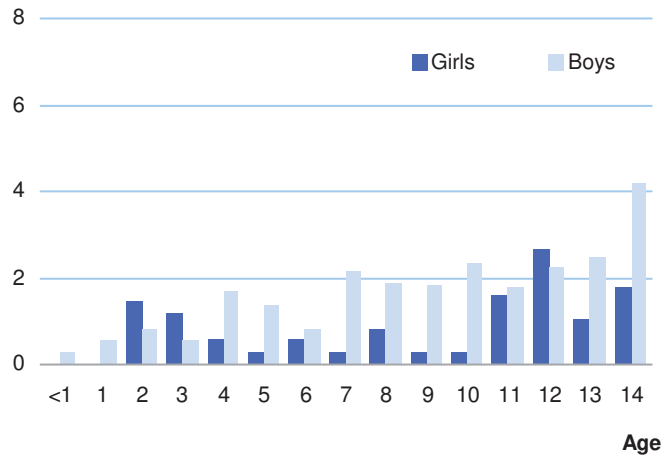
Median age at diagnosis: 10 years 11 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
3 Mature T-cell and NK-cell lymphomas

SN after II (b) 3			**II (b) 3 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
12	1.0 %	-	7	0.6 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



4 Non-Hodgkin lymphomas, NOS

Cases in Germany aged under 15 years (1980-2016): 701

Selected characteristics Germany 2007-2016

Relative frequency:	192 / 17613 = 1.1 %
Relative frequency of trial patients:	98.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	45	147	192
Standardized rate *:	0.8	2.5	1.7
Cumulative incidence:	12	39	26

Sex ratio (m/f): 3.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases:	1	30	78	83
Incidence rate:	0.1	1.1	2.2	2.1

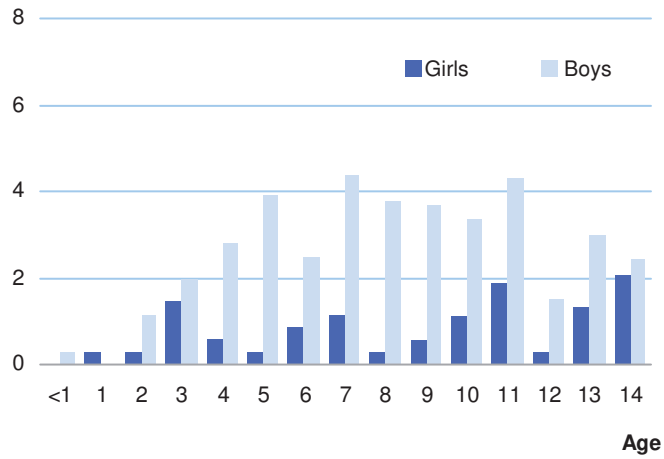
Median age at diagnosis: 9 years 3 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
4 Non-Hodgkin lymphomas, NOS

SN after II (b) 4			**II (b) 4 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
13	1.0 %	6.5 %	20	1.6 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1197

Selected characteristics Germany 2007-2016

Relative frequency:	312 / 17613 = 1.8 %
Relative frequency of trial patients:	99.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	51	261	312
Standardized rate *:	0.9	4.6	2.8
Cumulative incidence:	14	70	43
Sex ratio (m/f):			5.1

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	70	146	96
Incidence rate:	0.0	2.5	4.1	2.5
Median age at diagnosis:				7 years 7 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	93 %	92 %	92 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

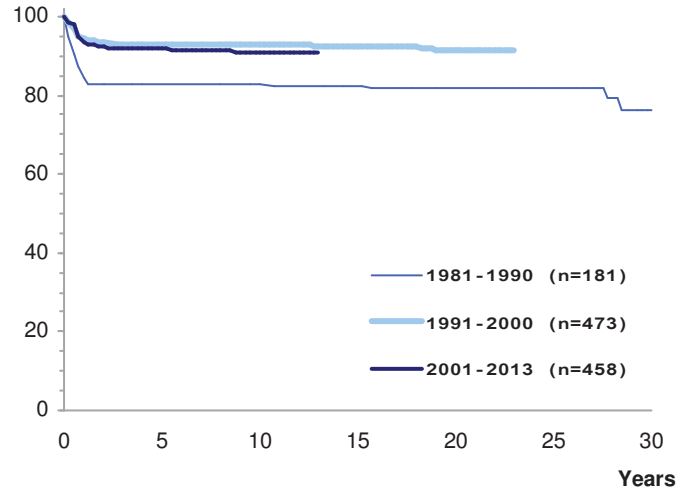
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
37	0.9 %	0.3	4

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
II (c) Burkitt lymphoma

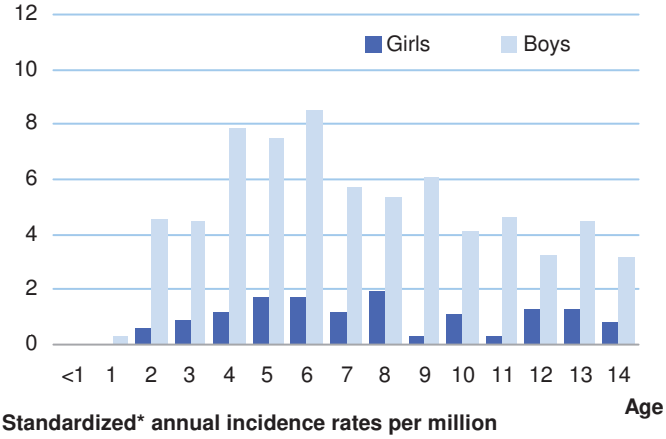
SN after II (c)			II (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
17	1.4 %	3.8 %	4	0.3 %	0.0 %

* Standard: Segi world standard population

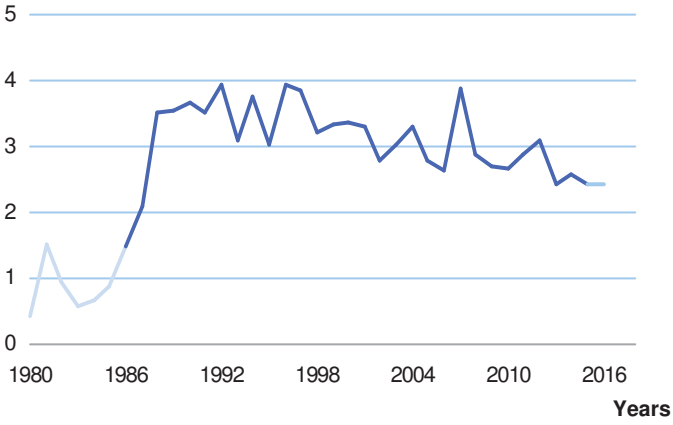
Survival probabilities by year of diagnosis Germany 1981-2013



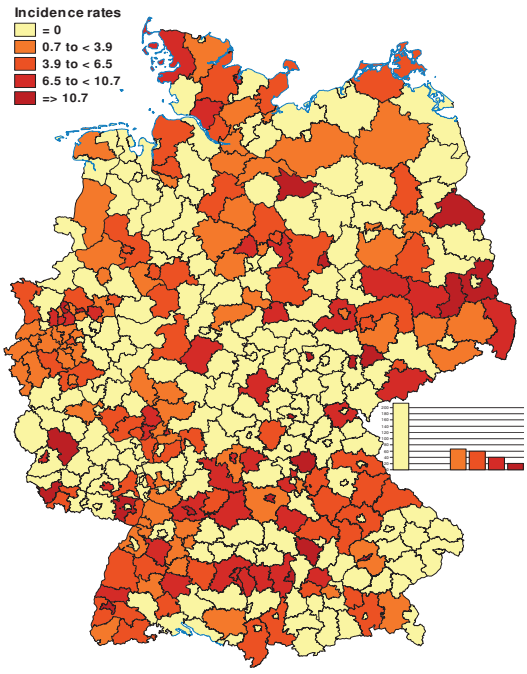
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



28 III CNS and miscellaneous intracranial and intraspinal neoplasms

(a) Ependymomas and choroid plexus tumour
(b) Astrocytomas
(c) Intracranial and intraspinal embryonal tumours
(d) Other gliomas
(e) Other specified intracranial and intraspinal neoplasms
(f) Unspecified intracranial and intraspinal neoplasms

Cases in Germany aged under 15 years (1980-2016): 12987

Selected characteristics Germany 2007-2016

Relative frequency:	4409 / 17613 = 25 %
Relative frequency of trial patients:	95.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	2017	2392	4409
Standardized rate *:	38.7	43.4	41.2
Cumulative incidence:	573	644	610
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	303	1300	1420	1386
Incidence rate:	43.9	47.0	39.5	35.9

Median age at diagnosis: 6 years 11 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	77 %	74 %	71 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

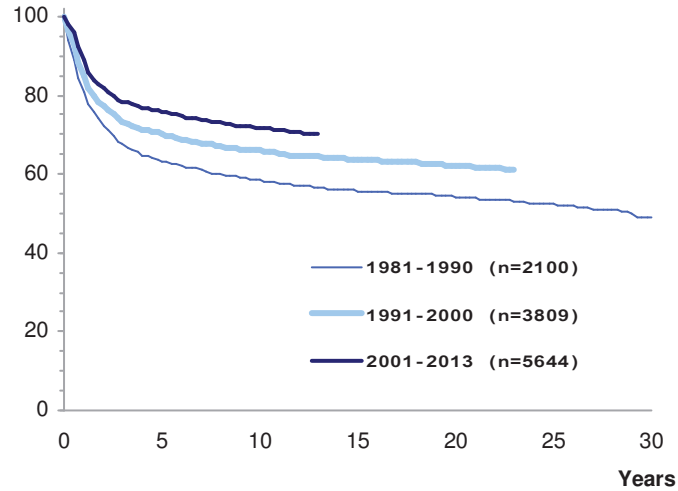
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
1251	29.6 %	10.0	145

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
III CNS and miscellaneous intracranial and intraspinal neoplasms

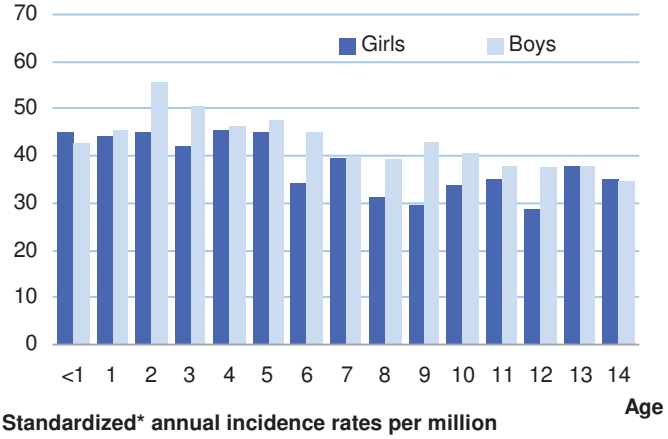
SN after III			III as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
230	18.5 %	10.9 %	289	23.2 %	2.3 %

* Standard: Segi world standard population

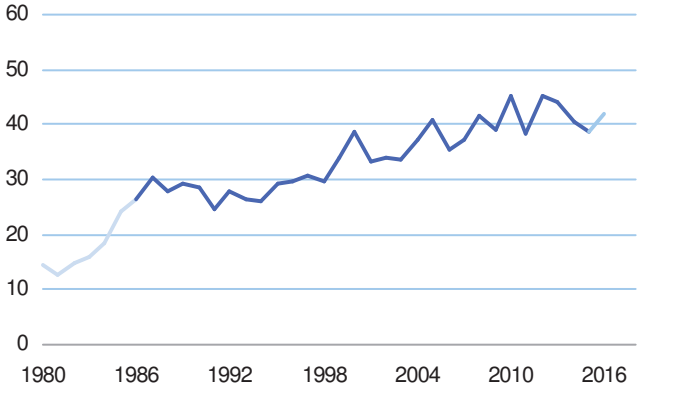
Survival probabilities by year of diagnosis Germany 1981-2013



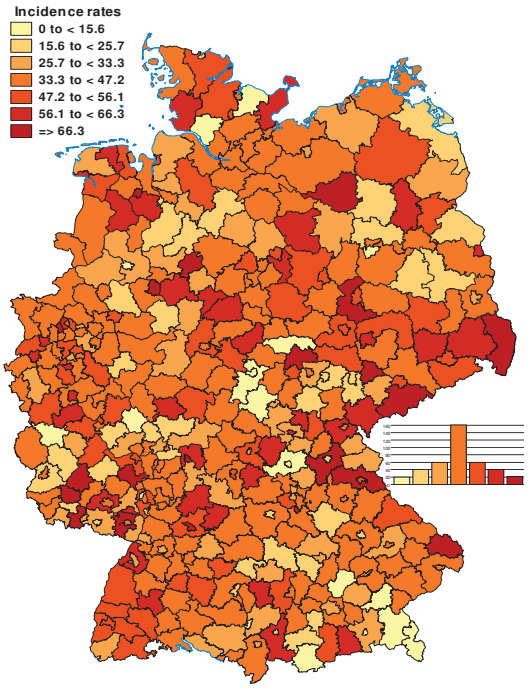
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1304

Selected characteristics Germany 2007-2016

Relative frequency:	445 / 17613 = 2.5 %
Relative frequency of trial patients:	96.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	192	253	445
Standardized rate *:	4.0	4.9	4.5
Cumulative incidence:	56	69	63
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	77	180	91	97
Incidence rate:	11.2	6.5	2.5	2.5

Median age at diagnosis: 3 years 9 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	81 %	75 %	70 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

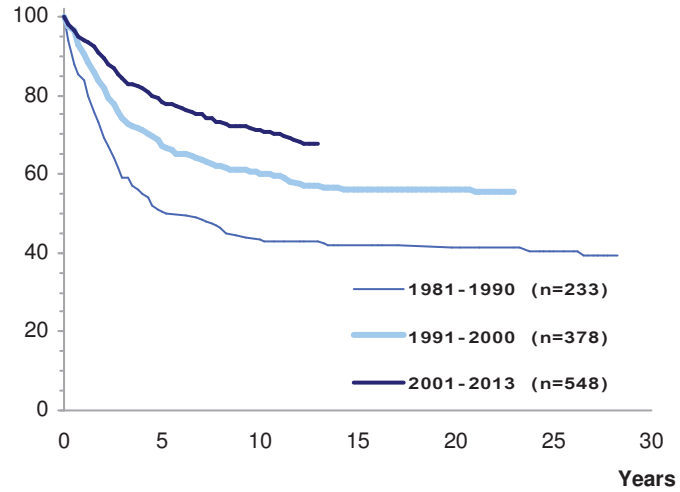
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
142	3.4 %	1.2	17

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
III (a) Ependymomas and choroid plexus tumour

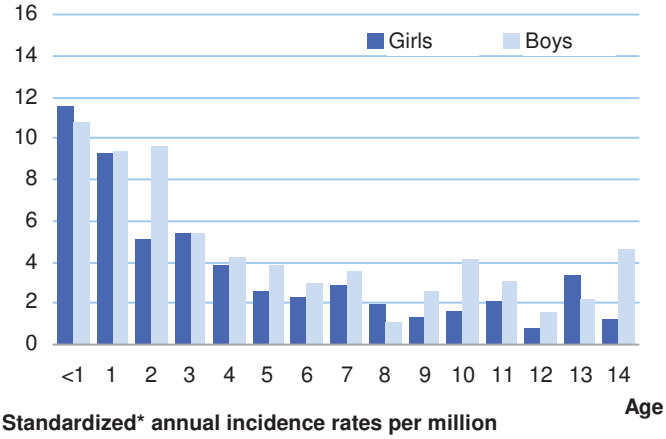
SN after III (a)			III (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
27	2.2 %	12.1 %	10	0.8 %	0.0 %

* Standard: Segi world standard population

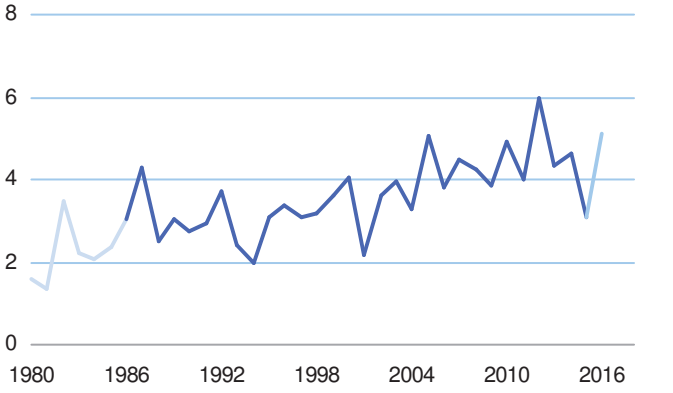
Survival probabilities by year of diagnosis Germany 1981-2013



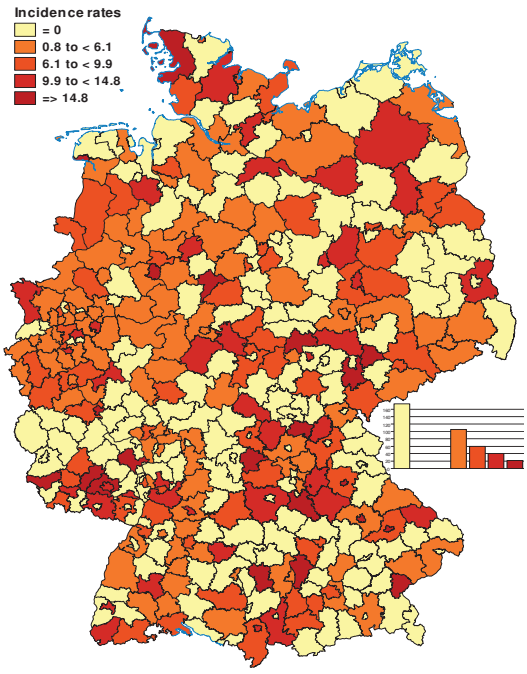
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



30 III (a) Ependymomas and choroid plexus tumour - Extended ICCC-3

Germany 2007-2016	N	%
Ependymomas and choroid plexus tumour	**445**	**100.0**
1 Ependymomas	339	76.2
2 Choroid plexus tumour	106	23.8

1 Ependymomas

Cases in Germany aged under 15 years (1980-2016): 1040

Selected characteristics Germany 2007-2016

Relative frequency:	339 / 17613 = 1.9 %
Relative frequency of trial patients:	96.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	141	198	339
Standardized rate *:	2.9	3.7	3.3
Cumulative incidence:	41	54	47

Sex ratio (m/f): 1.4

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	30	152	72	85
Incidence rate:	4.4	5.5	2.0	2.2

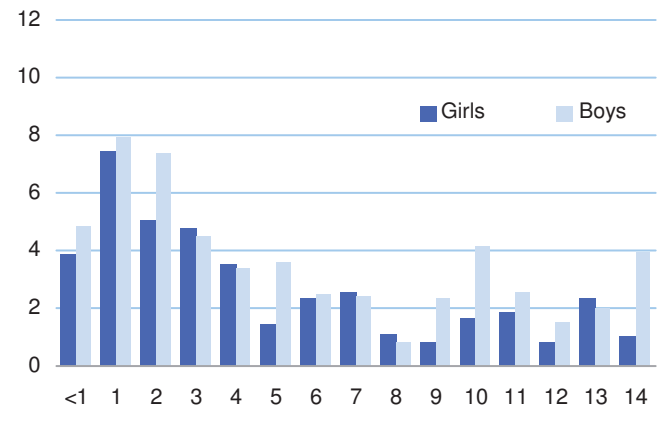
Median age at diagnosis: 4 years 6 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Ependymomas

SN after III (a) 1			**III (a) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
22	1.8 %	14.5 %	7	0.6 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Choroid plexus tumour

Cases in Germany aged under 15 years (1980-2016): 264

Selected characteristics Germany 2007-2016

Relative frequency:	106 / 17613 = 0.6 %
Relative frequency of trial patients:	94.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	51	55	106
Standardized rate *:	1.1	1.1	1.1
Cumulative incidence:	15	15	15

Sex ratio (m/f): 1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	47	28	19	12
Incidence rate:	6.8	1.0	0.5	0.3

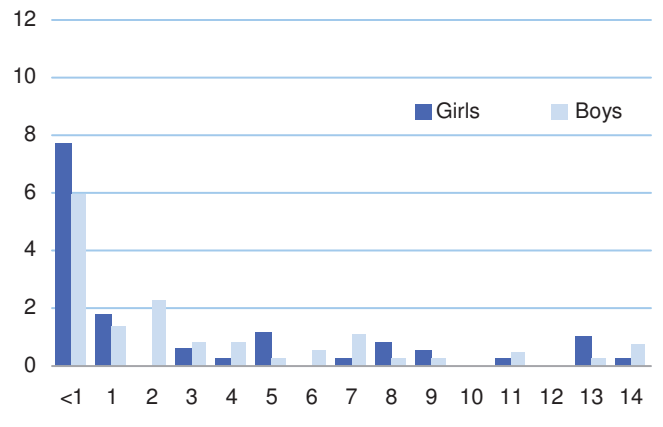
Median age at diagnosis: 1 year 6 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Choroid plexus tumour

SN after III (a) 2			**III (a) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
5	0.4 %	4.4 %	3	0.2 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 5748

Selected characteristics Germany 2007-2016

Relative frequency:	2023 / 17613 = 11.5 %
Relative frequency of trial patients:	95.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	986	1037	2023
Standardized rate *:	18.8	18.7	18.7
Cumulative incidence:	279	279	279
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	106	590	660	667
Incidence rate:	15.4	21.3	18.4	17.3

Median age at diagnosis: 7 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	81 %	79 %	77 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

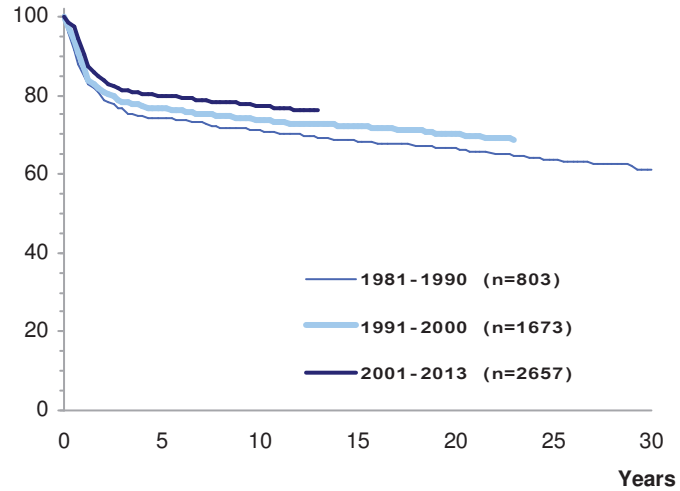
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
428	10.1 %	3.2	49

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
III (b) Astrocytomas

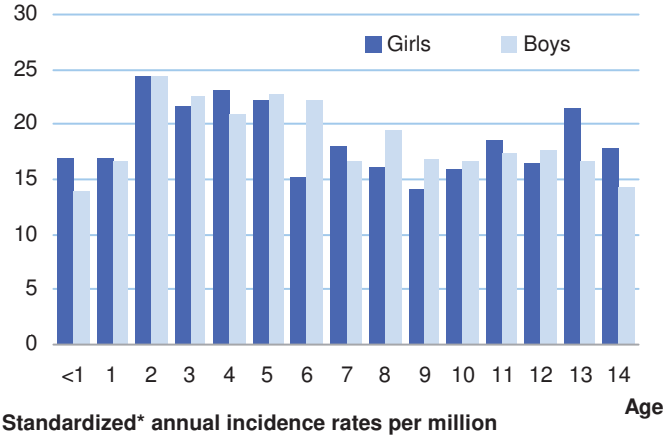
SN after III (b)			III (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
43	3.5 %	2.7 %	93	7.5 %	0.3 %

* Standard: Segi world standard population

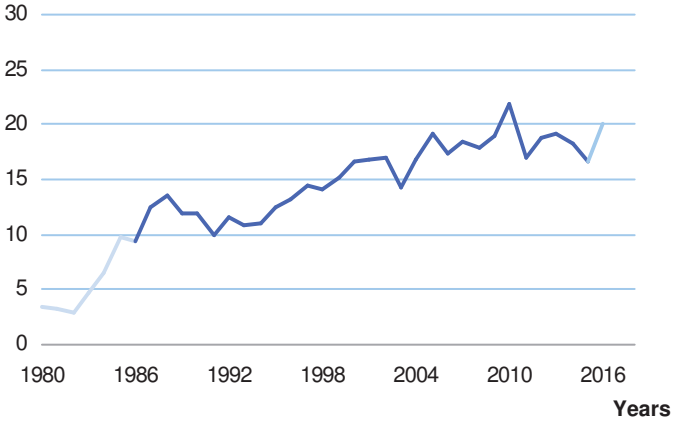
Survival probabilities by year of diagnosis Germany 1981-2013



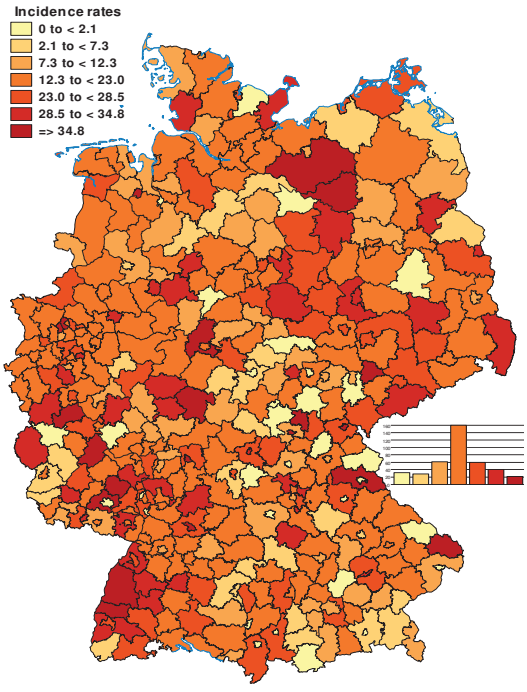
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



32 III (c) Intracranial and intraspinal embryonal tumours

Cases in Germany aged under 15 years (1980-2016): 2834

Selected characteristics Germany 2007-2016

Relative frequency:	765 / 17613 = 4.3 %
Relative frequency of trial patients:	97.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	298	467	765
Standardized rate *:	6.1	8.9	7.5
Cumulative incidence:	86	128	107
Sex ratio (m/f):			1.6

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	77	294	270	124
Incidence rate:	11.2	10.6	7.5	3.2

Median age at diagnosis: 5 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	66 %	58 %	56 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
473	11.2 %	3.9	56

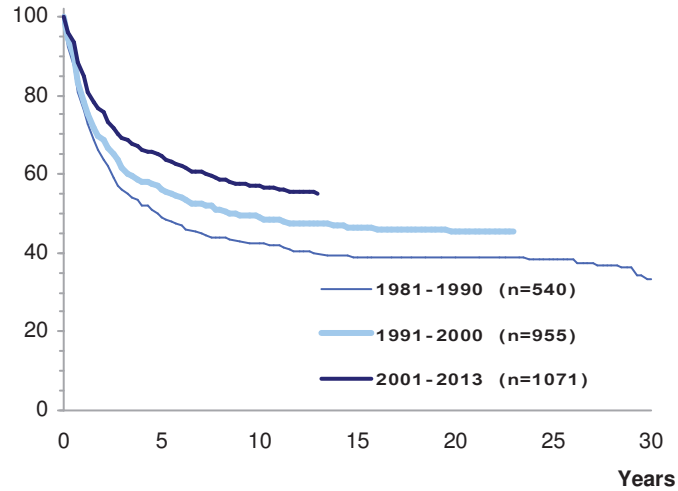
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

III (c) Intracranial and intraspinal embryonal tumours

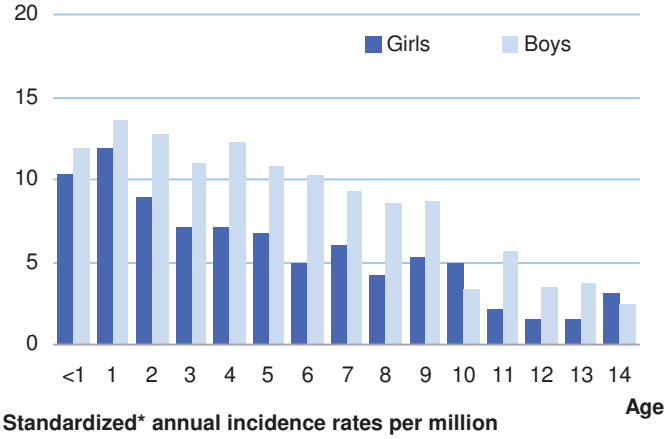
SN after III (c)			III (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
133	10.7 %	31.8 %	14	1.1 %	0.0 %

* Standard: Segi world standard population

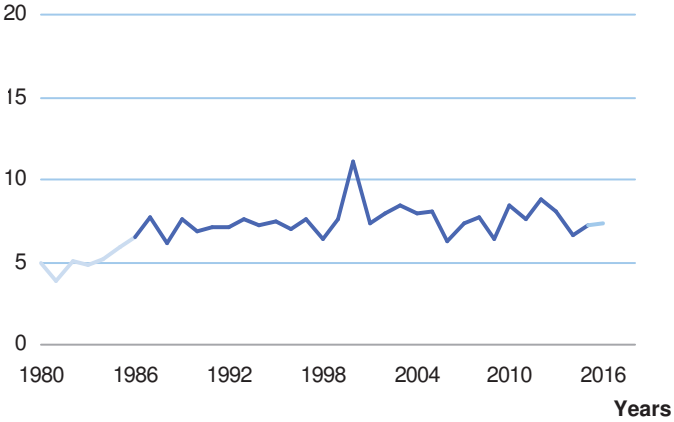
Survival probabilities by year of diagnosis Germany 1981-2013



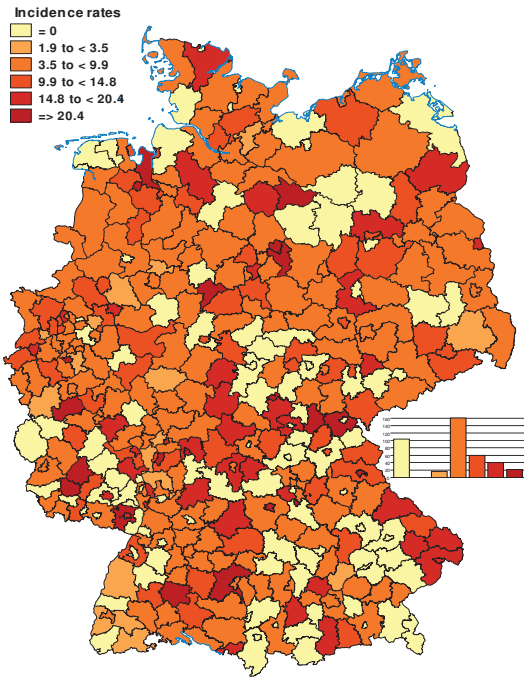
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Germany 2007-2016	N	%
Intracranial and intraspinal embryonal tumours	**765**	**100.0**
1 Medulloblastomas	544	71.1
2 Primitive neuroectodermal tumour (PNET)	63	8.2
3 Medulloepithelioma	14	1.8
4 Atypical teratoid/rhabdoid tumour	144	18.8

1 Medulloblastomas

Cases in Germany aged under 15 years (1980-2016): 2148

Selected characteristics Germany 2007-2016

Relative frequency:	544 / 17613 = 3.1 %
Relative frequency of trial patients:	98.9 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	198	346	544
Standardized rate *:	3.8	6.4	5.1
Cumulative incidence:	57	94	76

Sex ratio (m/f): 1.7

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	16	180	235	113
Incidence rate:	2.3	6.5	6.5	2.9

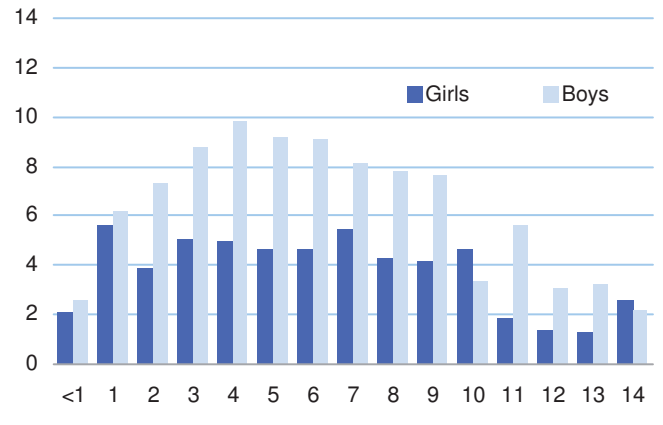
Median age at diagnosis: 6 years 7 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Medulloblastomas

SN after III (c) 1			**III (c) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
114	9.2 %	33.7 %	7	0.6 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Primitive neuroectodermal tumour (PNET)

Cases in Germany aged under 15 years (1980-2016): 410

Selected characteristics Germany 2007-2016

Relative frequency:	63 / 17613 = 0.4 %
Relative frequency of trial patients:	98.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	29	34	63
Standardized rate *:	0.6	0.7	0.6
Cumulative incidence:	8	9	9

Sex ratio (m/f): 1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	5	36	13	9
Incidence rate:	0.7	1.3	0.4	0.2

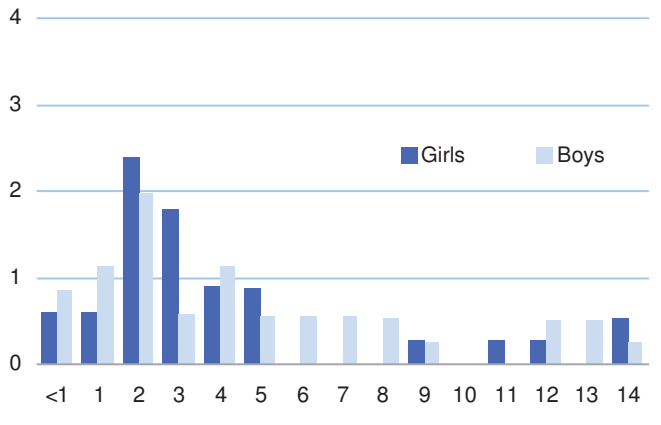
Median age at diagnosis: 3 years 7 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Primitive neuroectodermal tumour (PNET)

SN after III (c) 2			**III (c) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
17	1.4 %	14.6 %	7	0.6 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



34 III (c) Intracranial and intraspinal embryonal tumours - Extended ICCC-3

Germany 2007-2016	N	%
Intracranial and intraspinal embryonal tumours	**765**	**100.0**
1 Medulloblastomas	544	71.1
2 Primitive neuroectodermal tumour (PNET)	63	8.2
3 Medulloepithelioma	14	1.8
4 Atypical teratoid/rhabdoid tumour	144	18.8

4 Atypical teratoid/rhabdoid tumour

Cases in Germany aged under 15 years (1980-2016): 247

Selected characteristics Germany 2007-2016

Relative frequency:	144 / 17613 = 0.8 %
Relative frequency of trial patients:	89.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	63	81	144
Standardized rate *:	1.4	1.8	1.6
Cumulative incidence:	19	23	21

Sex ratio (m/f): 1.3

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	53	74	17	0
Incidence rate:	7.7	2.7	0.5	0.0

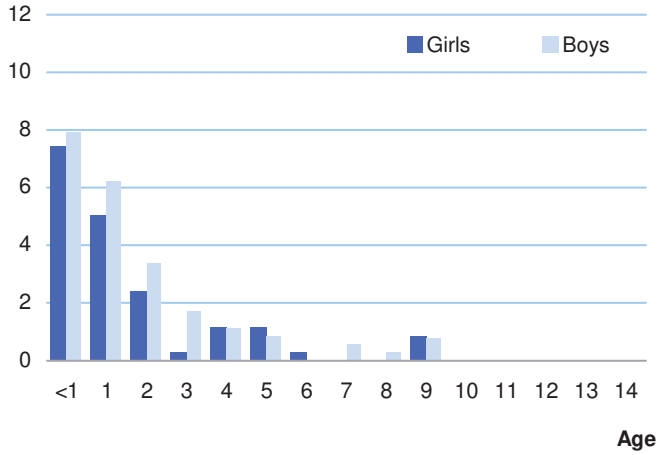
Median age at diagnosis: 1 year 6 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
4 Atypical teratoid/rhabdoid tumour

SN after III (c) 4			**III (c) 4 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	2.9 %	0	0.0 %	-

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1034

Selected characteristics Germany 2007-2016

Relative frequency:	450 / 17613 = 2.6 %
Relative frequency of trial patients:	94.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	221	229	450
Standardized rate *:	4.1	4.0	4.0
Cumulative incidence:	63	61	62
Sex ratio (m/f):			1.0

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	12	97	186	155
Incidence rate:	1.7	3.5	5.2	4.0

Median age at diagnosis: 7 years 9 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	46 %	44 %	43 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

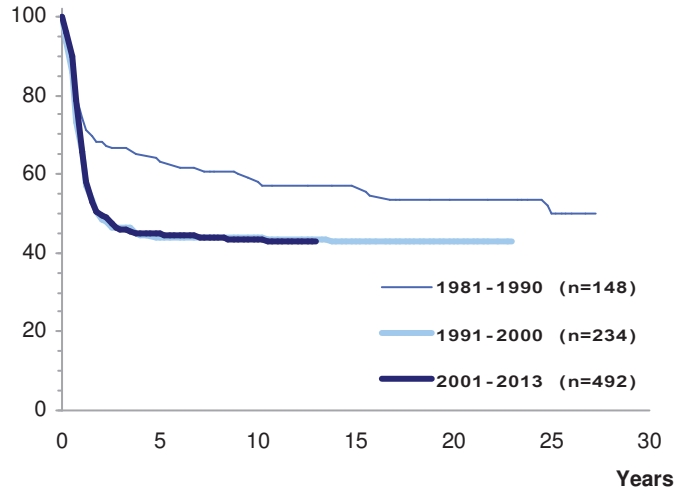
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
131	3.1 %	1.0	15

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
III (d) Other gliomas

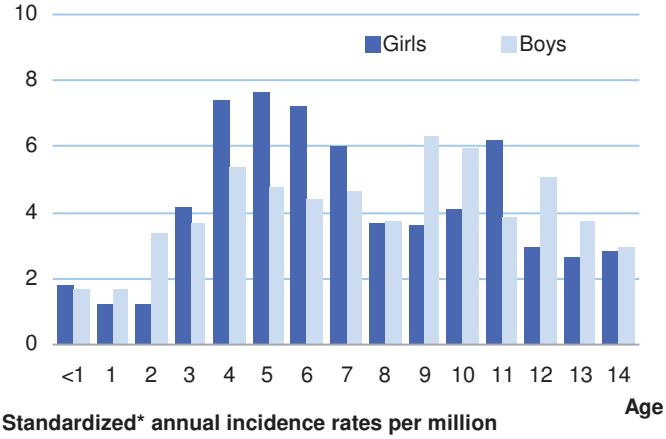
SN after III (d)			III (d) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
8	0.6 %	2.7 %	23	1.8 %	0.1 %

* Standard: Segi world standard population

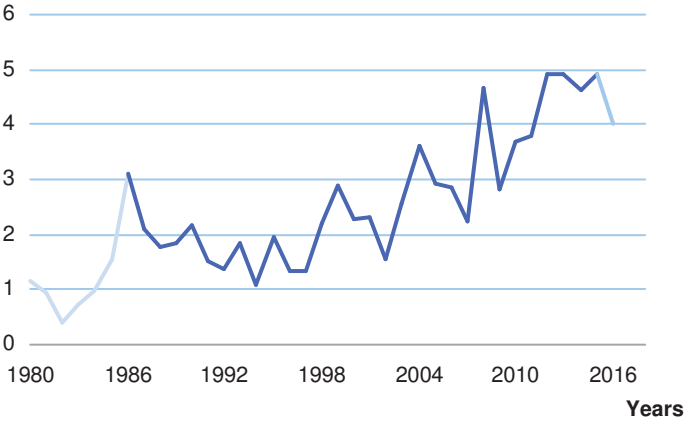
Survival probabilities by year of diagnosis Germany 1981-2013



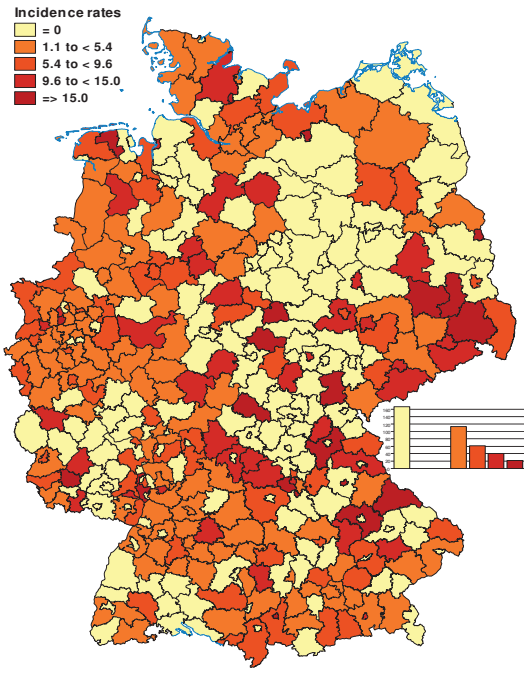
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



36 III (d) Other gliomas - Extended ICCC-3

Germany 2007-2016	N	%
Other gliomas	**450**	**100.0**
1 Oligodendrogliomas	8	1.8
2 Mixed and unspecified gliomas	422	93.8
3 Neuroepithelial glial tumours of uncertain origin	20	4.4

1 Oligodendrogliomas

Cases in Germany aged under 15 years (1980-2016): 116

Selected characteristics Germany 2007-2016

Relative frequency:	8 / 17613 = 0.0 %
Relative frequency of trial patients:	87.5 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	4	4	8
Standardized rate *:	0.1	0.1	0.1
Cumulative incidence:	1	1	1

Sex ratio (m/f): 1.0

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	0	1	7
Incidence rate:	0.0	0.0	0.0	0.2

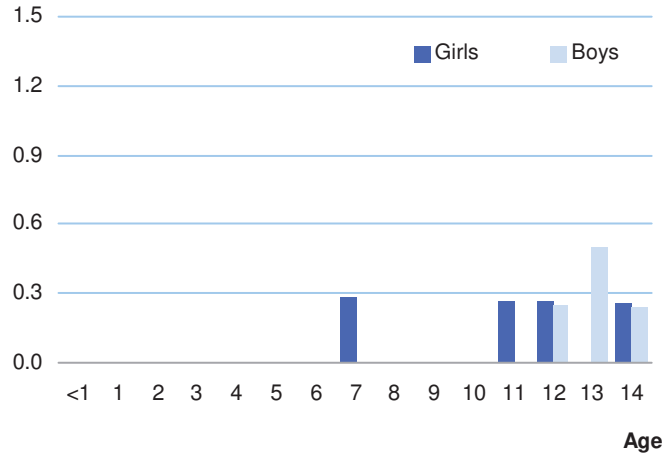
Median age at diagnosis: 13 years 1 month

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Oligodendrogliomas

SN after III (d) 1			**III (d) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	1.9 %	5	0.4 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Mixed and unspecified gliomas

Cases in Germany aged under 15 years (1980-2016): 882

Selected characteristics Germany 2007-2016

Relative frequency:	422 / 17613 = 2.4 %
Relative frequency of trial patients:	94.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	206	216	422
Standardized rate *:	3.8	3.8	3.8
Cumulative incidence:	58	58	58

Sex ratio (m/f): 1.0

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	11	92	182	137
Incidence rate:	1.6	3.3	5.1	3.5

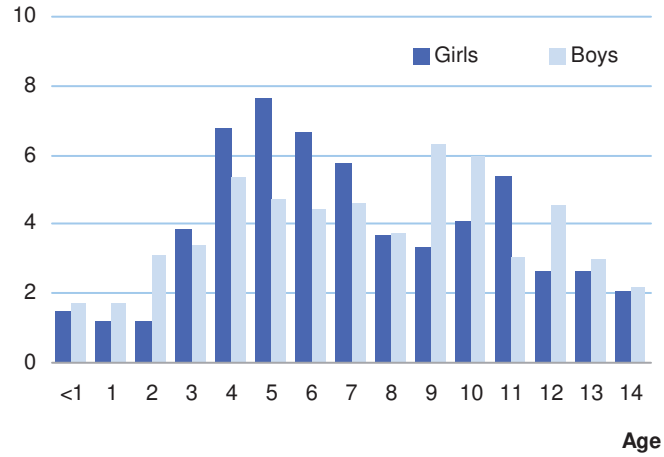
Median age at diagnosis: 7 years 7 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Mixed and unspecified gliomas

SN after III (d) 2			**III (d) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
7	0.6 %	3.1 %	18	1.4 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1705

Selected characteristics Germany 2007-2016

Relative frequency:	660 / 17613 = 3.7 %
Relative frequency of trial patients:	93.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	290	370	660
Standardized rate *:	5.3	6.3	5.8
Cumulative incidence:	81	98	90
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	24	127	202	307
Incidence rate:	3.5	4.6	5.6	8.0

Median age at diagnosis: 9 years 7 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	96 %	95 %	92 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
42	1.0 %	0.3	5

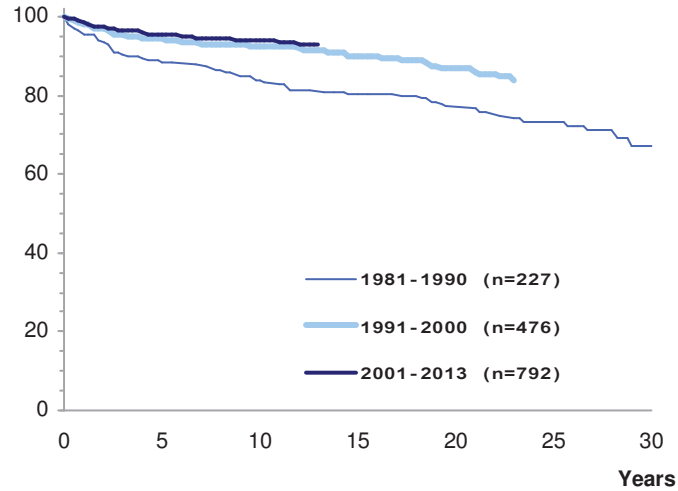
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

III (e) Other specified intracranial and intraspinal neoplasms

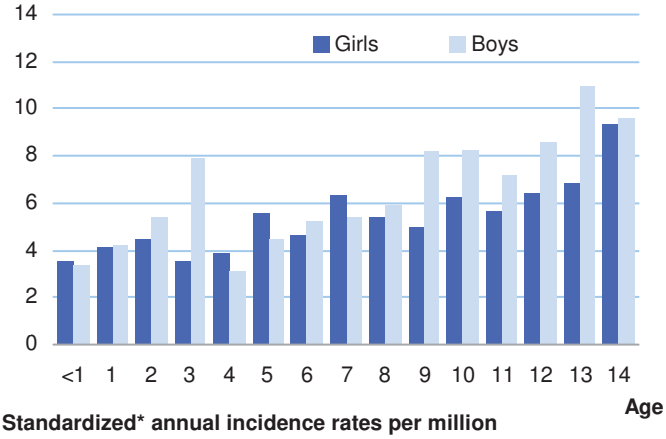
SN after III (e)			III (e) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
17	1.4 %	4.4 %	139	11.2 %	1.7 %

* Standard: Segi world standard population

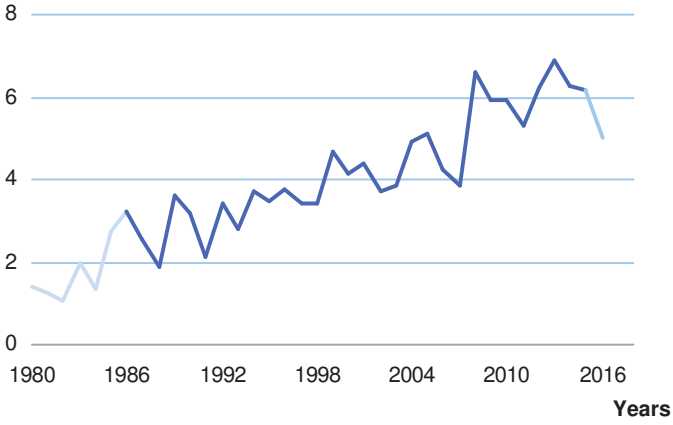
Survival probabilities by year of diagnosis Germany 1981-2013



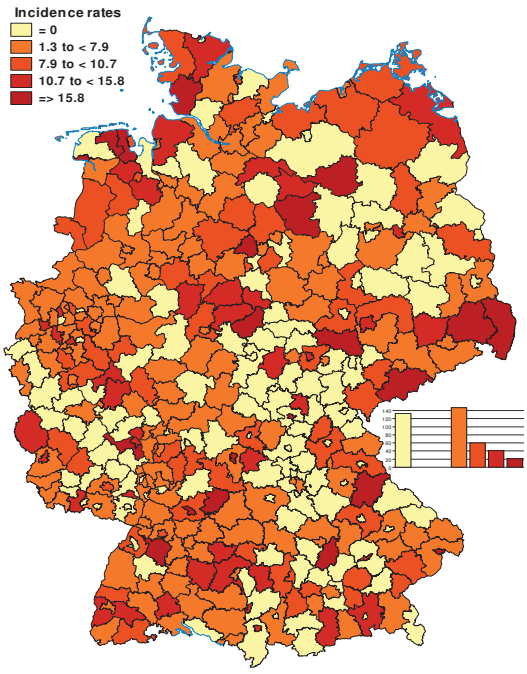
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



38 III (e) Other specified intracranial and intraspinal neoplasms - Extended ICCC-3

Germany 2007-2016	N	%
Other specified intracranial and intraspinal neoplasms	**660**	**100.0**
1 Pituitary adenomas and carcinomas	29	4.4
2 Tumours of the sellar region (craniopharyngiomas)	195	29.5
3 Pineal parenchymal tumours	32	4.8
4 Neuronal and mixed neuronal-glial tumours	360	54.5
5 Meningiomas	44	6.7

1 Pituitary adenomas and carcinomas

Cases in Germany aged under 15 years (1980-2016): 94

Selected characteristics Germany 2007-2016

Relative frequency:	29 / 17613 = 0.2 %
Relative frequency of trial patients:	65.5 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	12	17	29
Standardized rate *:	0.2	0.3	0.2
Cumulative incidence:	3	4	4

Sex ratio (m/f): 1.4

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	0	4	25
Incidence rate:	0.0	0.0	0.1	0.6

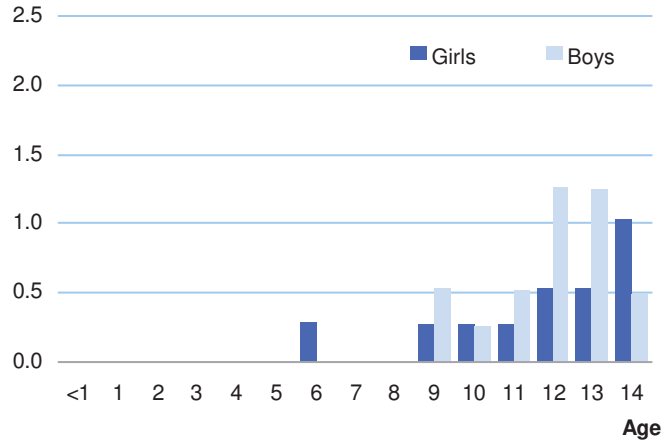
Median age at diagnosis: 12 years 8 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Pituitary adenomas and carcinomas

