Chapter 5. Data presentation

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IICC-3 brings together the largest collection of high-quality data on childhood cancer incidence available worldwide. All possible efforts were undertaken to make the presented datasets comparable. However, there are inherent differences in the data sources, outlined below, which needed to be considered when presenting the results.

1. **Period of contribution.** The registration periods ranged from 3 years to 31 years (Fig. 1.2). Although this fact did not modify the way the dataset is presented, the selection of a registry for IICC-3 may have depended on the length of the registration period. The most relevant example is the registry of Kingston and St. Andrew in Jamaica, which would not have met the criterion of the minimum number of cases if the included period had started in 1990, the first year of the IICC-3 target period. This registry had contributed to IICC-1 until 1981; therefore, a unique exception was made to include data for all the subsequent years from 1982 onwards. To be included in IICC-3, a registry had to provide data for at least three consecutive calendar years of registration.
2. **Pooled datasets.** Some registries covered small populations, and even a prolonged time period did not suffice to accumulate enough cases to estimate stable incidence rates. Such a dataset could still contribute to IICC-3 through a national pool for its country.
3. **Ethnic populations.** Cancer and population data were available for two or more groups defined by other than geographical criteria in registries in seven countries (Table 4.1). Ethnicity-specific tables were produced for 191 subpopulations complying with the other quantitative and qualitative inclusion criteria.
4. **Paediatric cancer registries.** Among the contributing registries, 19 collected their data exclusively in a paediatric population and all except one of them had recorded information only on children aged 0–14 years for at least part of the period included in IICC-3. The restriction of their contribution to the age range 0–14 years is reflected in the design of the tables and in the selection of registries in tables and pools.
5. **Specialized cancer registries.** Two national paediatric registries in France and one in Greece collected data only on selected cancer types. These selective registration criteria were reflected in the design of the tables.
6. **Reportability.** The definition of reportable cancers differed between registries, as described in the "Eligibility for reporting" section of Chapter 4. Therefore, specific comparative tables were constructed to expose some such differences.
7. **Available detail.** All required detail was not always available, so that some registries could not contribute to some tables, for example those showing the distribution of cases by laterality.

This chapter provides a roadmap to the available IICC-3 output and describes its contents, with an emphasis on the presentation of results. The rationale and methodology are summarized in Chapters 1–4.

GENERAL PRINCIPLES

Dual dissemination routes

With the growing number of cancer registries capable of providing data for international comparative studies, the wealth of available information overflowed the capacity of a printed publication following the model of the two previous IICC volumes. However, the true variability of the data can only be explored if all the data are fully accessible. To address both these considerations, two complementary channels of distribution of the IICC-3 results were developed, each offering somewhat different contents. The aim of the book was to present IICC-3 in a condensed portable package, while maintaining as much variability in data representation as possible. The online version aims to provide complementary detail, expected to be of use to researchers and policy-makers looking for detailed comparisons.

As a result, data from 308 registries operating in 82 countries and territories are presented in 123 registry-specific tables in Chapter 6 of the book and online resources. With additional tables available online only, a total of 515 datasets are presented in 518 tables online, including in 60 abbreviated tables. These datasets are compared in 116 comparative tables in Chapter 7 to Chapter 13 of the book; some of the corresponding tables available online provide additional detail.

In the book, a table is presented for a single registry if the registry is national or paediatric, or if it is a single registry for a given country. For most countries represented by two or more registries, only a combined national dataset is presented. Additional tables for a subnational dataset were also allowed for registries of specific interest. For example, a history of contribution to IICC and a distinct cancer registration practice or health-care system justified the inclusion of the Hong Kong Cancer Registry, in addition to the national pool for China.

The IICC website (https://iicc.iarc.who.int/) enables the publication of tables for all contributing registries, as long as they complied with the relevant eligibility criteria. Both dissemination channels are an integral part of IICC-3 and should be cited accordingly. The differences between the book and online versions are described below for each type of output.

Combined datasets
For countries represented by several subnational cancer registries, combined pools were prepared, to serve multiple aims. First, the pooled datasets can facilitate international comparison by smoothing out the regional differences within a country. Second, small datasets could contribute to a combined dataset, whereas they could not be included separately. Third, a pooled dataset satisfactorily represents the contributing subnational datasets in the book; a list of the contributing registries is displayed next to the table showing a pooled dataset.