SN after III (e) 1			**III (e) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	4.8 %	6	0.5 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Tumours of the sellar region (craniopharyngiomas)

Cases in Germany aged under 15 years (1980-2016): 633

Selected characteristics Germany 2007-2016

Relative frequency:	195 / 17613 = 1.1 %
Relative frequency of trial patients:	99.5 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	101	94	195
Standardized rate *:	1.8	1.7	1.7
Cumulative incidence:	28	25	27

Sex ratio (m/f): 0.9

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	2	46	76	71
Incidence rate:	0.3	1.7	2.1	1.8

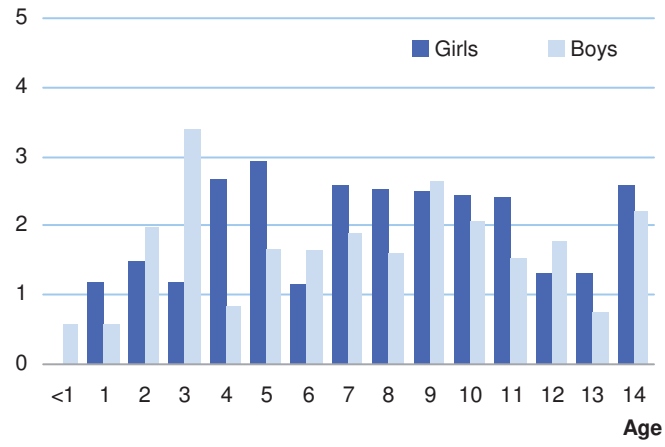
Median age at diagnosis: 8 years 3 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Tumours of the sellar region (craniopharyngiomas)

SN after III (e) 2			**III (e) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
4	0.3 %	3.3 %	0	0.0 %	-

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Germany 2007-2016	N	%
Other specified intracranial and intraspinal neoplasms	**660**	**100.0**
1 Pituitary adenomas and carcinomas	29	4.4
2 Tumours of the sellar region (craniopharyngiomas)	195	29.5
3 Pineal parenchymal tumours	32	4.8
4 Neuronal and mixed neuronal-glial tumours	360	54.5
5 Meningiomas	44	6.7

3 Pineal parenchymal tumours

Cases in Germany aged under 15 years (1980-2016): 129

Selected characteristics Germany 2007-2016

Relative frequency:	32 / 17613 = 0.2 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	17	15	32
Standardized rate *:	0.3	0.3	0.3
Cumulative incidence:	5	4	4

Sex ratio (m/f): 0.9

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	4	10	7	11
Incidence rate:	0.6	0.4	0.2	0.3

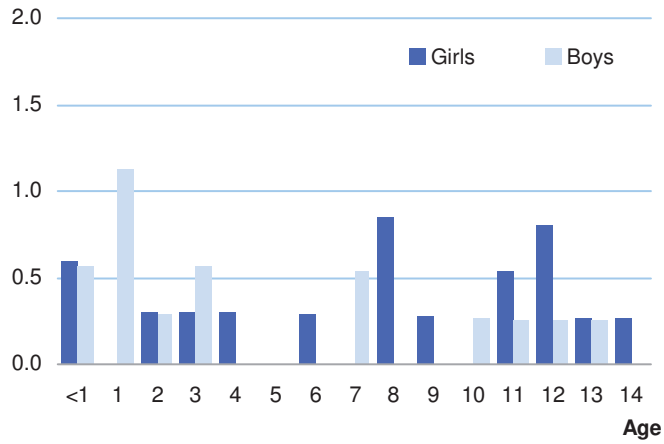
Median age at diagnosis: 7 years 8 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
3 Pineal parenchymal tumours

SN after III (e) 3			**III (e) 3 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	2.2 %	2	0.2 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



4 Neuronal and mixed neuronal-glial tumours

Cases in Germany aged under 15 years (1980-2016): 693

Selected characteristics Germany 2007-2016

Relative frequency:	360 / 17613 = 2.0 %
Relative frequency of trial patients:	94.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	141	219	360
Standardized rate *:	2.6	3.7	3.2
Cumulative incidence:	39	58	49

Sex ratio (m/f): 1.6

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	18	66	101	175
Incidence rate:	2.6	2.4	2.8	4.5

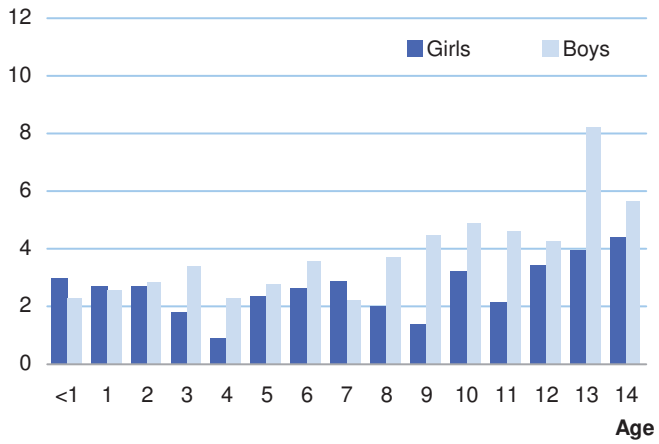
Median age at diagnosis: 9 years 8 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
4 Neuronal and mixed neuronal-glial tumours

SN after III (e) 4			**III (e) 4 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	1.8 %	4	0.3 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Germany 2007-2016	N	%
Other specified intracranial and intraspinal neoplasms	**660**	**100.0**
1 Pituitary adenomas and carcinomas	29	4.4
2 Tumours of the sellar region (craniopharyngiomas)	195	29.5
3 Pineal parenchymal tumours	32	4.8
4 Neuronal and mixed neuronal-glial tumours	360	54.5
5 Meningiomas	44	6.7

5 Meningiomas

Cases in Germany aged under 15 years (1980-2016): 156

Selected characteristics Germany 2007-2016

Relative frequency:	44 / 17613 = 0.2 %
Relative frequency of trial patients:	68.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	19	25	44
Standardized rate *:	0.3	0.4	0.4
Cumulative incidence:	5	6	6

Sex ratio (m/f): 1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases:	0	5	14	25
Incidence rate:	0.0	0.2	0.4	0.6

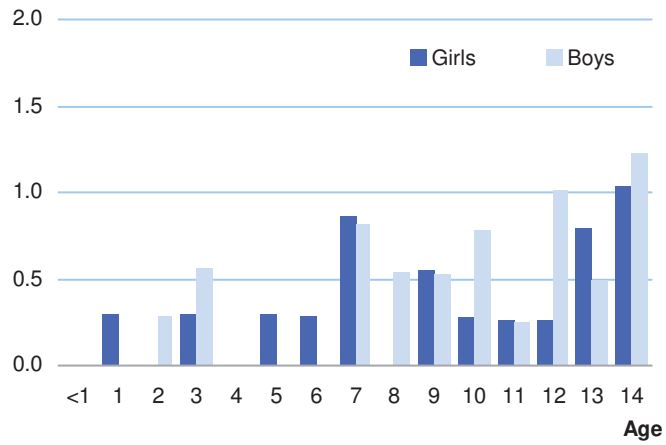
Median age at diagnosis: 10 years 9 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
5 Meningiomas

SN after III (e) 5			**III (e) 5 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
8	0.6 %	-	127	10.2 %	1.6 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 4381

Selected characteristics Germany 2007-2016

Relative frequency:	1178 / 17613 = 6.7 %
Relative frequency of trial patients:	99.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	498	680	1178
Standardized rate *:	11.4	14.8	13.1
Cumulative incidence:	147	191	170
Sex ratio (m/f):			1.4

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	540	530	82	26
Incidence rate:	78.3	19.2	2.3	0.7
Median age at diagnosis:				1 year 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	80 %	77 %	76 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

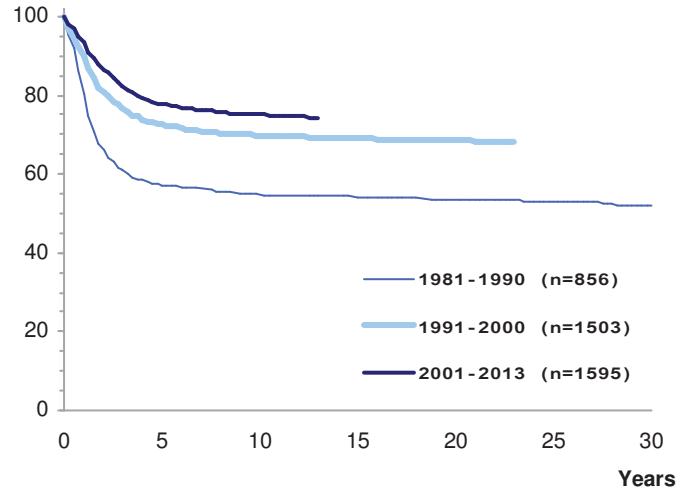
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
430	10.2 %	3.9	52

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
IV (a) Neuroblastoma and ganglioneuroblastoma

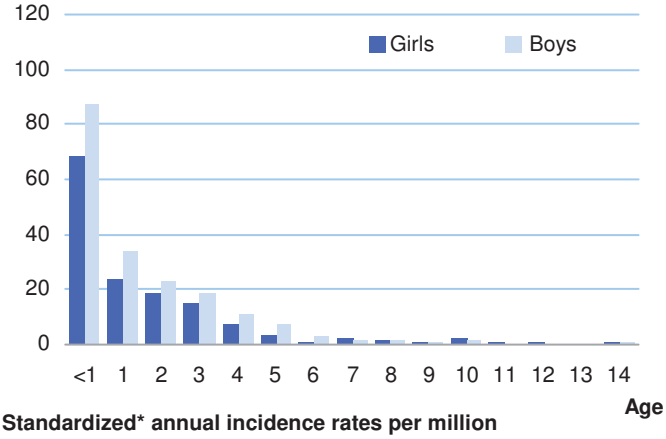
SN after IV (a)			IV (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
63	5.1 %	3.4 %	12	1.0 %	0.0 %

* Standard: Segi world standard population

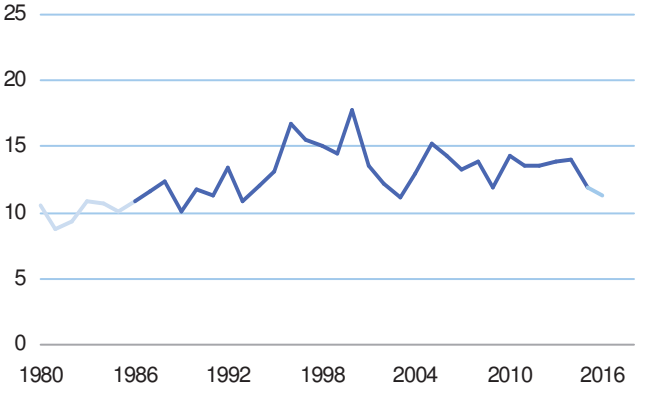
Survival probabilities by year of diagnosis Germany 1981-2013



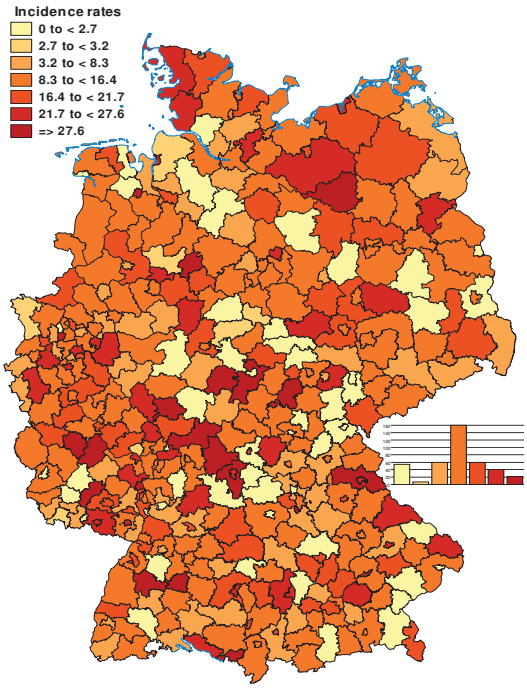
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1412

Selected characteristics Germany 2007-2016

Relative frequency:	399 / 17613 = 2.3 %
Relative frequency of trial patients:	35.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	189	210	399
Standardized rate *:	4.4	4.6	4.5
Cumulative incidence:	56	59	58
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	181	205	10	3
Incidence rate:	26.3	7.4	0.3	0.1

Median age at diagnosis: 1 year 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	98 %	97 %	97 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

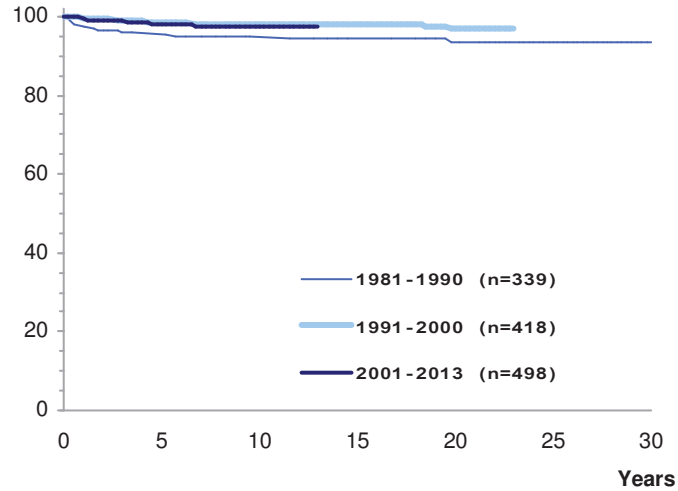
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
10	0.2 %	0.1	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
V Retinoblastoma

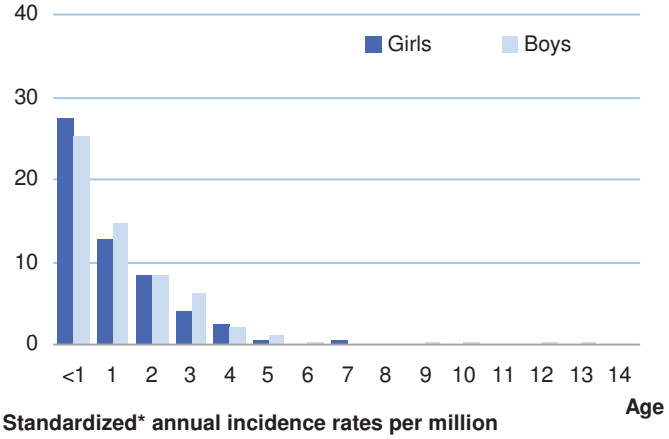
SN after V			V as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
35	2.8 %	7.0 %	3	0.2 %	0.0 %

* Standard: Segi world standard population

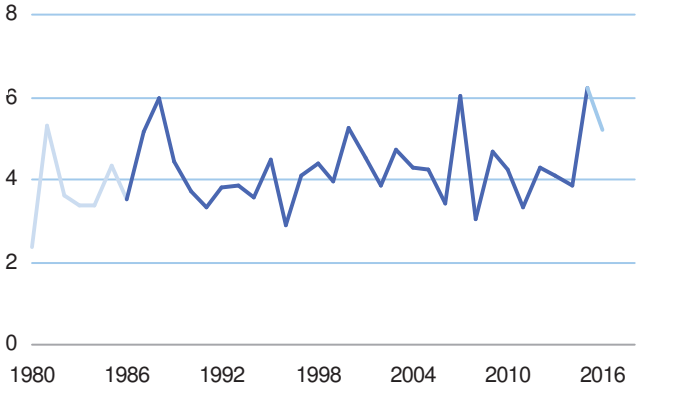
Survival probabilities by year of diagnosis Germany 1981-2013



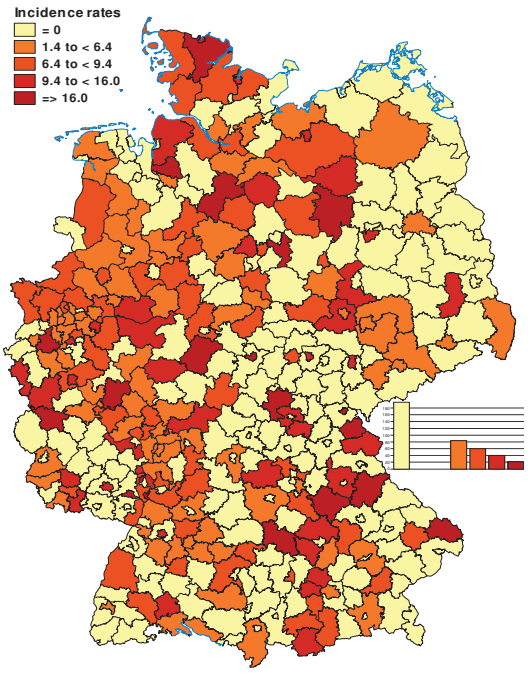
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 3373

Selected characteristics Germany 2007-2016

Relative frequency:	942 / 17613 = 5.3 %
Relative frequency of trial patients:	99.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	507	435	942
Standardized rate *:	11.0	9.1	10.0
Cumulative incidence:	149	122	135
Sex ratio (m/f):			0.9

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	155	544	206	37
Incidence rate:	22.5	19.7	5.7	1.0
Median age at diagnosis:				3 years 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	93 %	93 %	93 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

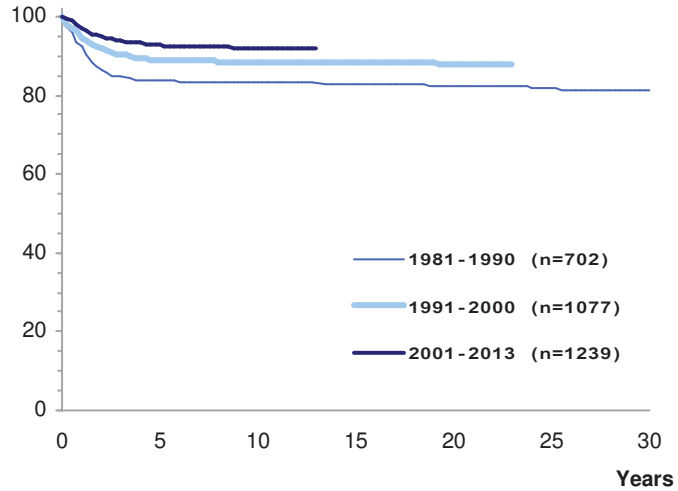
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
116	2.7 %	1.0	14

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VI (a) Nephroblastoma and other non-epithelial renal tumours

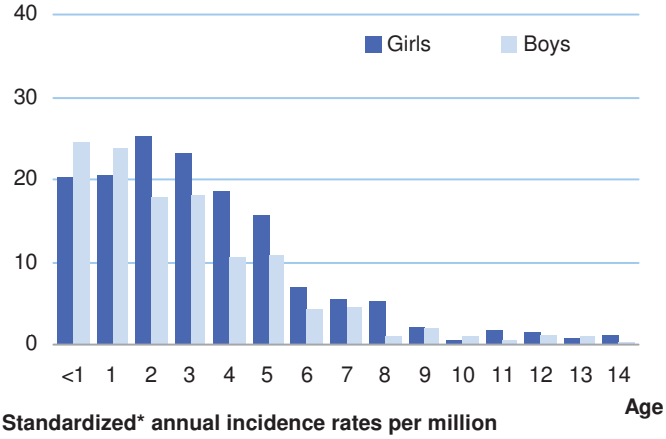
SN after VI (a)			VI (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
48	3.9 %	4.8 %	10	0.8 %	0.0 %

* Standard: Segi world standard population

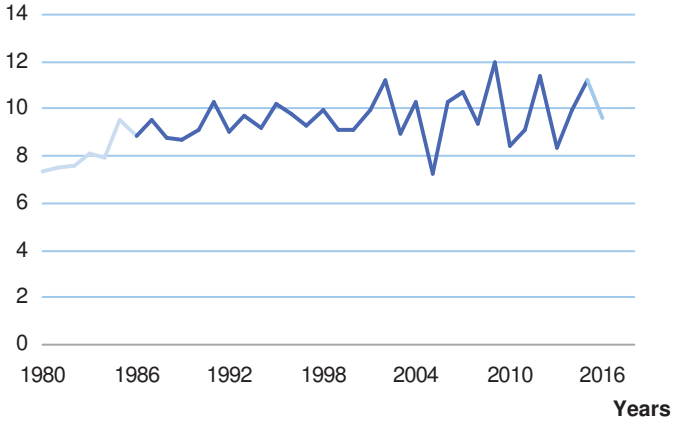
Survival probabilities by year of diagnosis Germany 1981-2013



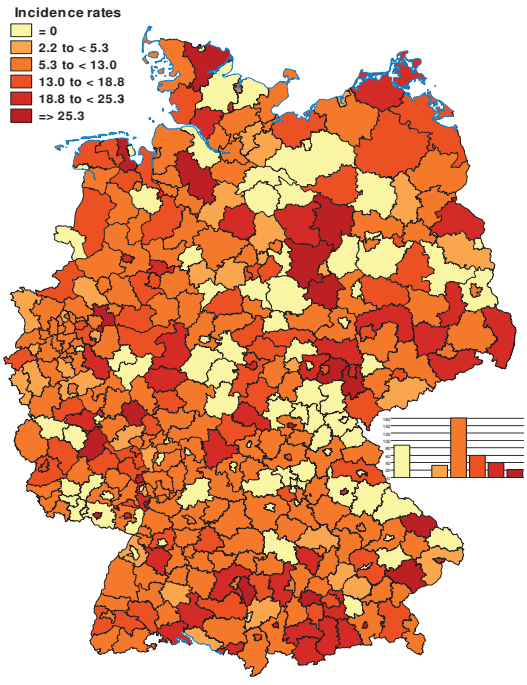
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



44 VI (a) Nephroblastoma and other non-epithelial renal tumours - Extended ICCC-3

Germany 2007-2016	N	%
Nephroblastoma and other non-epithelial renal tumours	**942**	**100.0**
1 Nephroblastoma	919	97.6
2 Rhabdoid renal tumour	17	1.8
3 Kidney sarcomas	6	0.6
4 Peripheral neuroectodermal tumour (pPNET) of kidney	0	0.0

1 Nephroblastoma

Cases in Germany aged under 15 years (1980-2016): 3261

Selected characteristics Germany 2007-2016

Relative frequency:	919 / 17613 = 5.2 %
Relative frequency of trial patients:	99.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	495	424	919
Standardized rate *:	10.7	8.9	9.8
Cumulative incidence:	146	119	132

Sex ratio (m/f): 0.9

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	144	538	202	35
Incidence rate:	20.9	19.5	5.6	0.9

Median age at diagnosis: 3 years 1 month

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Nephroblastoma

SN after VI (a) 1			**VI (a) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
44	3.5 %	4.7 %	8	0.6 %	0.0 %

* Standard: Segi world standard population

2 Rhabdoid renal tumour

Cases in Germany aged under 15 years (1980-2016): 57

Selected characteristics Germany 2007-2016

Relative frequency:	17 / 17613 = 0.1 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	8	9	17
Standardized rate *:	0.2	0.2	0.2
Cumulative incidence:	2	2	2

Sex ratio (m/f): 1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	9	6	1	1
Incidence rate:	1.3	0.2	0.0	0.0

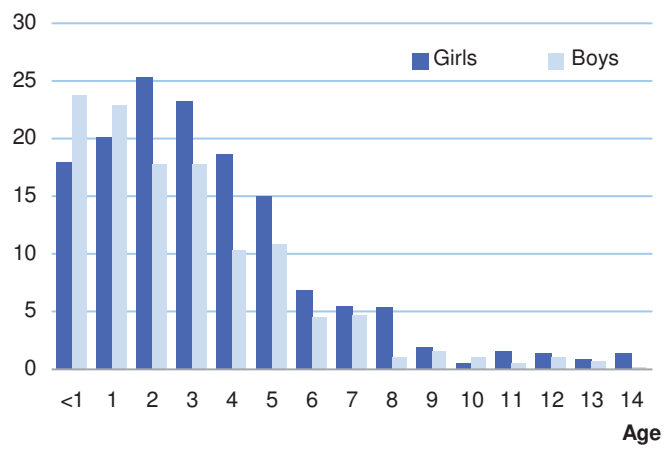
Median age at diagnosis: 0 years 10 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Rhabdoid renal tumour

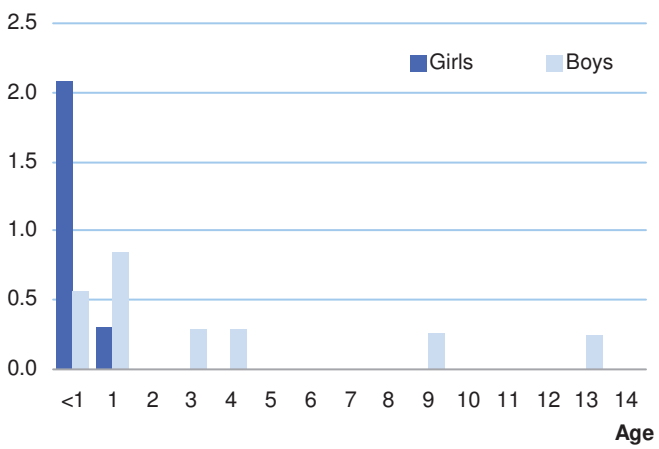
SN after VI (a) 2			**VI (a) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
3	0.2 %	-	2	0.2 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 70

Selected characteristics Germany 2007-2016

Relative frequency:	24 / 17613 = 0.1 %
Relative frequency of trial patients:	95.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	10	14	24
Standardized rate *:	0.2	0.2	0.2
Cumulative incidence:	3	4	3
Sex ratio (m/f):			1.4

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	1	1	4	18
Incidence rate:	0.1	0.0	0.1	0.5

Median age at diagnosis: 11 years 10 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	-	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

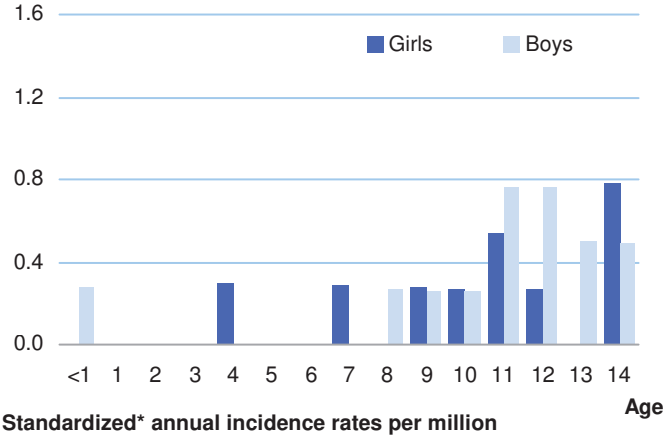
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
3	0.1 %	0.0	0

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VI (b) Renal carcinomas

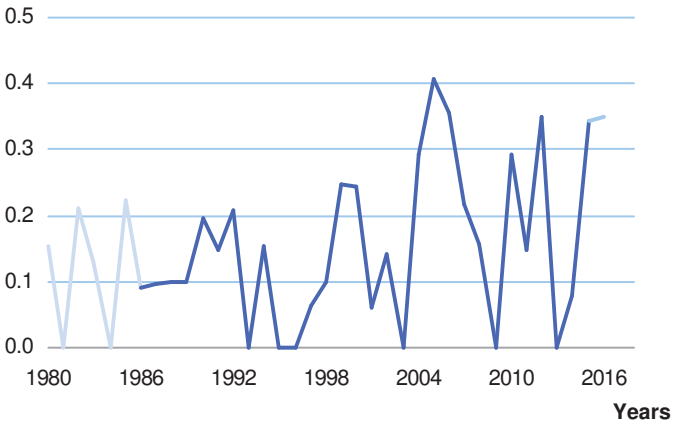
SN after VI (b)			VI (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	1.9 %	10	0.8 %	0.1 %

* Standard: Segi world standard population

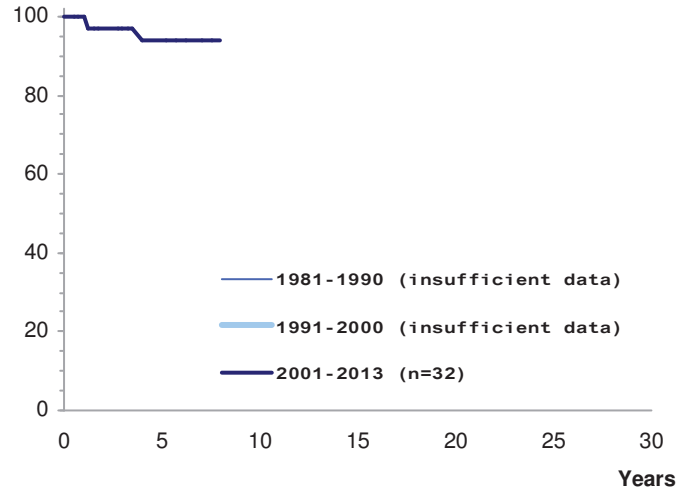
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 556

Selected characteristics Germany 2007-2016

Relative frequency:	228 / 17613 = 1.3 %
Relative frequency of trial patients:	77.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	96	132	228
Standardized rate *:	2.2	2.8	2.5
Cumulative incidence:	29	37	33
Sex ratio (m/f):			1.4

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	76	131	13	8
Incidence rate:	11.0	4.7	0.4	0.2

Median age at diagnosis: 1 year 5 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	80 %	79 %	79 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

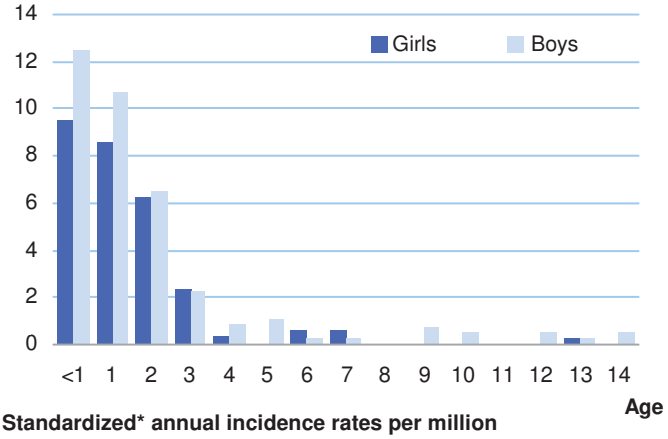
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
38	0.9 %	0.4	5

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VII (a) Hepatoblastoma

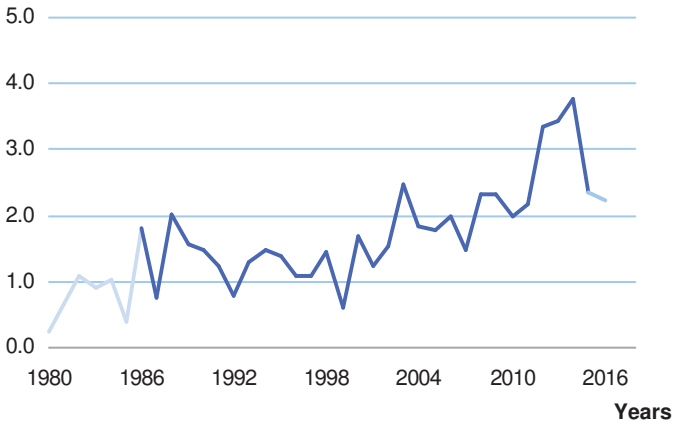
SN after VII (a)			VII (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
3	0.2 %	1.8 %	2	0.2 %	0.0 %

* Standard: Segi world standard population

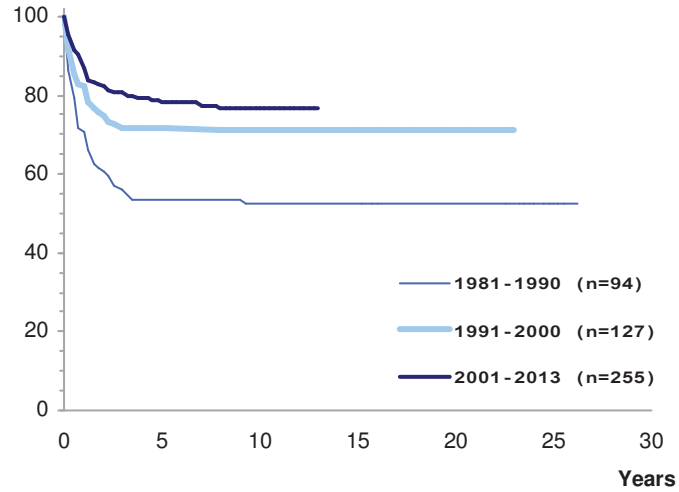
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 115

Selected characteristics Germany 2007-2016

Relative frequency:	25 / 17613 = 0.1 %
Relative frequency of trial patients:	72.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	13	12	25
Standardized rate *:	0.2	0.2	0.2
Cumulative incidence:	3	3	3
Sex ratio (m/f):			0.9

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	1	5	19
Incidence rate:	0.0	0.0	0.1	0.5

Median age at diagnosis: 12 years 8 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	44 %	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

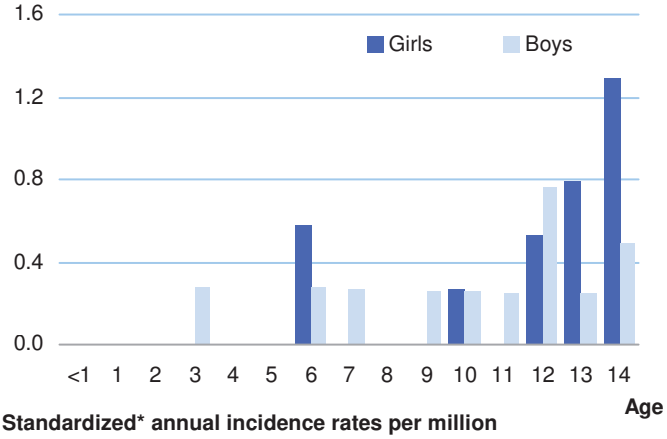
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
22	0.5 %	0.2	2

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VII (b) Hepatic carcinomas

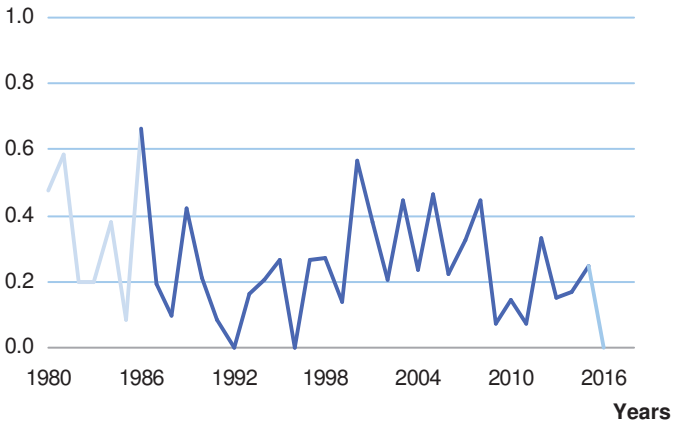
SN after VII (b)			VII (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	1.8 %	4	0.3 %	0.0 %

* Standard: Segi world standard population

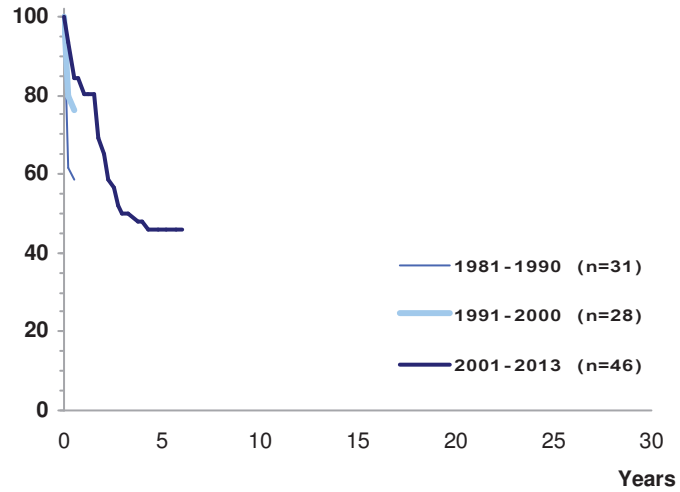
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



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48 VIII Malignant bone tumours

(a) Osteosarcomas
(b) Chondrosarcomas
(c) Ewing tumour and related sarcomas of bone
(d) Other specified malignant bone tumours
(e) Unspecified malignant bone tumours

Cases in Germany aged under 15 years (1980-2016): 2755

Selected characteristics Germany 2007-2016

Relative frequency:	777 / 17613 = 4.4 %
Relative frequency of trial patients:	97.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	370	407	777
Standardized rate *:	6.1	6.5	6.3
Cumulative incidence:	101	105	103
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	4	49	195	529
Incidence rate:	0.6	1.8	5.4	13.7

Median age at diagnosis: 11 years 11 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	-	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

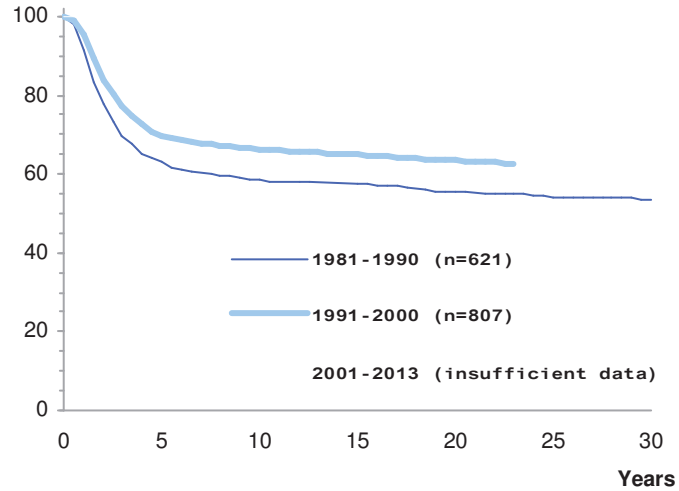
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
270	6.4 %	1.8	30

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VIII Malignant bone tumours

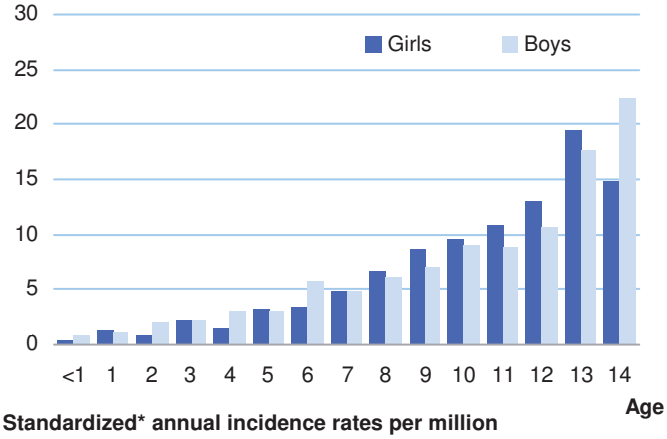
SN after VIII			VIII as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
66	5.3 %	6.5 %	63	5.1 %	0.3 %

* Standard: Segi world standard population

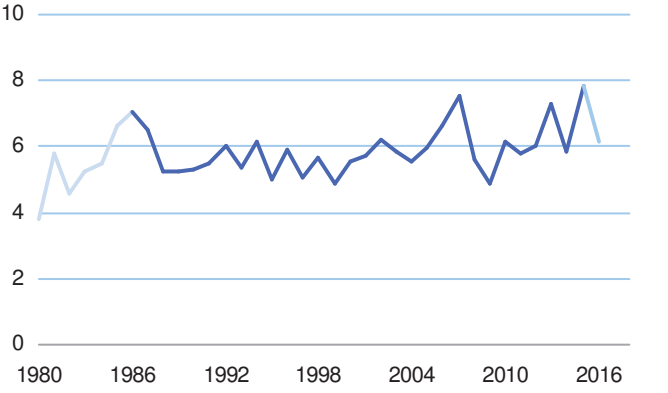
Survival probabilities by year of diagnosis Germany 1981-2013



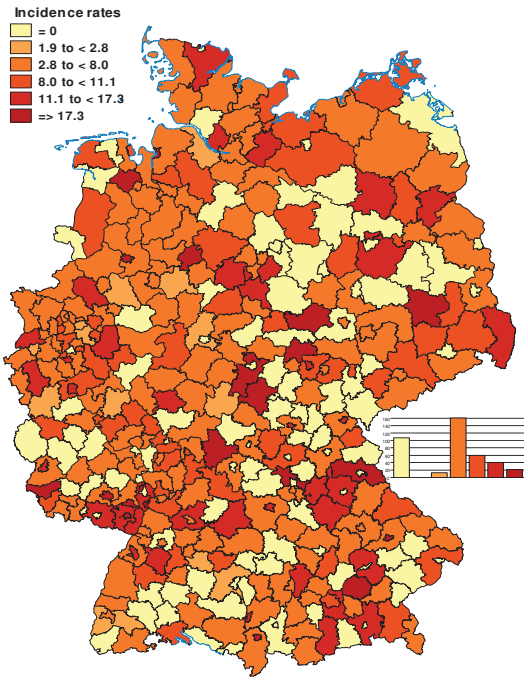
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1433

Selected characteristics Germany 2007-2016

Relative frequency:	388 / 17613 = 2.2 %
Relative frequency of trial patients:	98.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	193	195	388
Standardized rate *:	3.1	3.0	3.1
Cumulative incidence:	52	50	51
Sex ratio (m/f):			1.0

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	7	82	299
Incidence rate:	0.0	0.3	2.3	7.7

Median age at diagnosis: 12 years 6 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	75 %	71 %	70 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

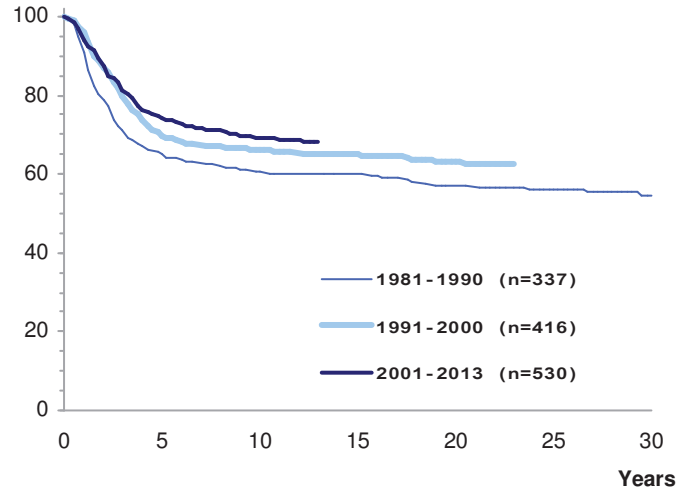
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
139	3.3 %	0.9	15

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VIII (a) Osteosarcomas

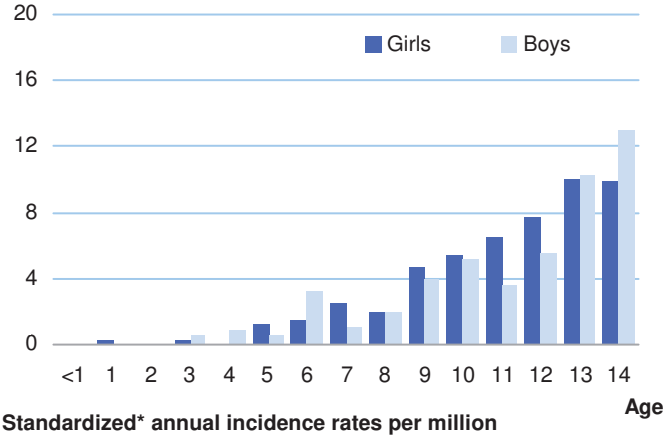
SN after VIII (a)			VIII (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
34	2.7 %	7.8 %	43	3.5 %	0.2 %

* Standard: Segi world standard population

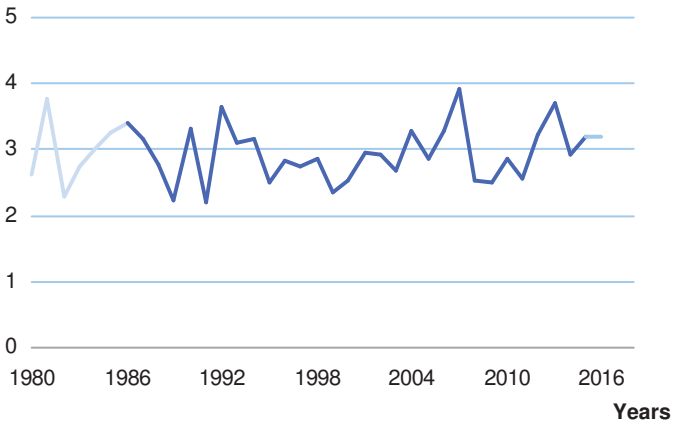
Survival probabilities by year of diagnosis Germany 1981-2013



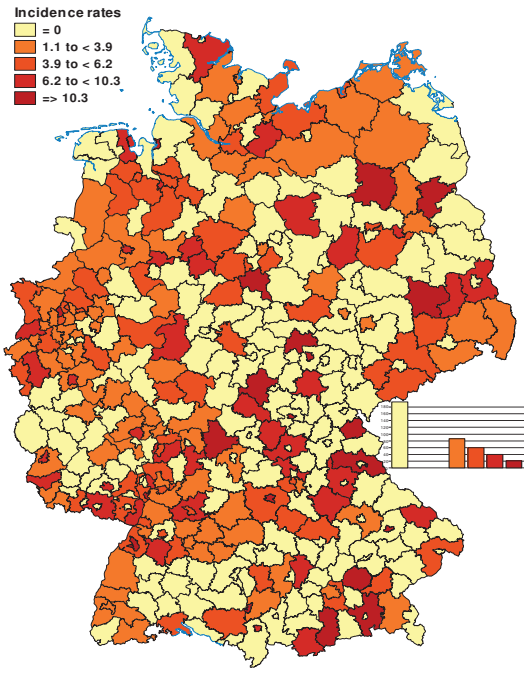
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 1228

Selected characteristics Germany 2007-2016

Relative frequency:	357 / 17613 = 2 %
Relative frequency of trial patients:	98.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	163	194	357
Standardized rate *:	2.8	3.2	3.0
Cumulative incidence:	45	51	48
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	3	39	105	210
Incidence rate:	0.4	1.4	2.9	5.4

Median age at diagnosis: 11 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	-	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

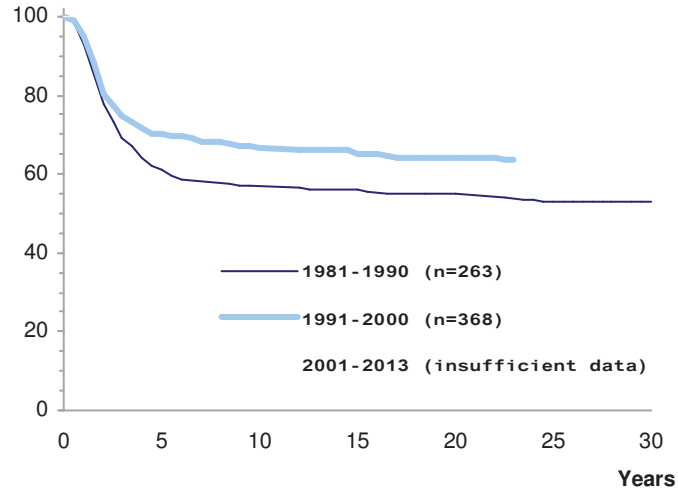
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
122	2.9 %	0.8	14

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
VIII (c) Ewing tumour and related sarcomas of bone

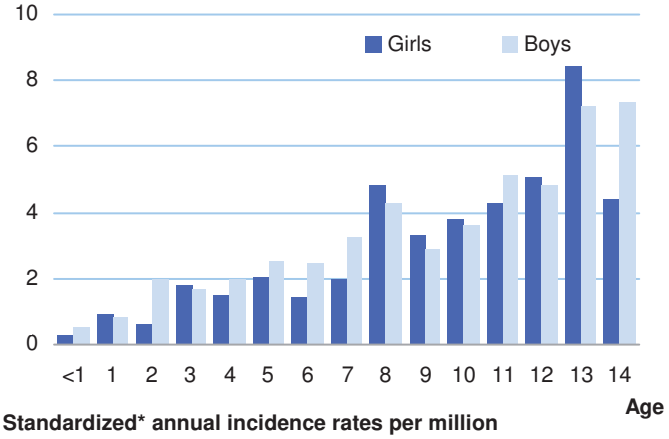
SN after VIII (c)			VIII (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
30	2.4 %	4.8 %	16	1.3 %	0.1 %

* Standard: Segi world standard population

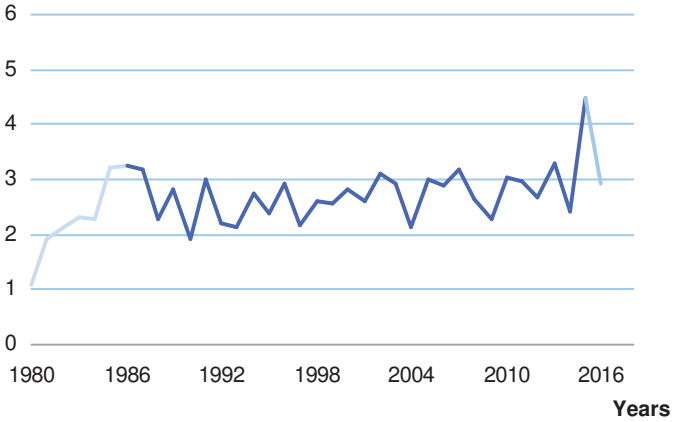
Survival probabilities by year of diagnosis Germany 1981-2013



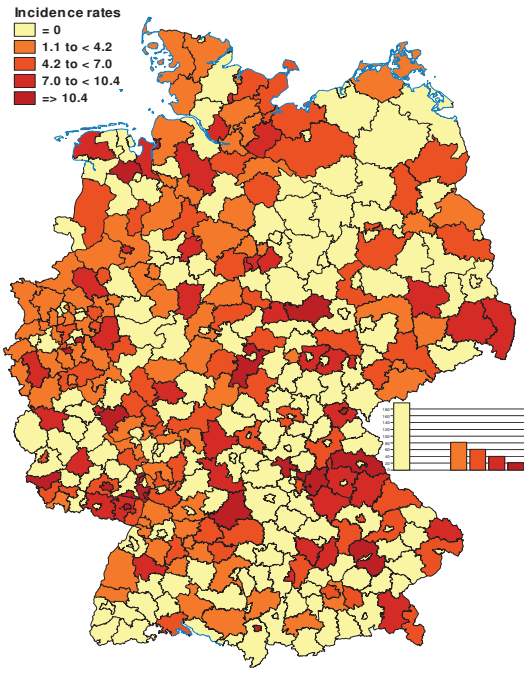
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Germany 2007-2016	N	%
Ewing tumour and related sarcomas of bone	**357**	**100.0**
1 Ewing tumour and askin tumour of bone	341	95.5
2 Peripheral neuroectodermal tumour (pPNET) of bone	16	4.5

1 Ewing tumour and askin tumour of bone

Cases in Germany aged under 15 years (1980-2016): 1060

Selected characteristics Germany 2007-2016

Relative frequency:	341 / 17613 = 1.9 %
Relative frequency of trial patients:	98.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	154	187	341
Standardized rate *:	2.6	3.0	2.8
Cumulative incidence:	42	49	46

Sex ratio (m/f): 1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	1	34	100	206
Incidence rate:	0.1	1.2	2.8	5.3

Median age at diagnosis: 11 years 3 months

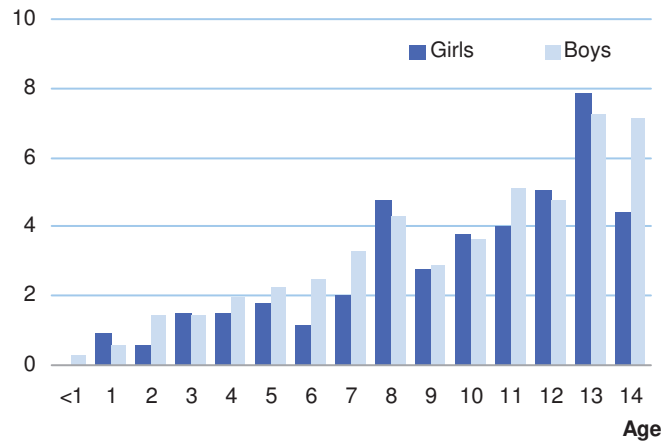
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

1 Ewing tumour and askin tumour of bone

SN after VIII (c) 1			**VIII (c) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
24	1.9 %	4.6 %	11	0.9 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



52 IX Soft tissue and other extraosseous sarcomas

(a) Rhabdomyosarcomas
(b) Fibrosarcomas, peripheral nerve sheath tumours and other fibrous neoplasms
(c) Kaposi sarcoma
(d) Other specified soft tissue sarcomas
(e) Unspecified soft tissue sarcomas

Cases in Germany aged under 15 years (1980-2016): 3598

Selected characteristics Germany 2007-2016

Relative frequency:	996 / 17613 = 5.7 %
Relative frequency of trial patients:	98.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	458	538	996
Standardized rate *:	8.8	10.0	9.4
Cumulative incidence:	130	145	138
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	129	285	257	325
Incidence rate:	18.7	10.3	7.2	8.4

Median age at diagnosis: 6 years 3 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	73 %	71 %	69 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

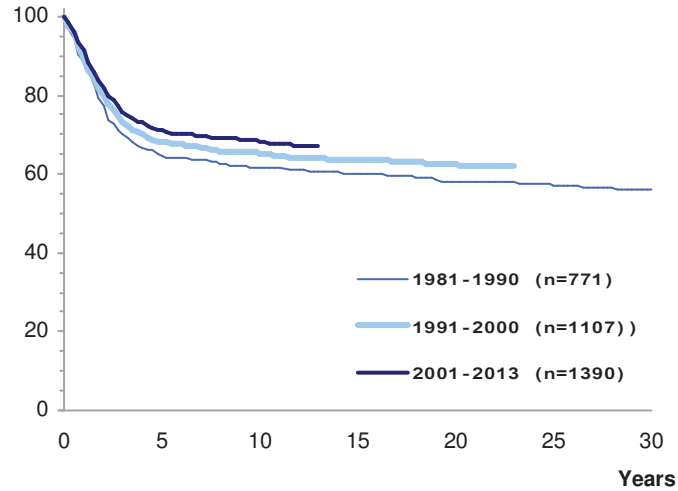
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
395	9.3 %	3.1	46

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
IX Soft tissue and other extraosseous sarcomas

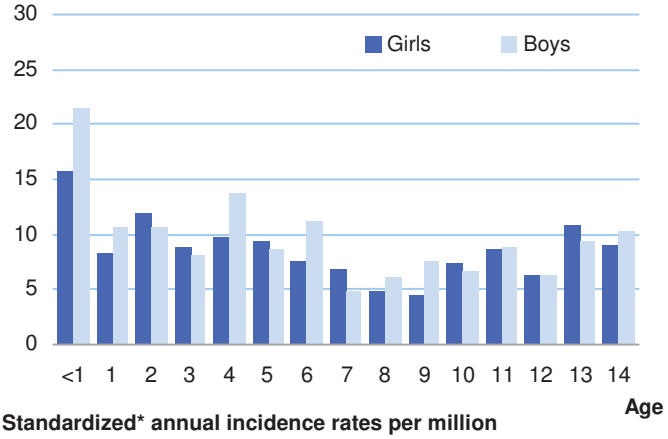
SN after IX			IX as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
92	7.4 %	9.9 %	68	5.5 %	0.4 %

* Standard: Segi world standard population

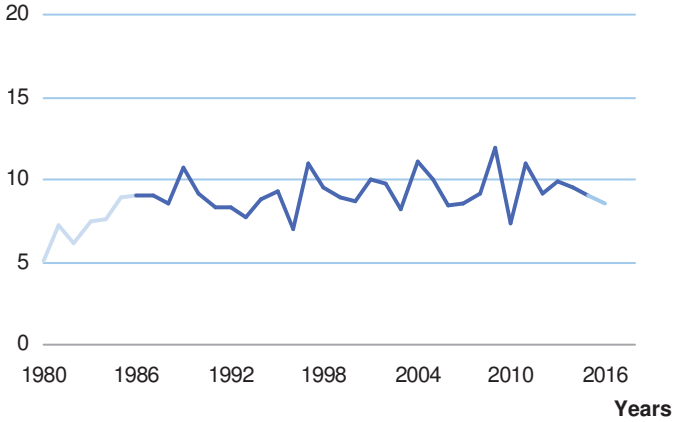
Survival probabilities by year of diagnosis Germany 1981-2013



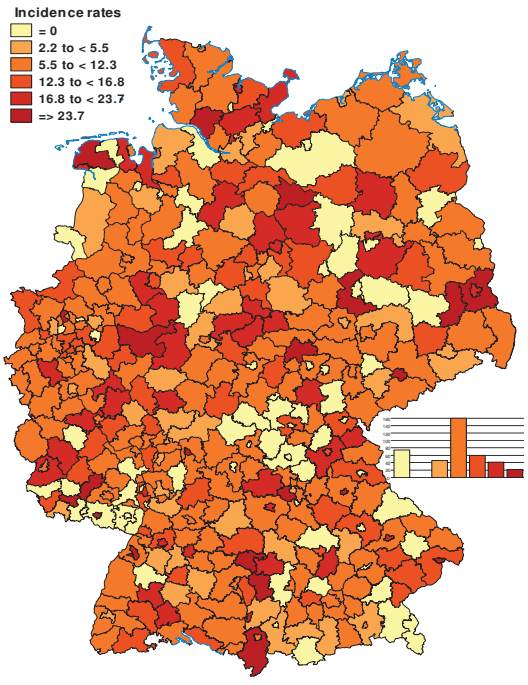
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 2034

Selected characteristics Germany 2007-2016

Relative frequency:	511 / 17613 = 2.9 %
Relative frequency of trial patients:	99.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	229	282	511
Standardized rate *:	4.5	5.5	5.0
Cumulative incidence:	66	77	72
Sex ratio (m/f):			1.2

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	48	203	150	110
Incidence rate:	7.0	7.3	4.2	2.8

Median age at diagnosis: 5 years 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	73 %	71 %	70 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

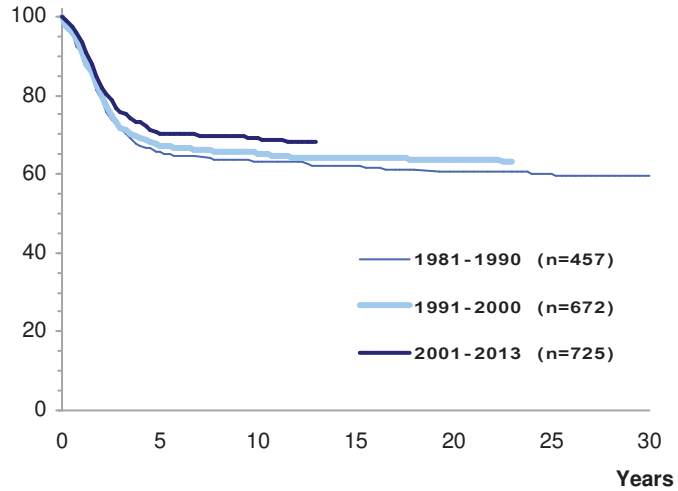
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
231	5.5 %	1.9	27

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
IX (a) Rhabdomyosarcomas

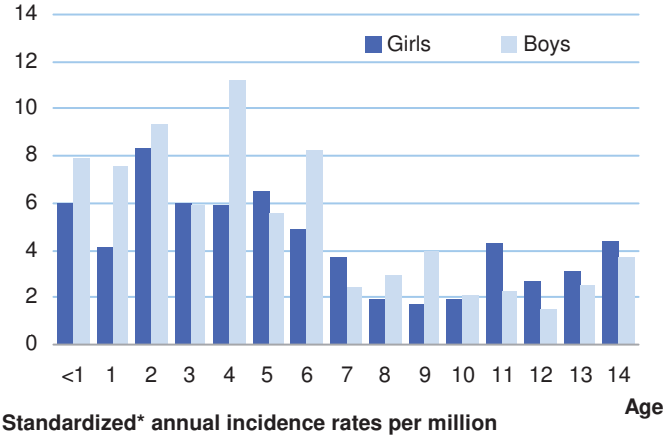
SN after IX (a)			IX (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
64	5.1 %	10.4 %	14	1.1 %	0.0 %

* Standard: Segi world standard population

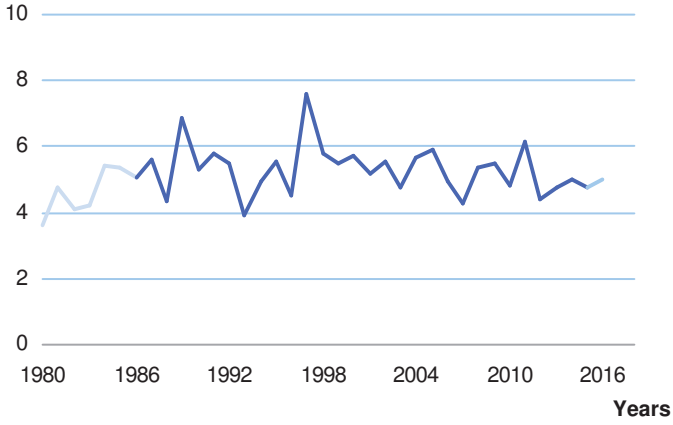
Survival probabilities by year of diagnosis Germany 1981-2013



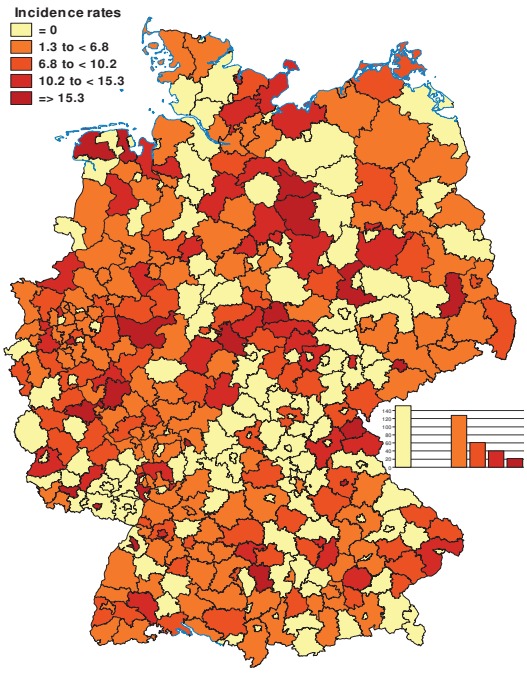
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 337

Selected characteristics Germany 2007-2016

Relative frequency:	108 / 17613 = 0.6 %
Relative frequency of trial patients:	95.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	47	61	108
Standardized rate *:	0.9	1.1	1.0
Cumulative incidence:	13	16	15
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	29	18	22	39
Incidence rate:	4.2	0.7	0.6	1.0

Median age at diagnosis: 7 years 0 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	72 %	72 %	69 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
30	0.7 %	0.2	3

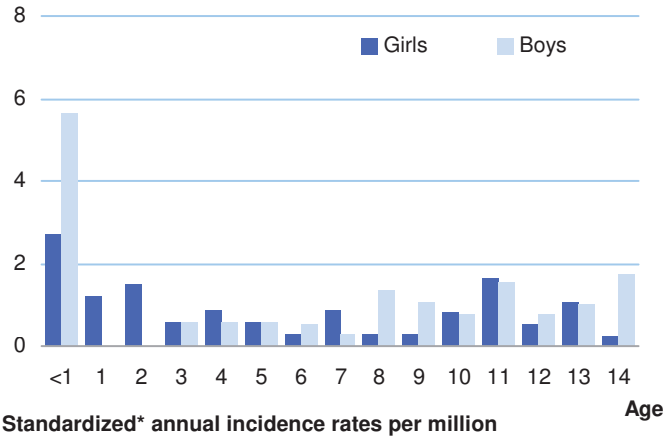
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

IX (b) Fibrosarcomas, peripheral nerve sheath tumours and other fibrous neoplams

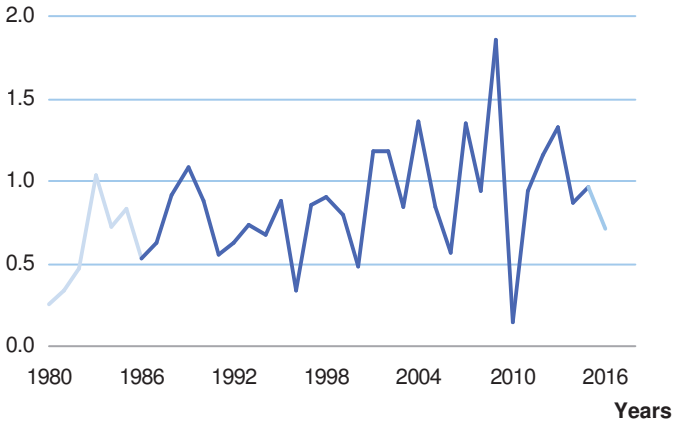
SN after IX (b)			IX (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
7	0.6 %	5.3 %	19	1.5 %	0.1 %

* Standard: Segi world standard population

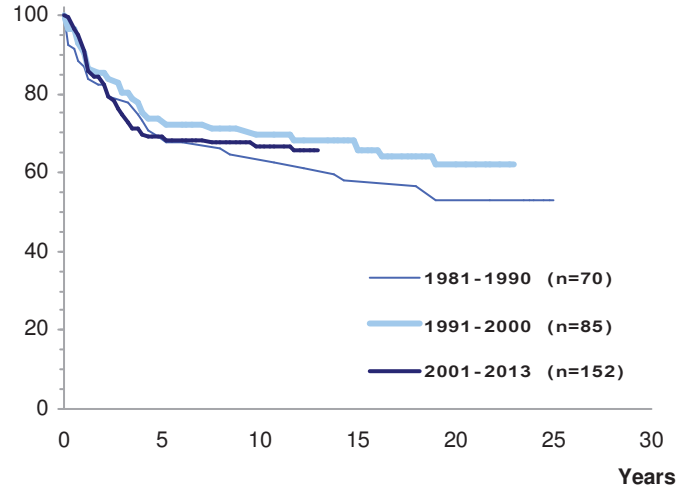
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Germany 2007-2016	N	%
Fibrosarcomas, peripheral nerve sheath tumours and other fibrous neoplams	**108**	**100.0**
1 Fibroblastic and myofibroblastic tumours	54	50.0
2 Nerve sheath tumours	54	50.0
3 Other fibrous neoplasms	0	0.0

1 Fibroblastic and myofibroblastic tumours

Cases in Germany aged under 15 years (1980-2016): 160

Selected characteristics Germany 2007-2016

Relative frequency:	54 / 17613 = 0.3 %
Relative frequency of trial patients:	94.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	24	30	54
Standardized rate *:	0.5	0.6	0.6
Cumulative incidence:	7	8	8
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases:	22	13	8	11
Incidence rate:	3.2	0.5	0.2	0.3
Median age at diagnosis:				3 years 2 months

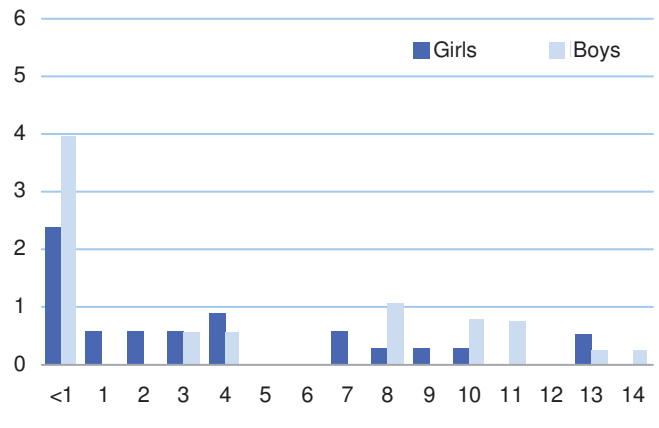
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

1 Fibroblastic and myofibroblastic tumours

SN after IX (b) 1			**IX (b) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
4	0.3 %	8.1 %	5	0.4 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Nerve sheath tumours

Cases in Germany aged under 15 years (1980-2016): 177

Selected characteristics Germany 2007-2016

Relative frequency:	54 / 17613 = 0.3 %
Relative frequency of trial patients:	96.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	23	31	54
Standardized rate *:	0.4	0.5	0.5
Cumulative incidence:	6	8	7
Sex ratio (m/f):			1.3

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases:	7	5	14	28
Incidence rate:	1.0	0.2	0.4	0.7
Median age at diagnosis:				10 years 10 months

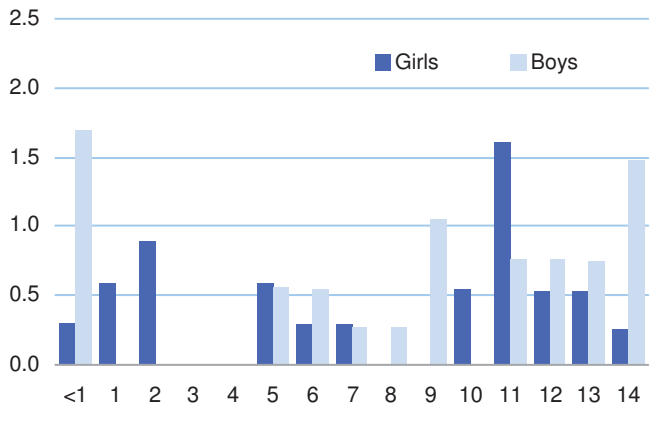
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

2 Nerve sheath tumours

SN after IX (b) 2			**IX (b) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
3	0.2 %	3.2 %	14	1.1 %	0.1 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Cases in Germany aged under 15 years (1980-2016): 991

Selected characteristics Germany 2007-2016

Relative frequency:	294 / 17613 = 1.7 %
Relative frequency of trial patients:	97.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	147	147	294
Standardized rate *:	2.7	2.6	2.6
Cumulative incidence:	41	39	40
Sex ratio (m/f):			1.0

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	40	45	70	139
Incidence rate:	5.8	1.6	1.9	3.6

Median age at diagnosis: 9 years 5 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	75 %	70 %	68 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

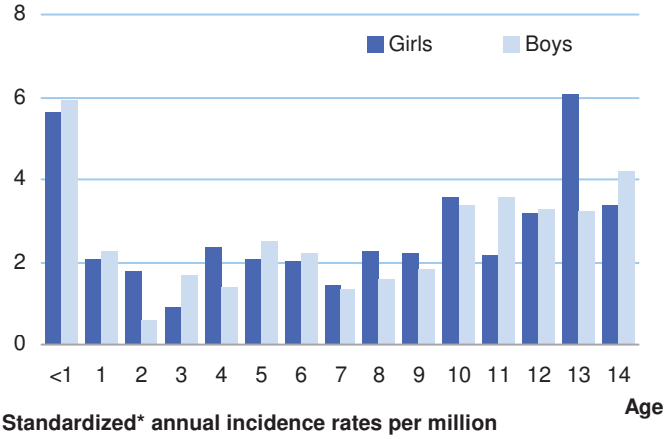
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
106	2.5 %	0.8	12

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
IX (d) Other specified soft tissue sarcomas

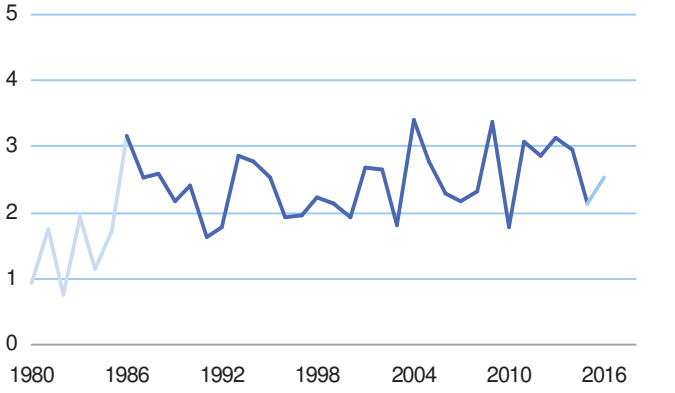
SN after IX (d)			IX (d) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
18	1.4 %	10.0 %	29	2.3 %	0.2 %

* Standard: Segi world standard population

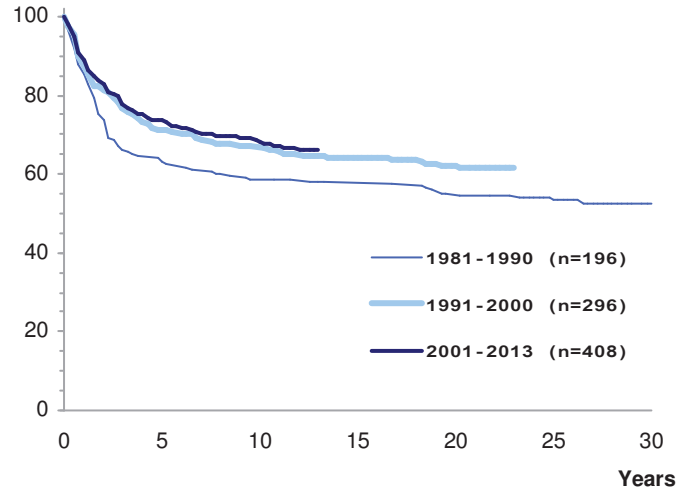
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Germany 2007-2016	N	%		N	%
Other specified soft tissue sarcomas	**294**	**100.0**			
1 Ewing tumour and askin tumour of soft tissue	61	20.7	7 Synovial sarcomas	62	21.1
2 Peripheral neuroectodermal tumour (pPNET) of soft tissue	14	4.8	8 Blood vessel tumours	9	3.1
3 Extrarenal rhabdoid tumour	57	19.4	9 Osseous and chondromatous neoplasms of soft tissue	6	2.0
4 Liposarcomas	5	1.7	10 Alveolar soft parts sarcoma	12	4.1
5 Fibrohistiocytic tumours	37	12.6	11 Miscellaneous soft tissue sarcomas	31	10.5
6 Leiomyosarcomas	0	0.0			

1 Ewing tumour and askin tumour of soft tissue

Cases in Germany aged under 15 years (1980-2016): 193

Selected characteristics Germany 2007-2016

Relative frequency:	61 / 17613 = 0.3 %
Relative frequency of trial patients:	98.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	34	27	61
Standardized rate *:	0.6	0.4	0.5
Cumulative incidence:	9	7	8

Sex ratio (m/f): 0.8

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	1	8	20	32
Incidence rate:	0.1	0.3	0.6	0.8

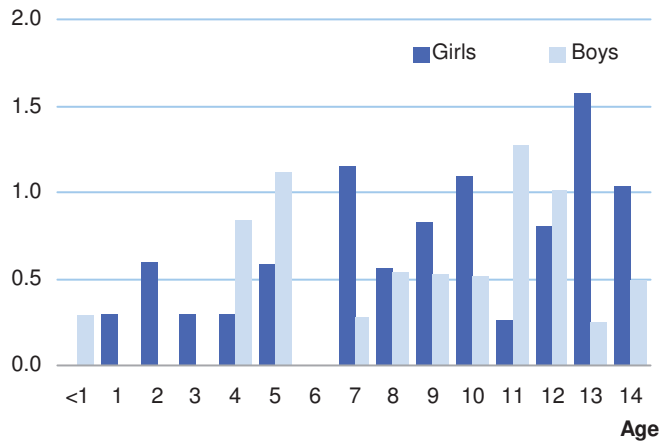
Median age at diagnosis: 10 years 4 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Ewing tumour and askin tumour of soft tissue

SN after IX (d) 1			**IX (d) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
8	0.6 %	-	6	0.5 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



3 Extrarenal rhabdoid tumour

Cases in Germany aged under 15 years (1980-2016): 96

Selected characteristics Germany 2007-2016

Relative frequency:	57 / 17613 = 0.3 %
Relative frequency of trial patients:	94.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	31	26	57
Standardized rate *:	0.7	0.6	0.6
Cumulative incidence:	9	7	8

Sex ratio (m/f): 0.8

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	30	14	6	7
Incidence rate:	4.4	0.5	0.2	0.2

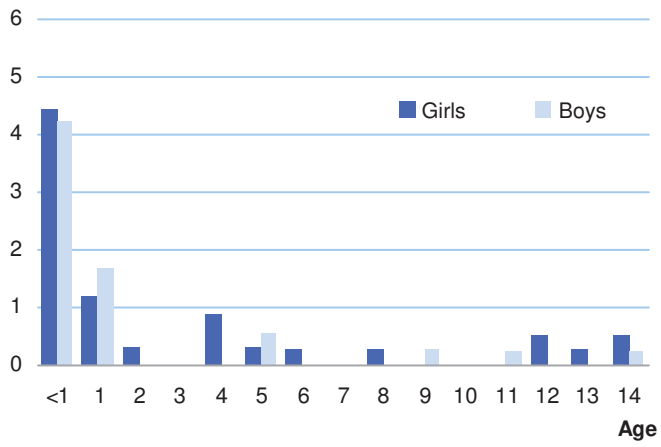
Median age at diagnosis: 0 years 10 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
3 Extrarenal rhabdoid tumour

SN after IX (d) 3			**IX (d) 3 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	-	1	0.1 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



58 IX (d) Other specified soft tissue sarcomas - Extended ICCC-3

Germany 2007-2016	N	%		N	%
Other specified soft tissue sarcomas	**294**	**100.0**			
1 Ewing tumour and askin tumour of soft tissue	61	20.7	7 Synovial sarcomas	62	21.1
2 Peripheral neuroectodermal tumour (pPNET) of soft tissue	14	4.8	8 Blood vessel tumours	9	3.1
3 Extrarenal rhabdoid tumour	57	19.4	9 Osseous and chondromatous neoplasms of soft tissue	6	2.0
4 Liposarcomas	5	1.7	10 Alveolar soft parts sarcoma	12	4.1
5 Fibrohistiocytic tumours	37	12.6	11 Miscellaneous soft tissue sarcomas	31	10.5
6 Leiomyosarcomas	0	0.0			

5 Fibrohistiocytic tumours

Cases in Germany aged under 15 years (1980-2016): 90

Selected characteristics Germany 2007-2016

Relative frequency:	37 / 17613 = 0.2 %
Relative frequency of trial patients:	94.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	21	16	37
Standardized rate *:	0.4	0.3	0.3
Cumulative incidence:	6	4	5
Sex ratio (m/f):			0.8

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	4	9	10	14
Incidence rate:	0.6	0.3	0.3	0.4

Median age at diagnosis: 7 years 9 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
5 Fibrohistiocytic tumours

SN after IX (d) 5			**IX (d) 5 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	-	6	0.5 %	0.0 %

* Standard: Segi world standard population

7 Synovial sarcomas

Cases in Germany aged under 15 years (1980-2016): 231

Selected characteristics Germany 2007-2016

Relative frequency:	62 / 17613 = 0.4 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	29	33	62
Standardized rate *:	0.5	0.5	0.5
Cumulative incidence:	8	9	8
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	1	3	15	43
Incidence rate:	0.1	0.1	0.4	1.1

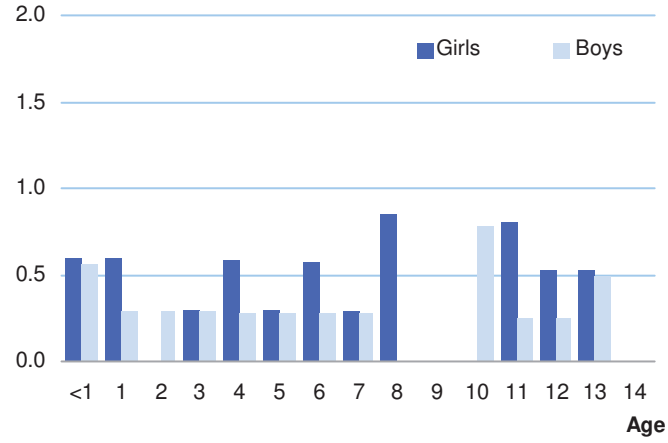
Median age at diagnosis: 11 years 7 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
7 Synovial sarcomas

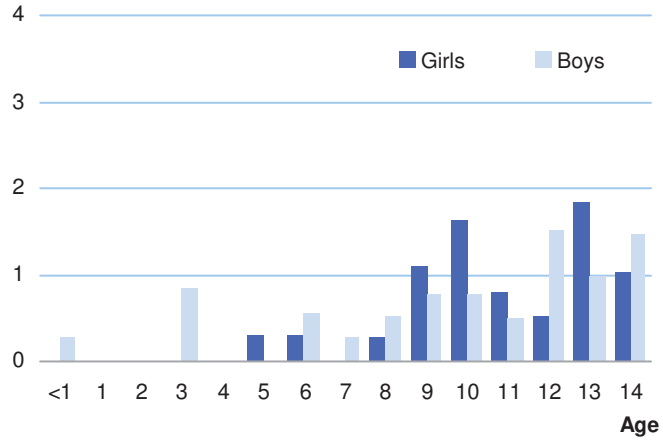
SN after IX (d) 7			**IX (d) 7 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
3	0.2 %	-	5	0.4 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Age- and sex-specific incidence rates per million
Germany 2007-2016



(a) Intracranial and intraspinal germ cell tumours
(b) Malignant extracranial and extragonadal germ cell tumours
(c) Malignant gonadal germ cell tumours
(d) Gonadal carcinomas
(e) Other and unspecified malignant gonadal tumours

Cases in Germany aged under 15 years (1980-2016): 1896

Selected characteristics Germany 2007-2016

Relative frequency:	572 / 17613 = 3.2 %
Relative frequency of trial patients:	96.5 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	327	245	572
Standardized rate *:	6.2	4.5	5.3
Cumulative incidence:	92	65	78
Sex ratio (m/f):			0.7

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	146	85	85	256
Incidence rate:	21.2	3.1	2.4	6.6

Median age at diagnosis: 9 years 0 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	94 %	93 %	93 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

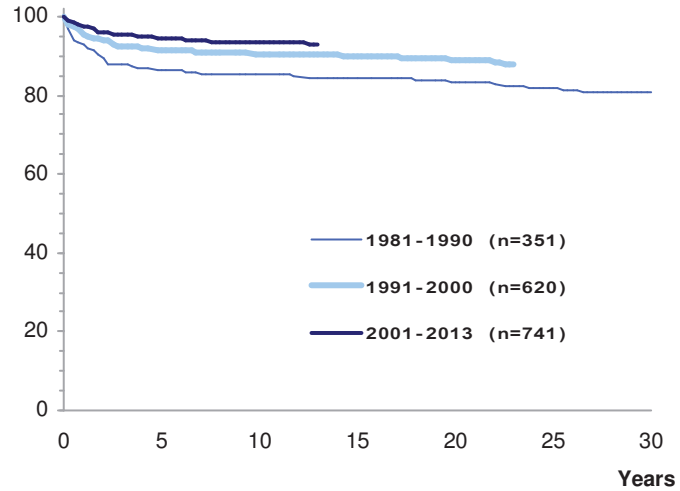
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
51	1.2 %	0.4	6

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
X Germ cell tumours, trophoblastic tumours and neoplasms of gonads

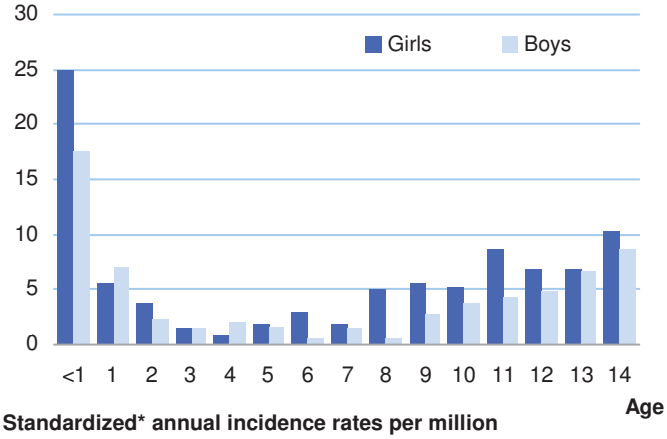
SN after X			X as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
30	2.4 %	7.0 %	13	1.0 %	0.1 %

* Standard: Segi world standard population

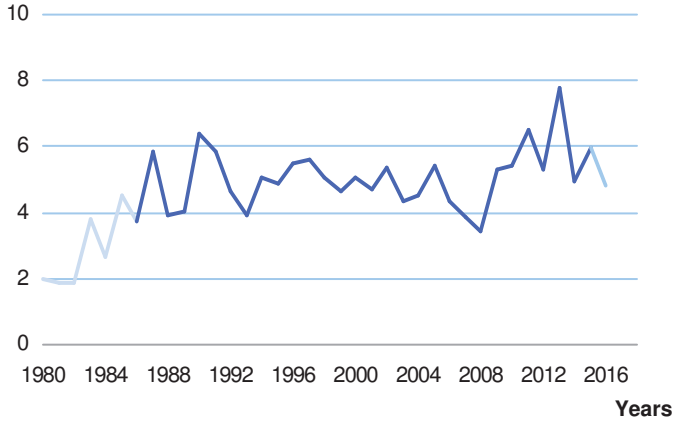
Survival probabilities by year of diagnosis Germany 1981-2013



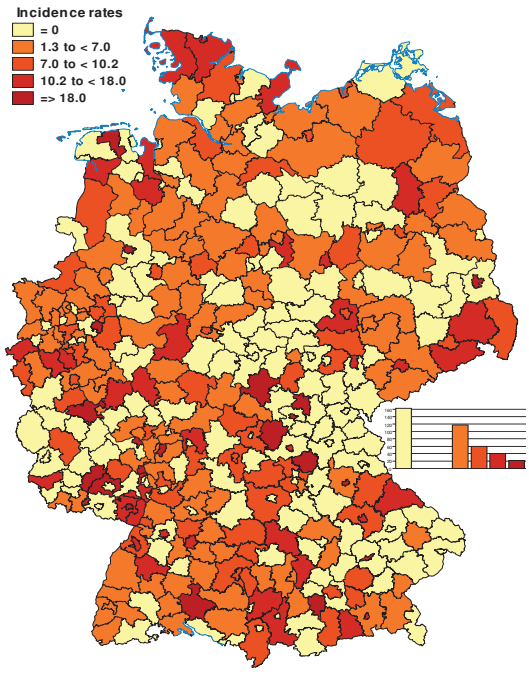
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Standardized* incidence rates per million by districts (Landkreise) Germany 2007-2016



60 X (a) Intracranial and intraspinal germ cell tumours

Cases in Germany aged under 15 years (1980-2016): 524

Selected characteristics Germany 2007-2016

Relative frequency:	172 / 17613 = 1.0 %
Relative frequency of trial patients:	95.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	58	114	172
Standardized rate *:	1.0	1.8	1.4
Cumulative incidence:	16	29	23
Sex ratio (m/f):			2.0

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	10	10	42	110
Incidence rate:	1.5	0.4	1.2	2.8

Median age at diagnosis: 11 years 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	89 %	86 %	86 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

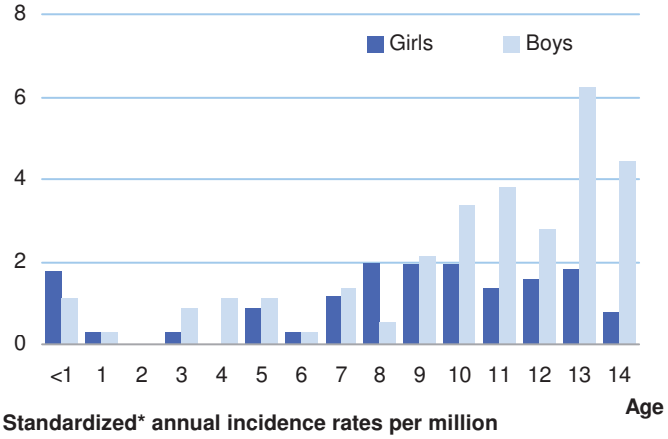
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
25	0.6 %	0.2	3

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
X (a) Intracranial and intraspinal germ cell tumours

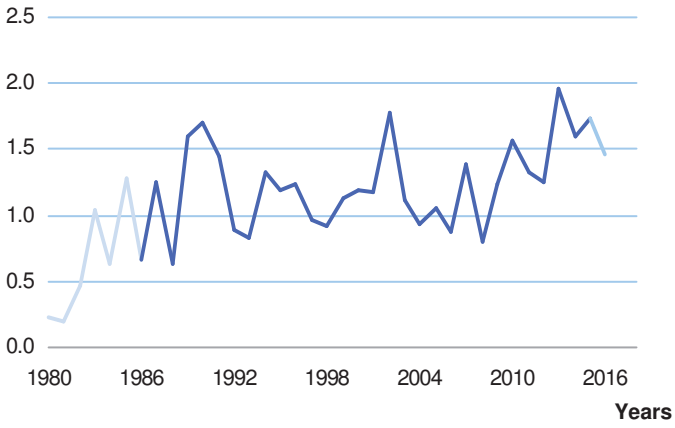
SN after X (a)			X (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
14	1.1 %	13.3 %	3	0.2 %	0.0 %

* Standard: Segi world standard population

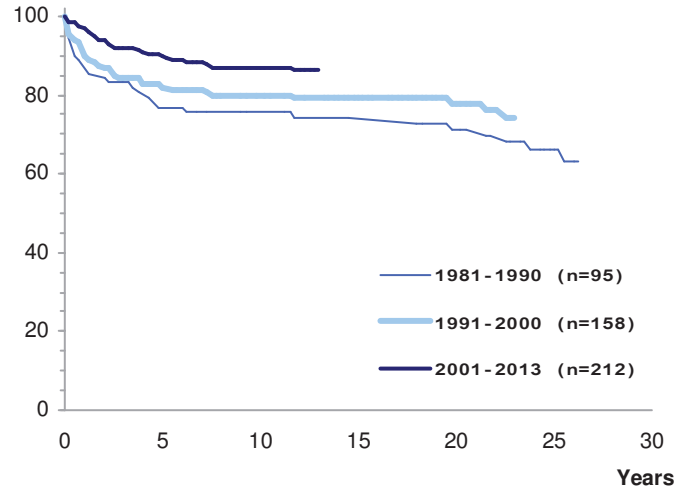
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

X (a) Intracranial and intraspinal germ cell tumours - Extended ICCC-3

Germany 2007-2016	N	%
Intracranial and intraspinal germ cell tumours	**172**	**100.0**
1 Intracranial and intraspinal germinomas	90	52.3
2 Intracranial and intraspinal teratomas	24	14.0
3 Intracranial and intraspinal embryonal carcinomas	1	0.6
4 Intracranial and intraspinal yolk sac tumour	5	2.9
5 Intracranial and intraspinal choriocarcinoma	7	4.1
6 Intracranial and intraspinal tumours of mixed forms	45	26.2

1 Intracranial and intraspinal germinomas

Cases in Germany aged under 15 years (1980-2016): 273

Selected characteristics Germany 2007-2016

Relative frequency:	90 / 17613 = 0.5 %
Relative frequency of trial patients:	98.9 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	28	62	90
Standardized rate *:	0.5	0.9	0.7
Cumulative incidence:	8	16	12

Sex ratio (m/f): 2.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	1	17	72
Incidence rate:	0.0	0.0	0.5	1.9

Median age at diagnosis: 11 years 12 months

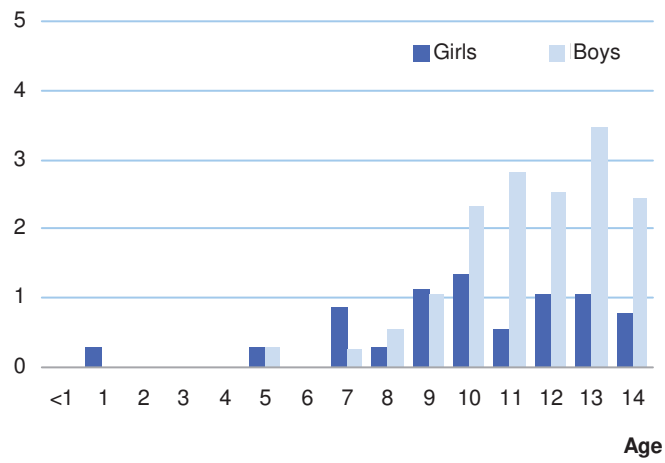
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

1 Intracranial and intraspinal germinomas

SN after X (a) 1			**X (a) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
7	0.6 %	-	2	0.2 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



2 Intracranial and intraspinal teratomas

Cases in Germany aged under 15 years (1980-2016): 88

Selected characteristics Germany 2007-2016

Relative frequency:	24 / 17613 = 0.1 %
Relative frequency of trial patients:	79.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	8	16	24
Standardized rate *:	0.2	0.3	0.2
Cumulative incidence:	2	4	3

Sex ratio (m/f): 2.0

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	8	6	5	5
Incidence rate:	1.2	0.2	0.1	0.1

Median age at diagnosis: 4 years 3 months

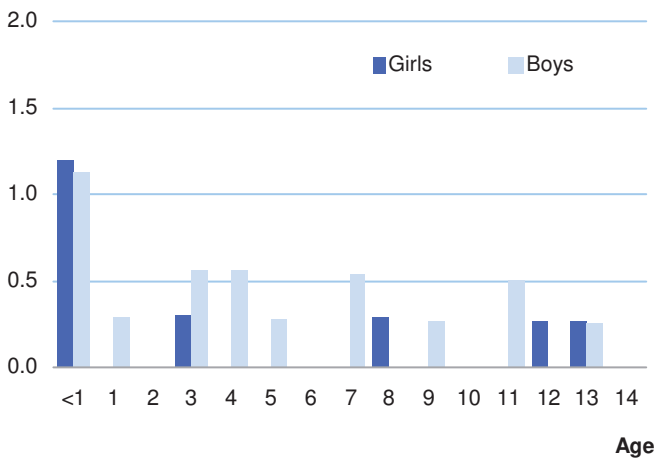
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

2 Intracranial and intraspinal teratomas

SN after X (a) 2			**X (a) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	1.7 %	1	0.1 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



62 X (b) Malignant extracranial and extragonadal germ cell tumours

Cases in Germany aged under 15 years (1980-2016): 565

Selected characteristics Germany 2007-2016

Relative frequency:	178 / 17613 = 1.0 %
Relative frequency of trial patients:	96.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	122	56	178
Standardized rate *:	2.8	1.2	2.0
Cumulative incidence:	36	16	26
Sex ratio (m/f):			0.5

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	107	52	5	14
Incidence rate:	15.5	1.9	0.1	0.4

Median age at diagnosis: 0 years 3 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	93 %	93 %	93 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

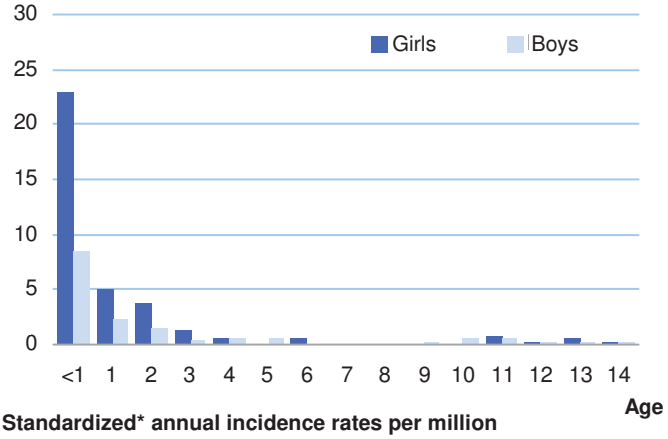
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
13	0.3 %	0.1	2

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
X (b) Malignant extracranial and extragonadal germ cell tumours

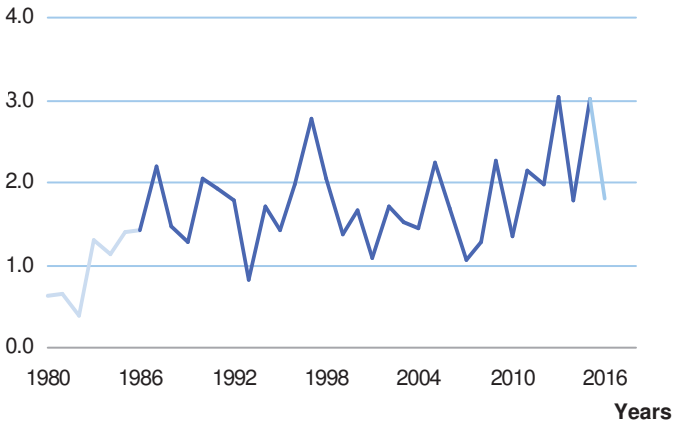
SN after X (b)			X (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
7	0.6 %	4.0 %	2	0.2 %	0.0 %

* Standard: Segi world standard population

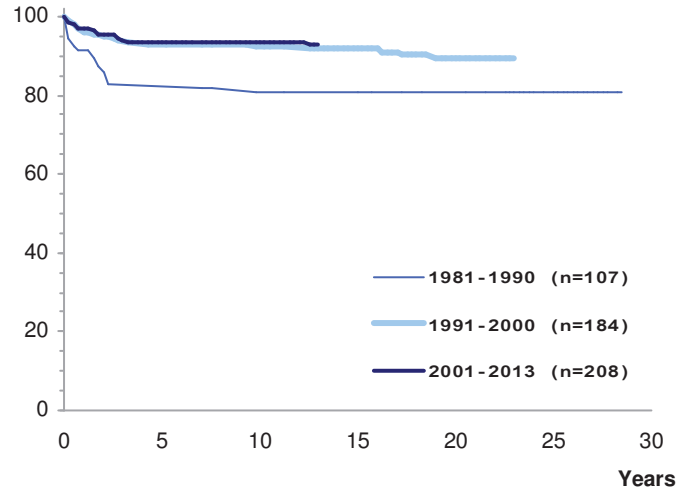
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Germany 2007-2016	N	%
Malignant extracranial and extragonadal germ cell tumours	**178**	**100.0**
1 Germinomas of extracranial and extragonadal sites	16	9.0
2 Malignant teratomas of extracranial and extragonadal sites	91	51.1
3 Embryonal carcinomas of extracranial and extragonadal sites	0	0.0
4 Yolk sac tumour of extracranial and extragonadal sites	45	25.3
5 Choriocarcinomas of extracranial and extragonadal sites	1	0.6
6 Other and unspecified malignant mixed germ cell tumours of extracranial an	25	14.0

2 Malignant teratomas of extracranial and extragonadal sites

Cases in Germany aged under 15 years (1980-2016): 264

Selected characteristics Germany 2007-2016

Relative frequency:	91 / 17613 = 0.5 %
Relative frequency of trial patients:	96.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	62	29	91
Standardized rate *:	1.5	0.6	1.0
Cumulative incidence:	18	8	13

Sex ratio (m/f): 0.5

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	84	5	0	2
Incidence rate:	12.2	0.2	0.0	0.1

Median age at diagnosis: 0 years 0 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

2 Malignant teratomas of extracranial and extragonadal sites

SN after X (b) 2			**X (b) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	4.4 %	0	0.0 %	-

* Standard: Segi world standard population

4 Yolk sac tumour of extracranial and extragonadal sites

Cases in Germany aged under 15 years (1980-2016): 216

Selected characteristics Germany 2007-2016

Relative frequency:	45 / 17613 = 0.3 %
Relative frequency of trial patients:	97.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	33	12	45
Standardized rate *:	0.8	0.3	0.5
Cumulative incidence:	10	3	7

Sex ratio (m/f): 0.4

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	11	32	1	1
Incidence rate:	1.6	1.2	0.0	0.0

Median age at diagnosis: 1 year 6 months

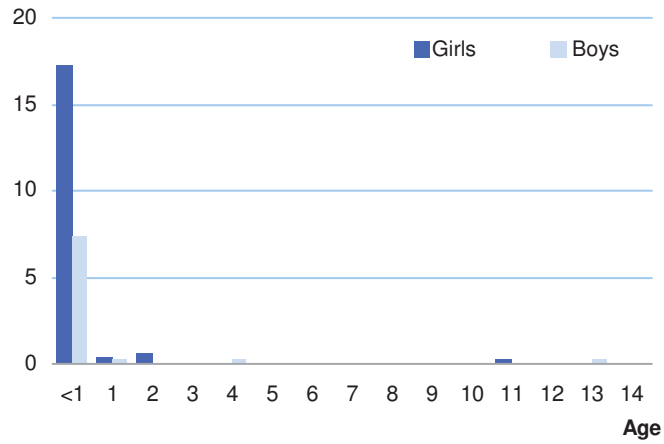
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

4 Yolk sac tumour of extracranial and extragonadal sites

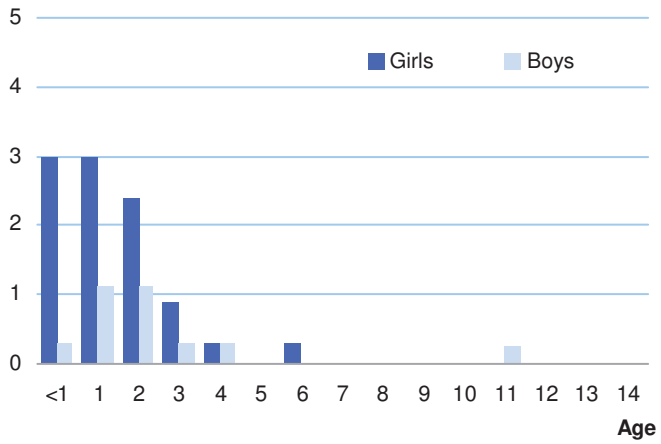
SN after X (b) 4			**X (b) 4 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
3	0.2 %	3.5 %	0	0.0 %	-

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Age- and sex-specific incidence rates per million
Germany 2007-2016



64 X (c) Malignant gonadal germ cell tumours

Cases in Germany aged under 15 years (1980-2016): 764

Selected characteristics Germany 2007-2016

Relative frequency:	218 / 17613 = 1.2 %
Relative frequency of trial patients:	97.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	143	75	218
Standardized rate *:	2.3	1.5	1.9
Cumulative incidence:	39	20	29
Sex ratio (m/f):			0.5

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	29	23	38	128
Incidence rate:	4.2	0.8	1.1	3.3

Median age at diagnosis: 11 years 4 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	98 %	98 %	98 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