Registry listings
In all lists, the registries are sorted by alphabetical order of the English names of the continent, the country, and the covered area. The naming conventions used for the geographical entities were guided by the United Nations standards (https://unstats.un.org/unsd/methodology/m49) applicable at the time of data collection. Each population label includes the name of the country, the name of the region (if the registry is not national), an indication of a specialization in registration of childhood cancers (identified as "paediatric") or specific tumour types ("specialized"), the name of the subpopulation (such as a racial or ethnic group, if applicable), and the time period of data contribution.

Within a country, a specific order of listing was respected. A general national cancer registry was listed first, followed by a national paediatric cancer registry, subnational combined paediatric datasets, individual paediatric registries in alphabetical order, subnational datasets combining general cancer registries, individual general cancer registries, and any subpopulations, in alphabetical order. The subpopulations are sorted alphabetically within the registry, and more-specific ethnicities are listed before less-specific ethnicities (e.g. "Saudi" precedes "non-Saudi").

Citing IICC-3 sources
The data released in the framework of the IICC-3 study will generate knowledge on cancer burden and control in the childhood population. The online publication of these data enables any interested reader to compare cancer rates across all diverse populations described by the contributing registries, without restriction of access. This data resource is the fruit of collaboration among thousands of people worldwide over many years, striving for common standards and a common cause. Without their hard work and dedication, this information could not be made accessible. The only reward expected by the IICC-3 collaborators is the acknowledgement of their efforts through the appropriate citation of these unique resources by all data users (see https://iicc.iarc.who.int/results/online-resources/).

ORGANIZATION OF THE AVAILABLE MATERIAL
Contributors
This section contains the list of IICC-3 editors and all other individual contributors. All contributing registries are listed, whether or not their dataset is shown separately in the publication. Both the official registry name and a short registry label used in tables are included in the list. The names of individuals listed in this section correspond with the authors' list within the registry-specific narratives, and all individuals are shown as contributors on behalf of the relevant registry at the time of their contribution, even if they may be also affiliated with another institution.

The contribution of two registries in the USA to the national pools is acknowledged in the list of contributors, although they did not wish their data to be presented separately.

Maps
Areas covered by the cancer registries are shown on the world map and by continent near the beginning of the book. If the coverage of a country is insufficiently portrayed on the continental maps, a country map is provided in greater detail in Chapter 6, next to the narrative for that country.

Methodology
Chapter 1 introduces the rationale and specific characteristics of the IICC-3 study and provides an overview of the evolution of the contributions to the IICC series. Chapter 2 covers the methods of data collection and the editorial process. Chapter 3 describes the classification of neoplasms used to group and present the results. Chapter 4 addresses data quality and comparability issues, and this chapter (Chapter 5) explains how the results are organized and made available. A total of 13 tables in which the data coverage, collection, availability, classification, and quality are described are included as Annex tables.

Results by registry
The registry-specific material constitutes Chapter 6. It contains a narrative describing the country, the specifics of the registration area and process, and the sources of population data. This is followed by Editors' comments. The purpose and content of these sections are described in the "Design of the output" section of Chapter 2.

Person-years
Each presented dataset is supplied with a table showing the person-years and average annual population by sex covered during the contributed period. If the registration area and the covered population changed significantly over the reported period, the average annual population is not shown.

Standard incidence table for a single dataset
Each dataset with at least 200 cases in the age range 0–14 years or at least 300 cases in the age range 0–19 years is presented in a standard descriptive table.

Standard tables are not numbered; they can be identified by their titles, as described in the "Registry listings" section above. A complete list of the available tables is shown in Table A.12; 123 standard tables are included in the book.

In a standard incidence table, the main diagnostic groups and subgroups are listed in the first column using the code and a short label for each category of ICCC-3-2017. The full names of all diagnostic categories can be found in Table A.2 and Table A.3. In the tables of the specialized paediatric cancer registries of France and Greece, data are shown only for the tumour types that were eligible for registration during the study period shown in the title.