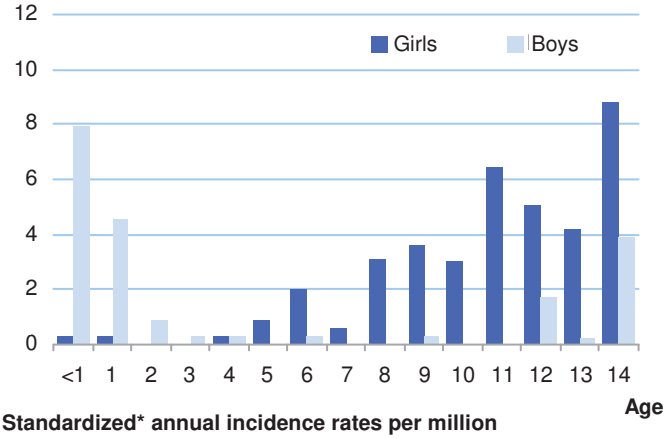
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
9	0.2 %	0.1	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
X (c) Malignant gonadal germ cell tumours

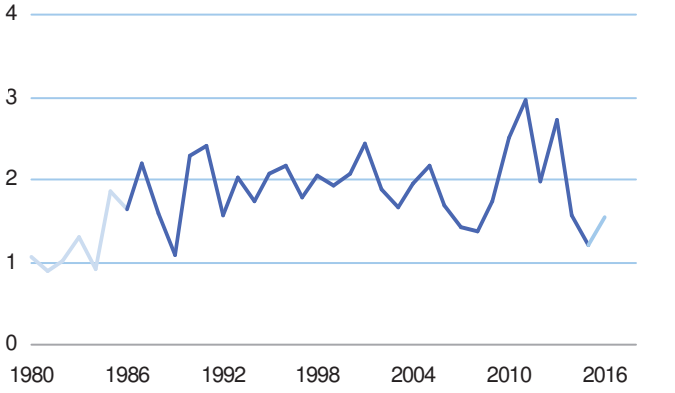
SN after X (c)			X (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
9	0.7 %	6.4 %	7	0.6 %	0.0 %

* Standard: Segi world standard population

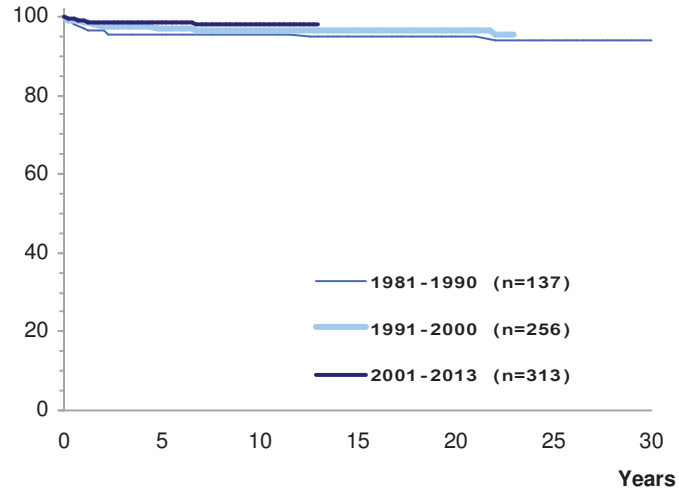
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Germany 2007-2016	N	%
Malignant gonadal germ cell tumours	**218**	**100.0**
1 Malignant gonadal germinomas	41	18.8
2 Malignant gonadal teratomas	49	22.5
3 Gonadal embryonal carcinomas	1	0.5
4 Gonadal yolk sac tumour	48	22.0
5 Gonadal choriocarcinoma	6	2.8
6 Malignant gonadal tumours of mixed forms	73	33.5
7 Malignant gonadal gonadoblastoma	0	0.0

1 Malignant gonadal germinomas

Cases in Germany aged under 15 years (1980-2016): 104

Selected characteristics Germany 2007-2016

Relative frequency:	41 / 17613 = 0.2 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	37	4	41
Standardized rate *:	0.6	0.1	0.3
Cumulative incidence:	10	1	5

Sex ratio (m/f): 0.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	2	9	30
Incidence rate:	0.0	0.1	0.3	0.8

Median age at diagnosis: 12 years 0 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Malignant gonadal germinomas

SN after X (c) 1			**X (c) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	3	0.2 %	0.0 %

* Standard: Segi world standard population

2 Malignant gonadal teratomas

Cases in Germany aged under 15 years (1980-2016): 183

Selected characteristics Germany 2007-2016

Relative frequency:	49 / 17613 = 0.3 %
Relative frequency of trial patients:	93.9 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	32	17	49
Standardized rate *:	0.5	0.3	0.4
Cumulative incidence:	9	5	7

Sex ratio (m/f): 0.5

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	11	1	8	29
Incidence rate:	1.6	0.0	0.2	0.8

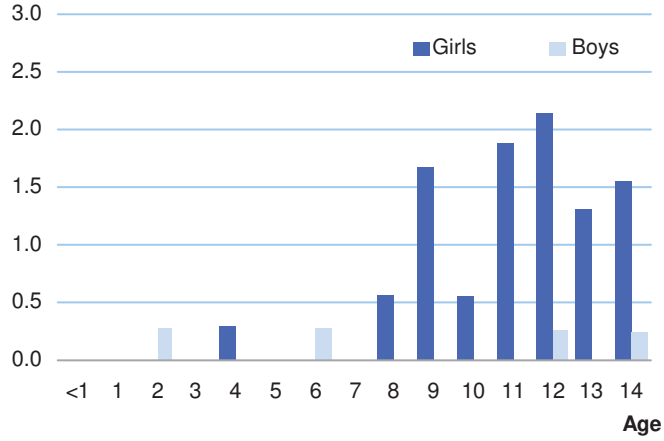
Median age at diagnosis: 11 years 2 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Malignant gonadal teratomas

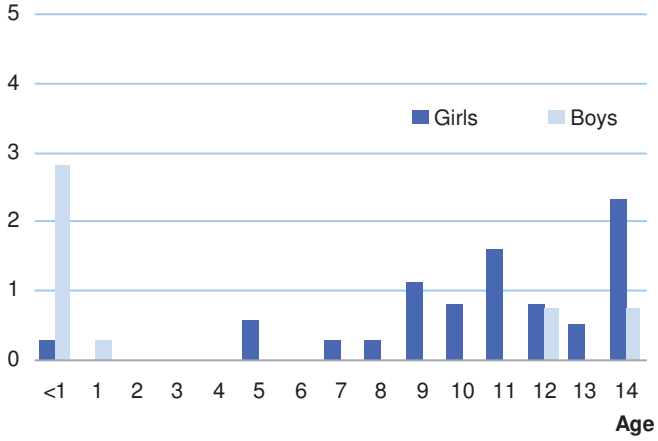
SN after X (c) 2			**X (c) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	0.8 %	1	0.1 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Age- and sex-specific incidence rates per million
Germany 2007-2016



66 X (c) Malignant gonadal germ cell tumours - Extended ICCC-3

Germany 2007-2016	N	%
Malignant gonadal germ cell tumours	**218**	**100.0**
1 Malignant gonadal germinomas	41	18.8
2 Malignant gonadal teratomas	49	22.5
3 Gonadal embryonal carcinomas	1	0.5
4 Gonadal yolk sac tumour	48	22.0
5 Gonadal choriocarcinoma	6	2.8
6 Malignant gonadal tumours of mixed forms	73	33.5
7 Malignant gonadal gonadoblastoma	0	0.0

4 Gonadal yolk sac tumour

Cases in Germany aged under 15 years (1980-2016): 309

Selected characteristics Germany 2007-2016

Relative frequency:	48 / 17613 = 0.3 %
Relative frequency of trial patients:	95.8 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	22	26	48
Standardized rate *:	0.4	0.6	0.5
Cumulative incidence:	6	7	7

Sex ratio (m/f): 1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	9	6	15	15
Incidence rate:	1.3	0.7	0.2	0.4

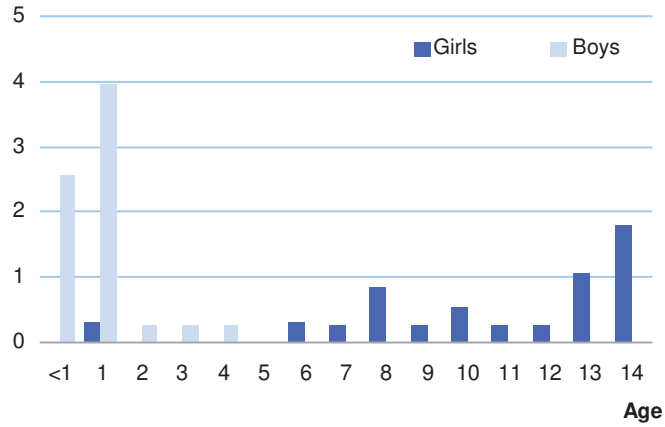
Median age at diagnosis: 1 year 11 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
4 Gonadal yolk sac tumour

SN after X (c) 4			**X (c) 4 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
6	0.5 %	-	0	0.0 %	-

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



6 Malignant gonadal tumours of mixed forms

Cases in Germany aged under 15 years (1980-2016): 119

Selected characteristics Germany 2007-2016

Relative frequency:	73 / 17613 = 0.4 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	47	26	73
Standardized rate *:	0.8	0.5	0.6
Cumulative incidence:	13	7	10

Sex ratio (m/f): 0.6

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	9	2	14	48
Incidence rate:	1.3	0.1	0.4	1.2

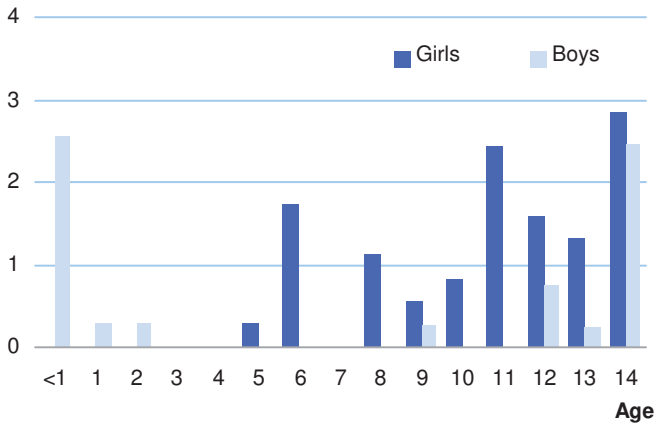
Median age at diagnosis: 11 years 10 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
6 Malignant gonadal tumours of mixed forms

SN after X (c) 6			**X (c) 6 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	1.4 %	2	0.2 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



(a) Adrenocortical carcinomas
(b) Thyroid carcinomas
(c) Nasopharyngeal carcinomas
(d) Malignant melanomas
(e) Skin carcinomas
(f) Other and unspecified carcinomas

Cases in Germany aged under 15 years (1980-2016): 907

Selected characteristics Germany 2007-2016

Relative frequency:	417 / 17613 = 2.4 %
Relative frequency of trial patients:	72.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	230	187	417
Standardized rate *:	3.8	3.0	3.4
Cumulative incidence:	62	48	55
Sex ratio (m/f):			0.8

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	4	30	87	296
Incidence rate:	0.6	1.1	2.4	7.7

Median age at diagnosis: 12 years 3 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	89 %	87 %	85 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

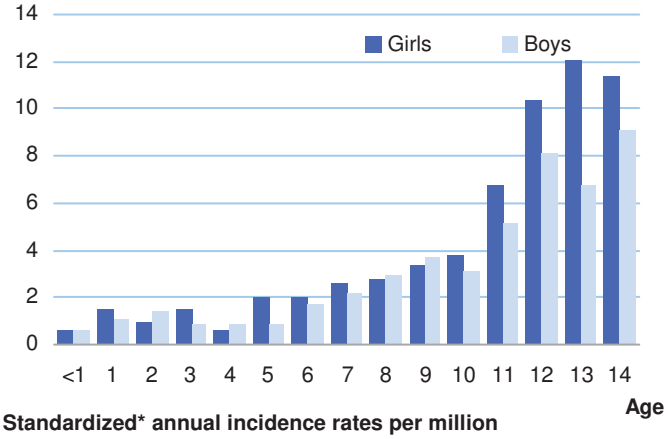
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
54	1.3 %	0.4	6

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI Other malignant epithelial neoplasms and malignant melanomas

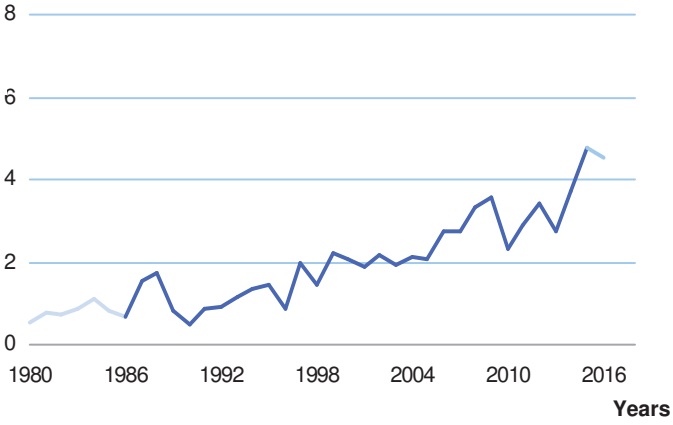
SN after XI			XI as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
11	0.9 %	-	412	33.1 %	4.3 %

* Standard: Segi world standard population

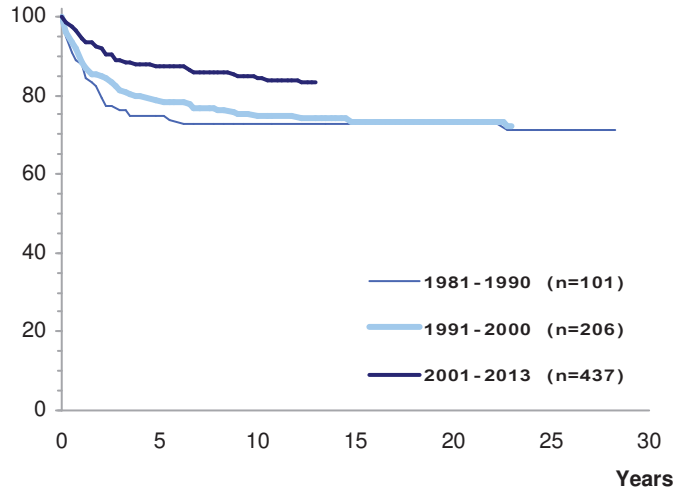
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 75

Selected characteristics Germany 2007-2016

Relative frequency:	20 / 17613 = 0.1 %
Relative frequency of trial patients:	100.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	12	8	20
Standardized rate *:	0.2	0.2	0.2
Cumulative incidence:	3	2	3
Sex ratio (m/f):			0.7

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	1	10	5	4
Incidence rate:	0.1	0.4	0.1	0.1

Median age at diagnosis: 4 years 1 month

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	72 %	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

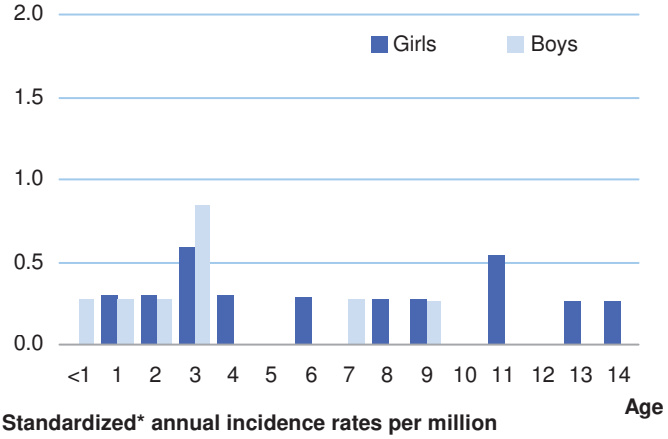
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
9	0.2 %	0.1	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (a) Adrenocortical carcinomas

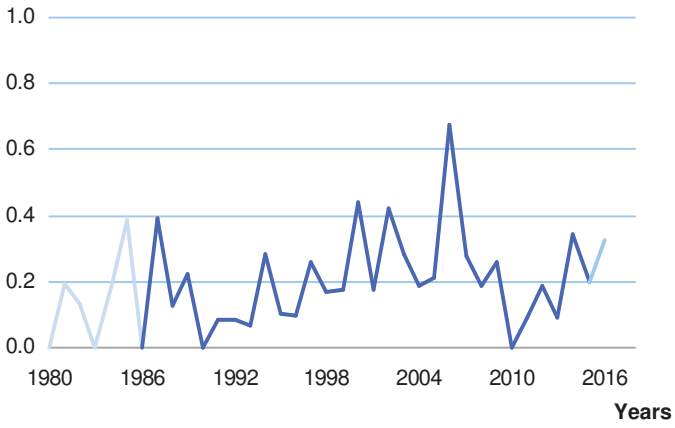
SN after XI (a)			XI (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
4	0.3 %	7.9 %	0	0.0 %	%

* Standard: Segi world standard population

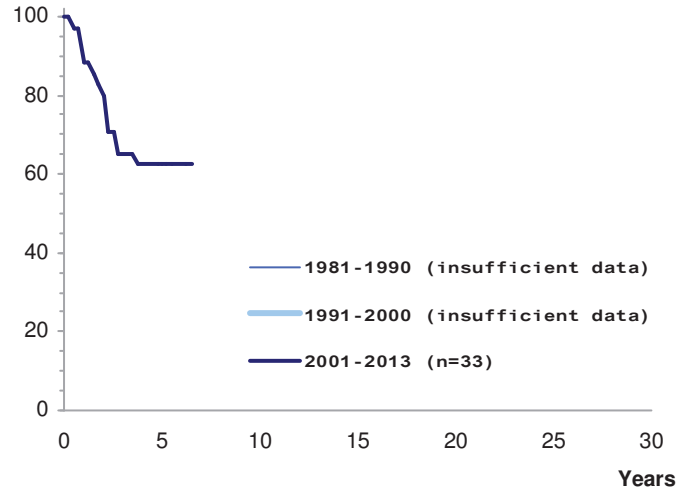
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 359

Selected characteristics Germany 2007-2016

Relative frequency:	149 / 17613 = 0.8 %
Relative frequency of trial patients:	85.9 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	91	58	149
Standardized rate *:	1.5	0.9	1.2
Cumulative incidence:	24	15	19
Sex ratio (m/f):			0.6

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	1	1	30	117
Incidence rate:	0.1	0.0	0.8	3.0

Median age at diagnosis: 12 years 8 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	98 %	97 %	94 %

Mortality per million within 15 yrs. of diagnosis (1992-2001):

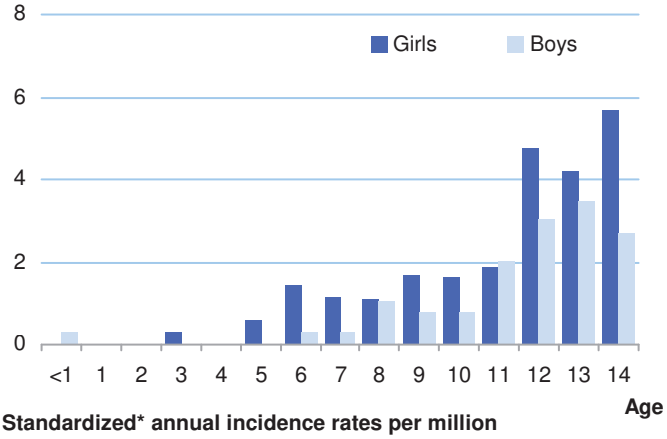
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
10	0.2 %	0.1	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (b) Thyroid carcinomas

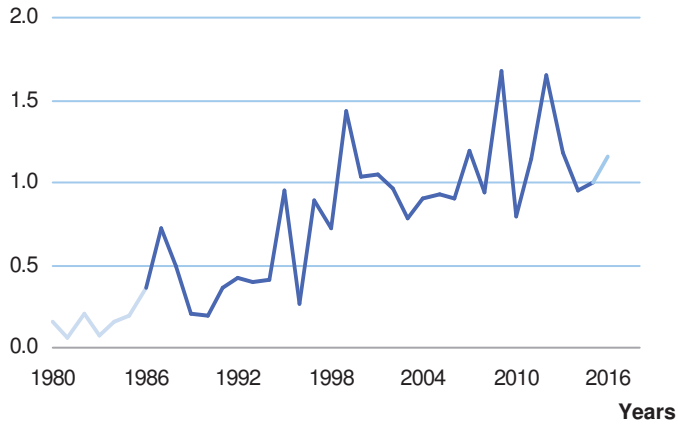
SN after XI (b)			XI (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	2.4 %	143	11.5 %	1.1 %

* Standard: Segi world standard population

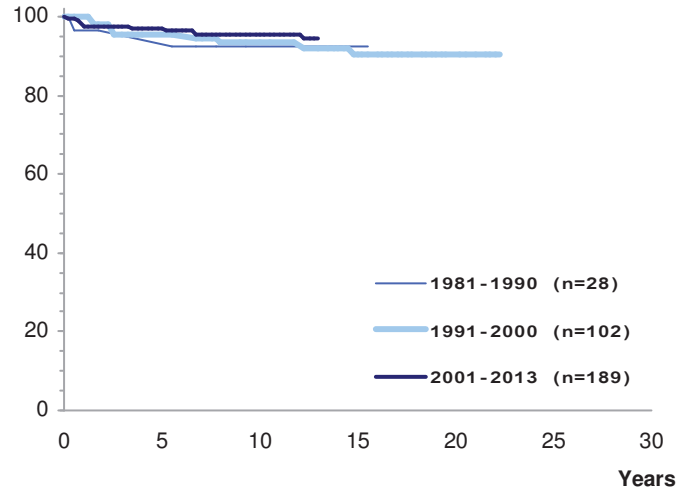
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 75

Selected characteristics Germany 2007-2016

Relative frequency:	21 / 17613 = 0.1 %
Relative frequency of trial patients:	95.2 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	5	16	21
Standardized rate *:	0.1	0.2	0.2
Cumulative incidence:	1	4	3
Sex ratio (m/f):			3.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	0	1	0	20
Incidence rate:	0.0	0.0	0.0	0.5

Median age at diagnosis: 13 years 0 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	91 %	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

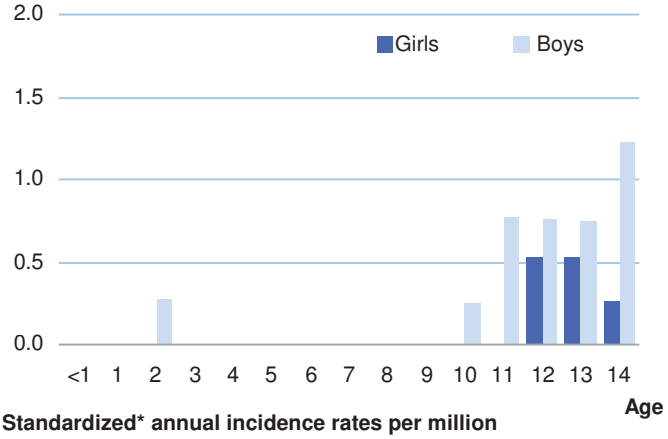
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
6	0.1 %	0.0	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (c) Nasopharyngeal carcinomas

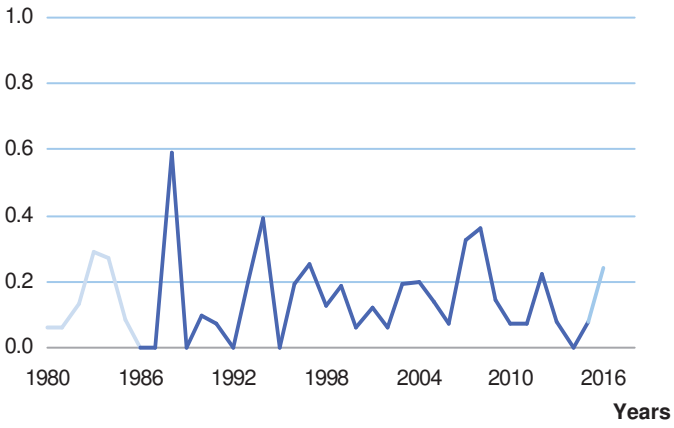
SN after XI (c)			XI (c) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	3	0.2 %	0.0 %

* Standard: Segi world standard population

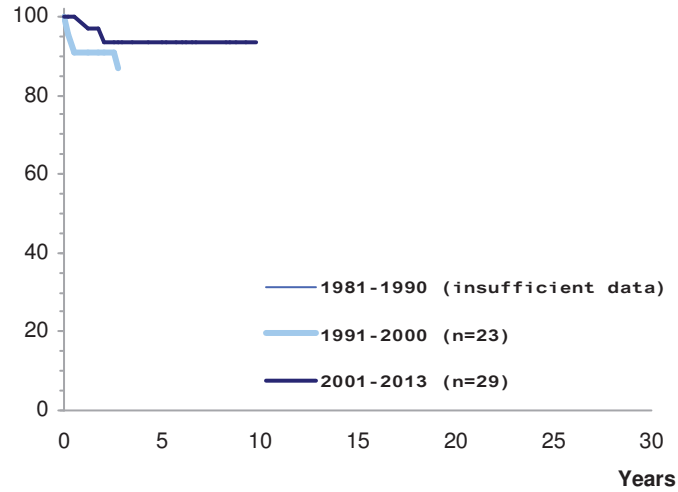
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

Cases in Germany aged under 15 years (1980-2016): 122

Selected characteristics Germany 2007-2016

Relative frequency:	72 / 17613 = 0.4 %
Relative frequency of trial patients:	33.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	35	37	72
Standardized rate *:	0.6	0.6	0.6
Cumulative incidence:	10	10	10
Sex ratio (m/f):			1.1

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases :	2	15	21	34
Incidence rate:	0.3	0.5	0.6	0.9

Median age at diagnosis: 9 years 4 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	87 %	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

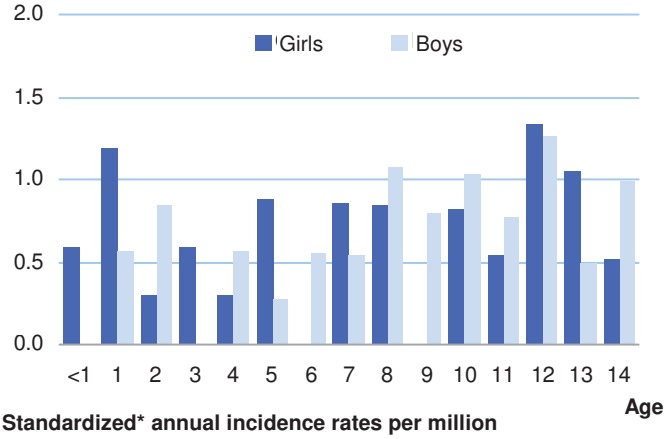
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
11	0.3 %	0.1	1

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (d) Malignant melanomas

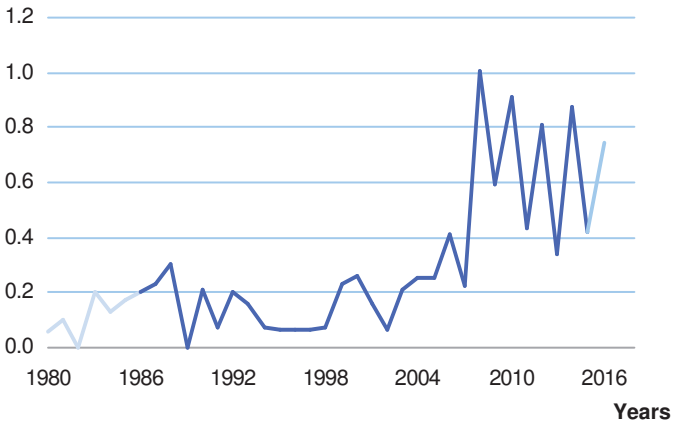
SN after XI (d)			XI (d) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	30	2.4 %	0.3 %

* Standard: Segi world standard population

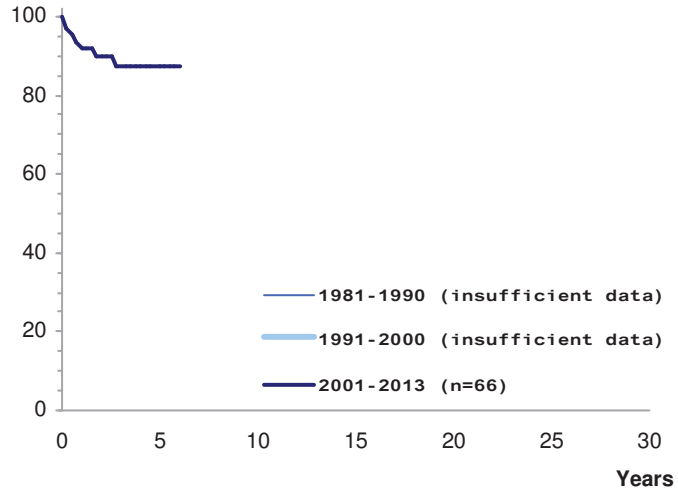
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

72 XI (e) Skin carcinomas

Cases in Germany aged under 15 years (1980-2016): 20

Selected characteristics Germany 2007-2016

Relative frequency:	9 / 17613 = 0.1 %
Relative frequency of trial patients:	44.4 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	6	3	9
Standardized rate *:	0.1	0.1	0.1
Cumulative incidence:	2	1	1
Sex ratio (m/f):			0.5

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	1	2	6
Incidence rate:	0.0	0.0	0.1	0.2

Median age at diagnosis: 12 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	-	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

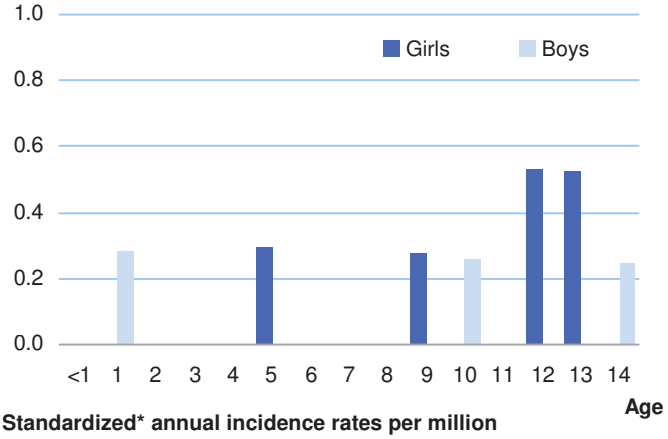
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
2	0.0 %	0.0	0

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (e) Skin carcinomas

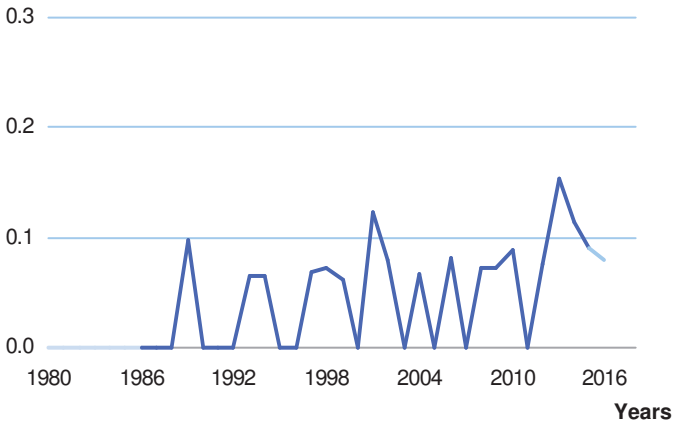
SN after XI (e)			XI (e) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	104	8.4 %	1.4 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



No map due to sparse data

No survival curves due to sparse data

Cases in Germany aged under 15 years (1980-2016): 256

Selected characteristics Germany 2007-2016

Relative frequency:	146 / 17613 = 0.8 %
Relative frequency of trial patients:	72.6 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	81	65	146
Standardized rate *:	1.3	1.0	1.1
Cumulative incidence:	22	17	19
Sex ratio (m/f):			0.8

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	0	2	29	115
Incidence rate:	0.0	0.1	0.8	3.0

Median age at diagnosis: 12 years 7 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	78 %	74 %	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

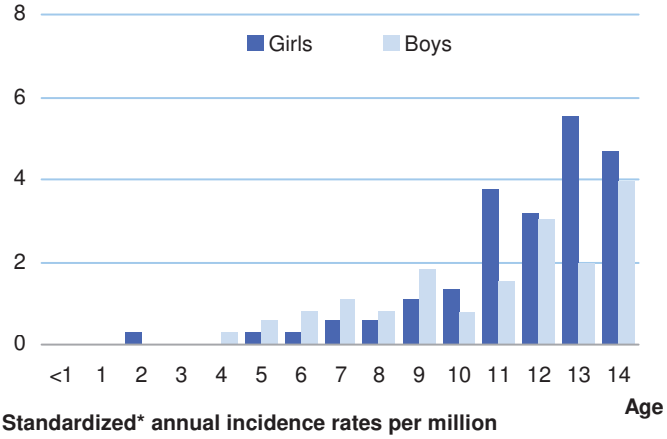
Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
16	0.4 %	0.1	2

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
XI (f) Other and unspecified carcinomas

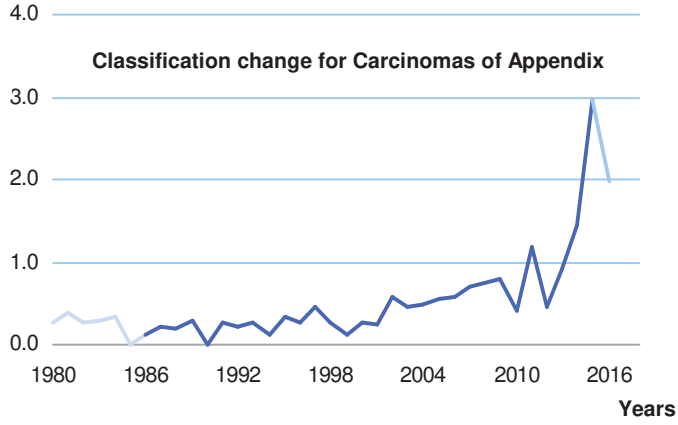
SN after XI (f)			XI (f) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
5	0.4 %	-	132	10.6 %	1.5 %

* Standard: Segi world standard population

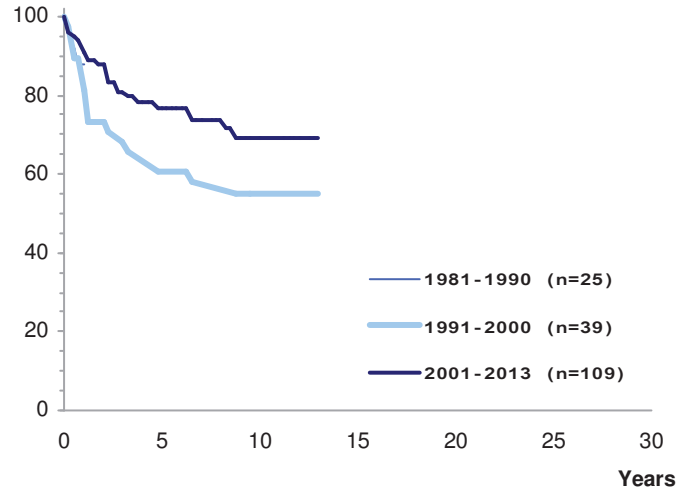
Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



Survival probabilities by year of diagnosis Germany 1981-2013



No map due to sparse data

74 XI (f) Other and unspecified carcinomas - Extended ICCC-3

Germany 2007-2016	N	%		N	%
Other and unspecified carcinomas	**146**	**100.0**			
1 Carcinomas of salivary glands	22	15.1	7 Carcinomas of cervix uteri	1	0.7
2 Carcinomas of colon and rectum	11	7.5	8 Carcinomas of bladder	0	0.0
3 Carcinomas of appendix	73	50.0	9 Carcinomas of eye	2	1.4
4 Carcinomas of lung	7	4.8	10 Carcinomas of other specified sites	25	17.1
5 Carcinomas of thymus	0	0.0	11 Carcinomas of unspecified site	5	3.4
6 Carcinomas of breast	0	0.0			

1 Carcinomas of salivary glands

Cases in Germany aged under 15 years (1980-2016): 38

Selected characteristics Germany 2007-2016

Relative frequency:	22 / 17613 = 0.1 %
Relative frequency of trial patients:	22.7 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	13	9	22
Standardized rate *:	0.2	0.1	0.2
Cumulative incidence:	3	2	3

Sex ratio (m/f): 0.7

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	0	6	16
Incidence rate:	0.0	0.0	0.2	0.4

Median age at diagnosis: 12 years 7 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
1 Carcinomas of salivary glands

SN after XI (f) 1			**XI (f) 1 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	-	11	0.9 %	0.1 %

* Standard: Segi world standard population

2 Carcinomas of colon and rectum

Cases in Germany aged under 15 years (1980-2016): 33

Selected characteristics Germany 2007-2016

Relative frequency:	11 / 17613 = 0.1 %
Relative frequency of trial patients:	45.5 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	5	6	11
Standardized rate *:	0.1	0.1	0.1
Cumulative incidence:	1	2	1

Sex ratio (m/f): 1.2

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	1	2	8
Incidence rate:	0.0	0.0	0.1	0.2

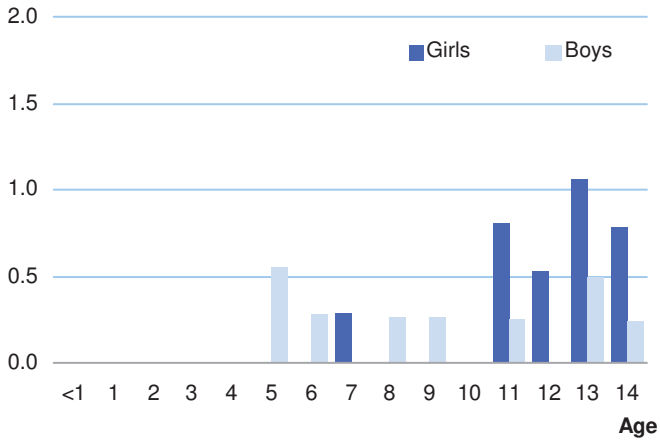
Median age at diagnosis: 12 years 5 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):
2 Carcinomas of colon and rectum

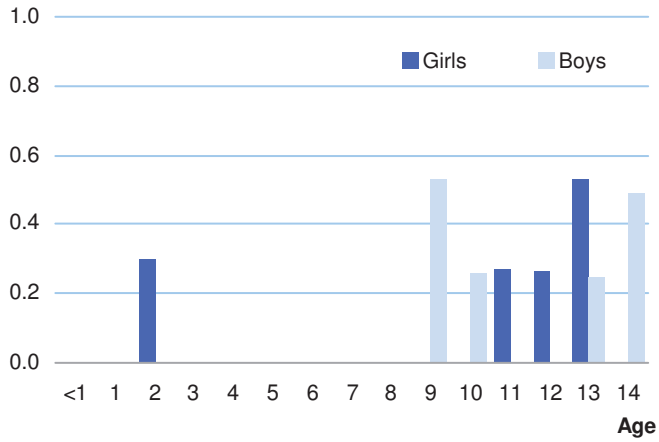
SN after XI (f) 2			**XI (f) 2 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
1	0.1 %	-	22	1.8 %	0.2 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



Age- and sex-specific incidence rates per million
Germany 2007-2016



Germany 2007-2016	N	%		N	%
Other and unspecified carcinomas	**146**	**100.0**			
1 Carcinomas of salivary glands	22	15.1	7 Carcinomas of cervix uteri	1	0.7
2 Carcinomas of colon and rectum	11	7.5	8 Carcinomas of bladder	0	0.0
3 Carcinomas of appendix	73	50.0	9 Carcinomas of eye	2	1.4
4 Carcinomas of lung	7	4.8	10 Carcinomas of other specified sites	25	17.1
5 Carcinomas of thymus	0	0.0	11 Carcinomas of unspecified site	5	3.4
6 Carcinomas of breast	0	0.0			

3 Carcinomas of appendix

Cases in Germany aged under 15 years (1980-2016): 74

Selected characteristics Germany 2007-2016

Relative frequency:	73 / 17613 = 0.4 %
Relative frequency of trial patients:	97.3 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	46	27	73
Standardized rate *:	0.7	0.4	0.6
Cumulative incidence:	12	7	9

Sex ratio (m/f): 0.6

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	0	10	63
Incidence rate:	0.0	0.0	0.3	1.6

Median age at diagnosis: 12 years 11 months

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

3 Carcinomas of appendix

SN after XI (f) 3			**XI (f) 3 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	1	0.1 %	0.0 %

* Standard: Segi world standard population

6 Carcinomas of breast

Cases in Germany aged under 15 years (1980-2016): 0

Selected characteristics Germany 2007-2016

Relative frequency:	0 / 17613 = 0.0 %
Relative frequency of trial patients:	-

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	0	0	0
Standardized rate *:	0.0	0.0	0.0
Cumulative incidence:	0	0	0

Sex ratio (m/f):

Age-specific incidence rates per million:

	<1	**1-4**	**5-9**	**10-14**
Number of cases:	0	0	0	0
Incidence rate:	0.0	0.0	0.0	0.0

Median age at diagnosis: years months

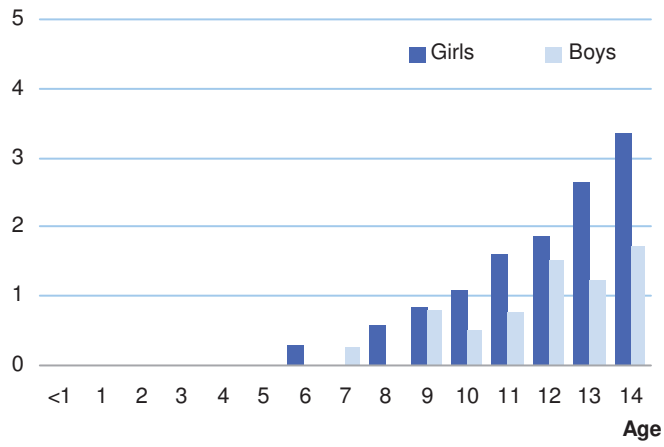
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

6 Carcinomas of breast

SN after XI (f) 6			**XI (f) 6 as SN after any primary**		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
0	0.0 %	-	58	4.7 %	0.8 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million
Germany 2007-2016



No incidence rates due to sparse data

76 XII (a) Other specified malignant tumours

Cases in Germany aged under 15 years (1980-2016): 54

Selected characteristics Germany 2007-2016

Relative frequency:	25 / 17613 = 0.1 %
Relative frequency of trial patients:	84.0 %

Incidence rates per million:	**Girls**	**Boys**	**Total**
Number of cases:	13	12	25
Standardized rate *:	0.3	0.3	0.3
Cumulative incidence:	4	3	4
Sex ratio (m/f):			0.9

Age-specific incidence rates per million:	**<1**	**1-4**	**5-9**	**10-14**
Number of cases :	1	18	3	3
Incidence rate:	0.1	0.7	0.1	0.1

Median age at diagnosis: 3 years 2 months

Survival probabilities (2004-2013):	**5-year**	**10-year**	**15-year**
	-	-	-

Mortality per million within 15 yrs. of diagnosis (1992-2001):

Number of deaths		Standardized* mortality rate	Cumulative mortality
N	% of all 4232 deaths		
7	0.2 %	0.1	1

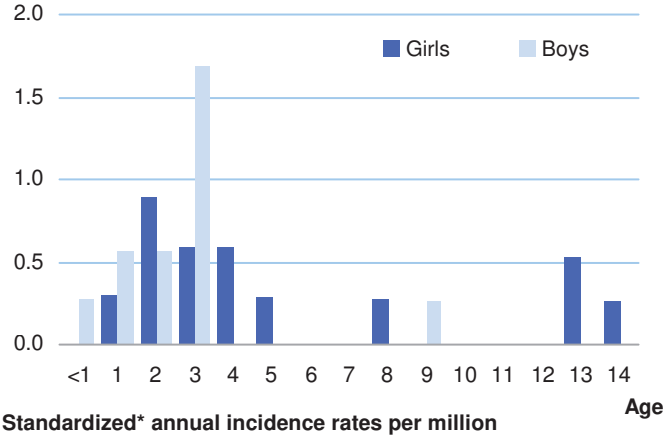
Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013):

XII (a) Other specified malignant tumours

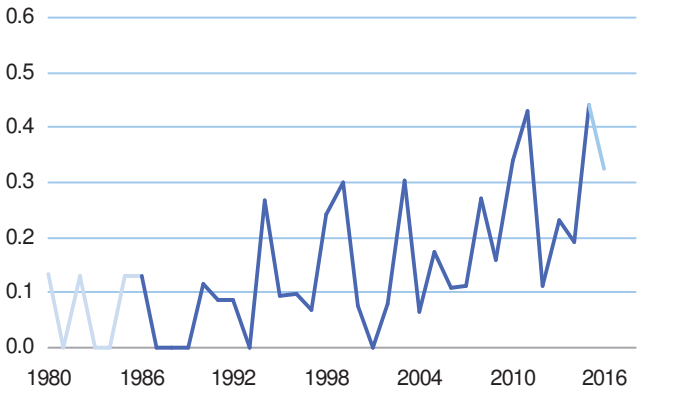
SN after XII (a)			XII (a) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
2	0.2 %	-	1	0.1 %	0.0 %

* Standard: Segi world standard population

Age- and sex-specific incidence rates per million Germany 2007-2016



Standardized* annual incidence rates per million Germany 1980-2016



No map due to sparse data

No survival curves due to sparse data

Tabelle 1:
Anzahl der gemeldeten Fälle und Inzidenzraten bezogen auf eine Million Kinder unter 15 Jahren aus der deutschen Wohnbevölkerung nach Diagnose auf Basis des ICCC-3, Alter und Geschlecht (2007-2016). ***ICCC-3 extended Subklassifikation kursiv dargestellt.***

Number of cases and incidence rates per million children under the age of 15 years in Germany by diagnosis classified according to ICCC-3, age and sex (2007-2016).
ICCC-3 extended subclassification in italics.