The next seven columns show the numbers of cases observed in each defined diagnostic category in the age groups 0, 1–4, 5–9, 10–14, 15–19, 0–14, and 0–19 years over the period shown in the title. The percentage of the number of cases for each diagnostic category either within the total number of cases across all categories ("All") or for a subgroup within the main group ("Group") are also displayed, separately for the age ranges 0–14 years and 0–19 years.

The subsequent columns show the age-specific average annual incidence rates per million for each diagnostic category in the age groups 0, 1–4, 5–9, 10–14, and 15–19 years and the age-standardized incidence rates (ASRs) for the age ranges 0–14 years and 0–19 years. Cumulative incidence rates for these two age ranges are also provided. The calculation of the rates is described in Chapter 2.

The last two columns show the percentages of microscopically verified (MV) cases and death certificate only (DCO) cases in the total age range for each diagnostic category. The interpretation of these quality indicators can be found in Chapter 4, and their overall values are compared between the registries in Table A.9.

A table for a paediatric registry has the qualifier "paediatric" in its title. If data for the age group 15–19 years were not collected by a paediatric cancer registry, the columns for 15–19 years and 0–19 years are not shown in the standard dataset-specific tables, and the quality indicators are calculated for the age range 0–14 years. If data for the age range 15–19 years were collected by a paediatric registry (for the full period in Belarus or for a part of the covered period in the two paediatric cancer registries in Italy), data are displayed in all columns like for the general cancer registries.

Combined (pooled) datasets

Where two or more registries were included from a single country or where the presented dataset is a combination of data from several subnational registries or ethnicities, the narratives lead to the table showing the data pertaining to each individual registry (the period of contribution, the numbers and percentages of the contributed cases, and the numbers and percentages of the contributed person-years). In addition, the person-years in the pooled population are summarized in another table, in which the average annual number of person-years is only shown if all registries contributed data for the same calendar years to the pool.

The title of the combined table has the name of the country, the number of registries included in the presented pooled dataset (unless the contributing registries cover the entire country), the ethnic group if relevant, and the study period, composed of the earliest and latest calendar years covered by any of the contributing datasets. The layout of the combined table is the same as that of the standard tables. The datasets were pooled only if they covered the same age range: either 0–14 years or 0–19 years. For the registries that include only the age group 0–14 years, the data for age groups 15–19 years and 0–19 years are not shown in the tables presenting combined paediatric datasets.

A combined table was not created for two countries with multiple datasets: Pakistan and Peru. Two datasets were accepted from each country, but their study periods were far apart and one of the two registries in each country was no longer operating (Karachi in Pakistan and Trujillo in Peru). For these reasons, combining the datasets was deemed misleading. A total of 50 combined tables were created for 28 countries or territories, including tables for 7 ethnic groups (Table 5.1), and 38 combined tables were included in the book.

Table 5.1. Composition and characteristics of combined datasets (pools) presented in IICC-3

Pool	Constituent registries	Pool coverage	Pool type
AFRICA			
ALGERIA, 5 registries (1996–2014)	Algiers, Annaba, Batna, Sétif, Tlemcen	Regional	General
KENYA, 2 registries (2000–2012)	Eldoret, Nairobi	Regional	General
MOROCCO, 2 registries (2005–2012)	Casablanca, Rabat	Regional	General
TUNISIA, 2 registries (1993–2007)	North, Sousse	Regional	General
AMERICA, LATIN AND THE CARIBBEAN			
ARGENTINA, 6 registries (1991–2013)	Bahía Blanca, Chaco, Córdoba, Entre Ríos, Mendoza, Neuquén	Regional	General
BRAZIL, 5 registries (1995–2012)	Aracaju, Belo Horizonte, Curitiba, Goiânia, João Pessoa	Regional	General
CHILE, 4 registries (1998–2012)	Antofagasta, Bío Bío, Concepción, Valdivia	Regional	General
COLOMBIA, 4 registries (1992–2013)	Bucaramanga, Cali, Manizales, Pasto	Regional	General
ECUADOR, 5 registries (1993–2013)	Cuenca, Guayaquil, Loja, Manabí, Quito	Regional	General
FRANCE, 3 registries (1990–2012)	French Guiana, Guadeloupe, Martinique	Regional	General

Table 5.1. (Contd) Composition and characteristics of combined datasets (pools) presented in IICC-3