Diagnoses	Sex	Sex ratio	Number of cases			Age groups				Incidence rates per million						Trial participants	Survival probabilities(%)		
			N	Relative	Group					Age-specific				Age-stand.	Cum.				
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
All malignancies	girls		7915	100	100	854	2770	1939	2352	254	206	111	125	156	2258	95.1	85	84	82
	boys		9698	100	100	987	3255	2636	2820	279	229	143	142	180	2624	95.5	85	82	81
	total	**1.2**	**17613**	**100**	**100**	**1841**	**6025**	**4575**	**5172**	**267**	**218**	**127**	**134**	**169**	**2446**	**95.3**	**85**	**83**	**82**
Leukaemias, myeloproliferative and myelodysplastic diseases	girls		2567	32	100	133	1220	693	521	40	91	40	28	52	740	99.2	89	87	87
	boys		3146	32	100	154	1388	913	691	44	98	50	35	60	858	99.1	89	87	86
	total	**1.2**	**5713**	**32**	**100**	**287**	**2608**	**1606**	**1212**	**42**	**94**	**45**	**31**	**56**	**800**	**99.1**	**89**	**87**	**86**
Lymphoid leukaemias	girls		1963	25	76	61	1022	561	319	18	76	32	17	40	568	99.5	93	91	90
	boys		2435	25	77	52	1175	728	480	15	83	39	24	47	666	99.8	92	90	90
	total	**1.2**	**4398**	**25**	**77**	**113**	**2197**	**1289**	**799**	**16**	**79**	**36**	**21**	**43**	**618**	**99.7**	**92**	**91**	**90**
Precursor cell leukaemias	girls		1939	24	76	60	1017	549	313	18	76	31	17	40	561	99.6	93	91	90
	boys		2355	24	75	52	1158	687	458	15	82	37	23	45	644	99.7	92	90	90
	total	**1.2**	**4294**	**24**	**75**	**112**	**2175**	**1236**	**771**	**16**	**79**	**34**	**20**	**42**	**604**	**99.7**	**93**	**91**	**90**
Mature B-cell leukaemias	girls		23	0	1	1	4	12	6	0	0	1	0	0	7	95.7	-	-	-
	boys		79	1	3	0	17	40	22	0	1	2	1	1	21	100.0	87	87	85
	total	**3.4**	**102**	**1**	**2**	**1**	**21**	**52**	**28**	**0**	**1**	**1**	**1**	**1**	**14**	**99.0**	**88**	**88**	**87**
Mature T-cell and NK cell leukaemias	girls		1	0	0	0	1	0	0	0	0	0	0	0	0	100.0	-	-	-
	boys		1	0	0	0	0	1	0	0	0	0	0	0	0	100.0	-	-	-
	total	**1.0**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Lymphoid leukaemia, NOS	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Acute myeloid leukaemias	girls		345	4	13	53	133	51	108	16	10	3	6	7	98	98.6	73	72	72
	boys		377	4	12	61	138	86	92	17	10	5	5	7	103	96.0	72	71	70
	total	**1.1**	**722**	**4**	**13**	**114**	**271**	**137**	**200**	**17**	**10**	**4**	**5**	**7**	**101**	**97.2**	**73**	**72**	**71**
Chronic myeloproliferative diseases	girls		34	0	1	0	4	11	19	0	0	1	1	1	9	88.2	92	92	-
	boys		43	0	1	1	5	15	22	0	0	1	1	1	11	86.0	100	-	-
	total	**1.3**	**77**	**0**	**1**	**1**	**9**	**26**	**41**	**0**	**0**	**1**	**1**	**1**	**10**	**87.0**	**96**	**96**	**96**
Myelodysplastic syndrome and other myeloproliferative diseases	girls		194	2	8	13	54	61	66	4	4	3	4	4	55	98.5	81	78	73
	boys		257	3	8	32	64	75	86	9	5	4	4	5	69	99.6	82	80	79
	total	**1.3**	**451**	**3**	**8**	**45**	**118**	**136**	**152**	**7**	**4**	**4**	**4**	**4**	**62**	**99.1**	**82**	**79**	**76**

* Standard: Segi world standard population

\- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Unspecified	girls		31	0	1	6	7	9	9	2	1	1	0	1	9	100.0	-	-	-
and other specified leukaemias	boys		34	0	1	8	6	9	11	2	0	0	1	1	9	97.1	68	-	-
	total	**1.1**	**65**	**0**	**1**	**14**	**13**	**18**	**20**	**2**	**0**	**1**	**1**	**1**	**9**	**98.5**	**70**	**-**	**-**
Lymphomas	girls		608	8	100	3	65	136	404	1	5	8	21	10	166	97.5	92	91	91
and reticuloendothelial neoplasms	boys		1281	13	100	8	167	465	641	2	12	25	32	21	337	97.2	94	93	92
	total	**2.1**	**1889**	**11**	**100**	**11**	**232**	**601**	**1045**	**2**	**8**	**17**	**27**	**16**	**253**	**97.3**	**94**	**93**	**92**
Hodgkin lymphomas	girls		327	4	54	0	7	40	280	0	1	2	15	5	87	99.1	98	97	97
	boys		493	5	38	0	27	146	320	0	2	8	16	8	127	96.6	99	98	98
	total	**1.5**	**820**	**5**	**43**	**0**	**34**	**186**	**600**	**0**	**1**	**5**	**16**	**7**	**108**	**97.6**	**99**	**98**	**97**
Non-Hodgkin lymphomas	girls		221	3	36	0	47	71	103	0	3	4	5	4	62	96.4	84	83	82
	boys		517	5	40	6	79	193	239	2	6	10	12	9	136	97.1	91	89	87
	total	**2.3**	**738**	**4**	**39**	**6**	**126**	**264**	**342**	**1**	**5**	**7**	**9**	**6**	**100**	**96.9**	**89**	**87**	**86**
Precursor cell lymphomas	girls		80	1	13	0	22	31	27	0	2	2	1	1	23	93.8	82	82	79
	boys		181	2	14	4	39	69	69	1	3	4	3	3	48	95.0	89	87	86
	total	**2.3**	**261**	**1**	**14**	**4**	**61**	**100**	**96**	**1**	**2**	**3**	**2**	**2**	**36**	**94.6**	**87**	**86**	**84**
Mature B-cell lymphomas	girls		49	1	8	0	5	21	23	0	0	1	1	1	14	98.0	84	83	81
(except Burkitt lymphoma)	boys		93	1	7	0	6	27	60	0	0	1	3	1	24	96.8	96	94	94
	total	**1.9**	**142**	**1**	**8**	**0**	**11**	**48**	**83**	**0**	**0**	**1**	**2**	**1**	**19**	**97.2**	**93**	**90**	**90**
Mature T-cell and NK-cell lymphomas	girls		47	1	8	0	11	8	28	0	1	0	1	1	13	95.7	84	84	84
	boys		96	1	7	1	13	30	52	0	1	2	3	2	25	100.0	89	88	84
	total	**2.0**	**143**	**1**	**8**	**1**	**24**	**38**	**80**	**0**	**1**	**1**	**2**	**1**	**19**	**98.6**	**87**	**87**	**84**
Non-Hodgkin lymphomas, NOS	girls		45	1	7	0	9	11	25	0	1	1	1	1	12	100.0	83	-	-
	boys		147	2	11	1	21	67	58	0	1	4	3	2	39	98.0	91	89	87
	total	**3.3**	**192**	**1**	**10**	**1**	**30**	**78**	**83**	**0**	**1**	**2**	**2**	**2**	**26**	**98.4**	**89**	**88**	**86**
Burkitt lymphoma	girls		51	1	8	0	9	24	18	0	1	1	1	1	14	98.0	93	92	92
	boys		261	3	20	0	61	122	78	0	4	7	4	5	70	99.2	93	92	92
	total	**5.1**	**312**	**2**	**17**	**0**	**70**	**146**	**96**	**0**	**3**	**4**	**2**	**3**	**43**	**99.0**	**93**	**92**	**92**
Miscellaneous	girls		5	0	1	3	0	1	1	1	0	0	0	0	1	80.0	-	-	-
lymphoreticular neoplasms	boys		4	0	0	2	0	1	1	1	0	0	0	0	1	50.0	-	-	-
	total	**0.8**	**9**	**0**	**0**	**5**	**0**	**2**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**66.7**	**-**	**-**	**-**
Unspecified lymphomas	girls		4	0	1	0	2	0	2	0	0	0	0	0	1	50.0	-	-	-
	boys		6	0	0	0	0	3	3	0	0	0	0	0	2	100.0	-	-	-
	total	**1.5**	**10**	**0**	**1**	**0**	**2**	**3**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**80.0**	**-**	**-**	**-**

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
CNS and miscellaneous intracranial and intraspinal neoplasms	girls		2017	25	100	152	597	627	641	45	44	36	34	39	573	95.0	79	76	74
	boys		2392	25	100	151	703	793	745	43	50	43	38	43	644	95.5	76	72	69
	total	**1.2**	**4409**	**25**	**100**	**303**	**1300**	**1420**	**1386**	**44**	**47**	**40**	**36**	**41**	**610**	**95.3**	**77**	**74**	**71**
Ependymomas and choroid plexus tumour	girls		192	2	10	39	79	39	35	12	6	2	2	4	56	96.9	86	83	79
	boys		253	3	11	38	101	52	62	11	7	3	3	5	69	95.7	78	70	64
	total	**1.3**	**445**	**3**	**10**	**77**	**180**	**91**	**97**	**11**	**7**	**3**	**3**	**4**	**63**	**96.2**	**81**	**75**	**70**
Ependymomas	girls		141	2	7	13	70	29	29	4	5	2	2	3	41	97.2	85	81	76
	boys		198	2	8	17	82	43	56	5	6	2	3	4	54	96.5	76	67	60
	total	**1.4**	**339**	**2**	**8**	**30**	**152**	**72**	**85**	**4**	**5**	**2**	**2**	**3**	**47**	**96.8**	**79**	**72**	**67**
Choroid plexus tumour	girls		51	1	3	26	9	10	6	8	1	1	0	1	15	96.1	92	-	-
	boys		55	1	2	21	19	9	6	6	1	0	0	1	15	92.7	88	82	-
	total	**1.1**	**106**	**1**	**2**	**47**	**28**	**19**	**12**	**7**	**1**	**1**	**0**	**1**	**15**	**94.3**	**90**	**87**	**85**
Astrocytomas	girls		986	12	49	57	290	299	340	17	22	17	18	19	279	95.8	82	80	78
	boys		1037	11	43	49	300	361	327	14	21	20	16	19	279	95.9	80	78	76
	total	**1.1**	**2023**	**11**	**46**	**106**	**590**	**660**	**667**	**15**	**21**	**18**	**17**	**19**	**279**	**95.8**	**81**	**79**	**77**
Intracranial and intraspinal embryonal tumours	girls		298	4	15	35	118	95	50	10	9	5	3	6	86	96.0	65	61	58
	boys		467	5	20	42	176	175	74	12	12	9	4	9	128	97.6	66	56	54
	total	**1.6**	**765**	**4**	**17**	**77**	**294**	**270**	**124**	**11**	**11**	**8**	**3**	**8**	**107**	**97.0**	**66**	**58**	**56**
Medulloblastomas	girls		198	3	10	7	66	81	44	2	5	5	2	4	57	98.5	76	70	67
	boys		346	4	14	9	114	154	69	3	8	8	3	6	94	99.1	74	63	60
	total	**1.7**	**544**	**3**	**12**	**16**	**180**	**235**	**113**	**2**	**7**	**7**	**3**	**5**	**76**	**98.9**	**75**	**66**	**63**
Primitive neuroectodermal tumour (PNET)	girls		29	0	1	2	19	4	4	1	1	0	0	1	8	96.6	66	-	-
	boys		34	0	1	3	17	9	5	1	1	0	0	1	9	100.0	54	49	-
	total	**1.2**	**63**	**0**	**1**	**5**	**36**	**13**	**9**	**1**	**1**	**0**	**0**	**1**	**9**	**98.4**	**59**	**54**	**52**
Medulloepithelioma	girls		8	0	0	1	3	2	2	0	0	0	0	0	2	87.5	-	-	-
	boys		6	0	0	2	1	3	0	1	0	0	0	0	2	100.0	-	-	-
	total	**0.8**	**14**	**0**	**0**	**3**	**4**	**5**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**92.9**	**-**	**-**	**-**
Atypical teratoid/rhabdoid tumour	girls		63	1	3	25	30	8	0	7	2	0	0	1	19	88.9	-	-	-
	boys		81	1	3	28	44	9	0	8	3	0	0	2	23	90.1	30	-	-
	total	**1.3**	**144**	**1**	**3**	**53**	**74**	**17**	**0**	**8**	**3**	**0**	**0**	**2**	**21**	**89.6**	**26**	**-**	**-**
Other gliomas	girls		221	3	11	6	47	98	70	2	3	6	4	4	63	93.2	43	41	41
	boys		229	2	10	6	50	88	85	2	4	5	4	4	61	95.6	48	46	44
	total	**1.0**	**450**	**3**	**10**	**12**	**97**	**186**	**155**	**2**	**4**	**5**	**4**	**4**	**62**	**94.4**	**46**	**44**	**43**

* Standard: Segi world standard population

\- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Oligodendrogliomas	girls		4	0	0	0	0	1	3	0	0	0	0	0	1	75.0	-	-	-
	boys		4	0	0	0	0	0	4	0	0	0	0	0	1	100.0	-	-	-
	total	**1.0**	**8**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**0**	**0**	**0**	**0**	**1**	**87.5**	**-**	**-**	**-**
Mixed and unspecified gliomas	girls		206	3	10	5	44	94	63	1	3	5	3	4	58	93.2	38	36	-
	boys		216	2	9	6	48	88	74	2	3	5	4	4	58	95.4	46	44	-
	total	**1.0**	**422**	**2**	**10**	**11**	**92**	**182**	**137**	**2**	**3**	**5**	**4**	**4**	**58**	**94.3**	**43**	**40**	**39**
Neuroepithelial glial tumours	girls		11	0	1	1	3	3	4	0	0	0	0	0	3	100.0	-	-	-
of uncertain origin	boys		9	0	0	0	2	0	7	0	0	0	0	0	2	100.0	-	-	-
	total	**0.8**	**20**	**0**	**0**	**1**	**5**	**3**	**11**	**0**	**0**	**0**	**0**	**0**	**3**	**100.0**	**-**	**-**	**-**
Other specified intracranial	girls		290	4	14	12	54	94	130	4	4	5	7	5	81	93.8	97	95	93
and intraspinal neoplasms	boys		370	4	15	12	73	108	177	3	5	6	9	6	98	93.0	95	94	91
	total	**1.3**	**660**	**4**	**15**	**24**	**127**	**202**	**307**	**3**	**5**	**6**	**8**	**6**	**90**	**93.3**	**96**	**95**	**92**
Pituitary adenomas and carcinomas	girls		12	0	1	0	0	2	10	0	0	0	1	0	3	75.0	-	-	-
	boys		17	0	1	0	0	2	15	0	0	0	1	0	4	58.8	-	-	-
	total	**1.4**	**29**	**0**	**1**	**0**	**0**	**4**	**25**	**0**	**0**	**0**	**1**	**0**	**4**	**65.5**	**100**	**100**	**-**
Tumours of the sellar region	girls		101	1	5	0	22	41	38	0	2	2	2	2	28	100.0	100	98	97
(craniopharyngiomas)	boys		94	1	4	2	24	35	33	1	2	2	2	2	25	98.9	98	97	92
	total	**0.9**	**195**	**1**	**4**	**2**	**46**	**76**	**71**	**0**	**2**	**2**	**2**	**2**	**27**	**99.5**	**99**	**97**	**94**
Pineal parenchymal tumours	girls		17	0	1	2	3	5	7	1	0	0	0	0	5	100.0	-	-	-
	boys		15	0	1	2	7	2	4	1	0	0	0	0	4	100.0	-	-	-
	total	**0.9**	**32**	**0**	**1**	**4**	**10**	**7**	**11**	**1**	**0**	**0**	**0**	**0**	**4**	**100.0**	**-**	**-**	**-**
Neuronal	girls		141	2	7	10	27	39	65	3	2	2	3	3	39	92.9	98	97	93
and mixed neuronal-glial tumours	boys		219	2	9	8	39	62	110	2	3	3	6	4	58	95.9	97	97	97
	total	**1.6**	**360**	**2**	**8**	**18**	**66**	**101**	**175**	**3**	**2**	**3**	**5**	**3**	**49**	**94.7**	**97**	**97**	**95**
Meningiomas	girls		19	0	1	0	2	7	10	0	0	0	1	0	5	73.7	-	-	-
	boys		25	0	1	0	3	7	15	0	0	0	1	0	6	64.0	-	-	-
	total	**1.3**	**44**	**0**	**1**	**0**	**5**	**14**	**25**	**0**	**0**	**0**	**1**	**0**	**6**	**68.2**	**91**	**89**	**86**
Unspecified intracranial	girls		30	0	1	3	9	2	16	1	1	0	1	1	8	73.3	-	-	-
and intraspinal neoplasms	boys		36	0	2	4	3	9	20	1	0	0	1	1	10	83.3	-	-	-
	total	**1.2**	**66**	**0**	**1**	**7**	**12**	**11**	**36**	**1**	**0**	**0**	**1**	**1**	**9**	**78.8**	**80**	**-**	**-**
Neuroblastoma	girls		504	6	100	231	226	31	16	69	17	2	1	12	149	98.2	80	78	77
and other peripheral	boys		685	7	100	309	309	52	15	87	22	3	1	15	193	99.3	80	77	76
nervous cell tumours	**total**	**1.4**	**1189**	**7**	**100**	**540**	**535**	**83**	**31**	**78**	**19**	**2**	**1**	**13**	**172**	**98.8**	**80**	**77**	**76**

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Neuroblastoma	girls		498	6	99	231	222	31	14	69	16	2	1	11	147	99.0	80	78	77
and ganglioneuroblastoma	boys		680	7	99	309	308	51	12	87	22	3	1	15	191	99.4	80	77	76
	total	**1.4**	**1178**	**7**	**99**	**540**	**530**	**82**	**26**	**78**	**19**	**2**	**1**	**13**	**170**	**99.2**	**80**	**77**	**76**
Other peripheral nervous cell tumours	girls		6	0	1	0	4	0	2	0	0	0	0	0	2	33.3	-	-	-
	boys		5	0	1	0	1	1	3	0	0	0	0	0	1	80.0	-	-	-
	total	**0.8**	**11**	**0**	**1**	**0**	**5**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**54.5**	**-**	**-**	**-**
Retinoblastoma	girls		189	2	100	92	93	4	0	27	7	0	0	4	56	37.6	98	98	98
	boys		210	2	100	89	112	6	3	25	8	0	0	5	59	33.8	98	97	97
	total	**1.1**	**399**	**2**	**100**	**181**	**205**	**10**	**3**	**26**	**7**	**0**	**0**	**5**	**58**	**35.6**	**98**	**97**	**97**
Renal tumours	girls		517	7	100	68	296	125	28	20	22	7	1	11	152	99.6	94	93	93
	boys		449	5	100	88	249	85	27	25	18	5	1	9	125	99.3	93	92	92
	total	**0.9**	**966**	**5**	**100**	**156**	**545**	**210**	**55**	**23**	**20**	**6**	**1**	**10**	**138**	**99.5**	**93**	**93**	**93**
Nephroblastoma	girls		507	6	98	68	295	123	21	20	22	7	1	11	149	99.8	94	93	93
and other non-epithelial renal tumours	boys		435	4	97	87	249	83	16	25	18	5	1	9	122	99.3	93	93	92
	total	**0.9**	**942**	**5**	**98**	**155**	**544**	**206**	**37**	**22**	**20**	**6**	**1**	**10**	**135**	**99.6**	**93**	**93**	**93**
Nephroblastoma	girls		495	6	96	60	294	120	21	18	22	7	1	11	146	99.8	95	94	94
	boys		424	4	94	84	244	82	14	24	17	4	1	9	119	99.3	94	93	93
	total	**0.9**	**919**	**5**	**95**	**144**	**538**	**202**	**35**	**21**	**19**	**6**	**1**	**10**	**132**	**99.6**	**94**	**94**	**94**
Rhabdoid renal tumour	girls		8	0	2	7	1	0	0	2	0	0	0	0	2	100.0	-	-	-
	boys		9	0	2	2	5	1	1	1	0	0	0	0	2	100.0	-	-	-
	total	**1.1**	**17**	**0**	**2**	**9**	**6**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**2**	**100.0**	**-**	**-**	**-**
Kidney sarcomas	girls		4	0	1	1	0	3	0	0	0	0	0	0	1	100.0	-	-	-
	boys		2	0	0	1	0	0	1	0	0	0	0	0	1	100.0	-	-	-
	total	**0.5**	**6**	**0**	**1**	**2**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**
Peripheral neuroectodermal tumour	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
(pPNET) of kidney	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Renal carcinomas	girls		10	0	2	0	1	2	7	0	0	0	0	0	3	90.0	-	-	-
	boys		14	0	3	1	0	2	11	0	0	0	1	0	4	100.0	-	-	-
	total	**1.4**	**24**	**0**	**2**	**1**	**1**	**4**	**18**	**0**	**0**	**0**	**0**	**0**	**3**	**95.8**	**-**	**-**	**-**
Unspecified malignant renal tumours	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**

* Standard: Segi world standard population

\- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Hepatic tumours	girls		109	1	100	32	59	6	12	10	4	0	1	2	32	75.2	75	75	75
	boys		144	1	100	44	73	12	15	12	5	1	1	3	40	77.8	74	72	72
	total	**1.3**	**253**	**1**	**100**	**76**	**132**	**18**	**27**	**11**	**5**	**1**	**1**	**3**	**36**	**76.7**	**74**	**73**	**73**
Hepatoblastoma	girls		96	1	88	32	59	4	1	10	4	0	0	2	29	76.0	79	79	79
	boys		132	1	92	44	72	9	7	12	5	0	0	3	37	78.0	81	79	79
	total	**1.4**	**228**	**1**	**90**	**76**	**131**	**13**	**8**	**11**	**5**	**0**	**0**	**3**	**33**	**77.2**	**80**	**79**	**79**
Hepatic carcinomas	girls		13	0	12	0	0	2	11	0	0	0	1	0	3	69.2	-	-	-
	boys		12	0	8	0	1	3	8	0	0	0	0	0	3	75.0	-	-	-
	total	**0.9**	**25**	**0**	**10**	**0**	**1**	**5**	**19**	**0**	**0**	**0**	**0**	**0**	**3**	**72.0**	**-**	**-**	**-**
Unspecified malignant hepatic tumours	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Malignant bone tumours	girls		370	5	100	1	19	95	255	0	1	5	14	6	101	97.0	-	-	-
	boys		407	4	100	3	30	100	274	1	2	5	14	6	105	98.0	-	-	-
	total	**1.1**	**777**	**4**	**100**	**4**	**49**	**195**	**529**	**1**	**2**	**5**	**14**	**6**	**103**	**97.6**	**-**	**-**	**-**
Osteosarcomas	girls		193	2	52	0	2	42	149	0	0	2	8	3	52	99.0	79	75	73
	boys		195	2	48	0	5	40	150	0	0	2	8	3	50	98.5	72	67	67
	total	**1.0**	**388**	**2**	**50**	**0**	**7**	**82**	**299**	**0**	**0**	**2**	**8**	**3**	**51**	**98.7**	**75**	**71**	**70**
Chondrosarcomas	girls		4	0	1	0	0	2	2	0	0	0	0	0	1	75.0	-	-	-
	boys		8	0	2	1	0	1	6	0	0	0	0	0	2	100.0	-	-	-
	total	**2.0**	**12**	**0**	**2**	**1**	**0**	**3**	**8**	**0**	**0**	**0**	**0**	**0**	**2**	**91.7**	**-**	**-**	**-**
Ewing tumour	girls		163	2	44	1	16	48	98	0	1	3	5	3	45	96.3	-	-	-
and related sarcomas of bone	boys		194	2	48	2	23	57	112	1	2	3	6	3	51	99.5	-	-	-
	total	**1.2**	**357**	**2**	**46**	**3**	**39**	**105**	**210**	**0**	**1**	**3**	**5**	**3**	**48**	**98.0**	**-**	**-**	**-**
Ewing tumour	girls		154	2	42	0	15	44	95	0	1	3	5	3	42	96.8	-	-	-
and askin tumour of bone	boys		187	2	46	1	19	56	111	0	1	3	6	3	49	99.5	-	-	-
	total	**1.2**	**341**	**2**	**44**	**1**	**34**	**100**	**206**	**0**	**1**	**3**	**5**	**3**	**46**	**98.2**	**-**	**-**	**-**
Peripheral neuroectodermal tumour	girls		9	0	2	1	1	4	3	0	0	0	0	0	3	88.9	-	-	-
(pPNET) of bone	boys		7	0	2	1	4	1	1	0	0	0	0	0	2	100.0	-	-	-
	total	**0.8**	**16**	**0**	**2**	**2**	**5**	**5**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**93.8**	**-**	**-**	**-**
Other specified malignant bone tumours	girls		8	0	2	0	1	3	4	0	0	0	0	0	2	87.5	-	-	-
	boys		7	0	2	0	2	2	3	0	0	0	0	0	2	71.4	-	-	-
	total	**0.9**	**15**	**0**	**2**	**0**	**3**	**5**	**7**	**0**	**0**	**0**	**0**	**0**	**2**	**80.0**	**-**	**-**	**-**

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Malignant fibrous	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
neoplasms of bone	boys		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Malignant chordomas	girls		6	0	2	0	1	3	2	0	0	0	0	0	2	100.0	-	-	-
	boys		5	0	1	0	1	2	2	0	0	0	0	0	1	60.0	-	-	-
	total	**0.8**	**11**	**0**	**1**	**0**	**2**	**5**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**81.8**	**-**	**-**	**-**
Odontogenic malignant tumours	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		1	0	0	0	1	0	0	0	0	0	0	0	0	100.0	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Miscellaneous malignant	girls		2	0	1	0	0	0	2	0	0	0	0	0	1	50.0	-	-	-
bone tumours	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**50.0**	**-**	**-**	**-**
Unspecified malignant bone tumours	girls		2	0	1	0	0	0	2	0	0	0	0	0	1	50.0	-	-	-
	boys		3	0	1	0	0	0	3	0	0	0	0	0	1	33.3	-	-	-
	total	**1.5**	**5**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**40.0**	**-**	**-**	**-**
Soft tissue	girls		458	6	100	53	131	115	159	16	10	7	8	9	130	98.7	75	71	70
and other extraosseous sarcomas	boys		538	6	100	76	154	142	166	22	11	8	8	10	145	98.0	72	70	69
	total	**1.2**	**996**	**6**	**100**	**129**	**285**	**257**	**325**	**19**	**10**	**7**	**8**	**9**	**138**	**98.3**	**73**	**71**	**69**
Rhabdomyosarcomas	girls		229	3	50	20	82	65	62	6	6	4	3	5	66	100.0	71	69	67
	boys		282	3	52	28	121	85	48	8	9	5	2	5	77	99.6	74	73	73
	total	**1.2**	**511**	**3**	**51**	**48**	**203**	**150**	**110**	**7**	**7**	**4**	**3**	**5**	**72**	**99.8**	**73**	**71**	**70**
Fibrosarcomas, peripheral	girls		47	1	10	9	14	8	16	3	1	0	1	1	13	91.5	67	67	67
nerve sheath tumours	boys		61	1	11	20	4	14	23	6	0	1	1	1	16	98.4	75	75	70
and other fibrous neoplasms	**total**	**1.3**	**108**	**1**	**11**	**29**	**18**	**22**	**39**	**4**	**1**	**1**	**1**	**1**	**15**	**95.4**	**72**	**72**	**69**
Fibroblastic	girls		24	0	5	8	9	4	3	2	1	0	0	1	7	91.7	-	-	-
and myofibroblastic tumours	boys		30	0	6	14	4	4	8	4	0	0	0	1	8	96.7	88	-	-
	total	**1.3**	**54**	**0**	**5**	**22**	**13**	**8**	**11**	**3**	**0**	**0**	**0**	**1**	**8**	**94.4**	**89**	**89**	**-**
Nerve sheath tumours	girls		23	0	5	1	5	4	13	0	0	0	1	0	6	91.3	-	-	-
	boys		31	0	6	6	0	10	15	2	0	1	1	1	8	100.0	-	-	-
	total	**1.3**	**54**	**0**	**5**	**7**	**5**	**14**	**28**	**1**	**0**	**0**	**1**	**0**	**7**	**96.3**	**51**	**51**	**48**
Other fibrous neoplasms	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**

* Standard: Segi world standard population

\- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Kaposi sarcoma	girls		1	0	0	0	1	0	0	0	0	0	0	0	0	100.0	-	-	-
	boys		1	0	0	0	0	0	1	0	0	0	0	0	0	-	-	-	-
	total	**1.0**	**2**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**50.0**	**-**	**-**	**-**
Other specified soft tissue sarcomas	girls		147	2	32	19	24	35	69	6	2	2	4	3	41	98.6	83	77	74
	boys		147	2	27	21	21	35	70	6	1	2	4	3	39	96.6	68	64	62
	total	**1.0**	**294**	**2**	**30**	**40**	**45**	**70**	**139**	**6**	**2**	**2**	**4**	**3**	**40**	**97.6**	**75**	**70**	**68**
Ewing tumour	girls		34	0	7	0	5	11	18	0	0	1	1	1	9	97.1	88	-	-
and askin tumour of soft tissue	boys		27	0	5	1	3	9	14	0	0	0	1	0	7	100.0	-	-	-
	total	**0.8**	**61**	**0**	**6**	**1**	**8**	**20**	**32**	**0**	**0**	**1**	**1**	**1**	**8**	**98.4**	**80**	**77**	**-**
Peripheral neuroectodermal tumour	girls		4	0	1	0	1	2	1	0	0	0	0	0	1	100.0	-	-	-
(pPNET) of soft tissue	boys		10	0	2	0	3	2	5	0	0	0	0	0	3	100.0	-	-	-
	total	**2.5**	**14**	**0**	**1**	**0**	**4**	**4**	**6**	**0**	**0**	**0**	**0**	**0**	**2**	**100.0**	**77**	**72**	**67**
Extrarenal rhabdoid tumour	girls		31	0	7	15	8	3	5	4	1	0	0	1	9	100.0	-	-	-
	boys		26	0	5	15	6	3	2	4	0	0	0	1	7	88.5	-	-	-
	total	**0.8**	**57**	**0**	**6**	**30**	**14**	**6**	**7**	**4**	**1**	**0**	**0**	**1**	**8**	**94.7**	**-**	**-**	**-**
Liposarcomas	girls		2	0	0	0	0	0	2	0	0	0	0	0	1	100.0	-	-	-
	boys		3	0	1	0	0	1	2	0	0	0	0	0	1	100.0	-	-	-
	total	**1.5**	**5**	**0**	**1**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**
Fibrohistiocytic tumours	girls		21	0	5	2	5	7	7	1	0	0	0	0	6	95.2	-	-	-
	boys		16	0	3	2	4	3	7	1	0	0	0	0	4	93.8	-	-	-
	total	**0.8**	**37**	**0**	**4**	**4**	**9**	**10**	**14**	**1**	**0**	**0**	**0**	**0**	**5**	**94.6**	**-**	**-**	**-**
Leiomyosarcomas	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Synovial sarcomas	girls		29	0	6	0	0	7	22	0	0	0	1	0	8	100.0	89	86	-
	boys		33	0	6	1	3	8	21	0	0	0	1	1	9	100.0	87	79	-
	total	**1.1**	**62**	**0**	**6**	**1**	**3**	**15**	**43**	**0**	**0**	**0**	**1**	**1**	**8**	**100.0**	**88**	**83**	**77**
Blood vessel tumours	girls		4	0	1	0	2	2	0	0	0	0	0	0	1	100.0	-	-	-
	boys		5	0	1	0	0	1	4	0	0	0	0	0	1	80.0	-	-	-
	total	**1.3**	**9**	**0**	**1**	**0**	**2**	**3**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**88.9**	**-**	**-**	**-**
Osseous and chondromatous	girls		4	0	1	0	0	1	3	0	0	0	0	0	1	100.0	-	-	-
neoplasms of soft tissue	boys		2	0	0	0	0	1	1	0	0	0	0	0	1	100.0	-	-	-
	total	**0.5**	**6**	**0**	**1**	**0**	**0**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Alveolar soft parts sarcoma	girls		8	0	2	0	0	1	7	0	0	0	0	0	2	100.0	-	-	-
	boys		4	0	1	0	0	1	3	0	0	0	0	0	1	100.0	-	-	-
	total	**0.5**	**12**	**0**	**1**	**0**	**0**	**2**	**10**	**0**	**0**	**0**	**0**	**0**	**2**	**100.0**	**-**	**-**	**-**
Miscellaneous soft tissue sarcomas	girls		10	0	2	2	3	1	4	1	0	0	0	0	3	100.0	-	-	-
	boys		21	0	4	2	2	6	11	1	0	0	1	0	6	100.0	-	-	-
	total	**2.1**	**31**	**0**	**3**	**4**	**5**	**7**	**15**	**1**	**0**	**0**	**0**	**0**	**4**	**100.0**	**-**	**-**	**-**
Unspecified soft tissue sarcomas	girls		34	0	7	5	10	7	12	1	1	0	1	1	10	100.0	-	-	-
	boys		47	0	9	7	8	8	24	2	1	0	1	1	12	93.6	71	-	-
	total	**1.4**	**81**	**0**	**8**	**12**	**18**	**15**	**36**	**2**	**1**	**0**	**1**	**1**	**11**	**96.3**	**73**	**67**	**67**
Germ cell tumours,	girls		327	4	100	84	40	60	143	25	3	3	8	6	92	96.9	96	95	94
trophoblastic tumours	boys		245	3	100	62	45	25	113	18	3	1	6	4	65	95.9	92	91	91
and neoplasms of gonads	**total**	**0.7**	**572**	**3**	**100**	**146**	**85**	**85**	**256**	**21**	**3**	**2**	**7**	**5**	**78**	**96.5**	**94**	**93**	**93**
Intracranial	girls		58	1	18	6	2	22	28	2	0	1	1	1	16	96.6	90	85	85
and intraspinal germ cell tumours	boys		114	1	47	4	8	20	82	1	1	1	4	2	29	94.7	89	87	87
	total	**2.0**	**172**	**1**	**30**	**10**	**10**	**42**	**110**	**1**	**0**	**1**	**3**	**1**	**23**	**95.3**	**89**	**86**	**86**
Intracranial and intraspinal germinoma	girls		28	0	9	0	1	9	18	0	0	1	1	0	8	100.0	97	-	-
	boys		62	1	25	0	0	8	54	0	0	0	3	1	16	98.4	93	93	93
	total	**2.2**	**90**	**1**	**16**	**0**	**1**	**17**	**72**	**0**	**0**	**0**	**2**	**1**	**12**	**98.9**	**95**	**92**	**92**
Intracranial and intraspinal teratomas	girls		8	0	2	4	1	1	2	1	0	0	0	0	2	87.5	-	-	-
	boys		16	0	7	4	5	4	3	1	0	0	0	0	4	75.0	-	-	-
	total	**2.0**	**24**	**0**	**4**	**8**	**6**	**5**	**5**	**1**	**0**	**0**	**0**	**0**	**3**	**79.2**	**-**	**-**	**-**
Intracranial	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
and intraspinal embryonal carcinomas	boys		1	0	0	0	0	1	0	0	0	0	0	0	0	100.0	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Intracranial	girls		1	0	0	0	0	1	0	0	0	0	0	0	0	100.0	-	-	-
and intraspinal yolk sac tumour	boys		4	0	2	0	0	0	4	0	0	0	0	0	1	100.0	-	-	-
	total	**4.0**	**5**	**0**	**1**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**
Intracranial	girls		5	0	2	0	0	3	2	0	0	0	0	0	1	100.0	-	-	-
and intraspinal choriocarcinoma	boys		2	0	1	0	1	0	1	0	0	0	0	0	1	100.0	-	-	-
	total	**0.4**	**7**	**0**	**1**	**0**	**1**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**
Intracranial	girls		16	0	5	2	0	8	6	1	0	0	0	0	4	93.8	-	-	-
and intraspinal tumours of mixed form	boys		29	0	12	0	2	7	20	0	0	0	1	0	7	96.6	-	-	-
	total	**1.8**	**45**	**0**	**8**	**2**	**2**	**15**	**26**	**0**	**0**	**0**	**1**	**0**	**6**	**95.6**	**82**	**-**	**-**

* Standard: Segi world standard population

- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Malignant extracranial	girls		122	2	37	77	36	2	7	23	3	0	0	3	36	96.7	95	95	95
and extragonadal germ cell tumours	boys		56	1	23	30	16	3	7	8	1	0	0	1	16	96.4	90	90	88
	total	**0.5**	**178**	**1**	**31**	**107**	**52**	**5**	**14**	**16**	**2**	**0**	**0**	**2**	**26**	**96.6**	**93**	**93**	**93**
Germinomas of extracranial	girls		9	0	3	0	5	0	4	0	0	0	0	0	3	77.8	-	-	-
and extragonadal sites	boys		7	0	3	0	3	0	4	0	0	0	0	0	2	100.0	-	-	-
	total	**0.8**	**16**	**0**	**3**	**0**	**8**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**2**	**87.5**	**-**	**-**	**-**
Malignant teratomas of extracranial	girls		62	1	19	58	3	0	1	17	0	0	0	1	18	98.4	95	95	95
and extragonadal sites	boys		29	0	12	26	2	0	1	7	0	0	0	1	8	93.1	-	-	-
	total	**0.5**	**91**	**1**	**16**	**84**	**5**	**0**	**2**	**12**	**0**	**0**	**0**	**1**	**13**	**96.7**	**93**	**93**	**93**
Embryonal carcinomas of extracranial	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
and extragonadal sites	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Yolk sac tumour of extracranial	girls		33	0	10	10	22	1	0	3	2	0	0	1	10	97.0	95	95	95
and extragonadal sites	boys		12	0	5	1	10	0	1	0	1	0	0	0	3	100.0	-	-	-
	total	**0.4**	**45**	**0**	**8**	**11**	**32**	**1**	**1**	**2**	**1**	**0**	**0**	**1**	**7**	**97.8**	**95**	**95**	**95**
Choriocarcinomas of extracranial	girls		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
and extragonadal sites	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Other and unspecified malignant mixed	girls		17	0	5	9	6	1	1	3	0	0	0	0	5	100.0	-	-	-
germ cell tumours of extracranial	boys		8	0	3	3	1	3	1	1	0	0	0	0	2	100.0	-	-	-
and extragonadal sites	**total**	**0.5**	**25**	**0**	**4**	**12**	**7**	**4**	**2**	**2**	**0**	**0**	**0**	**0**	**4**	**100.0**	**-**	**-**	**-**
Malignant gonadal germ cell tumours	girls		143	2	44	1	2	36	104	0	0	2	6	2	39	97.9	99	99	99
	boys		75	1	31	28	21	2	24	8	1	0	1	1	20	97.3	97	97	97
	total	**0.5**	**218**	**1**	**38**	**29**	**23**	**38**	**128**	**4**	**1**	**1**	**3**	**2**	**29**	**97.7**	**98**	**98**	**98**
Malignant gonadal germinomas	girls		37	0	11	0	1	8	28	0	0	0	1	1	10	100.0	100	-	-
	boys		4	0	2	0	1	1	2	0	0	0	0	0	1	100.0	-	-	-
	total	**0.1**	**41**	**0**	**7**	**0**	**2**	**9**	**30**	**0**	**0**	**0**	**1**	**0**	**5**	**100.0**	**100**	**-**	**-**
Malignant gonadal teratomas	girls		32	0	10	1	0	8	23	0	0	0	1	1	9	93.8	100	100	100
	boys		17	0	7	10	1	0	6	3	0	0	0	0	5	94.1	-	-	-
	total	**0.5**	**49**	**0**	**9**	**11**	**1**	**8**	**29**	**2**	**0**	**0**	**1**	**0**	**7**	**93.9**	**100**	**100**	**100**
Malignant gonadal	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
embryonal carcinomas	boys		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**

* Standard: Segi world standard population

- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Malignant gonadal yolk sac tumour	girls		22	0	7	0	1	6	15	0	0	0	1	0	6	95.5	97	97	97
	boys		26	0	11	9	17	0	0	3	1	0	0	1	7	96.2	100	100	100
	total	**1.2**	**48**	**0**	**8**	**9**	**18**	**6**	**15**	**1**	**1**	**0**	**0**	**0**	**7**	**95.8**	**99**	**99**	**99**
Malignant gonadal choriocarcinoma	girls		5	0	2	0	0	1	4	0	0	0	0	0	1	100.0	-	-	-
	boys		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	total	**0.2**	**6**	**0**	**1**	**0**	**0**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**100.0**	**-**	**-**	**-**
Malignant gonadal tumours of mixed forms	girls		47	1	14	0	0	13	34	0	0	1	2	1	13	100.0	100	-	-
	boys		26	0	11	9	2	1	14	3	0	0	1	0	7	100.0	-	-	-
	total	**0.6**	**73**	**0**	**13**	**9**	**2**	**14**	**48**	**1**	**0**	**0**	**1**	**1**	**10**	**100.0**	**100**	**100**	**-**
Malignant gonadal gonadoblastoma	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Gonadal carcinomas	girls		3	0	1	0	0	0	3	0	0	0	0	0	1	66.7	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**3**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**66.7**	**-**	**-**	**-**
Other and unspecified malignant gonadal tumours	girls		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Other malignant epithelial neoplasms and malignant melanomas	girls		230	3	100	2	15	45	168	1	1	3	9	4	62	72.2	93	92	91
	boys		187	2	100	2	15	42	128	1	1	2	6	3	48	72.7	84	82	78
	total	**0.8**	**417**	**2**	**100**	**4**	**30**	**87**	**296**	**1**	**1**	**2**	**8**	**3**	**55**	**72.4**	**89**	**87**	**85**
Adrenocortical carcinomas	girls		12	0	5	0	5	3	4	0	0	0	0	0	3	100.0	-	-	-
	boys		8	0	4	1	5	2	0	0	0	0	0	0	2	100.0	-	-	-
	total	**0.7**	**20**	**0**	**5**	**1**	**10**	**5**	**4**	**0**	**0**	**0**	**0**	**0**	**3**	**100.0**	**-**	**-**	**-**
Thyroid carcinomas	girls		91	1	40	0	1	21	69	0	0	1	4	1	24	84.6	99	98	98
	boys		58	1	31	1	0	9	48	0	0	0	2	1	15	87.9	96	96	-
	total	**0.6**	**149**	**1**	**36**	**1**	**1**	**30**	**117**	**0**	**0**	**1**	**3**	**1**	**19**	**85.9**	**98**	**97**	**94**
Nasopharyngeal carcinomas	girls		5	0	2	0	0	0	5	0	0	0	0	0	1	100.0	-	-	-
	boys		16	0	9	0	1	0	15	0	0	0	1	0	4	93.8	-	-	-
	total	**3.2**	**21**	**0**	**5**	**0**	**1**	**0**	**20**	**0**	**0**	**0**	**1**	**0**	**3**	**95.2**	**-**	**-**	**-**
Malignant melanomas	girls		35	0	15	2	8	9	16	1	1	1	1	1	10	31.4	-	-	-
	boys		37	0	20	0	7	12	18	0	0	1	1	1	10	35.1	-	-	-
	total	**1.1**	**72**	**0**	**17**	**2**	**15**	**21**	**34**	**0**	**1**	**1**	**1**	**1**	**10**	**33.3**	**87**	**-**	**-**

* Standard: Segi world standard population

\- insufficient data

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Skin carcinomas	girls		6	0	3	0	0	2	4	0	0	0	0	0	2	33.3	-	-	-
	boys		3	0	2	0	1	0	2	0	0	0	0	0	1	66.7	-	-	-
	total	**0.5**	**9**	**0**	**2**	**0**	**1**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**1**	**44.4**	**-**	**-**	**-**
Other and unspecified carcinomas	girls		81	1	35	0	1	10	70	0	0	1	4	1	22	72.8	-	-	-
	boys		65	1	35	0	1	19	45	0	0	1	2	1	17	72.3	70	-	-
	total	**0.8**	**146**	**1**	**35**	**0**	**2**	**29**	**115**	**0**	**0**	**1**	**3**	**1**	**19**	**72.6**	**78**	**74**	**-**
Carcinomas of salivary glands	girls		13	0	6	0	0	1	12	0	0	0	1	0	3	23.1	-	-	-
	boys		9	0	5	0	0	5	4	0	0	0	0	0	2	22.2	-	-	-
	total	**0.7**	**22**	**0**	**5**	**0**	**0**	**6**	**16**	**0**	**0**	**0**	**0**	**0**	**3**	**22.7**	**-**	**-**	**-**
Carcinomas of colon and rectum	girls		5	0	2	0	1	0	4	0	0	0	0	0	1	40.0	-	-	-
	boys		6	0	3	0	0	2	4	0	0	0	0	0	2	50.0	-	-	-
	total	**1.2**	**11**	**0**	**3**	**0**	**1**	**2**	**8**	**0**	**0**	**0**	**0**	**0**	**1**	**45.5**	**-**	**-**	**-**
Carcinomas of appendix	girls		46	1	20	0	0	6	40	0	0	0	2	1	12	95.7	-	-	-
	boys		27	0	14	0	0	4	23	0	0	0	1	0	7	100.0	-	-	-
	total	**0.6**	**73**	**0**	**18**	**0**	**0**	**10**	**63**	**0**	**0**	**0**	**2**	**1**	**9**	**97.3**	**-**	**-**	**-**
Carcinomas of lung	girls		1	0	0	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	boys		6	0	3	0	0	2	4	0	0	0	0	0	2	66.7	-	-	-
	total	**6.0**	**7**	**0**	**2**	**0**	**0**	**2**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**71.4**	**-**	**-**	**-**
Carcinomas of thymus	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Carcinomas of breast	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Carcinomas of cervix uteri	girls		1	0	0	0	0	0	1	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Carcinomas of bladder	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Carcinomas of eye	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		2	0	1	0	0	0	2	0	0	0	0	0	0	-	-	-	-
	total	**-**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**

Tabelle 1 Forts. **Table 1 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group	Age groups				Incidence rates per million Age-specific				Age-stand.	Cum.	Trial participants	Survival probabilities(%)		
		m / f	0 - 14	%	%	0	1 - 4	5 - 9	10 - 14	0	1 - 4	5 - 9	10 - 14	World *	0 - 14	%	5-yrs	10-yrs	15-yrs
Carcinomas of other specified sites	girls		14	0	6	0	0	3	11	0	0	0	1	0	4	64.3	-	-	-
	boys		11	0	6	0	0	5	6	0	0	0	0	0	3	72.7	-	-	-
	total	**0.8**	**25**	**0**	**6**	**0**	**0**	**8**	**17**	**0**	**0**	**0**	**0**	**0**	**3**	**68.0**	**-**	**-**	**-**
Carcinomas of unspecified site	girls		1	0	0	0	0	0	1	0	0	0	0	0	0	-	-	-	-
	boys		4	0	2	0	1	1	2	0	0	0	0	0	1	75.0	-	-	-
	total	**4.0**	**5**	**0**	**1**	**0**	**1**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**60.0**	**-**	**-**	**-**
Others and unspecified malignant neoplasms	girls		19	0	100	3	9	2	5	1	1	0	0	0	5	68.4	-	-	-
	boys		14	0	100	1	10	1	2	0	1	0	0	0	4	85.7	-	-	-
	total	**0.7**	**33**	**0**	**100**	**4**	**19**	**3**	**7**	**1**	**1**	**0**	**0**	**0**	**5**	**75.8**	**-**	**-**	**-**
Other specified malignant tumours	girls		13	0	68	0	8	2	3	0	1	0	0	0	4	76.9	-	-	-
	boys		12	0	86	1	10	1	0	0	1	0	0	0	3	91.7	-	-	-
	total	**0.9**	**25**	**0**	**76**	**1**	**18**	**3**	**3**	**0**	**1**	**0**	**0**	**0**	**4**	**84.0**	**-**	**-**	**-**
Gastrointestinal stromal tumour	girls		1	0	5	0	0	0	1	0	0	0	0	0	0	100.0	-	-	-
	boys		1	0	7	0	0	1	0	0	0	0	0	0	0	100.0	-	-	-
	total	**1.0**	**2**	**0**	**6**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**100.0**	**-**	**-**	**-**
Pancreatoblastoma	girls		4	0	21	0	1	2	1	0	0	0	0	0	1	50.0	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**4**	**0**	**12**	**0**	**1**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**50.0**	**-**	**-**	**-**
Pulmonary blastoma and pleuropulmonary blastoma	girls		7	0	37	0	7	0	0	0	1	0	0	0	2	100.0	-	-	-
	boys		11	0	79	1	10	0	0	0	1	0	0	0	3	90.9	-	-	-
	total	**1.6**	**18**	**0**	**55**	**1**	**17**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**94.4**	**-**	**-**	**-**
Other complex mixed and stromal neoplasms	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Mesothelioma	girls		1	0	5	0	0	0	1	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**1**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Other specified malignant tumours	girls		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	boys		0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**
Other unspecified malignant tumours	girls		6	0	32	3	1	0	2	1	0	0	0	0	2	50.0	-	-	-
	boys		2	0	14	0	0	0	2	0	0	0	0	0	1	50.0	-	-	-
	total	**0.3**	**8**	**0**	**24**	**3**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**50.0**	**-**	**-**	**-**

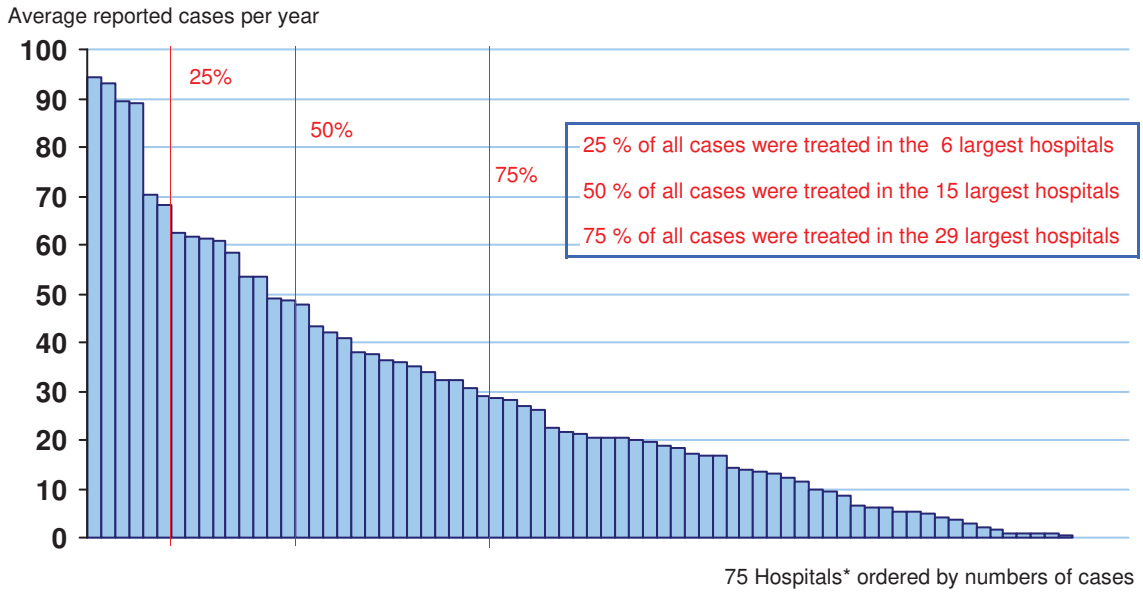
* Standard: Segi world standard population

- insufficient data

Abbildung 1:

Meldungen an das DKKR (Registerpopulation) je Klinik, Zeitraum 2007-2016, Patienten unter 15 / 18 Jahren (unter 15 Jahren bis 2008)

Reported cases to the GCCR (registry population) per hospital, period 2007-2016, patients under 15 / 18 years (under 15 years until 2008)



* One hospital with 6 cases is a collection of "other hospitals"

Tabelle 2:

Anzahl der gemeldeten Fälle unter 15 Jahren aus der deutschen Wohnbevölkerung, alters-standardisierte Inzidenzrate und kumulative Inzidenz (pro Million) nach ICCC-3-Diagnosegruppen.

Number of registered cases in Germany aged under 15, age-standardized incidence rate and cumulative incidence (per million) by ICCC-3 diagnosis groups.

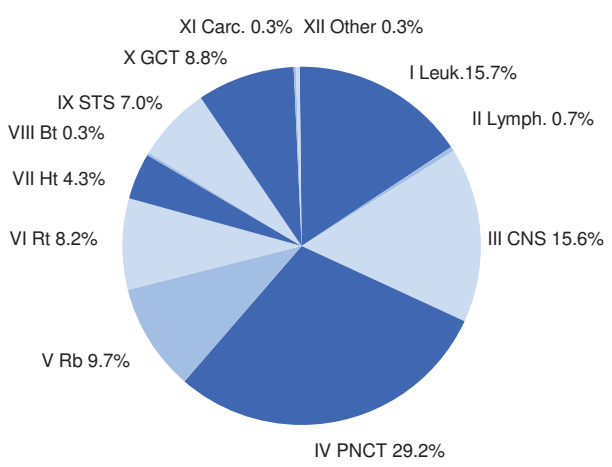
Diagnosis groups		Number of cases 1980-2016		Number of cases 2007-2016		Incidence rates 2007-2016	
		Absolute	Relative (%)	Absolute	Relative (%)	Age-standard.*	Cumu-lative
I	Leukaemias	20031	33.9	5713	32.4	56	800
II	Lymphomas	6862	11.6	1889	10.7	16	253
III	CNS tumours	12987	22.0	4409	25.0	41	610
IV	Peripheral nervous cell tumours	4410	7.5	1189	6.8	13	172
V	Retinoblastoma	1412	2.4	399	2.3	5	58
VI	Renal tumours	3445	5.8	966	5.5	10	138
VII	Hepatic tumours	672	1.1	253	1.4	3	36
VIII	Bone tumours	2755	4.7	777	4.4	6	103
IX	Soft tissue sarcomas	3598	6.1	996	5.7	9	138
X	Germ cell tumours	1896	3.2	572	3.2	5	78
XI	Carcinomas	907	1.5	417	2.4	3	55
XII	Others and unspecified	73	0.1	33	0.2	0	5
	All malignancies	59048	100.0	17613	100.0	169	2446

* Standard: Segi world standard population

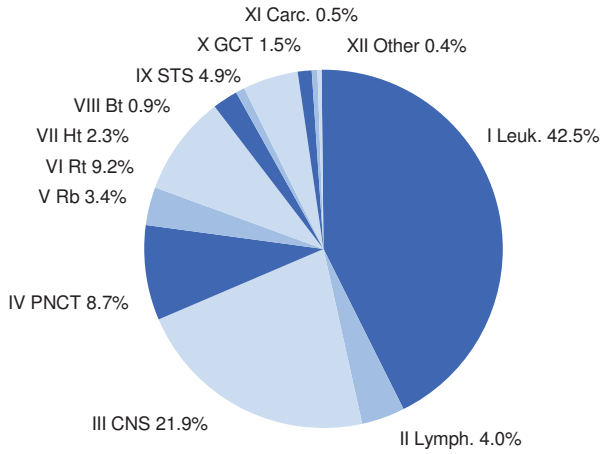
Abbildung 2:

Relative Häufigkeit der gemeldeten Fälle aus der deutschen Wohnbevölkerung nach den häufigsten ICCC-3 Diagnose-Hauptgruppen und Alter (ausführliche ICCC-3 Kategoriebezeichnungen siehe Seite 131)
Relative frequencies of the registered cases in Germany by the main ICCC-3 diagnosis groups and age (for the detailed ICCC-3 category legends see page 131)

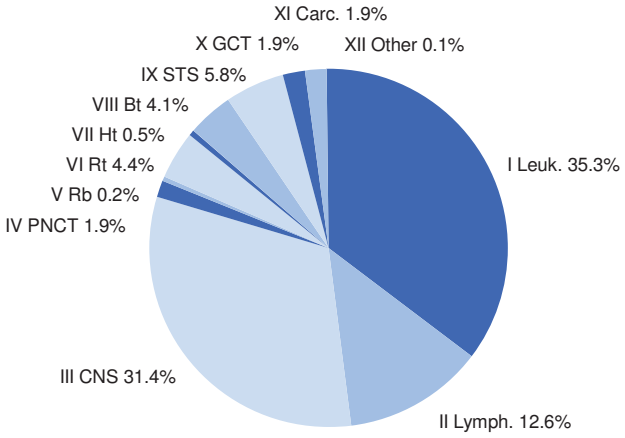
Age 0, 2009-2016 (n=1481)



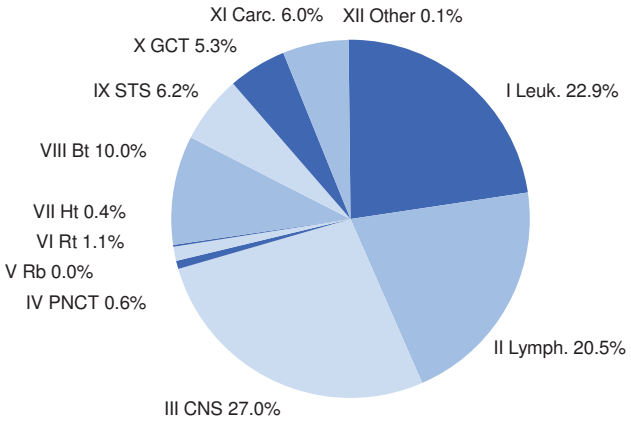
Age 1-4, 2009-2016 (n=4812)



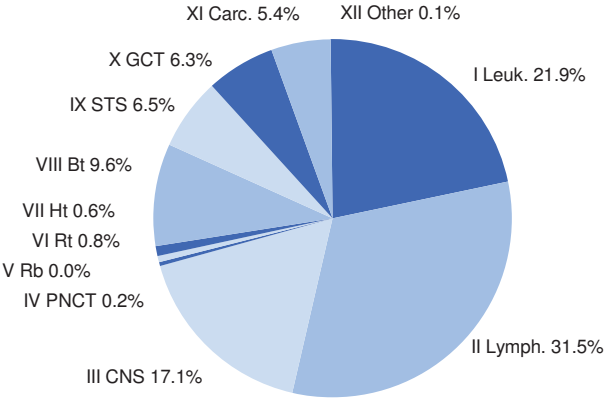
Age 5-9, 2009-2016 (n=3613)



Age 10-14, 2009-2016 (n=4152)



Age 15-17, 2009-2016 (n=2906)



Age 0-17, 2009-2016 (n=16964)

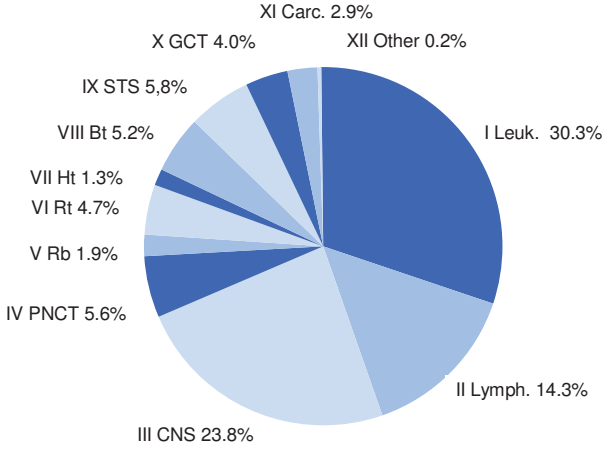


Tabelle 3:

Anzahl der gemeldeten Fälle unter 15 Jahren, 15 bis unter 18 Jahren und unter 18 Jahren auf Basis des ICCC-3, altersstandardisierte Inzidenzrate und Wohnbevölkerungsbezug nach Jahren für Deutschland

Annual number of registered cases aged under 15, 15 to under 18 years and under 18 years based on ICCC-3, age-standardized incidence rate and resident population base by calendar year for Germany

Years	Number of cases			Incidence rates per million *		Population base (in million)	
	< 15	15 to < 18	< 18	<15	< 18	<15	< 18
1980	1017			102		11.187	
1981	1048			105		10.803	
1982	974			103		10.392	
1983	1074			116		9.957	
1984	1032			114		9.539	
1985	1140			129		9.232	
1986	1144			132		9.070	
1987	1216			141		8.903	
1988	1216			140		9.019	
1989	1222			135		9.260	
1990	1300			139		9.621	
1991 #	1669			132		13.013	
1992	1812			143		13.166	
1993	1684			132		13.279	
1994	1768			139		13.298	
1995	1802			143		13.264	
1996	1803			145		13.209	
1997	1908			155		13.139	
1998	1821			149		13.035	
1999	1880			154		12.936	
2000	1977			163		12.836	
2001	1854			155		12.698	
2002	1826			154		12.517	
2003	1774			152		12.288	
2004	1872			164		12.042	
2005	1834			165		11.787	
2006	1768			162		11.544	
2007	1777			165		11.361	
2008	1778			167		11.212	
2009	1793	353	2146	170	165	11.078	13.579
2010	1766	314	2080	169	163	10.979	13.408
2011	1734	358	2092	166	164	10.884	13.277
2012	1765	358	2123	170	167	10.782	13.187
2013	1774	339	2113	174	169	10.628	13.050
2014	1707	397	2104	166	166	10.628	13.062
2015	1778	417	2195	171	171	10.784	13.219
2016	1741	370	2111	167	166	10.744	13.121
Total	59048	2906	61954				

* Standard: Segi world standard population

Erweiterung um neue Bundesländer / inclusion of East Germany

Tabelle 4:

Verteilung aller gemeldeten Fälle aus der deutschen Wohnbevölkerung nach Altersgruppen ohne Altersbeschränkung # sowie zusätzlich erfasste Diagnosen (2007-2016)

Distribution of all reported cases in Germany by age groups without age restriction # and additional diagnoses (2007-2016)

Age groups (years)	Diagnoses according to ICCC-3		Additional diagnoses (see Table 5)	
	N	%	N	%
0	1841	8.6	455	26.9
1-4	6025	28.1	334	19.8
5-9	4575	21.4	335	19.8
10-14	5172	24.2	425	25.1
0-14	17613	82.3	1549	91.6
15-17	2906	13.6	107	6.3
0-17	20519	95.8	1656	97.9
18-19	273	1.3	8	0.5
20-24	235	1.1	10	0.6
≥25	384	1.8	17	1.0
≥15	3798	17.7	142	8.4
≥18	892	4.2	35	2.1
reported cases	21411	100.0	1691	100.0

Altersgrenze bis 2008 unter 15, ab 2009 unter 18. Junge Erwachsene ab 18 Jahren werden nur unvollständig erfasst.
The age limit was under 15 until 2008 and under 18 from 2009. Young adults 18 or older are incompletely registered.

Tabelle 5:

Nicht in der ICCC-3 definierte, systematisch registrierte Diagnosen, Fälle unter 15 Jahren (2007-2016)

Systematically registered diagnoses not defined in ICCC-3, cases under the age of 15 (2007-2016)

Diagnoses	Sex	Sex ratio	Number of cases					Incidence rates per million						Trial participants
			N	Age groups				Age groups				Age-stand.	Cum.	
		m / f	0-14	0	1-4	5-9	10-14	0	1-4	5-9	10-14	World *	0-14	%
Non-malignant	girls		286	77	84	74	51	23	6	4	3	6	83	85.3
Langerhans cell	boys		401	90	116	93	102	25	8	5	5	8	109	86.3
histiocytosis	**total**	**1.4**	**687**	**167**	**200**	**167**	**153**	**24**	**7**	**5**	**4**	**7**	**96**	**85.9**
Benign/mature teratoma	girls		510	131	60	108	211	39	4	6	11	10	144	96.3
	boys		146	86	29	18	13	24	2	1	1	3	41	94.5
	total	**0.3**	**656**	**217**	**89**	**126**	**224**	**31**	**3**	**4**	**6**	**6**	**91**	**95.9**
Severe aplastic anaemia	girls		43	2	7	18	16	1	1	1	1	1	12	93.0
	boys		52	2	16	15	19	1	1	1	1	1	14	92.3
	total	**1.2**	**95**	**4**	**23**	**33**	**35**	**1**	**1**	**1**	**1**	**1**	**13**	**92.6**
Mesoblastic nephroma	girls		18	18	0	0	0	5	0	0	0	0	5	88.9
	boys		23	21	1	0	1	6	0	0	0	1	6	95.7
	total	**1.3**	**41**	**39**	**1**	**0**	**1**	**6**	**0**	**0**	**0**	**0**	**6**	**92.7**
Other diseases	girls		29	15	6	4	4	4	0	0	0	1	8	55.2
of blood and	boys		38	13	15	4	6	4	1	0	0	1	11	55.3
haemopoietic system	**total**	**1.3**	**67**	**28**	**21**	**8**	**10**	**4**	**1**	**0**	**0**	**1**	**10**	**55.2**

* Standard: Segi world standard population

Tabelle 6:

Altersstandardisierte* Inzidenzraten (pro Million), standardisierte Inzidenzverhältnisse (SIR) und 95%-Konfidenzintervalle (CI) regional gegliedert nach Patientenwohnsitz für Fälle unter 15 Jahre (2007-2016)

Age-standardized* incidence rates (per million), standardized incidence ratios (SIR) and 95%-confidence intervals (C for cases under 15 by patients residence region (2007-2016)

Bundesländer und Regierungsbezirke States and counties	All malignancies				Leukaemias			
	No. of cases	Incidence rate *	SIR	95%-CI	No. of cases	Incidence rate *	SIR	95%-CI
Schleswig-Holstein	645	174	1.04	0.96-1.12	213	58	1.06	0.93-1.22
Hamburg	375	165	0.98	0.88-1.09	124	56	0.99	0.83-1.18
Niedersachsen	1723	165	0.98	0.93-1.03	578	56	1.02	0.94-1.11
Bremen	125	157	0.93	0.77-1.10	40	51	0.91	0.65-1.24
Nordrhein-Westfalen	4024	172	1.02	0.99-1.05	1256	55	0.99	0.93-1.04
Düsseldorf	1144	173	1.03	0.97-1.09	361	57	1.00	0.90-1.11
Köln	1008	170	1.02	0.96-1.09	291	50	0.91	0.81-1.02
Münster	599	170	1.01	0.93-1.09	216	63	1.13	0.98-1.29
Detmold	491	174	1.01	0.93-1.11	156	56	1.00	0.85-1.17
Arnsberg	782	170	1.00	0.93-1.07	232	51	0.92	0.81-1.05
Hessen	1350	170	1.00	0.95-1.06	464	59	1.07	0.97-1.17
Darmstadt	852	165	0.98	0.92-1.05	294	58	1.04	0.93-1.17
Gießen	246	194	1.11	0.97-1.26	85	68	1.19	0.95-1.47
Kassel	252	166	0.98	0.87-1.11	85	58	1.03	0.82-1.28
Rheinland-Pfalz	893	176	1.03	0.97-1.10	269	54	0.97	0.86-1.09
Baden-Württemberg	2391	165	0.98	0.94-1.02	760	54	0.96	0.90-1.04
Stuttgart	897	164	0.97	0.91-1.04	285	53	0.95	0.85-1.07
Karlsruhe	621	173	1.04	0.96-1.13	202	59	1.05	0.91-1.20
Freiburg	506	166	1.00	0.91-1.09	168	58	1.03	0.88-1.20
Tübingen	367	150	0.87	0.78-0.96	105	44	0.77	0.63-0.93
Bayern	2805	169	1.00	0.96-1.04	955	59	1.05	0.99-1.12
Oberbayern	958	159	0.94	0.88-1.00	336	56	1.01	0.91-1.12
Niederbayern	255	161	0.96	0.85-1.09	81	55	0.95	0.75-1.18
Oberpfalz	271	195	1.14	1.01-1.29	90	67	1.18	0.95-1.45
Oberfranken	202	151	0.92	0.80-1.05	69	55	0.98	0.76-1.23
Mittelfranken	338	151	0.90	0.81-1.00	103	47	0.85	0.69-1.03
Unterfranken	310	188	1.11	0.99-1.24	108	68	1.20	0.99-1.45
Schwaben	471	193	1.14	1.04-1.25	168	71	1.26	1.08-1.47
Saarland	181	154	0.94	0.81-1.09	59	51	0.95	0.73-1.23
Berlin	681	159	0.94	0.87-1.01	235	55	0.99	0.87-1.12
Brandenburg	449	159	0.95	0.86-1.04	152	55	0.98	0.83-1.15
Mecklenburg-Vorpommern	282	154	0.92	0.81-1.03	86	48	0.85	0.68-1.05
Sachsen	866	183	1.09	1.02-1.17	265	56	1.01	0.89-1.14
Sachsen-Anhalt	434	177	1.05	0.96-1.16	134	55	0.99	0.83-1.17
Thüringen	389	160	0.95	0.86-1.05	123	51	0.91	0.76-1.09

* Standard: Segi world standard population

Tabelle 7:

Anzahl der verstorbenen Patienten innerhalb von 5, 10 bzw. 15 Jahren nach Diagnose auf Basis des ICCC-3 unter den gemeldeten Patienten unter 15 Jahren aus der deutschen Wohnbevölkerung und kumulative Mortalität nach Diagnosejahr, 1980-2011 (inklusive neue Länder seit 1991)

Annual number of deaths 5, 10 or 15 years from diagnosis based on ICCC-3 from the group of registered patients aged under 15 in Germany and cumulative mortality by year of diagnosis 1980-2011 (including East Germany since 1991)

Year of diagnosis	Deaths within 5 years after diagnosis		Deaths within 10 years after diagnosis		Deaths within 15 years after diagnosis	
	No. of cases	Cum. mortality per million	No. of cases	Cum. mortality per million	No. of cases	Cum. mortality per million
1980	342	490	370	533	382	550
1981	341	484	377	534	393	558
1982	313	472	347	521	357	537
1983	319	493	359	557	372	577
1984	325	514	354	560	364	577
1985	322	523	362	586	379	615
1986	319	531	354	588	364	605
1987	327	550	352	592	366	615
1988	316	522	347	573	357	590
1989	291	466	325	522	338	542
1990	326	498	354	541	370	565
1991 #	400	457	445	509	460	526
1992 #	435	494	471	535	491	558
1993 #	382	434	427	484	444	504
1994 #	374	425	409	465	421	479
1995 #	338	389	385	443	407	468
1996 #	349	404	386	447	402	465
1997 #	372	432	417	484	439	510
1998 #	350	410	391	458	405	475
1999 #	360	422	399	467	414	484
2000 #	394	468	428	508	450	534
2001 #	302	363	340	408	359	431
2002 #	320	387	359	435		
2003 #	322	400	362	448		
2004 #	293	372	342	433		
2005 #	298	385	325	419		
2006 #	295	389	330	435		
2007 #	271	363				
2008 #	289	390				
2009 #	261	356				
2010 #	247	341				
2011 #	224	310				

Including East Germany since 1991

Tabelle 8:

Anzahl der am Deutschen Kinderkrebsregister in der Langzeitnachbeobachtung (LTS) befindlichen Patienten mit Erstdiagnose im Alter von unter 15 / 18 (Stand 2016)

Number of patients in Long-Term-Surveillance (LTS) at the German Childhood Cancer Registry first diagnosed aged under 15 / 18 (as of 2016)

Year of diagnosis	1980 - 1989 *	1990 - 1999 *	2000 - 2009 **	2010 - 2016 ***	1980 - 2016**
	N (%)	N (%)	N (%)	N (%)	N (%)
Patients registered	**10997**	**17244**	**18329**	**14583**	**61153 #**
deceased	3894 (35.4 %)	4243 (24.6 %)	3396 (18.5 %)	1328 (9.1 %)	12861 (21.0 %)
surviving	**7103 (64.6 %)**	**13001 (75.4 %)**	**14933 (81.5 %)**	**13255 (90.9 %)**	**48292 (79.0 %)**
anonymous+	994 (14.0 %)	1111 (8.5 %)	439 (2.9 %)	125 (0.9 %)	2669 (5.5 %)
identifiable	**6109 (86.0 %)**	**11890 (91.5 %)**	**14494 (97.1 %)**	**13130 (99.1 %)**	**45623 (94.5 %)**
< 5 years since diagnosis	-	-	-	8311 (63.3 %)	8311 (18.2 %)
>= 5 years since diagnosis	**6109 (100 %)**	**11890 (100 %)**	**14494 (100 %)**	**4819 (36.7 %)**	**37312 (81.8 %)**
lost-to-follow-up	728 (11.9 %)	900 (7.6 %)	369 (2.5 %)	45 (0.9 %)	2042 (5.5 %)
in LTS	**5381 (88.1 %)**	**10990 (92.4 %)**	**14125 (97.5 %)**	**4774 (99.1 %)**	**35270 (94.5 %)**

61153 patients correspond to 61954 cases diagnosed under 15 / 18 years resident in Germany at the date of diagnosis 1980-2016 and diagnosed with a disease included in ICCC-3.

\- Not applicable

\+ Consent not available, refused or withdrawn later.

* First diagnosis under 15.

** First diagnosis under 15 until 2008, under 18 from 2009 onwards.

*** First diagnosis under 18.

Tabelle 9:
Anzahl der gemeldeten Fälle und Inzidenzraten bezogen auf eine Million Kinder und Jugendliche unter 18 aus der deutschen Wohnbevölkerung nach Diagnose auf Basis des ICCC-3, Alter und Geschlecht (2009-2016). *ICCC-3 extended Subklassifikation kursiv dargestellt.*

Number of cases and incidence rates per million children and adolescents aged under 18 years in Germany by diagnosis classified according to ICCC-3, age and sex (2009-2016). *ICCC-3 extended subclassification in italics.*

Diagnoses	Sex	Sex ratio	Number of cases					Incidence rates per million				Trial participants
			N	Relative	Group	Age group		Age stand. *			Cum.	
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
All malignancies	girls		7506	100	100	6266	1240	155	132	152	2644	95.6
	boys		9458	100	100	7792	1666	182	167	180	3155	96.0
	total	**1.3**	**16964**	**100**	**100**	**14058**	**2906**	**169**	**150**	**166**	**2906**	**95.8**
Leukaemias, myeloproliferative and myelodysplastic diseases	girls		2253	30	100	2006	247	51	26	47	806	99.4
	boys		2885	31	100	2497	388	60	39	56	975	99.0
	total	**1.3**	**5138**	**30**	**100**	**4503**	**635**	**56**	**33**	**52**	**892**	**99.2**
Lymphoid leukaemias	girls		1658	22	74	1532	126	39	13	35	598	99.6
	boys		2190	23	76	1934	256	47	26	43	743	99.7
	total	**1.3**	**3848**	**23**	**75**	**3466**	**382**	**43**	**20**	**39**	**672**	**99.7**
Precursor cell leukaemias	girls		1636	22	73	1512	124	39	13	35	590	99.6
	boys		2118	22	73	1869	249	45	25	42	719	99.7
	total	**1.3**	**3754**	**22**	**73**	**3381**	**373**	**42**	**19**	**38**	**656**	**99.7**
Mature B-cell leukaemias	girls		21	0	1	19	2	0	0	0	7	100.0
	boys		71	1	2	64	7	1	1	1	24	100.0
	total	**3.4**	**92**	**1**	**2**	**83**	**9**	**1**	**0**	**1**	**16**	**100.0**
Mature T-cell and NK cell leukaemias	girls		1	0	0	1	0	0	0	0	0	100.0
	boys		1	0	0	1	0	0	0	0	0	100.0
	total	**1.0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**100.0**
Lymphoid leukaemia, NOS	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Acute myeloid leukaemias	girls		333	4	15	271	62	7	7	7	117	99.4
	boys		354	4	12	292	62	7	6	7	119	96.9
	total	**1.1**	**687**	**4**	**13**	**563**	**124**	**7**	**6**	**7**	**118**	**98.1**
Chronic myeloproliferative diseases	girls		40	1	2	28	12	1	1	1	13	95.0
	boys		63	1	2	37	26	1	3	1	20	79.4
	total	**1.6**	**103**	**1**	**2**	**65**	**38**	**1**	**2**	**1**	**17**	**85.4**
Myelodysplastic syndrome and other myeloproliferative diseases	girls		195	3	9	152	43	4	5	4	68	99.0
	boys		250	3	9	209	41	5	4	5	83	100.0
	total	**1.3**	**445**	**3**	**9**	**361**	**84**	**4**	**4**	**4**	**76**	**99.6**

* Standard: Segi world standard population

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Relative Group %	Age group 0 - 14	Age group 15 - 17	Incidence rates per million Age stand. * 0 - 14	Age stand. * 15 - 17	Cum. 0 - 17	Cum. 0 - 17	Trial participants %
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Unspecified	girls		27	0	1	23	4	1	0	1	9	100.0
and other specified leukaemias	boys		28	0	1	25	3	1	0	1	9	100.0
	total	**1.0**	**55**	**0**	**1**	**48**	**7**	**1**	**0**	**1**	**9**	**100.0**
Lymphomas	girls		867	12	100	474	393	10	42	15	288	97.6
and reticuloendothelial neoplasms	boys		1556	16	100	1033	523	22	52	26	500	97.2
	total	**1.8**	**2423**	**14**	**100**	**1507**	**916**	**16**	**47**	**21**	**397**	**97.4**
Hodgkin lymphomas	girls		587	8	68	262	325	5	34	10	192	97.8
	boys		708	7	46	398	310	8	31	11	223	97.0
	total	**1.2**	**1295**	**8**	**53**	**660**	**635**	**7**	**33**	**11**	**208**	**97.4**
Non-Hodgkin lymphomas	girls		235	3	27	169	66	4	7	4	81	97.4
	boys		604	6	39	428	176	9	18	10	196	97.2
	total	**2.6**	**839**	**5**	**35**	**597**	**242**	**7**	**12**	**7**	**140**	**97.3**
Precursor cell lymphomas	girls		66	1	8	59	7	1	1	1	23	95.5
	boys		184	2	12	146	38	3	4	3	61	95.1
	total	**2.8**	**250**	**1**	**10**	**205**	**45**	**2**	**2**	**2**	**42**	**95.2**
Mature B-cell lymphomas	girls		53	1	6	34	19	1	2	1	18	98.1
(except Burkitt lymphoma)	boys		133	1	9	76	57	2	6	2	42	97.0
	total	**2.5**	**186**	**1**	**8**	**110**	**76**	**1**	**4**	**2**	**30**	**97.3**
Mature T-cell and NK-cell lymphomas	girls		57	1	7	40	17	1	2	1	19	96.5
	boys		107	1	7	81	26	2	3	2	35	100.0
	total	**1.9**	**164**	**1**	**7**	**121**	**43**	**1**	**2**	**1**	**27**	**98.8**
Non-Hodgkin lymphomas, NOS	girls		59	1	7	36	23	1	2	1	20	100.0
	boys		180	2	12	125	55	3	6	3	59	97.8
	total	**3.1**	**239**	**1**	**10**	**161**	**78**	**2**	**4**	**2**	**40**	**98.3**
Burkitt lymphoma	girls		37	0	4	35	2	1	0	1	13	100.0
	boys		231	2	15	198	33	4	3	4	77	98.7
	total	**6.2**	**268**	**2**	**11**	**233**	**35**	**3**	**2**	**3**	**46**	**98.9**
Miscellaneous	girls		5	0	1	5	0	0	0	0	2	80.0
lymphoreticular neoplasms	boys		7	0	0	3	4	0	0	0	2	71.4
	total	**1.4**	**12**	**0**	**0**	**8**	**4**	**0**	**0**	**0**	**2**	**75.0**
Unspecified lymphomas	girls		3	0	0	3	0	0	0	0	1	66.7
	boys		6	0	0	6	0	0	0	0	2	100.0
	total	**2.0**	**9**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**2**	**88.9**

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age group		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
CNS and miscellaneous intracranial and intraspinal neoplasms	girls		1848	25	100	1616	232	39	25	37	652	95.5
	boys		2192	23	100	1926	266	44	27	41	734	96.2
	total	**1.2**	**4040**	**24**	**100**	**3542**	**498**	**42**	**26**	**39**	**694**	**95.8**
Ependymomas and choroid plexus tumour	girls		168	2	9	152	16	4	2	4	60	96.4
	boys		219	2	10	203	16	5	2	4	74	97.3
	total	**1.3**	**387**	**2**	**10**	**355**	**32**	**4**	**2**	**4**	**68**	**96.9**
Ependymomas	girls		131	2	7	117	14	3	1	3	47	96.9
	boys		171	2	8	158	13	4	1	3	58	97.1
	total	**1.3**	**302**	**2**	**7**	**275**	**27**	**3**	**1**	**3**	**53**	**97.0**
Choroid plexus tumour	girls		37	0	2	35	2	1	0	1	13	94.6
	boys		48	1	2	45	3	1	0	1	17	97.9
	total	**1.3**	**85**	**1**	**2**	**80**	**5**	**1**	**0**	**1**	**15**	**96.5**
Astrocytomas	girls		885	12	48	786	99	19	11	18	312	96.4
	boys		954	10	44	829	125	19	13	18	319	96.1
	total	**1.1**	**1839**	**11**	**46**	**1615**	**224**	**19**	**12**	**18**	**316**	**96.2**
Intracranial and intraspinal embryonal tumours	girls		251	3	14	233	18	6	2	5	90	96.8
	boys		412	4	19	378	34	9	3	8	141	98.5
	total	**1.6**	**663**	**4**	**16**	**611**	**52**	**8**	**3**	**7**	**116**	**97.9**
Medulloblastomas	girls		169	2	9	153	16	4	2	3	60	98.2
	boys		310	3	14	278	32	6	3	6	105	99.4
	total	**1.8**	**479**	**3**	**12**	**431**	**48**	**5**	**2**	**5**	**83**	**99.0**
Primitive neuroectodermal tumour (PNET)	girls		23	0	1	22	1	1	0	1	8	95.7
	boys		29	0	1	28	1	1	0	1	10	100.0
	total	**1.3**	**52**	**0**	**1**	**50**	**2**	**1**	**0**	**1**	**9**	**98.1**
Medulloepithelioma	girls		8	0	0	7	1	0	0	0	3	87.5
	boys		6	0	0	6	0	0	0	0	2	100.0
	total	**0.8**	**14**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**2**	**92.9**
Atypical teratoid/rhabdoid tumour	girls		51	1	3	51	0	1	0	1	19	94.1
	boys		67	1	3	66	1	2	0	2	24	94.0
	total	**1.3**	**118**	**1**	**3**	**117**	**1**	**2**	**0**	**1**	**21**	**94.1**
Other gliomas	girls		202	3	11	178	24	4	3	4	71	94.6
	boys		216	2	10	193	23	4	2	4	72	98.1
	total	**1.1**	**418**	**2**	**10**	**371**	**47**	**4**	**2**	**4**	**72**	**96.4**

* Standard: Segi world standard population

\- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Relative Group %	Age group 0 - 14	Age group 15 - 17	Incidence rates per million Age stand. * 0 - 14	Age stand. * 15 - 17	Cum. 0 - 17	Cum. 0 - 17	Trial participants %
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Oligodendrogliomas	girls		4	0	0	1	3	0	0	0	1	100.0
	boys		5	0	0	4	1	0	0	0	2	100.0
	total	**1.3**	**9**	**0**	**0**	**5**	**4**	**0**	**0**	**0**	**1**	**100.0**
Mixed and unspecified gliomas	girls		188	3	10	167	21	4	2	4	67	94.1
	boys		201	2	9	181	20	4	2	4	67	98.0
	total	**1.1**	**389**	**2**	**10**	**348**	**41**	**4**	**2**	**4**	**67**	**96.1**
Neuroepithelial glial tumours	girls		10	0	1	10	0	0	0	0	4	100.0
of uncertain origin	boys		10	0	0	8	2	0	0	0	3	100.0
	total	**1.0**	**20**	**0**	**0**	**18**	**2**	**0**	**0**	**0**	**3**	**100.0**
Other specified intracranial	girls		311	4	17	241	70	5	7	6	107	93.2
and intraspinal neoplasms	boys		363	4	17	297	66	6	7	6	119	92.6
	total	**1.2**	**674**	**4**	**17**	**538**	**136**	**6**	**7**	**6**	**113**	**92.9**
Pituitary adenomas and carcinomas	girls		34	0	2	12	22	0	2	1	11	82.4
	boys		18	0	1	11	7	0	1	0	6	72.2
	total	**0.5**	**52**	**0**	**1**	**23**	**29**	**0**	**1**	**0**	**8**	**78.8**
Tumours of the sellar region	girls		91	1	5	81	10	2	1	2	32	100.0
(craniopharyngiomas)	boys		86	1	4	72	14	2	1	2	29	98.8
	total	**0.9**	**177**	**1**	**4**	**153**	**24**	**2**	**1**	**2**	**30**	**99.4**
Pineal parenchymal tumours	girls		22	0	1	17	5	0	1	0	8	100.0
	boys		14	0	1	12	2	0	0	0	5	100.0
	total	**0.6**	**36**	**0**	**1**	**29**	**7**	**0**	**0**	**0**	**6**	**100.0**
Neuronal	girls		142	2	8	114	28	3	3	3	49	94.4
and mixed neuronal-glial tumours	boys		214	2	10	182	32	4	3	4	70	94.9
	total	**1.5**	**356**	**2**	**9**	**296**	**60**	**3**	**3**	**3**	**60**	**94.7**
Meningiomas	girls		22	0	1	17	5	0	1	0	8	68.2
	boys		31	0	1	20	11	0	1	1	10	67.7
	total	**1.4**	**53**	**0**	**1**	**37**	**16**	**0**	**1**	**0**	**9**	**67.9**
Unspecified intracranial	girls		31	0	2	26	5	1	1	1	11	80.6
and intraspinal neoplasms	boys		28	0	1	26	2	1	0	0	9	85.7
	total	**0.9**	**59**	**0**	**1**	**52**	**7**	**1**	**0**	**1**	**10**	**83.1**
Neuroblastoma	girls		395	5	100	391	4	11	0	10	146	98.2
and other peripheral	boys		554	6	100	551	3	15	0	13	195	99.6
nervous cell tumours	**total**	**1.4**	**949**	**6**	**100**	**942**	**7**	**13**	**0**	**11**	**171**	**99.1**

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Age group %		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Neuroblastoma	girls		391	5	99	387	4	11	0	10	144	98.7
and ganglioneuroblastoma	boys		551	6	99	548	3	15	0	13	194	99.6
	total	**1.4**	**942**	**6**	**99**	**935**	**7**	**13**	**0**	**11**	**170**	**99.3**
Other peripheral nervous cell tumours	girls		4	0	1	4	0	0	0	0	1	50.0
	boys		3	0	1	3	0	0	0	0	1	100.0
	total	**0.8**	**7**	**0**	**1**	**7**	**0**	**0**	**0**	**0**	**1**	**71.4**
Retinoblastoma	girls		157	2	100	157	0	5	0	4	58	45.2
	boys		162	2	100	162	0	4	0	4	57	43.8
	total	**1.0**	**319**	**2**	**100**	**319**	**0**	**5**	**0**	**4**	**58**	**44.5**
Renal tumours	girls		425	6	100	412	13	11	1	10	156	99.3
	boys		365	4	100	356	9	9	1	8	127	98.6
	total	**0.9**	**790**	**5**	**100**	**768**	**22**	**10**	**1**	**9**	**141**	**99.0**
Nephroblastoma	girls		413	6	97	404	9	11	1	9	152	99.8
and other non-epithelial renal tumours	boys		347	4	95	345	2	9	0	8	122	99.1
	total	**0.8**	**760**	**4**	**96**	**749**	**11**	**10**	**1**	**9**	**136**	**99.5**
Nephroblastoma	girls		401	5	94	394	7	11	1	9	148	99.8
	boys		336	4	92	334	2	9	0	7	118	99.1
	total	**0.8**	**737**	**4**	**93**	**728**	**9**	**10**	**0**	**8**	**132**	**99.5**
Rhabdoid renal tumour	girls		8	0	2	7	1	0	0	0	3	100.0
	boys		9	0	2	9	0	0	0	0	3	100.0
	total	**1.1**	**17**	**0**	**2**	**16**	**1**	**0**	**0**	**0**	**3**	**100.0**
Kidney sarcomas	girls		4	0	1	3	1	0	0	0	1	100.0
	boys		2	0	1	2	0	0	0	0	1	100.0
	total	**0.5**	**6**	**0**	**1**	**5**	**1**	**0**	**0**	**0**	**1**	**100.0**
Peripheral neuroectodermal tumour	girls		0	0	0	0	0	0	0	0	0	-
(pPNET) of kidney	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Renal carcinomas	girls		12	0	3	8	4	0	0	0	4	83.3
	boys		18	0	5	11	7	0	1	0	6	88.9
	total	**1.5**	**30**	**0**	**4**	**19**	**11**	**0**	**1**	**0**	**5**	**86.7**
Unspecified malignant renal tumours	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**

* Standard: Segi world standard population

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age group		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Hepatic tumours	girls		103	1	100	94	9	3	1	2	37	71.8
	boys		124	1	100	115	9	3	1	3	43	72.6
	total	**1.2**	**227**	**1**	**100**	**209**	**18**	**3**	**1**	**3**	**40**	**72.2**
Hepatoblastoma	girls		85	1	83	85	0	2	0	2	32	74.1
	boys		111	1	90	109	2	3	0	3	39	73.0
	total	**1.3**	**196**	**1**	**86**	**194**	**2**	**3**	**0**	**2**	**35**	**73.5**
Hepatic carcinomas	girls		18	0	17	9	9	0	1	0	6	61.1
	boys		13	0	10	6	7	0	1	0	4	69.2
	total	**0.7**	**31**	**0**	**14**	**15**	**16**	**0**	**1**	**0**	**5**	**64.5**
Unspecified malignant hepatic tumours	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Malignant bone tumours	girls		383	5	100	277	106	6	11	7	129	98.4
	boys		504	5	100	330	174	7	17	8	160	98.0
	total	**1.3**	**887**	**5**	**100**	**607**	**280**	**6**	**14**	**7**	**145**	**98.2**
Osteosarcomas	girls		195	3	51	143	52	3	6	3	65	99.5
	boys		266	3	53	159	107	3	11	4	83	98.1
	total	**1.4**	**461**	**3**	**52**	**302**	**159**	**3**	**8**	**4**	**75**	**98.7**
Chondrosarcomas	girls		3	0	1	2	1	0	0	0	1	100.0
	boys		8	0	2	8	0	0	0	0	3	100.0
	total	**2.7**	**11**	**0**	**1**	**10**	**1**	**0**	**0**	**0**	**2**	**100.0**
Ewing tumour	girls		175	2	46	126	49	3	5	3	59	98.3
and related sarcomas of bone	boys		223	2	44	158	65	3	7	4	72	98.7
	total	**1.3**	**398**	**2**	**45**	**284**	**114**	**3**	**6**	**3**	**66**	**98.5**
Ewing tumour	girls		166	2	43	120	46	3	5	3	56	98.8
and askin tumour of bone	boys		216	2	43	153	63	3	6	4	69	98.6
	total	**1.3**	**382**	**2**	**43**	**273**	**109**	**3**	**6**	**3**	**63**	**98.7**
Peripheral neuroectodermal tumour	girls		9	0	2	6	3	0	0	0	3	88.9
(pPNET) of bone	boys		7	0	1	5	2	0	0	0	2	100.0
	total	**0.8**	**16**	**0**	**2**	**11**	**5**	**0**	**0**	**0**	**3**	**93.8**
Other specified malignant bone tumours	girls		9	0	2	5	4	0	0	0	3	77.8
	boys		5	0	1	4	1	0	0	0	2	80.0
	total	**0.6**	**14**	**0**	**2**	**9**	**5**	**0**	**0**	**0**	**2**	**78.6**

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age group		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Malignant fibrous	girls		0	0	0	0	0	0	0	0	0	-
neoplasms of bone	boys		2	0	0	1	1	0	0	0	1	100.0
	total	**-**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**100.0**
Malignant chordomas	girls		8	0	2	4	4	0	0	0	3	87.5
	boys		3	0	1	3	0	0	0	0	1	66.7
	total	**0.4**	**11**	**0**	**1**	**7**	**4**	**0**	**0**	**0**	**2**	**81.8**
Odontogenic malignant tumours	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Miscellaneous malignant	girls		1	0	0	1	0	0	0	0	0	0.0
bone tumours	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0.0**
Unspecified malignant bone tumours	girls		1	0	0	1	0	0	0	0	0	100.0
	boys		2	0	0	1	1	0	0	0	1	50.0
	total	**2.0**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**66.7**
Soft tissue	girls		439	6	100	360	79	9	8	9	154	98.9
and other extraosseous sarcomas	boys		553	6	100	443	110	10	11	10	184	98.0
	total	**1.3**	**992**	**6**	**100**	**803**	**189**	**10**	**10**	**10**	**169**	**98.4**
Rhabdomyosarcomas	girls		201	3	46	177	24	4	3	4	71	100.0
	boys		282	3	51	233	49	6	5	6	95	99.6
	total	**1.4**	**483**	**3**	**49**	**410**	**73**	**5**	**4**	**5**	**84**	**99.8**
Fibrosarcomas, peripheral	girls		52	1	12	40	12	1	1	1	18	92.3
nerve sheath tumours	boys		55	1	10	44	11	1	1	1	18	98.2
and other fibrous neoplasms	**total**	**1.1**	**107**	**1**	**11**	**84**	**23**	**1**	**1**	**1**	**18**	**95.3**
Fibroblastic	girls		25	0	6	20	5	1	1	1	9	92.0
and myofibroblastic tumours	boys		22	0	4	20	2	0	0	0	7	95.5
	total	**0.9**	**47**	**0**	**5**	**40**	**7**	**1**	**0**	**0**	**8**	**93.6**
Nerve sheath tumours	girls		27	0	6	20	7	0	1	0	9	92.6
	boys		33	0	6	24	9	1	1	1	11	100.0
	total	**1.2**	**60**	**0**	**6**	**44**	**16**	**0**	**1**	**1**	**10**	**96.7**
Other fibrous neoplasms	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**

* Standard: Segi world standard population

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Relative Age group %	Age group 0 - 14	Age group 15 - 17	Incidence rates per million Age stand. * 0 - 14	Age stand. * 15 - 17	Cum. 0 - 17	Trial participants %
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	%
Kaposi sarcoma	girls		1	0	0	1	0	0	0	0	100.0
	boys		1	0	0	1	0	0	0	0	0.0
	total	**1.0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**50.0**
Other specified soft tissue sarcomas	girls		151	2	34	113	38	3	4	52	99.3
	boys		167	2	30	128	39	3	4	55	97.0
	total	**1.1**	**318**	**2**	**32**	**241**	**77**	**3**	**4**	**53**	**98.1**
Ewing tumour	girls		33	0	8	24	9	1	1	11	97.0
and askin tumour of soft tissue	boys		28	0	5	21	7	0	1	9	100.0
	total	**0.8**	**61**	**0**	**6**	**45**	**16**	**0**	**1**	**10**	**98.4**
Peripheral neuroectodermal tumour	girls		3	0	1	2	1	0	0	1	100.0
(pPNET) of soft tissue	boys		10	0	2	9	1	0	0	3	100.0
	total	**3.3**	**13**	**0**	**1**	**11**	**2**	**0**	**0**	**2**	**100.0**
Extrarenal rhabdoid tumour	girls		28	0	6	27	1	1	0	1	10	100.0
	boys		26	0	5	24	2	1	0	1	9	92.3
	total	**0.9**	**54**	**0**	**5**	**51**	**3**	**1**	**0**	**1**	**10**	**96.3**
Liposarcomas	girls		5	0	1	2	3	0	0	0	2	100.0
	boys		6	0	1	2	4	0	0	0	2	100.0
	total	**1.2**	**11**	**0**	**1**	**4**	**7**	**0**	**0**	**0**	**2**	**100.0**
Fibrohistiocytic tumours	girls		18	0	4	16	2	0	0	0	6	100.0
	boys		20	0	4	16	4	0	0	0	7	95.0
	total	**1.1**	**38**	**0**	**4**	**32**	**6**	**0**	**0**	**0**	**6**	**97.4**
Leiomyosarcomas	girls		1	0	0	0	1	0	0	0	0	100.0
	boys		1	0	0	0	1	0	0	0	0	100.0
	total	**1.0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**100.0**
Synovial sarcomas	girls		34	0	8	23	11	0	1	1	11	100.0
	boys		39	0	7	28	11	1	1	1	12	97.4
	total	**1.1**	**73**	**0**	**7**	**51**	**22**	**1**	**1**	**1**	**12**	**98.6**
Blood vessel tumours	girls		5	0	1	4	1	0	0	0	2	100.0
	boys		5	0	1	4	1	0	0	0	2	80.0
	total	**1.0**	**10**	**0**	**1**	**8**	**2**	**0**	**0**	**0**	**2**	**90.0**
Osseous and chondromatous	girls		3	0	1	2	1	0	0	0	1	100.0
neoplasms of soft tissue	boys		3	0	1	2	1	0	0	0	1	100.0
	total	**1.0**	**6**	**0**	**1**	**4**	**2**	**0**	**0**	**0**	**1**	**100.0**

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age group		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Alveolar soft parts sarcoma	girls		10	0	2	6	4	0	0	0	3	100.0
	boys		7	0	1	4	3	0	0	0	2	100.0
	total	**0.7**	**17**	**0**	**2**	**10**	**7**	**0**	**0**	**0**	**3**	**100.0**
Miscellaneous soft tissue sarcomas	girls		11	0	3	7	4	0	0	0	4	100.0
	boys		22	0	4	18	4	0	0	0	7	100.0
	total	**2.0**	**33**	**0**	**3**	**25**	**8**	**0**	**0**	**0**	**6**	**100.0**
Unspecified soft tissue sarcomas	girls		34	0	8	29	5	1	1	1	12	100.0
	boys		48	1	9	37	11	1	1	1	16	93.8
	total	**1.4**	**82**	**0**	**8**	**66**	**16**	**1**	**1**	**1**	**14**	**96.3**
Germ cell tumours,	girls		345	5	100	278	67	7	7	7	120	96.5
trophoblastic tumours	boys		327	3	100	212	115	5	12	6	106	98.2
and neoplasms of gonads	**total**	**0.9**	**672**	**4**	**100**	**490**	**182**	**6**	**9**	**6**	**113**	**97.3**
Intracranial	girls		55	1	16	46	9	1	1	1	19	96.4
and intraspinal germ cell tumours	boys		132	1	40	99	33	2	3	2	42	96.2
	total	**2.4**	**187**	**1**	**28**	**145**	**42**	**2**	**2**	**2**	**31**	**96.3**
Intracranial and intraspinal germinoma	girls		28	0	8	21	7	0	1	0	9	100.0
	boys		84	1	26	57	27	1	3	1	26	100.0
	total	**3.0**	**112**	**1**	**17**	**78**	**34**	**1**	**2**	**1**	**18**	**100.0**
Intracranial and intraspinal teratomas	girls		9	0	3	7	2	0	0	0	3	88.9
	boys		13	0	4	13	0	0	0	0	5	69.2
	total	**1.4**	**22**	**0**	**3**	**20**	**2**	**0**	**0**	**0**	**4**	**77.3**
Intracranial	girls		0	0	0	0	0	0	0	0	0	-
and intraspinal embryonal carcinoma	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Intracranial	girls		1	0	0	1	0	0	0	0	0	100.0
and intraspinal yolk sac tumour	boys		5	0	2	4	1	0	0	0	2	100.0
	total	**5.0**	**6**	**0**	**1**	**5**	**1**	**0**	**0**	**0**	**1**	**100.0**
Intracranial	girls		4	0	1	4	0	0	0	0	1	100.0
and intraspinal choriocarcinoma	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**4**	**0**	**1**	**4**	**0**	**0**	**0**	**0**	**1**	**100.0**
Intracranial	girls		13	0	4	13	0	0	0	0	5	92.3
and intraspinal tumours of mixed for	boys		30	0	9	25	5	0	1	1	10	96.7
	total	**2.3**	**43**	**0**	**6**	**38**	**5**	**0**	**0**	**0**	**7**	**95.3**

* Standard: Segi world standard population

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Relative Age group %	Age group 0 - 14	Age group 15 - 17	Incidence rates per million Age stand. * 0 - 14	Age stand. * 15 - 17	Cum. 0 - 17	Trial participants %
		m / f	0-17								
Malignant extracranial	girls		107	1	31	105	2	3	0	39	99.1
and extragonadal germ cell tumours	boys		67	1	20	51	16	1	2	23	98.5
	total	**0.6**	**174**	**1**	**26**	**156**	**18**	**2**	**1**	**31**	**98.9**
Germinomas of extracranial	girls		7	0	2	7	0	0	0	3	100.0
and extragonadal sites	boys		12	0	4	6	6	0	1	4	100.0
	total	**1.7**	**19**	**0**	**3**	**13**	**6**	**0**	**0**	**3**	**100.0**
Malignant teratomas of extracranial	girls		53	1	15	53	0	2	0	20	100.0
and extragonadal sites	boys		28	0	9	28	0	1	0	10	96.4
	total	**0.5**	**81**	**0**	**12**	**81**	**0**	**1**	**0**	**15**	**98.8**
Embryonal carcinomas of extracranial	girls		0	0	0	0	0	0	0	0	-
and extragonadal sites	boys		0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Yolk sac tumour of extracranial	girls		29	0	8	28	1	1	0	11	96.6
and extragonadal sites	boys		13	0	4	9	4	0	0	4	100.0
	total	**0.4**	**42**	**0**	**6**	**37**	**5**	**1**	**0**	**7**	**97.6**
Choriocarcinomas of extracranial	girls		0	0	0	0	0	0	0	0	-
and extragonadal sites	boys		0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Other and unspecified malignant mixe	girls		18	0	5	17	1	0	0	7	100.0
germ cell tumours of extracranial	boys		14	0	4	8	6	0	1	5	100.0
and extragonadal sites	**total**	**0.8**	**32**	**0**	**5**	**25**	**7**	**0**	**0**	**6**	**100.0**
Malignant gonadal germ cell tumours	girls		171	2	50	123	48	3	5	3	57	98.2
	boys		128	1	39	62	66	2	7	2	41	100.0
	total	**0.7**	**299**	**2**	**44**	**185**	**114**	**2**	**6**	**3**	**49**	**99.0**
Malignant gonadal germinomas	girls		48	1	14	32	16	1	2	1	16	100.0
	boys		14	0	4	4	10	0	1	0	4	100.0
	total	**0.3**	**62**	**0**	**9**	**36**	**26**	**0**	**1**	**1**	**10**	**100.0**
Malignant gonadal teratomas	girls		33	0	10	29	4	1	0	1	11	93.9
	boys		15	0	5	13	2	0	0	0	5	100.0
	total	**0.5**	**48**	**0**	**7**	**42**	**6**	**0**	**0**	**0**	**8**	**95.8**
Malignant gonadal	girls		0	0	0	0	0	0	0	0	0	-
embryonal carcinomas	boys		8	0	2	0	8	0	1	0	2	100.0
	total	**-**	**8**	**0**	**1**	**0**	**8**	**0**	**0**	**0**	**1**	**100.0**

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative	Group	Age group		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Malignant gonadal yolk sac tumour	girls		22	0	6	17	5	0	1	0	7	95.5
	boys		23	0	7	21	2	1	0	1	8	100.0
	total	**1.0**	**45**	**0**	**7**	**38**	**7**	**0**	**0**	**0**	**8**	**97.8**
Malignant gonadal choriocarcinoma	girls		5	0	1	4	1	0	0	0	2	100.0
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**5**	**0**	**1**	**4**	**1**	**0**	**0**	**0**	**1**	**100.0**
Malignant gonadal tumours of mixed forms	girls		63	1	18	41	22	1	2	1	21	100.0
	boys		68	1	21	24	44	1	4	1	21	100.0
	total	**1.1**	**131**	**1**	**19**	**65**	**66**	**1**	**3**	**1**	**21**	**100.0**
Malignant gonadal gonadoblastoma	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Gonadal carcinomas	girls		10	0	3	3	7	0	1	0	3	40.0
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**10**	**0**	**1**	**3**	**7**	**0**	**0**	**0**	**2**	**40.0**
Other and unspecified malignant gonadal tumours	girls		2	0	1	1	1	0	0	0	1	100.0
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**100.0**
Other malignant epithelial neoplasms and malignant melanomas	girls		275	4	100	186	89	4	9	5	92	76.7
	boys		222	2	100	155	67	3	7	4	71	73.0
	total	**0.8**	**497**	**3**	**100**	**341**	**156**	**3**	**8**	**4**	**81**	**75.1**
Adrenocortical carcinomas	girls		9	0	3	7	2	0	0	0	3	88.9
	boys		8	0	4	8	0	0	0	0	3	100.0
	total	**0.9**	**17**	**0**	**3**	**15**	**2**	**0**	**0**	**0**	**3**	**94.1**
Thyroid carcinomas	girls		108	1	39	75	33	2	4	2	36	84.3
	boys		61	1	27	46	15	1	2	1	19	88.5
	total	**0.6**	**169**	**1**	**34**	**121**	**48**	**1**	**2**	**1**	**27**	**85.8**
Nasopharyngeal carcinomas	girls		3	0	1	1	2	0	0	0	1	100.0
	boys		22	0	10	11	11	0	1	0	7	86.4
	total	**7.3**	**25**	**0**	**5**	**12**	**13**	**0**	**1**	**0**	**4**	**88.0**
Malignant melanomas	girls		33	0	12	27	6	1	1	1	11	45.5
	boys		40	0	18	31	9	1	1	1	13	40.0
	total	**1.2**	**73**	**0**	**15**	**58**	**15**	**1**	**1**	**1**	**12**	**42.5**

* Standard: Segi world standard population

- insufficient data

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Relative Age group %	Age group 0 - 14	Age group 15 - 17	Incidence rates per million Age stand. * 0 - 14	Age stand. * 15 - 17	Cum. 0 - 17	Trial participants %
		m / f	0-17								
Skin carcinomas	girls		5	0	2	5	0	0	0	2	40.0
	boys		5	0	2	3	2	0	0	2	40.0
	total	**1.0**	**10**	**0**	**2**	**8**	**2**	**0**	**0**	**2**	**40.0**
Other and unspecified carcinomas	girls		117	2	43	71	46	1	5	39	78.6
	boys		86	1	39	56	30	1	3	27	73.3
	total	**0.7**	**203**	**1**	**41**	**127**	**76**	**1**	**4**	**33**	**76.4**
Carcinomas of salivary glands	girls		9	0	3	8	1	0	0	3	33.3
	boys		9	0	4	8	1	0	0	3	33.3
	total	**1.0**	**18**	**0**	**4**	**16**	**2**	**0**	**0**	**3**	**33.3**
Carcinomas of colon and rectum	girls		5	0	2	4	1	0	0	2	60.0
	boys		13	0	6	5	8	0	1	4	46.2
	total	**2.6**	**18**	**0**	**4**	**9**	**9**	**0**	**0**	**3**	**50.0**
Carcinomas of appendix	girls		66	1	24	44	22	1	2	22	97.0
	boys		32	0	14	26	6	0	1	10	100.0
	total	**0.5**	**98**	**1**	**20**	**70**	**28**	**1**	**1**	**16**	**98.0**
Carcinomas of lung	girls		8	0	3	1	7	0	1	3	75.0
	boys		10	0	5	5	5	0	1	3	70.0
	total	**1.3**	**18**	**0**	**4**	**6**	**12**	**0**	**1**	**3**	**72.2**
Carcinomas of thymus	girls		2	0	1	0	2	0	0	1	0.0
	boys		0	0	0	0	0	0	0	0	-
	total	**-**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0.0**
Carcinomas of breast	girls		1	0	0	0	1	0	0	0	0.0
	boys		0	0	0	0	0	0	0	0	-
	total	**-**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0.0**
Carcinomas of cervix uteri	girls		1	0	0	1	0	0	0	0	0.0
	boys		0	0	0	0	0	0	0	0	-
	total	**-**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0.0**
Carcinomas of bladder	girls		2	0	1	0	2	0	0	1	50.0
	boys		1	0	0	0	1	0	0	0	100.0
	total	**0.5**	**3**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**66.7**
Carcinomas of eye	girls		0	0	0	0	0	0	0	0	-
	boys		1	0	0	1	0	0	0	0	0.0
	total	**-**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0.0**

Tabelle 9 Forts. **Table 9 cont.**

Diagnoses	Sex	Sex ratio	Number of cases N	Relative Group %	Age group %		Incidence rates per million Age stand. *		Cum.		Trial participants
		m / f	0-17	%	0 - 14	15 - 17	0 - 14	15 - 17	0 - 17	0 - 17	%
Carcinomas of other specified sites	girls		20	0	7	12	8	0	1	0	7	65.0
	boys		13	0	6	7	6	0	1	0	4	69.2
	total	**0.7**	**33**	**0**	**7**	**19**	**14**	**0**	**1**	**0**	**5**	**66.7**
Carcinomas of unspecified site	girls		3	0	1	1	2	0	0	0	1	66.7
	boys		7	0	3	4	3	0	0	0	2	71.4
	total	**2.3**	**10**	**0**	**2**	**5**	**5**	**0**	**0**	**0**	**2**	**70.0**
Others and unspecified malignant neoplasms	girls		16	0	100	15	1	0	0	0	6	75.0
	boys		14	0	100	12	2	0	0	0	5	85.7
	total	**0.9**	**30**	**0**	**100**	**27**	**3**	**0**	**0**	**0**	**5**	**80.0**
Other specified malignant tumours	girls		11	0	69	10	1	0	0	0	4	81.8
	boys		12	0	86	11	1	0	0	0	4	83.3
	total	**1.1**	**23**	**0**	**77**	**21**	**2**	**0**	**0**	**0**	**4**	**82.6**
Gastrointestinal stromal tumour	girls		1	0	6	1	0	0	0	0	0	100.0
	boys		1	0	7	1	0	0	0	0	0	100.0
	total	**1.0**	**2**	**0**	**7**	**2**	**0**	**0**	**0**	**0**	**0**	**100.0**
Pancreatoblastoma	girls		3	0	19	3	0	0	0	0	1	66.7
	boys		1	0	7	0	1	0	0	0	0	0.0
	total	**0.3**	**4**	**0**	**13**	**3**	**1**	**0**	**0**	**0**	**1**	**50.0**
Pulmonary blastoma and pleuropulmonary blastoma	girls		6	0	38	6	0	0	0	0	2	100.0
	boys		10	0	71	10	0	0	0	0	4	90.0
	total	**1.7**	**16**	**0**	**53**	**16**	**0**	**0**	**0**	**0**	**3**	**93.8**
Other complex mixed and stromal neoplasms	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Mesothelioma	girls		1	0	6	0	1	0	0	0	0	0.0
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**1**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0.0**
Other specified malignant tumours	girls		0	0	0	0	0	0	0	0	0	-
	boys		0	0	0	0	0	0	0	0	0	-
	total	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**
Other unspecified malignant tumours	girls		5	0	31	5	0	0	0	0	2	60.0
	boys		2	0	14	1	1	0	0	0	1	100.0
	total	**0.4**	**7**	**0**	**23**	**6**	**1**	**0**	**0**	**0**	**1**	**71.4**

* Standard: Segi world standard population

- insufficient data

Tabelle 10:

Zahl der vom Deutschen Kinderkrebsregister an die jeweiligen Landeskrebsregister (LKR) bis einschließlich 2016 weitergeleiteten Meldungen

Number of forwarded reports from the German Childhood Cancer Registry to the state cancer registries (LKR) up to and including 2016

State cancer registry	Diagnosis period from	to	Cases
Krebsregister Schleswig-Holstein	01.01.2010	15.07.2015	469
Hamburgisches Krebsregister	01.01.2011	15.01.2016	231
Epidemiologisches Krebsregister Niedersachsen	01.01.2011	15.07.2016	1125
Bremer Krebsregister	01.01.2010	15.07.2015	77
Epidemiologisches Krebsregister NRW	01.01.2010	15.07.2015	2640
Hessisches Krebsregister	01.01.2010	15.07.2015	899
Krebsregister Rheinland-Pfalz	01.01.2010	15.07.2015	573
Bevölkerungsbezogenes Krebsregister Bayern	01.01.2011	15.07.2016	1792
Epidemiologisches Krebsregister Saarland	01.01.2010	15.07.2015	134
Gemeinsames Krebsregister GKR *	01.01.2011	15.07.2016	1970
Gesamt			**9910**

* der Länder Berlin, Brandenburg, Mecklenburg-Vorpommern, Sachsen-Anhalt und der Freistaaten Sachsen und Thüringen / the states Berlin, Mecklenburg-Western Pomerania, Saxony-Anhalt, the Free States of Saxony and Thuringia

Anmerkung/Note:

Die gesetzlichen Regelungen zur epidemiologischen Krebsregistrierung im gemeinsamen Krebsregister (GKR) und im epidemiologischen Krebsregister Niedersachen unverändert, in allen übrigen Ländern sind seit 2014 zunehmend veränderte Gesetze in Kraft getreten.