Pool	Constituent registries	Pool coverage	Pool type
AMERICA, NORTH			
CANADA, 9 registries (1992–2013)	Alberta, British Columbia, Manitoba, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon	Regional	General
USA (1998–2012)	See Table 6.1.	National	General
USA, API (1998–2012)	See Table 6.1.	National	General
USA, Black (1998–2012)	See Table 6.1.	National	General
USA, Hispanic White (1998–2012)	See Table 6.1.	National	General
USA, Native American (1998–2012)	See Table 6.1.	National	General
USA, White NH (1998–2012)	See Table 6.1.	National	General
USA, NPCR (1998–2012)	See Table 6.1.	Regional	General
USA, NPCR, API (1998–2012)	See Table 6.1.	Regional	General
USA, NPCR, Black (1998–2012)	See Table 6.1.	Regional	General
USA, NPCR, Hispanic White (1998–2012)	See Table 6.1.	Regional	General
USA, NPCR, Native American (1998–2012)	See Table 6.1.	Regional	General
USA, NPCR, White NH (1998–2012)	See Table 6.1.	Regional	General
USA, SEER 18 (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 18, API (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 18, Black (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 18, Hispanic White (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 18, Native American (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 18, White NH (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 9, Black (1993–2012)	See Table 6.1.	Regional	General
USA, SEER 9, White (1993–2012)	See Table 6.1.	Regional	General
ASIA			
CHINA, 6 registries (1990–2013)	Beijing, Dalian, Guangzhou, Hong Kong, Shanghai, Zhongshan	Regional	General
INDIA, 7 registries (1990–2013)	Bangalore, Chennai, Kollam, Mumbai, Nagpur, New Delhi, Trivandrum	Regional	General
JAPAN, 8 registries (1990–2013)	Aichi, Hiroshima, Miyagi, Nagasaki, Niigata, Osaka, Tochigi, Yamagata	Regional	General
PHILIPPINES, 2 registries (1993–2012)	Manila, Rizal	Regional	General
THAILAND, 6 registries (1993–2013)	Bangkok, Chiang Mai, Chonburi, Khon Kaen, Lampang, Songkhla	Regional	General
TURKEY, 8 registries (1992–2012)	Ankara, Antalya, Bursa, Edirne, Erzurum, İzmir, Samsun, Trabzon	Regional	General
EUROPE			
FRANCE, 13 registries (1993–2012)	Bas-Rhin, Calvados, Doubs, Gironde, Haut-Rhin, Haute-Vienne, Hérault, Isère, Lille, Loire-Atlantique and Vendée, Manche, Somme, Tarn	Regional	General
GERMANY, 5 Western registries (1994–2012)	Bavaria, Lower Saxony, Rhineland-Palatinate, Saarland, Schleswig-Holstein	Regional	General
ITALY, 2 paediatric registries (1998–2011)	Marche, Piedmont	Regional	Paediatric
ITALY, 26 registries (1992–2013)	Biella; Brescia; Catania, Messina, and Enna; Catanzaro; Como; Ferrara; Friuli-Venezia Giulia; Lecco; Lodi and Pavia; Milan; Modena; Naples South; Nuoro; Parma; Ragusa and Caltanissetta; Reggio Emilia; Romagna; Salerno; Sassari; Syracuse; Trapani; Trento; Turin; Umbria; Varese; Veneto	Regional	General
PORTUGAL (1991–2012)	Azores, Centre, North, South	National	General
RUSSIAN FEDERATION, 2 registries (1998–2015)	Chelyabinsk, Samara	Regional	General
SPAIN, 2 paediatric registries (1991–2013)	Selected regions, Valencia	Regional	Paediatric

Table 5.1. (Contd) Composition and characteristics of combined datasets (pools) presented in IICC-3

Pool	Constituent registries	Pool coverage	Pool type
SPAIN, 11 registries (1990–2013)	Albacete, Asturias, Basque Country, Canary Islands, Cuenca, Girona, Granada, Mallorca, Murcia, Navarra, Tarragona	Regional	General
SWITZERLAND, 7 registries (1990–2013)	Fribourg, Geneva, Neuchâtel, Ticino, Valais, Vaud, Zurich	Regional	General
UNITED KINGDOM (2000–2011)	England, Northern Ireland, Scotland, Wales	National	General
OCEANIA			
AUSTRALIA (1992–2014)	Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria, Western Australia	National	General
AUSTRALIA, 3 registries, Indigenous (1992–2014)	Northern Territory, Queensland, Western Australia	Regional	General
FRANCE, 2 registries (1990–2013)	French Polynesia, New Caledonia	Regional	General

API, Asian Pacific Islander; NH, Non-Hispanic; NPCR, National Program of Cancer Registries; SEER, Surveillance, Epidemiology, and End Results Program.

Registry-specific material

Table A.12 shows which registries are represented by the 458 standard online tables. Unlike the standard tables included in the book, which are limited to a single page showing statistics for both sexes combined, the online versions also show the sex-specific statistics on a second page. The differences between the contents of the tables included in the book and those provided online are described below.

Standard online table for a single dataset

The first page of a standard online table for a single dataset matches exactly the table in the book described above. The online table continues on a second page, where the data are presented by sex for the same diagnostic categories as those shown on the first page. The statistics included for each sex are the numbers of cases in the age groups 0, 1–4, 5–9, 10–14, and 15–19 years and in the age ranges 0–14 years and 0–19 years as well as the average annual age-standardized incidence rates for the age ranges 0–14 years and 0–19 years. The two middle columns show the sex ratio for the two age ranges, 0–14 years and 0–19 years, in each diagnostic category, calculated as the ratio of the numbers of cases in males and females (see Chapter 2). If the presented dataset is paediatric, the columns for the age groups 15–19 years and 0–19 years are left blank. The person-years and the average annual population by sex for the contributed period are tabulated on a third page.

Online table for a combined dataset

The first page of an online table presenting a combined dataset matches exactly the table in the book for the same dataset. The second page shows the combined data by sex, as described in the previous section. This is followed by the tables showing the population at risk for the pool and the constituent registries, with the same contents as in the book. The average annual population may be unavailable in some tables (see the "Person-years" section above). Further pages may show abbreviated tables for eligible constituent datasets.

Abbreviated online table

An abbreviated table is produced for a constituent dataset that does not qualify for a full standard table but has at least 100 cases in the age range 0–14 years or at least 150 cases in the age range 0–19 years. Selected statistics (total number of cases, sex ratio, and age-standardized incidence rate) for the age ranges 0–14 years and 0–19 years are presented for all main diagnostic groups and subgroups of ICCC-3-2017. Abbreviated tables were produced for 60 datasets, as shown in Table A.12, and are only displayed online.

Results by diagnostic category

Comparative tables show selected statistics for one or more diagnostic categories across all eligible registries or datasets, and they are grouped into chapters according to the type of information they provide. A total of 116 comparative tables were produced, as listed in Table A.13.

Differences between the book and online versions

The number of comparative tables is identical between the book and the online versions. In the book, only the datasets that are displayed in full incidence tables selected for the book are included. The online versions of comparative tables include all eligible datasets that are presented in standard incidence tables online. The tables are numbered sequentially within each chapter. The numbering and other characteristics of these tables are shown in Table A.13.

Incidence by main diagnostic groups (Chapter 7)

There are 13 tables in Chapter 7: one for all neoplasms combined and one for each main diagnostic group of ICCC-3-2017. The title includes the name of the main diagnostic group (with the numerical code of the ICCC-3-2017 category in parentheses). The eligible datasets, listed in the first column, are those that are presented in a full standard incidence table. The columns are arranged in three clusters of four; the first cluster refers to the age range 0–14 years, the second to the age range 0–19 years, and the third to the four 5-year age groups 0–4, 5–9, 10–14, and 15–19 years. In the first two clusters, the first column shows the number of cases (N) in the tabulated diagnostic category, followed by the age-standardized incidence rates for both sexes combined, for males, and for females. The third cluster shows the age-specific incidence rates for the four 5-year age groups for both sexes combined. The numbers for the datasets with

fewer than 20 cases in the defined diagnostic category are shown in italic. The paediatric cancer registries with no data for the age range 15–19 years are distinguished by dashes in the columns showing data for the age ranges 0–19 years and 15–19 years.