ACCIS: Automated Childhood Cancer Information System

In ACCIS, einem europäischen Projekt, wurden bis 1997 die Daten sämtlicher bevölkerungsbezogener Krebsregister zu Kindern und Jugendlichen in Europa in Bezug auf Inzidenz und Überlebenswahrscheinlichkeiten zusammengeführt (34). Derzeit werden die Daten bis 2009 und zum Teil bis 2012 für eine aktualisierte Fassung bei der IARC (International Agency for Research on Cancer) ausgewertet.

Das Deutsche Kinderkrebsregister hat seine Daten zu dem Projekt beigetragen.

ACCIS: Automated Childhood Cancer Information System

The European project ACCIS collected data from all European population based registries with data on children and adolescents with respect to incidence and survival probabilities. They published data available until 1997 (34). Currently data up to 2009 and partially up to 2012 is being analyzed at IARC (International Agency for Research on Cancer) for an updated version.

The German Childhood Cancer Registry has contributed its data to the project.

EUROCARE: EUROpean CAncer REgistry Based Study on Survival and Care of Cancer Patients

Das EUROCARE-Projekt ist ein von der EU finanziertes Projekt, das Ende der achtziger Jahre begann und in dem Überlebenswahrscheinlichkeiten bei Krebspatienten im internationalen Vergleich und unter Berücksichtigung zeitlicher Trends systematisch und umfassend analysiert werden. Zuletzt wurden die Daten der EUROCARE-5-Studie, die die Jahre bis 2007 abdeckt, publiziert (29, 41, 42). Das Deutsche Kinderkrebsregister hat seine Daten für die aktuelle EUROCARE-6-Studie eingereicht und Publikationen sind in Vorbereitung.

EUROCARE: EUROpean CAncer REgistry Based Study on Survival and Care of Cancer Patients

EUROCARE is an EU funded project, founded in the late 1980ies, which aims at comparing and analyzing international survival data on cancer patients. Regarding children, the latest published data in EUROCARE-5 covers the years until 2007 (29, 41, 42). Survival probabilities for childhood cancers have greatly improved, but differences among countries persist. The German Childhood Cancer Registry contributed its data to the current EUROCARE-6 study and publications are being prepared.

PanCare: Forschungsprojekte im Rahmen des PanCare-Netzwerkes

Das Netzwerk PanCare (Pan-European Network for Care of Survivors after Childhood and Adolescent Cancer) ist ein Zusammenschluss von Experten (z.B. Medizinern, Epidemiologen) und Betroffenen (Eltern und Langzeitüberlebende). Ziel ist es, Häufigkeit, Schwere und Auswirkungen von Spätfolgen der Therapie bei Kindern und Jugendlichen mit einer Krebserkrankung zu reduzieren. Das langfristige strategische Ziel ist es sicherzustellen, dass jeder europäische ehemalige Patient eine optimale Langzeitnachsorge erhält (32).

Zwei EU-finanzierte Projekte wurden aus dem PanCare Netzwerk initiiert:

PanCare: Research in the Framework of the PanCare Network

PanCare (Pan-European Network for Care of Survivors after Childhood and Adolescent Cancer) is a multidisciplinary pan-European network of professionals (such as clinicians and epidemiologists), survivors, and their families that aims to reduce the frequency, severity, and impact of late side-effects of the treatment of children and adolescents with cancer. The long-term strategic aim of PanCare is to ensure that every European survivor of childhood and adolescent cancer receives optimal long-term care (32).

The PanCare network has so far started two EU-funded projects:

PanCareSurFup: PanCare Childhood and Adolescent Cancer Survivor Care and Follow-up Studies

PanCareSurFup (www.pancaresurfup.eu) startete im Februar 2011 und ging Ende Januar 2017 zu Ende. Das Projekt umfasst 16 Partner. Im Rahmen dieser Verbund-Forschung wurden Richtlinien entwickelt, um die Nachsorge ehemaliger Patienten zu optimieren und eine Grundlage für forschungsbezogene Informationen bereitzustellen, die alle Spätfolgen der Krebstherapie betreffen. Eine große europäische Kohorte von über 100.000 ehemaligen Patienten mit einer Krebserkran-

PanCareSurFup: PanCare Childhood and Adolescent Cancer Survivor Care and Follow-up Studies

PanCareSurFup (www.pancaresurfup.eu) started in February 2011 and ended in January 2017. It included 16 partners. The joint research aimed to provide a basis for establishing guidelines for follow-up in Europe, as well as a basis for research generating information on late effects of cancer therapies. The project has collated a large European cohort of more than 100,000 former patients with cancer in childhood or adolescence, their follow-up, and potential late

kung im Kindes- und Jugendalter wurde aufgebaut, nachbeobachtet und mögliche Spätfolgen wurden speziell untersucht. Dazu zählt das Auftreten von Zweittumoren, Herzschädigungen und das Versterben der Patienten mehr als fünf Jahre nach der Erkrankung (late mortality). Erste Publikationen sind erschienen (35, 39, 49).

PanCareLIFE: PanCare Studien zu Fertilität, Ototoxizität und Lebensqualität nach Krebs im Kindes- und Jugendalter

An dem im November 2013 begonnenen EU-finanzierten Forschungsprojekt PanCareLIFE (www.pancare-life.eu) sind Wissenschaftler aus acht europäischen Nationen beteiligt. Fertilität, Ototoxizität und gesundheitsbezogene Lebensqualität stehen im Fokus dieses Projektes. Insgesamt fließen die Daten von rund 32.000 Betroffenen in das Vorhaben ein. Anhand dieser Daten wollen die beteiligten Forscher Risikofaktoren identifizieren, die möglicherweise im Zusammenhang mit Infertilität und Ototoxizität stehen. Dazu wird DNA untersucht um festzustellen, welche genetischen Varianten potentiell mit diesen Spätfolgen assoziiert sind. Auch Leitlinien zur Fertilitätserhaltung werden erarbeitet. PanCareLIFE wird an der Universitätsmedizin Mainz koordiniert und endet Ende 2018 (22,32,35).

KiKme: Krebserkrankungen im Kindesalter und molekulare Epidemiologie

Die Studie „Krebserkrankungen im Kindesalter und molekulare Epidemiologie“ – KiKme konzentriert sich auf die Erforschung von angeborenen Risikofaktoren bei der Entstehung von Krebserkrankungen im Kindesalter. Für ehemalige und aktuell betroffene Kinder hat diese Grundlagenforschung keinen direkten Nutzen, wird jedoch langfristig und im Zusammenhang mit anderen Forschungsvorhaben einen praktischen Nutzen in der Medizin erlangen.
Der Schwerpunkt liegt auf der Untersuchung des Zusammenspiels zwischen Erbanlagen und Strahlung bei der Entstehung von Krebserkrankungen. Dabei sollen spezifische Wege der Krebsentstehung erforscht werden, um den Einfluss von angeborenen Veranlagungen und von molekularen Markern der Strahlenempfindlichkeit auf die Reparatur unserer Erbinformationen zu untersuchen. Dies erfolgt durch einen Vergleich von Bestrahlungsversuchen an Hautproben von Studienteilnehmern. Die Gewebeproben aus der Haut werden dann zur Bestimmung von Laborwerten und für die Bestimmung von Erbinformationen und ihrer Botenstoffe (genetische Untersuchungen) herangezogen. Es sollen drei Gruppen miteinander verglichen werden: Studienteilnehmer mit einer erneuten Krebserkrankung nach einer früheren Krebserkrankung im Kindesalter, Studienteilnehmer mit nur einer Krebserkrankung im Kindesalter und Studienteilnehmer ohne Krebserkrankung. Die Krebspatienten wurden über das Deutsche

effects. These include cardiac disease, second cancers and late mortality (more than 5 years after diagnosis). First publications have been published (35,39,49).

PanCareLIFE: PanCare Studies in Fertility and Ototoxicity to Improve Quality of Life after Cancer during Childhood, Adolescence and Young Adulthood

Scientists from 8 European nations contribute to the EU-funded research project PanCareLIFE (www.pancarelife.eu). The main issues of this project are fertility, ototoxicity, and quality of life. Data from 32,000 former patients are included in the project. The researchers will identify risk factors for ototoxicity and infertility. This includes an examination of DNA, which may modify the risk for these late effects. The project includes a work package which develops guidelines for fertility preservation. PanCareLIFE is coordinated at the University Medical Centre in Mainz and ends at the end of 2018 (22,32,35).

KiKme: Cancer in childhood and molecular epidemiology

The focus of the study „Cancer in childhood and molecular epidemiology“ – KiKme – is to explore genetic risk factors for the development of cancer during childhood. This basic research is of no direct benefit to formerly or currently affected children; however, it will be of practical use in the medical field in the long run and in connection with other research projects.
The main focus is to research the interaction of genetic factors and radiation in the development of cancer. Specific pathways of the development of cancer will be researched in order to explore the influence of congenital predispositions and of molecular markers for radiation sensitivity on the repair mechanisms of our genetic information. This is being done by comparing study participants’ skin samples, which were irradiated. The tissue samples from the skin are used to measure laboratory values and to identify genetic information and their messenger substances (genetic examination). Three groups will be compared with one another: patients with a second neoplasm after childhood cancer, patients with only one primary neoplasm in childhood, and control patients without cancer. The cancer patients were identified by the German Childhood Cancer Registry. The project was funded by the German Federal Ministry of Education and Research (BMBF) and is part of the research consortium ISIBELa.

Kinderkrebsregister bestimmt. Die Studie wird vom Bundesministerium für Bildung und Forschung (BMBF) finanziert und ist Teil des ISIBELa Forschungsverbundes.

VIVE: Basiserhebung zu Lebenssituation, Gesundheitszustand und Lebensqualität nach onkologischer Erkrankung im Kindes- und Jugendalter

Die Heilungschancen nach Krebs im Kindesalter liegen mittlerweile je nach Erkrankungsart bei 70 - 95 Prozent. Die notwendigen Therapien (u.a. Chemo- und Strahlentherapie) können Spätfolgen verursachen; diese werden im Rahmen des Projekts VIVE näher erfasst. Dazu werden die ehemaligen, jetzt erwachsenen Patienten (mindestens 25 Jahre alt) mittels Fragebogen in einer umfassenden Basiserhebung nach (psycho-) somatischen Spätfolgen, ihrem jetzigen Gesundheitszustand und ihrer Lebensqualität befragt.
Die Gesamtkoordination und zusammenfassende Auswertung erfolgt durch die Projektleitung in Bonn (Universitätsklinikum Bonn, Zentrum für Kinderheilkunde, Abt. Pädiatrische Hämatologie und Onkologie). Das Deutsche Kinderkrebsregister in Mainz führt die eigentliche Befragung (mittels Fragebogen) durch und wertet zudem die Angaben zu den Zweitmalignomen aus. Eine Arbeitsgruppe in Hannover ordnet die Patientendaten den ehemaligen Therapieoptimierungsstudien mit Hilfe einer Therapiedatenbank zu (20).

Die Befragung der etwa 10000 ehemaligen Patienten begann im Jahre 2014 und endete 2015.

VIVE: Baseline Survey on Life Situation, Health, and Quality of Life after an Oncological Disease in Childhood or Adolescence

The chances of survival after cancer in childhood are between 70 and 90% nowadays, depending on the disease entity. The therapies necessary for this (such as chemo- and radiotherapy) can potentially cause late effects; these are the research topic of VIVE. For this, all former patients who are adults now (at least 25 years of age) are invited to participate in a baseline survey of their current situation: (psycho-) somatic late effects, current health status, and quality of life.
The coordination and concluding analysis and evaluation lie with the principal investigators in Bonn (Universitätsklinikum Bonn, Zentrum für Kinderheilkunde, Abt. Pädiatrische Hämatologie und Onkologie). The German Childhood Cancer Registry in Mainz conducts the technical side of the survey (with a questionnaire) and analyses the second neoplasm information. A working group in Hannover retrospectively assigns the therapy data with the help of a therapy data base (20).

The survey, including about 10,000 former patients, started in 2014 and ended in 2015.

CVSS: Kardiale und vaskuläre Spätfolgen bei Langzeitüberlebenden nach Krebserkrankungen im Kindesalter

Das Projekt „Kardiale und vaskuläre Spätfolgen von Langzeit-Überlebenden nach Krebs im Kindes- und Jugendalter“ (**C**ardiac and **v**ascular late **s**equelae in long-term **s**urvivors of childhood cancer, CVSS) wird von der Deutschen Forschungsgemeinschaft (DFG) gefördert und startete im Juli 2013. Es wird an der Universitätsmedizin Mainz als interdisziplinäres, kooperatives Projekt des Deutschen Kinderkrebsregisters am IMBEI, der Pädiatrischen Hämatologie/Onkologie/Hämostaseologie des Zentrums für Kinder- und Jugendmedizin und der Präventiven Kardiologie und Medizinische Prävention an der der II. Medizinischen Klinik und Poliklinik durchgeführt.

Ziel der CVSS-Studie ist es, die Zusammenhänge zwischen der Behandlung von Krebserkrankungen im Kindesalter und den Spätfolgen für das Herz-Kreislauf-System zu erforschen, um frühzeitig Risikogruppen für das Auftreten von Therapiespätfolgen zu identifizieren und schließlich Empfehlungen für Vorsorgeuntersuchungen ableiten zu können sowie eine zielgerichtete Nachsorge zu ermöglichen.
Insgesamt wurden über das Deutsche Kinderkrebsre-

CVSS: Cardiac and vascular late sequelae in long-term survivors of childhood cancer - a multidisciplinary clinical, epidemiological and genetic approach

The project “Cardiac and vascular late sequelae in long-term survivors of childhood cancer” (CVSS-study) is funded by the Deutsche Forschungsgemeinschaft (DFG) and was launched in July 2013. It is conducted jointly at the University Medical Center Mainz by the German Childhood Cancer Registry at the IMBEI, the Pediatric Hematology/Oncology/Hemostaseology at the Center for Childhood and Adolescent Medicine, and the Preventive Cardiology and Medical Prevention at the 2nd Medical Clinic and Policlinic.

The aim of the CVSS-study is to investigate the correlation between childhood cancer treatment and cardio-vascular late-sequelae to identify risk groups für the occurrence of therapy-associated late sequelae early on and to eventually infer recommendations for medical screening and to make targeted follow-up care possible.

Altogether 2,657 former patients have been invited by

gister 2.657 ehemalige Patienten eingeladen, an der CVSS-Studie teilzunehmen, rund 1000 wurden in dem standardisierten kardiovaskulären Untersuchungsprogram im Mainzer Studienzentrum der „Gutenberg-Gesundheitsstudie“ untersucht Ein besonderes Augenmerk liegt auf subklinischen Veränderungen. Die unmittelbar erhobenen und medizinisch relevanten Untersuchungsergebnisse werden den Teilnehmern in einem umfassenden Bericht zur Besprechung mit dem Haus- oder Facharzt ausgehändigt (21,26,46,48).
Weitere Informationen zur CVSS-Studie finden sich unter www.CVSS-Studie.de.

the GCCR to participate in the CVSS-study. More than 1000 former patients have already been examined with a standardized cardiovascular examination program at the study center of the “Gutenberg Health Study” in Mainz. Subclinical diseases are particularly looked at. The patients are provided with the immediately available and medically relevant results of their examinations in a comprehensive report for their general practitioner or medical specialist (21,26,46,48).

More information is available at www.CVSS-Studie.de.

Strukturoptimierung für krebskranke Kinder nach Anthrazyklintherapie - Eine Studie zur Ursache und Früherkennung der Anthrazyklin-induzierten Kardiomyopathie nach Behandlung eines Nephro- und Neuroblastoms

Die häufigsten soliden Tumore im Kleinkindalter sind Nephro- und Neuroblastome. Die Heilungschance für diese Tumore liegen – abgesehen von Neuroblastom Stadium IV – bei über 80%. Diese erfolgreiche Therapie kann aber auch eine Schädigung am kindlichen Herzmuskel verursachen. Bekannte Risikofaktoren sind das junge Alter der Patienten, die Anthrazyklindosis und eine Strahlentherapie mit Streustrahlung auf den Herzmuskel.
Ziel der Studie ist die Anbindung dieser Patienten an die Kardiologen des Kompetenznetzes „Angeborene Herzfehler“ und die Erfassung von kardiologischen Spätfolgen bei Kindern und Jugendlichen nach einer Nephroblastom- bzw. Neuroblastombehandlung in den Jahren 1990-2012. Hierbei werden vorhandene Strukturen des Deutschen Kinderkrebsregisters, des Nachsorgenetzwerkes LESS (Late Effects Surveillance System), der Gesellschaft für Pädiatrische Onkologie und Hämatologie (GPOH) und des Kompetenznetzes „Angeborene Herzfehler“ (KN-AHF) genutzt. Eine Untersuchung der ehemals krebskranken Kinder und Jugendliche durch Ärzte des KN AHF bietet den Vorteil, dass Kinderkardiologen und internistische Kardiologen mit einer spezifischen Weiterbildung die Versorgung der ehemals krebskranken Kinder und Jugendlichen, aber auch der mittlerweile Erwachsenen übernehmen. Im Rahmen dieser Versorgungsforschung sollen eine neue standardisierte kardiologische Untersuchung durchgeführt, sowie die Lebensqualität und Lebenssituation der ehemaligen Patienten analysiert und mit den kardiologischen Befunden korreliert werden. Zur Überarbeitung der klinischen Risikoprofile ist die Entnahme und Asservierung einer Blutprobe vorgesehen.
Die Erstellung von individuellen Risikoprofilen ermöglicht in zukünftigen Therapieoptimierungsstudien eine dem einzelnen Patienten angepasste Therapie. Das Auftreten der Anthrazyklin-induzierten Kardiotoxizität in Zukunft vermindert und damit die Langzeitprognose dieser Patienten verbessert werden.

Structural Optimization for Childhood Cancer Survivors after Anthracycline Therapy – A Study on Causes and Early Detection of Anthracycline-induced Cardiomyopathy after the Therapy of a Nephro- or Neuroblastoma

Nephro- and Neuroblastomas are the most frequent solid tumours in small children. The survival probability is 80% or more (except for advanced stage neuroblastoma). These successful therapies may however also damage a child’s myocardial muscle. Known risk factors are very young age, the anthracycline dose and radiotherapy with myocardial involvement.
The goal of this study is to connect these patients to the cardiologists of the Competence Network for Congenital Heart Defects and to record cardiological late effects in children and adolescents after treatment of a Nephro- or Neuroblastoma in the years 1990-2012. The project uses existing structures of the German Childhood Cancer Registry, the network LESS (Late Effects Surveillance System), the Society for Pediatric Oncology and Hematology (GPOH) and the Competence Network for Congenital Heart Defects (KN-AHF). Having the former childhood cancer patients examined by physicians in the KN-AHF has the advantage that pediatric cardiologists with specific qualifications provide the care for the children, adolescents and young adults. This research includes a standardized cardiologic examination and an assessment of Quality of Life and correlates the findings. In order to improve future risk profiling also blood samples are drawn and stored. In the long run, individual risk profiles will permit to adapt treatment in future therapy optimization studies and are expected to reduce anthracycline-induced cardiotoxicity and contribute to an improved long-term prognosis.

STATT-SCAR-Studie (Second Tumour After Tumour Therapy - Second Cancer After Radiotherapy)

Folgeneoplasien, also ein weiterer Krebs, sind eine Spätfolge, an der etwa 8% der Langzeitüberlebenden nach Krebs im Kindesalter in Deutschland innerhalb von 35 Jahren nach ihrer Erstneoplasie erkranken (51). Wichtige Risikofaktoren für Folgeneoplasien sind die Therapien zur Behandlung des Primärtumors.
Basierend auf der Langzeitnachbeobachtungskohorte des Deutschen Kinderkrebsregisters wird eine Fall-Kontroll-Studie bestehend aus 1244 Fällen mit einer Folgeneoplasie und gematchten Kontrollen durchgeführt. Die Therapiedaten werden entweder basierend auf den Angaben der jeweiligen Therapieoptimierungsstudien aus der GPOH-Therapieprotokolldatenbank erhoben oder durch Evaluation der Patientenakten aus den Kliniken für pädiatrische Onkologie und Radiotherapiezentren. Es sollen Unterschiede in der Behandlung zwischen Fällen und Kontrollen ermittelt werden.
Primäres Ziel der Studie ist es, das Risiko von Folgeneoplasien durch die medikamentöse Krebstherapie und durch die Radiotherapie zu quantifizieren. Dies kann mithelfen, eine Grundlage dafür zu schaffen, zukünftige Therapieprotokolle so zu gestalten, dass bei einem optimalen Therapieerfolg das Risiko für Folgeneoplasien möglichst gering gehalten wird. Des Weiteren werden Risikogruppen für die Entwicklung einer Folgeneoplasie identifiziert (nach Krebsart, Alter bei Erstdiagnose, Latenzzeit etc.). Diese Informationen können weiterhin einen Beitrag bei der Entwicklung von Nachsorgeleitlinien leisten. Die STATT-Studie wird von der Deutschen Krebshilfe finanziert. Die SCAR-Studie wird vom Bundesministerium für Bildung und Forschung (BMBF) finanziert und ist Teil des ISIBELa Forschungsverbundes.

STATT-SCAR-Study (Second Tumour After Tumour Therapy - Second Cancer After Radiotherapy)

Second neoplasms, i.e. subsequent cancers, are a late effect, which occurs in about 8% of long-term survivors after cancer in childhood in Germany within 35 years after the first neoplasm (51). Important risk factors for second neoplasms are the therapies for the treatment of the first neoplasm.
Based on the long-term follow-up cohort of the German Childhood Cancer registry, the STATT-SCAR study carries out a case-control study which consists of 1244 cases with a second neoplasm and matched controls. Data is obtained either from the GPOH therapy protocol database based on information from the therapy optimization studies or through the examination of patient files in the paediatric oncology centres or radiotherapy centres. Differences in the treatment between cases and controls shall be identified.
The primary aim of the study is to quantify the risk for second neoplasms from chemotherapy and radiotherapy of the first neoplasm. This may help to establish a basis for modifying future therapy protocols in a way that minimizes the risk for second neoplasms while holding up a maximum of therapeutic success. Furthermore, the study will identify risk groups for developing second neoplasms (concerning cancer entity, age at first diagnosis, latency time etc.). This information may contribute to the development of follow-up care guidelines. The STATT-study is funded by the Deutsche Krebshilfe. The SCAR-study is funded by the German Federal Ministry of Education and Research (BMBF) and is part of the research consortium ISIBELa.

Info-Onko: Evaluation der psychosozialen Situation von Langzeitüberlebenden einer Krebserkrankung im Kindes- oder Jugendalter

Über die Bedürfnisse und alltäglichen Herausforderungen von ehemaligen Patienten nach ihrer Krebserkrankung im Kindes- oder Jugendalter ist bislang wenig bekannt; ehemals Betroffene bemängeln aber, dass in ihrem Alltag Schwierigkeiten auftreten, die sie selbst auf ihre Erkrankung oder Therapie zurückführen, Fachleute jedoch nicht als solche anerkennen und sich bestehende Hilfsangebote lediglich auf evidenzbasierte medizinische Problematiken beziehen.
Das Projekt Info-Onko hat zum Ziel, die psychosoziale Situation Langzeitüberlebender zukünftig besser zu verstehen und ihre Wünsche und Bedürfnisse in Bezug auf die Langzeitnachsorge zu erfassen. Durch qualitative Interviews ehemaliger Betroffener wurde erhoben, in welchen Bereichen Herausforderungen bestehen und ein Fragebogen auf Basis der so identifizierten Oberthemen entwickelt. Mithilfe dieses Fragebogens werden deutschlandweit ehemals erkrankte Patienten, die sich in der Langzeitnachbeobachtung des Deutschen Kinderkrebsregisters befinden, befragt, um be-

Info-Onko: Evaluation of the psychosocial situation of long-term survivors after cancer in childhood or adolescence

Little is known about the needs and daily challenges of long-term survivors after cancer in childhood or adolescence; however, the former patients criticise that they face difficulties in their daily lives which they ascribe to their cancer or its therapy, but which specialists do not recognise as such, and that existing assistance applies only to evidence-based medical problems.
The aim of the project Info-Onko is to better understand the psychosocial situation of survivors and to gather their requests and needs with respect to long-term care. Qualitative interviews of former patients were used to identify areas which present a challenge, and a questionnaire was developed based on these areas. This questionnaire is used to carry out a nationwide survey of long-term survivors, who are in the long-term follow-up of the German Childhood Cancer Registry, with the aim of obtaining reliable evidence on the challenges of the disease. The results are the basis for developing needs-oriented possibilities to support long-term survivors and to strengthen their self-determined

lastbare Aussagen über bestehende Herausforderungen durch die Erkrankung zu erhalten. Die Ergebnisse bilden die Basis für eine bedarfsorientierte Entwicklung von Unterstützungsmöglichkeiten für ehemalige Patienten und Ihre Stärkung bei der selbstbestimmten Lebens- und Alltagsgestaltung. Sie dienen auch als Voraussetzung für Verhandlungen zur Finanzierung von zielgerichteten Hilfen durch Kostenträger.

E-SURV: Entwicklung innovativer Strategien zu Datenerhebung, Datenaustausch und Follow-up nach Krebs im Kindesalter und Verknüpfung epidemiologischer und klinischer Daten

Die Datenerhebung in der VIVE-Studie umfasste eine papierbasierte Befragung von 10.000 Langzeitüberlebenden nach Krebs im Kindesalter. Die Antwortraten waren moderat und mit den Antwortraten von ähnlichen Studien im internationalen Kontext vergleichbar, sind aber dennoch ausbaufähig.
Das erste Ziel von E-SURV ist es, eine internetbasierte Erhebungsmethode mit der konventionellen papierbasierten Erhebungsmethode innerhalb einer Stichprobe des Deutschen Kinderkrebsregisters (DKKR) von 2000 Langzeitüberlebenden im Alter zwischen 20 und 25 Jahren zu vergleichen. In dieser Altersgruppe ist die Nutzung von Internet und Smartphones weit verbreitet. Falls sich der internetbasierte Ansatz tatsächlich als überlegen herausstellt, wäre dies auch eine optimale Methodologie um einen kontinuierlichen Kontakt zu den Langzeitüberlebenden zu etablieren und zukünftige Forschung zu verbessern.
Das zweite Ziel von E-SURV umfasst die Entwicklung eines Beispiels für eine zusammengeführte Datenplattform, die Informationen bündelt aus

- GPOH Studiengruppen und Therapieoptimierungsstudien, die klinische Daten mit dem Fokus auf Spätfolgen beiträgt
- dem DKKR, das Registerdaten zu Verfügung stellt
- dem „Late effects surveillance system“ (LESS), das (Spätfolgen-)informationen zu Organtoxizitäten sammelt
- der „Quality of Life“-Arbeitsgruppe (**QoL**), die Informationen zur Lebensqualität und dem psychosozialen Status der Patienten erhebt.

Für eine Gruppe von 100 Sarkom-Patienten, deren Daten in den verschiedenen Datenbanken gesammelt wurden, soll ein Beispiel entwickelt werden, wie Daten verschiedener Datenbanken technisch optimal, sicher und unter Wahrung des Datenschutzes und ethischer Grundsätze zusammengeführt werden können.
Beide Ansätze sollen zu einer Weiterentwicklung des Langzeit-Follow-up nach Krebs im Kindesalter beitragen und die Entwicklung innovativer Strategien zu Datenerhebung und –austausch fördern. Dieser sollte im Idealfall in Zukunft an die einzelnen Betroffenen, ihre Wünsche und ihre jeweiligen Risiko-/Spätfolgenprofile angepasst sein.

Beschreibungen der anderen Projekte finden Sie in den vorangegangenen Jahresberichten.

way of living and daily routine. They are also a prerequisite for negotiating the financing of targeted support by the funding agencies.

E-SURV: Development of comprehensive strategies for assessment, data-sharing and follow-up in childhood cancer survivors linking epidemiological and clinical data

The data collection of the VIVE study included a paper based assessment of 10,000 long-term childhood cancer survivors. The response rates were moderate and comparable to international studies implementing the same assessment method, yet are improvable.

The first aim of E-SURV is to compare an internet-based assessment versus conventional paper-pencil assessment among a sample of 2000 long-term survivors registered at the GCCR (German Childhood Cancer Registry) and aged 20 to 25 years, an age group commonly using internet and smartphones. If the response rate of the internet-based approach proves superior, it will be an optimal methodology for continuous contact to survivors and future research.

The second aim of E-SURV is to develop an example for an aggregated data base, sharing information of

- GPOH study groups and treatment optimization studies, which contribute clinical data with focus on long-term effects,
- the GCCR, which provides registry data,
- the “Late effects surveillance system” (LESS), which collects (follow-up) information on organ toxicities, and
- the “Quality of Life” working group (**QoL**), which collects information on quality of life and psychosocial status of patients.

A group of about 100 sarcoma patients, whose data was collected by the different data sources, will be used to test the feasibility of such a joint data base in terms of technical issues, data safety, data privacy and ethical principles.
Both aims may lead to an advanced and comprehensive long-term follow-up of childhood cancer survivors, which is capable to be designed according to well-defined risk groups and adapted to the individual survivor and their needs.

For descriptions of the other projects, please see previous annual reports.

Tabelle 11:

Forschungsprojekte und internationale Kooperationsprojekte seit 2014 (see Table 12 for the English version)

Projektbezeichnung	Studientyp	Literatur	Projektleitung	Eingeworbene Finanzmittel am DKKR/IMBEI	Fördernde Institution
ACCIS: Automated Childhood Cancer Information System	Internationale Datenbank	34	IARC, Lyon, Frankreich	nein	./.
EUROCARE: Survival of cancer patients in Europe	Follow-up Studie	29, 41, 42	Istituto Nazionale dei Tumori, Mailand, Italien	nein	./.
Befragungsprojekte ehemaliger Kinderkrebspatienten in Zusammenarbeit zwischen externen Kooperationspartnern und dem DKKR	Registerbasierte Umfragen	24, 44	DKKR; Uni.-Klinik Ulm; Otto-Heubner-Zentrum für Kinder- und Jugendmedizin Berlin; Zentrum für Kinder- und Jugendmedizin Giessen; Uni. Erlangen;BIOGUM, Uni. Hamburg	vom externen Kooperationspartner mitfinanziert	Deutsche Kinderkrebsstiftung, Deutsche Krebshilfe, Eigenmittel der ext. Kooperationspartner, 6. EU-FRP "ACGT-Advancing Clinico-Genomic Clinical Trials on Cancer"
PanCareSurFup: PanCare Childhood and Adolescent Cancer Survivor Care and Follow-up Studies	Internationale Kohorten- und Fall-Kontroll-Studie	32, 35, 39, 49	Gesamtleitung: Lund University Hospital, Schweden; Leitung Work-package 1 (Data Collection and Harmonization): DKKR	ja	Europäische Kommission EU FP7
KiKme: Krebserkrankungen im Kindesalter und molekulare Epidemiologie	Fall-Kontroll-Studie		Studienleitung: Leibniz-Institut für Präventionsforschung und Epidemiologie - BIPS, Bremen, Verbundleitung: IMBEI	ja	Bundesministerium für Bildung und Forschung
KiCT: Kinderkrebsrisiko nach Exposition durch computertomographische Untersuchungen im Kindesalter	Kohortenstudie	18, 40, 43	IMBEI	ja	Bundesministerium für Bildung und Forschung

Tabelle 11 Forts. **Table 11 cont.**

Projektbezeichnung	Studientyp	Literatur	Projektleitung	Eingeworbene Finanzmittel am DKKR/IMBEI	Fördernde Institution
VIVE: Basiserhebung zu Lebenssituation, Gesundheitszustand und Lebensqualität nach onkologischer Erkrankung im Kindes- und Jugendalter	Kohortenstudie	20	Projektkoordination: Universitätsklinikum Bonn, Zentrum für Kinderheilkunde, Abt. Pädiatrische Hämatologie und Onkologie	ja	Deutsche Krebshilfe
PanCareLife: PanCare Studies in Fertility and Ototoxicity to Improve Quality of Life after Cancer during Childhood, Adolescence and Young Adulthood	Internationale Kohorten- und Fall-Kontroll-Studie	22, 32, 35	DKKR	ja	Europäische Kommission EU FP7
CVSS: Kardiale und vaskuläre Spätfolgen bei Langzeitüberlebenden nach Krebserkrankungen im Kindesalter	Kohortenstudie	21, 26, 46, 48,	Universitätsmedizin Mainz: DKKR, Pädiatrische Hämatologie und Onkologie, II. Medizinische Klinik	ja	Deutsche Forschungsgemeinschaft
RASopathien und Krebs im Kindesalter	Kohortenstudie	33, 45	Abt. päd. Hämatologie und Onkologie Hannover, Institut für Humangenetik Magdeburg, Deutsches Kinderkrebsregister	ja	National Institute of Health
Strukturoptimierung für krebskranke Kinder nach Anthrazyklintherapie	Querschnittsstudie		Klinik für Kinder- und Jugendmedizin, Universitätsklinikum Schleswig-Holstein	ja	Madeleine Schickedanz Kinderkrebsstiftung
STATT-SCAR-Studie (Second Tumour After Tumour Therapy - Second Cancer After Radiotherapy)	Fall-Kontroll-Studie	51	DKKR/IMBEI	ja	Deutsche Krebshilfe und Bundesministerium für Bildung und Forschung (BMBF)
ikidS-OEVA: Onkologische Erkrankung im Vorschulalter und der Übergang in die Schule	Querschnittsstudie	50	IMBEI	ja	Bundesministerium für Bildung und Forschung (BMBF)

IMBEI: Institut für Medizinische Biometrie, Epidemiologie und Informatik IARC: International Agency for Research on Cancer, Lyon, Frankreich DKKR: Deutsches Kinderkrebsregister

Tabelle 11 Forts. Table 11 cont.

Projektbezeichnung	Studientyp	Literatur	Projektleitung	Eingeworbene Finanzmittel am DKKR/IMBEI	Fördernde Institution
Info-Onko: Evaluation der psychosozialen Situation von Langzeitüberlebenden einer Krebserkrankung im Kindes- oder Jugendalter	Querschnittsstudie		Netzwerk für die Versorgung schwerkranker Kinder und Jugendlicher e.V.	ja	Deutsche Kinderkrebsstiftung
E-SURV: Entwicklung innovativer Strategien zu Datenerhebung, Datenaustausch und Follow-Up nach Krebs im Kindesalter und Verknüpfung epidemiologischer und klinischer Daten	Querschnittsstudie		Projektkoordination: Pädiatrische Hämatologie und Onkologie des Universitätsklinikums Bonn	ja	Deutsche Krebshilfe
IICC: International Incidence of Childhood Cancer	Internationale Datenbank	47, 52	IARC, Lyon, Frankreich	nein	-

IMBEI: Institut für Medizinische Biometrie, Epidemiologie und Informatik IARC: International Agency for Research on Cancer, Lyon, Frankreich DKKR: Deutsches Kinderkrebsregister

Tabelle 12:

Research projects and international cooperations since 2014 (see table 11 for the German version)

Name of the project	Type of study	References
ACCIS: Automated Childhood Cancer Information System	International Data Base on Childhood Cancer	34
EUROCARE: Survival of cancer patients in Europe	Follow-up Study	29, 41, 42
Survey-projects on former childhood cancer patients in cooperation between external cooperation partners and the German Childhood Cancer Registry	Registry-based Study	24, 44
PanCareSurFup: PanCare Childhood and Adolescent Cancer Survivor Care and Follow-up Studies	International Cohort and Case-Control Study	32, 35, 39, 49
KiKme: Cancer in childhood and molecular epidemiology	Case-Control Study	
KiCT: Risk of childhood cancer after computed tomography in childhood	Cohort Study	18, 40, 43
VIVE: Basic Survey on Life Situation, State of Health, and Quality of Life of Childhood Cancer Survivors in Germany	Cohort Study	20
PanCareLife: PanCare Studies in Fertility and Ototoxicity to Improve Quality of Life after Cancer during Childhood, Adolescence and Young Adulthood	International Cohort and Case-Control Study	22, 32, 35
CVSS: Cardiac and vascular late sequelae in long-term survivors of childhood cancer - a multidisciplinary clinical, epidemiological and genetic approach	Cohort Study	21, 26, 46, 48,
RASopathies and cancer in childhood	Cohort Study	33, 45
Structural Optimization for Childhood Cancer Survivors after Anthracycline Therapy	Cross Sectional Study	

Tabelle 12 Forts. **Table 12 cont.**

Name of the project	Type of study	References
STATT-SCAR-Study (Second Tumour After Tumour Therapy - Second Cancer After Radiotherapy)	Case-Control Study	51
ikidS-OEVA: Oncological disease in preschool age and the transition to school	Cross-sectional Study	50
Info-Onko: Evaluation of the psychosocial situation of long-term survivors after cancer in childhood or adolescence	Cross-sectional Study	
E-SURV: Development of comprehensive strategies for assessment, data-sharing and follow-up in childhood cancer survivors linking epidemiological and clinical data	Cross-sectional Study	
IICC: International Incidence of Childhood Cancer	International Data Base on Childhood Cancer	47, 52

Datengrundlage, Methoden und Ergebnisdarstellung

Rechtliche Grundlagen und Finanzierung des Registers

Das Deutsche Kinderkrebsregister (DKKR) wird auf der Basis der geltenden Datenschutzgesetze ohne eigene gesetzliche Grundlage geführt. Das bedeutet, dass von den betroffenen Patienten oder deren Sorgeberechtigten eine spezielle Einwilligung gegeben werden muss. Aufgrund des großen Engagements der Familien liegt der Anteil der nicht gegebenen Einwilligungen bei unter 1%, weitere unter 1% der Einwilligungen fehlen aus anderen Gründen. Im Falle einer fehlenden Einwilligung erfolgt eine anonymisierte Minimal-Erfassung, um diese Fälle zumindest mit ihrer Verdachtsdiagnose bei den allgemeinen Inzidenzberechnungen mitzählen zu können. Spätere Datenprüfungen, Ergänzungen, Nachbeobachtung und direktes Ansprechen der Betroffenen sind dann nicht möglich.

Die behandelnden Ärzte melden unentgeltlich und grundsätzlich freiwillig. Aufgrund dieser Voraussetzungen war durch das Inkrafttreten des Krebsregistergesetzes des Bundes (1.1.1995) und der diversen Landeskrebsregistergesetze eine Änderung in der Verfahrensweise zur systematischen Erfassung der Erkrankungsfälle nicht erforderlich. Seit dem 1.1.2007 schreibt die „Richtlinie des Gemeinsamen Bundesausschusses über Maßnahmen zur Qualitätssicherung für die stationäre Versorgung von Kindern und Jugendlichen mit hämatoonkologischen Krankheiten gemäß § 137 Abs. 1 Satz 1 Nr. 2 SGB V für nach § 108 SGB V zugelassene Krankenhäuser (Vereinbarung zur Kinderonkologie KiOn-RL)“ die Meldung von Fällen unter 18 Jahren mit pädiatrisch-onkologischen Erkrankungen an das Deutsche Kinderkrebsregister vor (37). Das am 9.4.2013 in Kraft getretene Krebsfrüherkennungs- und registergesetz des Bundes (KFRG) (19) schließt mit Hinweis auf die Zuständigkeit des Deutschen Kinderkrebsregisters Fälle unter 18 Jahren mit pädiatrisch-onkologischen Erkrankungen ausdrücklich nicht ein.

Die Förderung des DKKR erfolgt zu je einem Drittel durch das Bundesministerium für Gesundheit, das Ministerium für Soziales, Arbeit, Gesundheit und Demografie des Landes Rheinland-Pfalz und die Gesundheitsministerien der Länder.

Charakterisierung des Deutschen Kinderkrebsregisters

Das DKKR ist seit dem Beginn 1980 am Institut für Medizinische Biometrie, Epidemiologie und Informatik (IMBEI) der Universitätsmedizin der Johannes Gutenberg-Universität Mainz angesiedelt und kooperiert mit der Gesellschaft für Pädiatrische Onkologie und Hä-

Basis of Registration, Methods and Presentation

Legal basis and financial support

The German Childhood Cancer Registry (GCCR) operates without any specific legal basis in accordance with existing legislation on data privacy and security. Patients or their guardians are required to give their consent to registration. The families are committed to the cause, so less than 1% do not give their consent, another less than 1% are missing for other reasons. When the consent is missing, the anonymized cases are registered with minimum information, so the cases can be counted in for the incidence rate estimates. Any later validation, completion, follow-up or direct patient contact are not possible for these cases.

The treating physicians report cases for free and basically voluntarily. Because of this a change of procedure was not necessary when the federal cancer registry law (1.1.1995) and the state registry laws came into effect. Since January 1st 2007 the directive „Richtlinie des Gemeinsamen Bundesausschusses über Maßnahmen zur Qualitätssicherung für die stationäre Versorgung von Kindern und Jugendlichen mit hämato-onkologischen Krankheiten gemäß § 137 Abs. 1 Satz 1 Nr. 2 SGB V für nach § 108 SGB V zugelassene Krankenhäuser (Vereinbarung zur Kinderonkologie KiOn-RL)“ made reporting cases under 18 to the German Childhood Cancer Registry mandatory (37). The law „Krebsfrüherkennungs- und -registergesetz des Bundes (KFRG)“ (19), in effect since 9th April 2013, explicitly excludes pediatric oncology cases under 18 due to the responsibility of the GCCR.

The funding is guaranteed by the Federal Ministry of Health, the Ministry of Social Affairs, Labour, Health, and Demography of Rhineland-Palatinate and the Ministries of Health of all 16 federal states to a third each.

Characterization of the German Childhood Cancer Registry

The GCCR was established at the Institute for Medical Biostatistics, Epidemiology and Informatics (IMBEI) of the University Medical Center at the Johannes Gutenberg-University Mainz. It co-operates with the scientific society for paediatric oncology and haematology

matologie (GPOH) und den behandelnden Kliniken. Es ist dadurch charakterisiert, dass es neben den üblichen, in einem bevölkerungsbezogenen Krebsregister erfassten Daten auch eine ganze Reihe klinischer Informationen (z. B. Stadium, Grading, immunologische Subtypen) erfasst (4). Dieser klinische Bezug ist gewährleistet durch die enge Kooperation mit den etwa 25 pädiatrisch-onkologischen Therapieoptimierungsstudien (klinischen Studien) bzw. diagnosespezifischen klinischen Registern der GPOH. Der Anteil der hierin erfassten Fälle ist mit über 90% sehr hoch.

Ein weiteres Charakteristikum des DKKR, das in den letzten Jahren immer mehr an Bedeutung gewonnen hat, ist die Realisierung einer aktiven, zeitlich unbefristeten Langzeitnachbeobachtung. Damit stellt das DKKR die Grundlage für die Erforschung von Spätfolgen, wie z.B. Folgeneoplasien, bereit.

Dokumentationsablauf und Datenfluss

Von den kooperierenden Kliniken wird jeweils bei Auftreten einer Neuerkrankung ein kurzer Meldebogen an das DKKR geschickt (DKKR-Erstmeldung). Er enthält u.a. die Verdachtsdiagnose, wesentliche Identifikationsmerkmale, die Bestätigung der Einwilligung zu der Meldung durch Patient und/oder Sorgeberechtigte und die Information, ob und an welcher klinischen Therapieoptimierungsstudie der Patient teilnimmt bzw. an welches diagnosespezifische klinische Register er gemeldet wurde. Die Weiterleitung validierter diagnostischer Detail-Informationen von der Therapiestudienleitung an das DKKR erfolgt später, meist elektronisch, in regelmäßigen Intervallen. Bis auf vereinzelte Ausnahmen sind alle Diagnosen histologisch oder immunologisch verifiziert.

Bis zum Abschluss der primären Therapiephase und im Verlauf der Nachsorge erfolgt normalerweise eine regelmäßige Nachbeobachtung durch die Therapie-Studienleitung bzw. das diagnosespezifische Register. Dies erstreckt sich üblicherweise über die 5 Jahre nach Diagnose. Anschließend erfolgt die Nachbeobachtung durch das DKKR, wobei DKKR und Therapiestudienleitung die Daten jeweils untereinander austauschen. Das DKKR erhält Nachbeobachtungs-Informationen aus mehreren Quellen: der Klinik (solange der Patient dort noch in der Nachsorge ist), Einwohnermeldeämtern, gegebenenfalls Landeskrebsregistern und nicht zuletzt in zunehmendem Maße von den Patienten selbst. Der Dokumentationsablauf und die Synergieeffekte zwischen Therapieoptimierungsstudien und DKKR sind in (4, 5, 8, 14, 23, 25, 37) beschrieben. Die Langzeitnachbeobachtung ist in (11, 15-17) publiziert.

Datengrundlage

Das DKKR nahm 1980 seine Arbeit auf. Die Registerpopulation im engeren Sinne umfasst die Kinder und

(GPOH) and the treating hospitals. The GCCR is a population based registry combined with some features of a clinical registry, registering also clinical details such as staging, grading, and immunological subtypes (4). The clinical information is based on the integrated information exchange and data flow between the ca. 25 GPOH organized therapy optimization trials or respective diagnosis specific registries and the GCCR. More than 90% of all cases are included in these trials or respective diagnosis specific registries.

The GCCR is also characterized by an active open end long-term follow-up of all registered patients. This has become increasingly important in recent years and is the basis for research on late effects, such as subsequent neoplasms.

Documentation and flow of information

After admission of a newly diseased individual to one of the co-operating hospitals, a notification form is sent to the GCCR. This contains patient identification data, a confirmation of consent (patient or guardian) to the registration, a preliminary diagnosis and information on whether this case will be included in one of the on-going therapy optimization trials or respective diagnosis specific registries. Later the centres regularly provide the GCCR with validated diagnostic information, usually annually in electronic form. With few exceptions all diagnoses are histologically or immunologically verified.

Tumour-specific follow-up information is usually provided by the therapy studies until the end of the first clinical treatment phase and during clinical follow-up, which usually lasts about 5 years. After this, the long-term follow-up is conducted by the GCCR, regularly exchanging this information with the therapy trials or respective diagnosis specific registries. The GCCR collects data from various sources, such as the hospitals (during aftercare), state cancer registries, municipalities, and increasingly the patients themselves. This flow of information is described in (4, 5, 8, 14, 23, 25, 37), the follow-up procedures are published in (11, 15-17).