Incidence by selected diagnostic subgroups (Chapter 8)
Of the 47 diagnostic subgroups defined in ICCC-3-2017, 31 were selected for display in Chapter 8. The other subgroups were either too small (Table A.5) or were included in other more detailed tabulations in the following chapters. One additional table shows data for two subgroups combined: non-Hodgkin lymphomas (IIb) and Burkitt lymphoma (IIc). The design and layout of the tables in Chapter 8 is identical to that of the tables for the main diagnostic groups in Chapter 7.

Incidence by selected diagnostic divisions (Chapter 9)
Of the 84 diagnostic divisions defined in ICCC-3-2017, 44 are presented in comparative tables. In addition, five combinations of two or more divisions are also tabulated, because these combined entities may be of specific interest. The other divisions were considered too sparse or of little interest for presentation in a table. The title includes both the name of the diagnostic subgroup and the name of the division within that subgroup. Registries or datasets are listed in these tables only if at least 20 cases in each division were recorded over the study period shown. The design and layout of these tables is identical to that of the tables for the main diagnostic groups in Chapter 7.

CNS tumours by behaviour (Chapter 10)
The incidence of intracranial and intraspinal tumours is compared in eight tables showing a single diagnostic category or a combination of diagnostic categories, by behaviour (Table 5.2). Table 10.6 is split into two parts (a and b) to enable the display of a large number of divisions in subgroup IIIe. Subgroup IIIc (intracranial and intraspinal embryonal tumours) was not tabulated by behaviour, because these tumours were almost all malignant. For each registry or dataset shown in the first column, the selected statistics are organized in several clusters of columns, with each cluster pertaining to a different diagnostic category. Behaviour may be tabulated in three categories: any (codes /0, /1, /2, and /3), non-malignant (codes /0, /1, and /2), and malignant (code /3). As a rule, numbers of cases (N) and incidence rates are shown in the body of a table, by behaviour and age group. The incidence rates shown for the age range 0–14 years or 0–19 years are standardized, whereas age-specific rates are reported for the 5-year age groups 0–4, 5–9, 10–14, and 15–19 years. All eligible datasets are included in these tables irrespective of the numbers of cases, and the numbers for the datasets with fewer than 20 cases are shown in italic. Datasets for the USA are included in the behaviour tables only for the period starting in 2004, the year when non-malignant CNS tumours became reportable. The dataset for the Greek paediatric cancer registry is included as from 2010, the year for which the collection of CNS tumours started. These tables should be interpreted in conjunction with information on registration of non-malignant tumours in the individual registries, as described in more detail in the registry narratives (Chapter 6), Chapter 3, Chapter 4, and Table A.9.

Primary site of selected diagnostic categories (Chapter 11)
Chapter 11 has five tables; one of them is split into two parts. The tables show the distribution of tumours by primary site and age (either 0–14 years or 15–19 years) for five tumour types. The datasets are listed in the first column, and the 7–13 following columns show the topography categories defined in the column headings.

Table 11.1 shows the groups of sites for intracranial and intraspinal tumours, including the combined total numbers for group III and subgroup Xa and additional topography categories defined by ICD-O-3 codes. All tumours were included irrespective of their behaviour. The eligible registries were listed only if they had 20 or more cases.

In Table 11.2, the total number of malignant melanoma cases (XId) is also split into groups of sites defined in the column headings using the ICD-O-3 codes. The eligible registries were included in the tables if they had 20 or more cases.

In Table 11.3, skin carcinomas (XIe) are presented for the total and for the groups of sites defined by ICD-O-3. The eligible registries were included in the tables if they had 20 or more cases.

In Table 11.4, other and unspecified carcinomas (XIf) are presented for the total and for the groups of sites defined by ICD-O-3. All eligible registries were included, and the numbers for the datasets with fewer than 20 cases are shown in italic.

Table 11.5 presents the subgroup of other and unspecified malignant tumours (XIIb) by site and is split into two parts (a and b). It shows the data for the whole subgroup and for the groups of sites defined by ICD-O-3 in the column headings. The total number of cases for subgroup XIIb is included in both parts of the table (a and b). All eligible registries were included, and the numbers for the datasets with fewer than 20 cases are shown in italic. This table also conveys information on the possible misclassification of certain tumours, in particular those with the primary site of bone marrow (C42), skin (C44), connective tissue (C49), eye (C69), thyroid gland (C73), adrenal gland (C74), or lymph node (C77), as described in Chapter 2 and Chapter 4.