Data basis

In 1980, the GCCR was initiated by the GPOH. It is intended to include all children and adolescents with

Jugendlichen, die vor ihrem 15. Geburtstag, seit 2009 vor ihrem 18. Geburtstag, an einer malignen Erkrankung (einschließlich der histologisch nicht bösartigen ZNS-Tumoren (Tumoren des Zentralen Nervensystems)) erkranken und zur deutschen Wohnbevölkerung gehören. Seit 1991 sind die neuen Bundesländer mit einbezogen.

malignant disease (or - no matter what behaviour code - any form of tumours of the central nervous system (=CNS tumours)) diagnosed before the 15th birthday, since 2009 before the 18th birthday, and resident in Germany at diagnosis. Since 1991, cases from the area of the former German Democratic Republic (GDR) are included.

Die Klassifizierung der Erkrankungen erfolgt derzeit nach der International Classification of Childhood Cancer 3rd edition (ICCC-3) (9). Sie basiert auf einer Zusammenfassung entsprechender Morphologien und Topographien, codiert jeweils nach der ICD-O-3 (6) und ist am Ende des Berichts wiedergegeben. Damit ist auch festgelegt, welche Erkrankungen bei Kindern und Jugendlichen - gemäß internationaler Konvention - in einem epidemiologischen Krebsregister systematisch zu erfassen sind.

Classification of diseases is currently based on the International Classification of Childhood Cancer 3rd edition (ICCC-3) (9). The ICCC-3 is an aggregation of morphology and topography codes based on ICD-O-3 (6), included at the end of this report. This also defines internationally which diagnoses in childhood and adolescence are recorded mandatory in an epidemiologic cancer registry.

Die Vollzähligkeit der Erfassung für unter 15-Jährige beträgt seit 1987 über 95%; sie entspricht damit den internationalen Anforderungen an epidemiologische Krebsregister. Die Meldung ist für onkologische Kliniken der Kinder- und Jugendmedizin für Fälle bis unter 18 im Prinzip verpflichtend, daher sind auch die Meldungen typisch pädiatrisch-onkologischer Diagnosen für Jugendliche (15-17 Jahre) weitgehend vollzählig. Bei Diagnosen, die auch häufiger oder typischerweise eher im Erwachsenenalter auftreten, fehlen Meldungen.

The completeness of registration for cases under 15 is more than 95% since 1987; this complies with international requirements for an epidemiologic cancer registry. Reporting cases is mandatory for pediatric and adolescent oncology hospitals for cases under 18, thus the reporting of typically pediatric oncologic diagnoses for adolescents (15-17 years) are mostly complete. Diagnoses, which would frequently or typically occur in adults are, however, underrepresented.

Neben den in der ICCC-3 definierten Diagnosen werden am DKKR einige weitere Diagnosegruppen systematisch erfasst (Tabelle 5). Seit 2009 wurden entsprechend den Empfehlungen des Gemeinsamen Bundesausschusses noch einige wenige weitere nicht-maligne Diagnosen hinzugenommen (37). Für einige dieser Diagnosen existieren eigene Therapieoptimierungsstudien der Fachgesellschaft GPOH, zumindest die Studienfälle werden systematisch gemeldet. Mit der bereits angelaufenen aber noch nicht abgeschlossenen Umsetzung des KFRG (19) in den Bundesländern werden sich Änderungen bezüglich der Abgleiche mit den Landeskrebsregistern ergeben, die zurzeit noch nicht in Gänze absehbar sind.

Besides the diagnoses defined in ICCC-3, the GCCR records a number of further diagnoses systematically (Table 5). Since 2009 we added a few more rare non-malignant diagnoses (37). For some of these diagnoses, there exist therapy optimization trials within the GPOH, study cases are usually systematically reported. The implementation of the KFRG (19) has begun, but has not been finished yet in the states. There will be changes regarding the data exchange with the state cancer registries.

Die Erfassung von Zweit-/Folgeneoplasien (SN) ohne Altersbegrenzung erfolgt aus verschiedenen Quellen, darunter freiwillige Angaben von den betroffenen Patienten, die eine Nachfrage bei ihren behandelnden Ärzten erlauben. Trotz aller Bemühungen ist nicht auszuschließen, dass diese Erfassung nicht vollzählig ist, die angegebenen Zahlen sind daher als untere Abschätzung anzusehen.

The ascertainment of second/subsequent neoplasms (SN) without age limit is based on a variety of sources, including voluntary reports from patients themselves who permit their treating physicians to provide information. In spite of all efforts it is possible that the numbers are not complete, thus we consider our numbers to be a lower estimate.

Grundlagen der Registrierung und Arbeitsweise zum Nachlesen

Literaturstellen

- Meldung und Dokumentationsablauf (4, 5, 8, 37)
- Langzeitnachbeobachtung (11, 15-17, 26)
- Statistische Methodik (1-3, 7)
- Richtlinie des Gemeinsamen Bundesausschusses über Maßnahmen zur Qualitätssicherung für die stationäre Versorgung von Kindern und Jugendlichen mit hämato-onkologischen Krankheiten (37)

Weitere Informationen finden sich auf unserer Homepage (www.kinderkrebsregister.de) **und im Literaturverzeichnis:**

Further Information on the Basis of Registration and Procedures

References

- Notification and documentation (4, 5, 8, 37)
- Long-term surveillance (11, 15-17, 26)
- Statistical methods (1-3, 7)
- Richtlinie des Gemeinsamen Bundesausschusses über Maßnahmen zur Qualitätssicherung für die stationäre Versorgung von Kindern und Jugendlichen mit hämato-onkologischen Krankheiten (37)

Further information can be found on our homepage (www.kinderkrebsregister.de) **and in the references:**

- Beschluss der 82. Gesundheitsministerkonferenz 2009 (Kinderkrebsregister - Anhebung der Altersgrenze für die Registrierung von Kindern und Jugendlichen) (13)
- Bundeskrebsregisterdatengesetz (12)
- Krebsfrüherkennungs- und -registergesetz (KFRG) (19)
- Notwendigkeit der namensbezogenen Datenspeicherung (38)
- Die Rahmenbedingungen des Deutschen Kinderkrebsregisters (8, 14)
- Positionspapier der Gesellschaft für Pädiatrische Onkologie und Hämatologie (GPOH) zu (Langzeit-)Nachbeobachtung, (Langzeit-)Nachsorge und Spätfolgenerhebung bei pädiatrisch-onkologischen Patienten (11)
- DKKR-Regelwerk des Deutschen Kinderkrebsregisters zu datenschutz-relevanten Aspekten (30)
- DKKR-Einwilligungserklärung (27)
- DKKR-Technisches Datenschutz- und Datensicherheitskonzept des Deutschen Kinderkrebsregisters (28)
- Die Langzeitnachbeobachtungskohorte des Deutschen Kinderkrebsregisters (15-17)

Maßzahlen und deren Berechnung
Inzidenz und allgemeine Kennzahlen

Die Gesamtzahl der Fälle bezieht sich auf die Fälle mit Diagnosealter <15 Jahre, ab 2009 <18 Jahre, mit Hauptwohnsitz zum Zeitpunkt der Diagnose in Deutschland, nach Diagnose, Altersgruppe, Geschlecht und den jeweilig angegebenen Zeitraum. Alle Angaben sind für die letzten 10 Jahre des Berichtszeitraums, soweit nicht anders angegeben. Derzeit liegen für die 15-17-Jährigen noch keine 10 Beobachtungsjahre vor; hier umfassen die Angaben derzeit die zurückliegenden 8 Jahre. Dabei zählen wir im Allgemeinen Fälle, nicht Patienten. Der Anteil der an Therapieoptimierungsstudien oder diagnosespezifischen klinischen Registern der GPOH teilnehmenden Fälle schließt alle Fälle ein, von denen eine Studienleitung in irgendeiner Form Kenntnis hat. Das heißt, in diesem Anteil sind auch Fälle enthalten, die nicht zur Gruppe der Studienteilnehmer im engeren Sinne zu zählen sind.

Descriptive measures
Incidence and general measures

The total number of cases refers to the cases diagnosed at age <15 years, from 2009 onwards <18 years, resident in Germany at the time of diagnosis, broken down by diagnosis, age group, sex and time periods. All figures are given for the most recent 10 years of the reporting period, unless otherwise stated. So far, there are not yet 10 years of observation available for cases aged 15-17; so for these we currently report the last eight years. We usually count cases, not patients. The relative frequency of trial cases includes all cases the trial centre or respective diagnosis specific registry is informed of. This also includes cases who may not be treated according to protocol.

Die Inzidenzrate (Neuerkrankungsrate) bezieht die Anzahl der neu aufgetretenen Fälle in einem bestimmten Gebiet und Zeitraum auf die zugehörige Wohnbevölkerung im entsprechenden Alter. Alle Inzidenzraten in diesem Bericht sind Durchschnittsangaben für den jeweiligen Zeitraum und werden als Rate pro 1000000 (Million) Personenjahre dargestellt

Die altersspezifische Inzidenzrate I_{ij} für die Altersgruppe j im Zeitraum i errechnet sich als

$$I_{ij} = \frac{N_{ij}}{B_{ij}} \cdot 1000000$$

mit N_{ij} Anzahl der Neuerkrankungen im Alter j im Zeitraum i und B_{ij} Bevölkerung im Alter j im Zeitraum i. In der Regel werden in diesem Bericht altersspezifische Inzidenzraten für die unter 1-jährigen (j=1), die 1- bis 4-jährigen (j=2), die 5- bis 9-jährigen (j=3) und die 10- bis 14-jährigen Kinder (j=4) berechnet, ab 2009 auch für die 15- bis17-jährigen (j=5). Die (direkt) altersstandardisierte Inzidenzrate für unter 15- bzw. 18-Jährige errechnet sich mit Hilfe der Gewichte w_j des von Segi erarbeiteten WHO-Welt-Standards (2) (Tabelle M.1) als:

The incidence rate relates the number of new cases in a certain area and period to the resident population in the relevant age group. All incidence rates in this report are averages for the relevant period and are given as rates per 1000000 (million) person years.

The age-specific incidence rate I_{ij} for the age group j in the time period i is calculated as

$$I_{ij} = \frac{N_{ij}}{B_{ij}} \cdot 1000000$$

with N_{ij} the number of new cases at age j in time period i and B_{ij} the population at age j in time period i. This report usually gives age-specific incidence rates for children under age 1 (j=1), ages 1-4 (j=2), ages 5-9 (j=3), and ages 10-14 (j=4). From 2009 onwards we also include ages 15-17 (j=5). The directly standardized incidence rate for cases under 15 or 18 is calculated using the weights wj of the Segi WHO world standard (2) (Table M.1):

Tabelle M. 1 / Table M. 1

Zusammensetzung der Segi Weltbevölkerung für Kinder unter 15 bzw. 18 Jahren im Vergleich zur durchschnittlichen deutschen Wohnbevölkerung 2009-2016

Composition of the Segi world standard for children under 15 resp. 18 years compared to the German population 2009-2016

Age-groups (years)	German population 2009-2016			World standard population	
	Absolute	Relative		Weights	
		< 15	< 18	< 15	< 18
0	691,345	0.06	0.05	0.08	0.07
1-4	2,757,725	0.26	0.21	0.31	0.26
5-9	3,539,877	0.33	0.27	0.32	0.27
10-14	3,824,502	0.35	0.29	0.29	0.25
15-17	2,467,479	-	0.19	-	0.15
Total		1.00	1.00	1.00	1.00

Die altersstandardisierte Inzidenzrate D_i gibt die Neuerkrankungsrate im Zeitraum i an, die man in der untersuchten Population erwarten würde, wenn die Altersstruktur mit der Standardbevölkerung übereinstimmen würde.

$$D_i = \sum_j w_j I_{ij}$$

The age standardized incidence rate D_i gives the incidence rate in period i, which would be expected if the age structure in the report area were identical to the standard population.

$$D_i = \sum_j w_j I_{ij}$$

Die kumulative Inzidenz C_i bis 15 bzw. 18 Jahre errechnet sich als Summe der altersspezifischen Inzidenzraten,

$$C_i = \sum_j I_{ij}$$

wobei hier gewöhnlich 15 bzw. 18 Einzelaltersjahresklassen verwendet werden (j=1,...,15 oder 18). Sie kann interpretiert werden als das Risiko (die Wahrscheinlichkeit) eines neugeborenen Kindes, bis zum 15. oder 18. Geburtstag an einer Krebserkrankung zu erkranken.
Die in pädiatrisch onkologischen Publikationen gern verwendete Darstellung der Inzidenzrate oder der kumulativen Inzidenz als $1/K_i$ Kinder (d.h. eins von K_i Kindern ist betroffen) ergibt sich über die Umrechnungen

$$K_i = \frac{1000000}{D_i} \quad \text{oder} \quad K_i = \frac{1000000}{C_i} \quad .$$

Die Bevölkerungszahlen für das Jahr 2016 lagen bei Erstellung des Jahresberichts noch nicht vor und wurden hochgerechnet. Aus diesem Grund ist das letzte Jahr in der Trenddarstellung ebenso blassblau gekennzeichnet wie die Jahre 1980-87, wo die Meldungen des Registers überwiegend noch nicht vollzählig waren.

Innerhalb des Zeitraums bis unter 15 Jahren sind die Hälfte der Fälle bei Diagnose jünger und die andere Hälfte älter als das mediane Alter bei Diagnose (angegeben in Monaten).
Neben den im Jahresbericht veröffentlichten Tabellen und Abbildungen finden sich auf der Homepage des Deutschen Kinderkrebsregisters noch weitere detaillierte Zahlen zum Abruf (36).

Daten für Überlebenswahrscheinlichkeit, Mortalität und Folgeneoplasien

Das Follow-up in den jeweils aktuellsten Jahren des Registers ist immer erst mit einer gewissen Zeitverzögerung vollständig. Auch wurden in den ersten Registerjahren relativ viele Fälle anonym registriert, die nicht nachbeobachtet werden können. Um zu entscheiden, für welchen Zeitraum und für welche maximale Nachbeobachtungszeit verlässliche Angaben zu Überlebenszeit, Mortalität und der kumulativen Inzidenz von Folgeneoplasien gemacht werden können benötigt man eine Qualitätsgrenze und eine Metrik zur Berechnung dieser Grenze. Für jeden Patienten liegt am DKKR ein aktuelles letztes Beobachtungsdatum vor. Für die Verstorbenen endet die Beobachtung an diesem Datum, die Übrigen könnten prinzipiell bis zu einem Stichtag nachbeobachtet werden. Bezogen auf den Stichtag lässt sich dann errechnen, wieviel % der maximal möglichen Nachbeobachtungszeit vorliegen.

The cumulative incidence C_i until age 15 or 18 is estimated as the sum of the age-specific incidence rates,

$$C_i = \sum_j I_{ij}$$

usually using 15 or 18 single-year age classes (j=1,…, 15 or 18). It can be interpreted as the risk (the probability) of a new born to become a cancer case until his/her 15th or 18th birthday.

Paediatric-oncology publications like to present incidence rates or the cumulative incidence in an alternative form, namely as $1/K_i$ children (one of K_i children will be affected). This can be derived by

$$K_i = \frac{1000000}{D_i} \quad \text{or} \quad K_i = \frac{1000000}{C_i} \quad .$$

For 2016 population data was not yet available; we are thus using estimated numbers. So the last year and the years 1980-87, where most of the registry data was not complete yet, are indicated in pale blue in the trend grafics.

Until the 15th birthday half of the cases are younger than the median age at diagnosis, and the other half are older (presented in months).

In addition to the Tables and Figures in this report, more detailed numbers can be obtained from the homepage of the German Childhood Cancer registry (36).

Data for Survival probability and mortality, and subsequent neoplasms

The Follow-up in the respective most recent years of the registry is usually completed with a delay. Also in the first years of the registry, a relatively large number of anonymous cases was registered, who cannot be followed-up. We need to decide, for which time period and which maximal follow-up time we can give reliable numbers for survival, mortality and the cumulative incidence of subsequent neoplasms. For this we need a decision rule and a metric for this decision rule. For each patient, we record a current last observation date. For a deceased patient, follow-up ends at that date, all others and theoretically be followed-up until a set date. Relative to that date we can calculate, which percentage of the maximally possible follow-up time is available. We set the limit at 80%. Based on this we need to exclude 1980 from the estimation of survival and subsequent neoplasms incidence. Only data until 2013

Entsprechendes kann für einen maximalen Nachbeobachtungszeitraum errechnet werden. Gefordert wurden mindesten 80%. Daraus ergab sich die Notwendigkeit, die Fälle von 1980 aus Berechnungen von Überleben, und kumulativer Folgeneoplasie-Inzidenz herauszunehmen und nur Daten bis 2013 einzubeziehen. Die maximale Nachbeobachtungszeit sind 30 Jahre. Überlebenszeitkurven werden nur bis zu der Nachbeobachtungszeit berechnet und dargestellt, wenn noch mindestens 25 Patienten unter Risiko sind; die kumulative Folgeneoplasieinzidenz wird nur angegeben, wenn nach 30 Jahren noch mindesten 20 Patienten unter Risiko sind.

can be used and the maximal follow-up which can be reported is 30 years. Survival probability estimates and curves are presented only as long as there are still 25 patients under risk; cumulative subsequent neoplasm incidence for 30 years is reported only, if 20 or more patients are still under risk.

Berechnung von Überlebenswahrscheinlichkeit und Mortalität

Die Berechnung der Überlebenswahrscheinlichkeiten erfolgt nach der von Brenner und Spix vorgeschlagenen Modifikation des Sterbetafel-Verfahrens (7). Die Werte sind mit der Schätzung nach Kaplan-Meier (1) vergleichbar, jedoch erlaubt dieses Verfahren auch für die erst in den letzten Jahren Erkrankten sowohl eine Hochrechnung für einen darüber hinausgehenden Zeitraum als auch eine stabilere Abschätzung des Langzeitüberlebens. Dargestellt werden die Überlebenswahrscheinlichkeiten nach Diagnosejahren für die erste und zweite Dekade, die dritte und die angefangene vierte Dekade werden kombiniert, bis aus der vierten dekade mindestens 5 Jahre verwendet werden können.

Estimating survival probability and mortality

Survival probabilities were computed using the life table method extension proposed by Brenner and Spix (7). These estimates can be directly compared to the more commonly used estimates by Kaplan-Meier (1), but also permit making statements for more recently diagnosed cases regarding a) extrapolated long-term survival and b) more stable short-term survival estimates. We present the survival curves for the first and second decade, the third and the beginning of the fourth decade are combined until we can use at least five years out of the fourth.

Die Berechnung der Mortalitätsrate und der kumulativen Mortalität erfolgt analog zur Inzidenzrate und kumulativen Inzidenz. Es werden die Todesfälle der 5, 10 und 15 Jahre nach Diagnose betrachtet bezogen auf einen entsprechend um 5/10/15 Jahre zurückverlegten Diagnosezeitraum.

The mortality rate and the cumulative mortality are computed in analogy to the incidence rate and the cumulative incidence. We include only deaths within a 5-, 10-, and 15-year follow-up after diagnosis referring to the diagnosis period from 5/10/15 years earlier.

Zweit-/Folgeneoplasien

Eine Zweit-/Folgeneoplasie ist eine weitere Neubildung, die nach der ersten bzw. vorangegangenen Neoplasie bei dem gleichen Patienten auftritt. Die englischen Begriffe hierzu sind ‚second neoplasm' oder ‚subsequent neoplasm', abgekürzt SN.

Second/Subsequent neoplasms

A second or subsequent neoplasm (SN) is a neoplasm, which occurred after the primary or preceding neoplasm in the same patient.

Die Berechnung der kumulativen Inzidenz der innerhalb von 30 Jahren nach Diagnose aufgetretenen zweiten Krebserkrankungen (SN) bezieht sich nur auf in der ICCC-3 definierte Krebserkrankungen. Gutartige weitere Erkrankungen (außer den in der ICCC-3 eingeschlossenen ZNS-Tumoren) werden hier nicht mitgezählt.

The cumulative incidence of second neoplasms (SN) within 30 years of diagnosis includes only ICCC-3 defined cases. Non-malignant diseases (unless they are non-malignant CNS-tumours included in ICCC-3) are not counted here.

Die Bezugsbevölkerung für die Berechnung der im Jahresbericht angegebenen kumulativen Inzidenz der zweiten Krebserkrankungen ist die Gruppe aller Patienten mit einer ersten Krebserkrankung (nach ICCC-3) im Alter von unter 15 Jahren in der deutschen Wohnbevöl-

The population base for these calculations are all patients with a primary disease (as defined in ICCC-3) at age <15, resident in Germany. The cumulative incidence is given per 100 person years under risk (%). As the number of deaths is relatively high, we estimate the

kerung. Die Angabe der kumulativen Inzidenz erfolgt pro 100 Personenjahre unter Risiko (%). Wegen der relativ hohen Zahl an Todesfällen wird zur Berechnung der kumulativen Inzidenz mit dem Aalen-Johansen-Schätzer (3) eine Variante des Kaplan-Meier-Verfahrens (1) angewendet, das diesen Umstand als konkurrierendes Risiko berücksichtigt. Angegeben wird die kumulative Inzidenz einer zweiten Krebserkrankung nach der jeweils dargestellten Ersterkrankung, sowie umgekehrt die jeweils betrachtete Krebserkrankung ihrerseits als zweite Erkrankung nach einer beliebigen vorangegangenen Krebserkrankung.

cumulative incidence by the Aalen-Johansen-estimator (3), an extension of the Kaplan-Meier-procedure (1), which accounts for competing risks. We present the cumulative incidence of a second neoplasm after the respective primary neoplasm and then the respective diagnosis as SN after any primary neoplasm.

Lesehilfe am Beispiel der Akuten Myeloischen Leukämie (ICCC-3 Ib) (**Tabelle M.2**):

The tables should be read as follows, using acute myeloid leukaemia (ICCC-3 Ib) as an example (**Table M.2**):

Tabelle M.2 / Table M.2:

Zweitneoplasieinformationen am Beispiel der AML (I(b)) /

Second neoplasm Information for AML (I(b)) as an Example

Second neoplasms (SN) within 30 yrs. of diagnosis (1981-2013)

I (b) Acute myeloid leukaemias

SN after I (b)			I (b) as SN after any primary		
N	% of all 1245 SN	Cumulative incidence	N	% of all 1245 SN	Cumulative incidence
54	4.3 %	9.5 %	139	11.2 %	0.4 %

Bei den in den Jahren 1981-2013 mit einer AML unter 15 Jahren als erster Krebserkrankung diagnostizierten Patienten wurden in den folgenden bis zu 30 Jahren 54 zweite Krebserkrankungen diagnostiziert. Das sind 4,3% von allen 1245 innerhalb von 30 Jahren nach Diagnose in den Jahren 1981-2013 an das DKKR gemeldeten zweiten Krebserkrankungen. Bei 9,5% aller primären AML Patienten wird innerhalb von 30 Jahren nach Erstdiagnose eine weitere Krebserkrankung diagnostiziert, das ist überdurchschnittlich im Vergleich zum durchschnittlichen SN-Risiko nach allen Malignomen von 8,0%.

Within 30 years of diagnosis, 54 second neoplasms were diagnosed out of the patients with an AML as a first diagnosis at age under 15 in the years 1981-2013. These are 4.3 % of all 1245 recorded second neoplasms within 30 years of diagnosis in the years 1981-2013 at the GCCR. 9.5% of all primary AML patients are diagnosed with a second neoplasm within 30 years of diagnosis in the years 1980-2013, this is higher than the average cumulative incidence of 8.0% for all malignancies.

Nach einer ersten Krebserkrankung beliebigen Typs im Alter von unter 15 in den Jahren 1981-2013 wurde bei 139 Patienten anschließend in den nächsten 30 Jahren eine AML diagnostiziert. 11,2% aller 1245 dem DKKR innerhalb von 30 Jahren nach Diagnose in den Jahren 1981-2013 gemeldeten zweiten Krebserkrankungen sind AML, im Vergleich zu dem Anteil von AML an allen Krebserkrankungen im Kindesalter (4,1%) ist das ungewöhnlich viel. Bei 0,4% aller kindlichen Krebspatienten wird innerhalb von 30 Jahren nach Erstdiagnose eine AML als zweite Krebserkrankung diagnostiziert.

After any primary neoplasm at age under 15 in 1981-2013, 139 patients were diagnosed with AML as second neoplasms within 30 years of diagnosis. 11.2% of all 1245 second neoplasms within 30 years of diagnosis of the primary disease in the years 1981-2013 reported at the GCCR are AML, compared to 4.1% AML in general, this is a large number. 0.4% of all childhood cancer patients are diagnosed with a second AML within 30 years of diagnosis.

Räumliche Verteilung

Die kartographische Darstellung präsentiert standardisierte Inzidenzraten unter 15 Jahren auf Kreisebene in 7 Gruppen, die jeweils 5%, 10%, 15%, 40%, 15%, 10%

Spatial distribution

The map presentation shows the standardized incidence rates for ages under 15 in 7 classes, each covering 5%, 10%, 15%, 40%, 15%, 10% and 5% of all

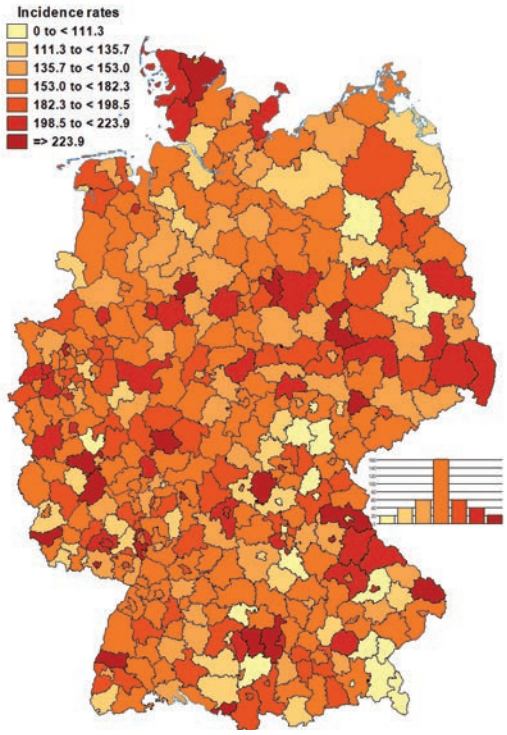
und 5% der Kreise (Landkreise und kreisfreie Städte) von der niedrigsten bis zur höchsten Inzidenzrate umfassen. Bei seltenen Diagnosen werden in mehr als 5% (bzw. 15% usw.) der Kreise keine Fälle beobachtet und diese werden entsprechend zusammengefasst (siehe rechte Beispielkarte). Die sich daraus ergebenden Klassengrenzen sind in der Legende links oben erkennbar. Die Verteilung ist in dem Histogramm rechts ablesbar. Bei sehr seltenen Diagnosen ist eine kartographische Darstellung nicht mehr sinnvoll.

"Kreise" (counties), ordered from the smallest to the largest incidence rate. For rare diagnoses, a number of Kreise do not observe a single case and the lower classes have to be aggregated (see right side sample map). The class limits derived from this are shown in the legend on the left. The distribution can be seen in the histogram on the right. For very rare diagnoses map presentations are not useful.

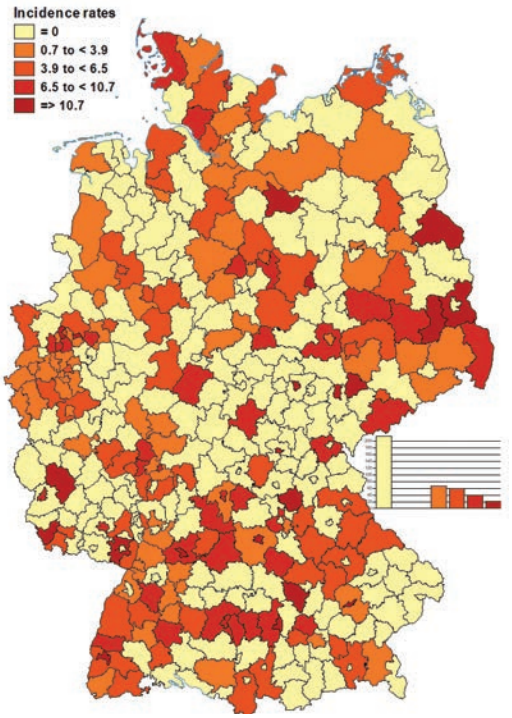
Abbildung M.1 / Figure M.1:

Zwei Beispielkarten / Two Sample Maps

All malignancies



Burkitt lymphoma



Bei den Auswertungen zur regionalen Verteilung von Neuerkrankungshäufigkeiten (Tabelle 6) wird neben den altersstandardisierten Inzidenzraten auch das standardisierte Inzidenzverhältnis (SIR - Standardized Incidence Ratio) angegeben. Dieses ergibt sich aus dem Quotienten von beobachteter und erwarteter Erkrankungszahl. Die beobachtete Anzahl N_{ir} ist die Zahl aller Fälle unter 15 Jahren an der fraglichen Diagnose im Zeitraum i in der Region r. Der erwartete Wert berechnet sich aus der Zahl der Einwohner in den einzelnen Altersgruppen j in der untersuchten Region r im Zeitraum i (B_{ijr}) und den bundesweiten, altersspezifischen Inzidenzraten I_{ij} im gleichen Zeitraum i.

In Table 6 we present some tabulated data on regional standardized incidence rates. It includes the Standardized Incidence Ratio (SIR), which is computed as the ratio of the observed and expected number of cases. The observed number N_{ir} is the number of all cases under 15 years with the diagnosis in question in time period i in the region r. The expected number is calculated using the number of inhabitants per age-group j in region r in period i (B_{ijr}) and the German age-specific incidence rates I_{ij} in the same time period i.

$$SIR_{ir} = \frac{N_{ir}}{\sum_j B_{ijr} \frac{I_{ij}}{1000000}} \quad .$$

$$SIR_{ir} = \frac{N_{ir}}{\sum_j B_{ijr} \frac{I_{ij}}{1000000}} \quad .$$

Methods

SIR-Werte über dem Referenzwert von 1 bedeuten, dass in der untersuchten Region mehr Erkrankungsfälle beobachtet wurden als im Vergleich mit der Inzidenzrate aus der gesamten Bundesrepublik zu erwarten wären und umgekehrt. Zur Beurteilung des SIR werden 95% Konfidenzintervalle (95%-KI), die auf der Poisson-Verteilung beruhen, berechnet. Ein SIR gilt als statistisch unauffällig, wenn das zugehörige Konfidenzintervall den Wert 1 einschließt. Ein 95%-KI jenseits von 1 bedeutet, dass es sich mit 5%-iger Wahrscheinlichkeit um eine zufällige Abweichung der regionalen Inzidenzrate von der bundesweiten Inzidenzrate handelt. Dies bedeutet auch, dass in ca. 5% aller Regionen rein zufällig entsprechend auffallend hohe oder niedrige Inzidenzraten erwartet werden, ohne dass dies von besonderer Bedeutung ist. Bei derzeit 401 Kreisen wären also zufällig etwa 20 Kreise mit ungewöhnlich hohen oder niedrigen Inzidenzraten zu erwarten, tatsächlich waren es beispielsweise für alle ICCC-3 Diagnosen für den Zeitraum 2006-2016 28 Kreise, davon 13 mit besonders hohen und 15 mit besonders niedrigen Fallzahlen.

SIR values above the reference value 1 mean that in the region in question more new cases were observed than expected based on the nationwide incidence rate and vice versa. To assess the SIR, we compute 95%-confidence intervals (95%-CI). The SIR is statistically non-significant when the CI includes 1. A 95%-CI beyond 1 means that there is a 5% probability that the deviation from the nationwide incidence rate is random. However, we must expect about 5% of all regions to have randomly unusually high or low incidence rates, without this being relevant. For the currently 401 Kreise we would thus randomly expect about 20 with unusual incidence rates. For the time period 2006-2015 for all ICCC-3 diagnoses we actually observed 28, 13 with unusually high and 15 with unusually low numbers of cases.

Internationale Klassifikation der Krebserkrankungen bei Kindern (ICCC-3)
Zuordnung von ICD-O-3-Codes für Morphologie und Topographie zu diagnostischen Kategorien

International Classification of Childhood Cancer (ICCC-3)
Categorization of morphology and topography codes, corresponding to ICD-O-3

adapted from: Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer 103, 1457-1467, 2005.

DIAGNOSTIC GROUP	ICD-O-3 CODES	
	MORPHOLOGY	TOPOGRAPHY
I LEUKAEMIAS, MYELOPROLIFERATIVE AND MYELODYSPLASTIC DISEASES		
(a) Lymphoid leukaemias	**9820, 9823, 9826, 9827, 9831-9837, 9940, 9948**	
1 Precursor cell leukaemias	9835, 9836, 9837	
2 Mature B-cell leukaemias	9823, 9826, 9832, 9833, 9940	
3 Mature T-cell and NK cell leukaemias	9827, 9831, 9834, 9948	
4 Lymphoid leukaemia, NOS	9820	
(b) Acute myeloid leukaemias	**9840, 9861, 9866, 9867, 9870-9874, 9891, 9895-9897, 9910, 9920, 9931**	
(c) Chronic myeloproliferative diseases	**9863, 9875, 9876, 9950, 9960-9964**	
(d) Myelodysplastic syndrome and other myeloproliferative diseases	**9945, 9946, 9975, 9980, 9982-9987, 9989**	
(e) Unspecified and other specified leukaemias	**9800, 9801, 9805, 9860, 9930**	
II LYMPHOMAS AND RETICULOENDOTHELIAL NEOPLASMS		
(a) Hodgkin lymphomas	**9650-9655, 9659, 9661-9665, 9667**	
(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)	**9591, 9670, 9671, 9673, 9675, 9678-9680, 9684, 9689-9691, 9695, 9698-9702, 9705, 9708, 9709, 9714, 9716-9719, 9727-9729, 9731-9734, 9760-9762, 9764-9769, 9970**	
1 Precursor cell lymphomas	9727, 9728, 9729	
2 Mature B-cell lymphomas (except Burkitt lymphoma) #	9670, 9671, 9673, 9675, 9678-9680, 9684, 9689-9691, 9695, 9698, 9699, 9731-9734, 9761, 9762, 9764-9766, 9769, 9970	
3 Mature T-cell and NK-cell lymphomas	9700-9702 +, 9705, 9708, 9709, 9714, 9716-9719, 9767, 9768	
4 Non-Hodgkin lymphomas, NOS	9591, 9760	
(c) Burkitt lymphoma	**9687**	
(d) Miscellaneous lymphoreticular neoplasms	**9740-9742, 9750, 9754-9758**	
(e) Unspecified lymphomas	**9590, 9596**	

Burkitt lymphoma (IIc), as a mature B-cell non-Hodgkin lymphoma, may be pooled with IIb2 for overall presentation of B-cell lymphomas.

\+ *"9702 T-cell lymphoma, NOS" in a child almost always corresponds to code M-9729.*

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY		ICD-O-3 CODES TOPOGRAPHY
III CNS AND MISCELLANEOUS INTRACRANIAL AND INTRASPINAL NEOPLASMS			
(a) Ependymomas and choroid plexus tumour	**9383, 9390-9394**	*	
1 Ependymomas	9383, 9391-9394	*	
2 Choroid plexus tumour	9390	*	
(b) Astrocytomas	**9380**	*	**C72.3**
	9384, 9400-9411, 9420, 9421-9424, 9440-9442	*	
(c) Intracranial and intraspinal embryonal tumours	**9470-9474, 9480, 9508**	*	
	9501-9504	*	**C70.0-C72.9**
1 Medulloblastomas	9470-9472, 9474, 9480	*	
2 Primitive neuroectodermal tumour (PNET)	9473	*	
3 Medulloepithelioma	9501-9504	*	C70.0-C72.9
4 Atypical teratoid / rhabdoid tumour	9508	*	
(d) Other gliomas	**9380**	*	**C70.0-C72.2, C72.4-C72.9, C75.1, C75.3**
	9381, 9382, 9430, 9444, 9450, 9451, 9460	*	
1 Oligodendrogliomas	9450, 9451, 9460	*	
2 Mixed and unspecified gliomas	9380	*	C70.0-C72.2, C72.4-C72.9, C75.1, C75.3
	9382	*	
3 Neuroepithelial glial tumours of uncertain origin	9381, 9430, 9444	*	
(e) Other specified intracranial and intraspinal neoplasms	**8270-8281, 8300, 9350-9352, 9360-9362, 9412, 9413, 9492, 9493, 9505-9507, 9530-9539, 9582**	*	
1 Pituitary adenomas and carcinomas	8270-8281, 8300	*	
2 Tumours of the sellar region (craniopharyngiomas)	9350-9352, 9582	*	
3 Pineal parenchymal tumours	9360-9362	*	
4 Neuronal and mixed neuronal-glial tumours	9412, 9413, 9492, 9493, 9505-9507	*	
5 Meningiomas	9530-9539	*	
(f) Unspecified intracranial and intraspinal neoplasms	**8000-8005**	*	**C70.0-C72.9, C75.1-C75.3**

* *Tumours with non-malignant behaviour codes are included*

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY	TOPOGRAPHY
IV NEUROBLASTOMA AND OTHER PERIPHERAL NERVOUS CELL TUMOURS		
(a) Neuroblastoma and ganglioneuroblastoma	**9490, 9500**	
(b) Other peripheral nervous cell tumours	**8680-8683, 8690-8693, 8700, 9520-9523**	
	9501-9504	**C00.0-C69.9, C73.9-C76.8, C80.9**
V RETINOBLASTOMA		
	9510-9514	
VI RENAL TUMOURS		
(a) Nephroblastoma and other non-epithelial renal tumours	**8959, 8960, 8964-8967**	
	8963, 9364	**C64.9**
1 Nephroblastoma	8959, 8960	
2 Rhabdoid renal tumour	8963	C64.9
3 Kidney sarcomas	8964-8967	
4 Peripheral neuroectodermal tumour (pPNET) of kidney	9364	C64.9
(b) Renal carcinomas	**8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8143, 8155, 8190-8201, 8210, 8211, 8221-8231, 8240, 8241, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8401, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8576**	**C64.9**
	8311, 8312, 8316-8319, 8361	
(c) Unspecified malignant renal tumours	**8000-8005**	**C64.9**
VII HEPATIC TUMOURS		
(a) Hepatoblastoma	**8970**	
(b) Hepatic carcinomas	**8010-8041, 8050-8075, 8082, 8120-8122, 8140, 8141, 8143, 8155, 8190-8201, 8210, 8211, 8230, 8231, 8240, 8241, 8244-8246, 8260-8264, 8310, 8320, 8323, 8401, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8576**	**C22.0, C22.1**
	8160-8180	
(c) Unspecified malignant hepatic tumours	**8000-8005**	**C22.0, C22.1**

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY	TOPOGRAPHY
VIII MALIGNANT BONE TUMOURS		
(a) Osteosarcomas	**9180-9187, 9191-9195, 9200**	**C40.0-C41.9, C76.0-C76.8, C80.9**
(b) Chondrosarcomas	**9210, 9220, 9240**	**C40.0-C41.9, C76.0-C76.8, C80.9**
	9221, 9230, 9241-9243	
(c) Ewing tumour and related sarcomas of bone	**9260**	**C40.0-C41.9, C76.0-C76.8, C80.9**
	9363-9365	**C40.0-C41.9**
1 Ewing tumour and Askin tumour of bone	9260	C40.0-C41.9, C76.0-C76.8, C80.9
	9365	C40.0-C41.9
2 Peripheral neuroectodermal tumour (pPNET) of bone	9363, 9364	C40.0-C41.9
(d) Other specified malignant bone tumours	**8810, 8811, 8823, 8830**	**C40.0-C41.9**
	8812, 9250, 9261, 9262, 9270-9275, 9280-9282, 9290, 9300-9302, 9310-9312, 9320-9322, 9330, 9340-9342, 9370-9372	
1 Malignant fibrous neoplasms of bone	8810, 8811, 8823, 8830	C40.0-C41.9
	8812, 9262	
2 Malignant chordomas	9370-9372	
3 Odontogenic malignant tumours	9270-9275, 9280-9282, 9290, 9300-9302, 9310-9312, 9320-9322, 9330, 9340-9342	
4 Miscellaneous malignant bone tumours	9250, 9261	
(e) Unspecified malignant bone tumours	**8000-8005, 8800, 8801, 8803-8805**	**C40.0-C41.9**
IX SOFT TISSUE AND OTHER EXTRAOSSEOUS SARCOMAS		
(a) Rhabdomyosarcomas	**8900-8905, 8910, 8912, 8920, 8991**	
(b) Fibrosarcomas, peripheral nerve sheath tumours and other fibrous neoplasms	**8810, 8811, 8813-8815, 8821, 8823, 8834-8835**	**C00.0-C39.9, C44.0-C76.8, C80.9**
	8820, 8822, 8824-8827, 9150, 9160, 9491, 9540-9571, 9580	
1 Fibroblastic and myofibroblastic tumours	8810, 8811, 8813-8815, 8821, 8823, 8834-8835	C00.0-C39.9, C44.0-C76.8, C80.9
	8820, 8822, 8824-8827, 9150, 9160	
2 Nerve sheath tumours	9540-9571	
3 Other fibrous neoplasms	9491, 9580	

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY	TOPOGRAPHY
IX SOFT TISSUE AND OTHER EXTRAOSSEOUS SARCOMAS (cont.)		
(c) Kaposi sarcoma	**9140**	
(d) Other specified soft tissue sarcomas	**8587, 8710-8713, 8806, 8831-8833, 8836, 8840-8842, 8850-8858, 8860-8862, 8870, 8880, 8881, 8890-8898, 8921, 8982, 8990, 9040-9044, 9120-9125, 9130-9133, 9135, 9136, 9141, 9142, 9161, 9170-9175, 9231, 9251, 9252, 9373, 9581**	
	8830	**C00.0-C39.9, C44.0-C76.8, C80.9**
	8963	**C00.0-C63.9, C65.9-C69.9, C73.9-C76.8, C80.9**
	9180, 9210, 9220, 9240	**C49.0-C49.9**
	9260	**C00.0-C39.9, C47.0-C75.9**
	9364	**C00.0-C39.9, C47.0-C63.9, C65.9-C69.9, C73.9-C76.8, C80.9**
	9365	**C00.0-C39.9, C47.0-C63.9, C65.9-C76.8, C80.9**
1 Ewing tumour and Askin tumour of soft tissue	9260	C00.0-C39.9, C47.0-C75.9
	9365	C00.0-C39.9, C47.0-C63.9, C65.9-C76.8, 80.9
2 Peripheral neuroectodermal tumour (pPNET) of soft tissue	9364	C00.0-C39.9, C47.0-C63.9, C65.9-C69.9, C73.9-C76.8, 80.9
3 Extrarenal rhabdoid tumour	8963	C00.0-C63.9, C65.9-C69.9, C73.9-C76.8, 80.9
4 Liposarcomas	8850-8858, 8860-8862, 8870, 8880, 8881	
5 Fibrohistiocytic tumours	8830	C00.0-C39.9, C44.0-C76.8, 80.9
	8831-8833, 8836, 9251, 9252	
6 Leiomyosarcomas	8890-8898	
7 Synovial sarcomas	9040-9044	
8 Blood vessel tumours	9120-9125, 9130-9133, 9135, 9136, 9141, 9142, 9161, 9170-9175	
9 Osseous and chondromatous neoplasms of soft tissue	9180, 9210, 9220, 9240	C49.0-C49.9
	9231	
10 Alveolar soft parts sarcoma	9581	
11 Miscellaneous soft tissue sarcomas	8587, 8710-8713, 8806, 8840-8842, 8921, 8982, 8990, 9373	

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY	ICD-O-3 CODES TOPOGRAPHY
IX SOFT TISSUE AND OTHER EXTRAOSSEOUS SARCOMAS (cont.)		
(e) Unspecified soft tissue sarcomas	**8800-8805**	**C00.0-C39.9, C44.0-C76.8, C80.9**
X GERM CELL TUMOURS, TROPHOBLASTIC TUMOURS AND NEOPLASMS OF GONADS		
(a) Intracranial and intraspinal germ cell tumours	**9060-9065, 9070-9072, 9080-9085, 9100, 9101** *	**C70.0-C72.9, C75.1-C75.3**
1 Intracranial and intraspinal germinomas	9060-9065 *	C70.0-C72.9, C75.1-C75.3
2 Intracranial and intraspinal teratomas	9080-9084 *	
3 Intracranial and intraspinal embryonal carcinomas	9070, 9072 *	
4 Intracranial and intraspinal yolk sac tumour	9071 *	
5 Intracranial and intraspinal choriocarcinoma	9100 *	
6 Intracranial and intraspinal tumours of mixed forms	9085, 9101 *	
(b) Malignant extracranial and extragonadal germ cell tumours	**9060-9065, 9070-9072, 9080-9085, 9100-9105**	**C00.0-C55.9, C57.0-C61.9, C63.0-C69.9, C73.9-C75.0, C75.4-C76.8, C80.9**
1 Malignant germinomas of extracranial and extragonadal sites	9060-9065	C00.0-C55.9, C57.0-C61.9, C63.0-C69.9, C73.9-C75.0, C75.4-C76.8, 80.9
2 Malignant teratomas of extracranial and extragonadal sites	9080-9084	
3 Embryonal carcinomas of extracranial and extragonadal sites	9070, 9072	
4 Yolk sac tumour of extracranial and extragonadal sites	9071	
5 Choriocarcinomas of extracranial and extragonadal sites	9100, 9103, 9104	
6 Other and unspecified malignant mixed germ cell tumours of extracranial and extragonadal sites	9085, 9101, 9102, 9105	
(c) Malignant gonadal germ cell tumours	**9060-9065, 9070-9073, 9080-9085, 9090, 9091, 9100, 9101**	**C56.9, C62.0-C62.9**
1 Malignant gonadal germinomas	9060-9065	C56.9, C62.0-C62.9
2 Malignant gonadal teratomas	9080-9084, 9090, 9091	
3 Gonadal embryonal carcinomas	9070, 9072	
4 Gonadal yolk sac tumour	9071	
5 Gonadal choriocarcinoma	9100	
6 Malignant gonadal tumours of mixed forms	9085, 9101	
7 Malignant gonadal gonadoblastoma	9073	

* *Tumours with non-malignant behaviour codes are included*

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES	
	MORPHOLOGY	TOPOGRAPHY
X GERM CELL TUMOURS, TROPHOBLASTIC TUMOURS AND NEOPLASMS OF GONADS (cont.)		
(d) Gonadal carcinomas	**8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8143, 8190-8201, 8210, 8211, 8221-8241, 8244-8246, 8260-8263, 8290, 8310, 8313, 8320, 8323, 8380-8384, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8573, 9000, 9014, 9015**	**C56.9, C62.0-C62.9**
	8441-8444, 8450, 8451, 8460-8473	
(e) Other and unspecified malignant gonadal tumours	**8590-8671**	
	8000-8005	**C56.9, C62.0-C62.9**
XI OTHER MALIGNANT EPITHELIAL NEOPLASMS AND MALIGNANT MELANOMAS		
(a) Adrenocortical carcinomas	**8370-8375**	
(b) Thyroid carcinomas	**8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8190, 8200, 8201, 8211, 8230, 8231, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8430, 8440, 8480, 8481, 8510, 8560-8573**	**C73.9**
	8330-8337, 8340-8347, 8350	
(c) Nasopharyngeal carcinomas	**8010-8041, 8050-8075, 8082, 8083, 8120-8122, 8130-8141, 8190, 8200, 8201, 8211, 8230, 8231, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8430, 8440, 8480, 8481, 8500-8576**	**C11.0-C11.9**
(d) Malignant melanomas	**8720-8780, 8790**	
(e) Skin carcinomas	**8010-8041, 8050-8075, 8078, 8082, 8090-8110, 8140, 8143, 8147, 8190, 8200, 8240, 8246, 8247, 8260, 8310, 8320, 8323, 8390-8420, 8430, 8480, 8542, 8560, 8570-8573, 8940, 8941**	**C44.0-C44.9**
(f) Other and unspecified carcinomas	**8010-8084, 8120-8157, 8190-8264, 8290, 8310, 8313-8315, 8320-8325, 8360, 8380-8384, 8430-8440, 8452-8454, 8480-8586, 8588-8589, 8940, 8941, 8983, 9000, 9010-9016, 9020, 9030**	**C00.0-C10.9, C12.9-C21.8, C23.9-C39.9, C48.0-C48.8, C50.0-C55.9, C57.0-C61.9, C63.0-C63.9, C65.9-C72.9, C75.0-C76.8, C80.9**
1 Carcinomas of salivary glands	8010-8084, 8120-8157, 8190-8264, 8290, 8310, 8313-8315, 8320-8325, 8360, 8380-8384, 8430-8440, 8452-8454, 8480-8586, 8588-8589, 8940, 8941, 8983, 9000, 9010-9016, 9020, 9030	C07.9-C08.9
2 Carcinomas of colon and rectum		C18.0, C18.2-C18.9, C19.9, C20.9, C21.0-C21.8
3 Carcinomas of appendix		C18.1
4 Carcinomas of lung		C34.0-C34.9

Forts. / cont.

DIAGNOSTIC GROUP	ICD-O-3 CODES MORPHOLOGY	ICD-O-3 CODES TOPOGRAPHY
XI OTHER MALIGNANT EPITHELIAL NEOPLASMS AND MALIGNANT MELANOMAS (cont.)		
(f) Other and unspecified carcinomas (cont.)		
5 Carcinomas of thymus		C37.9
6 Carcinomas of breast		C50.0-C50.9
7 Carcinomas of cervix uteri		C53.0-C53.9
8 Carcinomas of bladder		C67.0-C67.9
9 Carcinomas of eye		C69.0-C69.9
10 Carcinomas of other specified sites	8010-8084, 8120-8157, 8190-8264, 8290, 8310, 8313-8315, 8320-8325, 8360, 8380-8384, 8430-8440, 8452-8454, 8480-8586, 8588-8589, 8940, 8941, 8983, 9000, 9010-9016, 9020, 9030	C00.0-C06.9, C09.0-C10.9, C12.9-C17.9, C23.9-C33.9, C38.0-C39.9, C48.0-C48.8, C51.0-C52.9, C54.0-C54.9, C55.9, C57.0-C61.9, C63.0-C63.9, C65.9-C66.9, C68.0-C68.9, C70.0-C72.9, C75.0-C75.9
11 Carcinomas of unspecified site		C76.0-C76.8, C80.9
XII OTHER AND UNSPECIFIED MALIGNANT NEOPLASMS		
(a) Other specified malignant tumours	**8930-8936, 8950, 8951, 8971-8981, 9050-9055, 9110**	
	9363	**C00.0-C39.9, C47.0-C75.9**
1 Gastrointestinal stromal tumour	8936	
2 Pancreatoblastoma	8971	
3 Pulmonary blastoma and pleuropulmonary blastoma	8972, 8973	
4 Other complex mixed and stromal neoplasms	8930-8935, 8950, 8951, 8974-8981	
5 Mesothelioma	9050-9055	
6 Other specified malignant tumours	9110	
	9363	C00.0-C39.9, C47.0-C75.9
(b) Other unspecified malignant tumours	**8000-8005**	**C00.0-C21.8, C23.9-C39.9, C42.0-C55.9, C57.0-C61.9, C63.0-C63.9, C65.9-C69.9, C73.9-C75.0, C75.4-C80.9**

Veröffentlichungen mit Beteiligung des Deutschen Kinderkrebsregisters seit 2014

Publications by or in co-operation with the German Childhood Cancer Registry since 2014

2014

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