Morphology of selected diagnostic categories (Chapter 12)
The distributions of cases of Hodgkin lymphoma (IIa), thyroid carcinoma (XIb), and skin carcinoma (XIe), respectively, are shown by morphology type in three tables in Chapter 12. The datasets were included in these tables only if they had 20 or more cases.

In Table 12.1, the numbers of cases of Hodgkin lymphoma (IIa) in the age groups 0–4, 5–9, 10–14, and 15–19 years are presented for the entire subgroup and for the six morphology subtypes defined by the ICD-O-3 morphology codes in the column headings.

In Table 12.2, the numbers of cases of thyroid carcinoma (XIb) within the same four age groups are shown for each of the four morphology subtypes defined by the ICD-O-3 morphology codes in the column headings, and for the other and unspecified types.

Table 5.2. Overview of the tumour groups included in tables in Chapter 10

IICC-3 table	M code (ICD-O-3 [1], ICD-O-3.1 [2])	ICCC-3-2017 (see Chapter 3) category*		By behaviour
Table 10.1		III	CNS tumours	+
Table 10.2		IIIa	Ependymomas and choroid plexus tumour	+
		IIIa1	Ependymomas	+
		IIIa2	Choroid plexus tumour	+
Table 10.3		IIIb	Astrocytomas	+
	M-9421	(IIIb)	Pilocytic astrocytoma	+
		(IIIb)	Other astrocytomas	+
Table 10.4		III	CNS tumours	
		(III)	CNS tumours excluding pilocytic astrocytoma	Malignant only
	M-9421	(IIIb)	Pilocytic astrocytoma	
		(III)	CNS tumours (malignant only) combined with pilocytic astrocytoma	
Table 10.5		IIId	Other gliomas	+
		IIId1	Oligodendrogliomas	
		IIId2	Mixed and unspecified gliomas	
		IIId3	Neuroepithelial glial tumours of uncertain origin	
Table 10.6.a		IIIe	Other specified intracranial and intraspinal neoplasms	+
		IIIe1	Pituitary adenomas and carcinomas	+
		IIIe2	Tumours of the sellar region (craniopharyngiomas)	+
Table 10.6.b		IIIe3	Pineal parenchymal tumours	+
		IIIe4	Neuronal and mixed neuronal-glial tumours	+
		IIIe5	Meningiomas	+
Table 10.7		IIIf	Unspecified intracranial and intraspinal neoplasms	+
Table 10.8		Xa1	Intracranial and intraspinal germinomas	
		Xa2	Intracranial and intraspinal teratomas	+
		Xa3	Intracranial and intraspinal embryonal carcinomas	
		Xa4	Intracranial and intraspinal yolk sac tumours	
		Xa5	Intracranial and intraspinal choriocarcinoma	
		Xa6	Intracranial and intraspinal tumours of mixed forms	

*The ICCC-3-2017 codes are enclosed in parentheses when the listed entity is contained within the category shown but it is not equivalent to the whole category.
Note: CNS tumours = central nervous system and miscellaneous intracranial and intraspinal neoplasms.
Source: Compiled from Fritz et al. (2000) [1] and Fritz et al. (2013) [2].

In Table 12.3, the total numbers of cases of skin carcinoma (XIe) are shown for the four age groups overall and for each of the four morphology categories defined by the ICD-O-3 morphology codes in the column headings. The sex ratio (male to female) of numbers of cases is also shown for the total and for each defined morphology category.

Laterality of selected tumours occurring in paired organs (Chapter 13)

The laterality distribution is presented in the four tables in Chapter 13 for tumours originating in four bilateral organs: eye (retinoblastoma), kidney (nephroblastoma), ovary, and testis. All the eligible datasets are listed on the left, and the numbers of cases with unilateral, bilateral, and unknown laterality occurrence are shown across the page, by age group. Some registries (marked with an asterisk in the tables) provided laterality for only a part of their study period.

Tables 13.1 and 13.2 show the laterality distribution of cases of retinoblastoma and nephroblastoma, respectively, diagnosed before age 15 years in ages 0, 1, 2, 3–4, 5–14, and 0–14 years. The dataset provided for the paediatric registry of Piedmont for the period 2000–2011 for the age range 0–19 years is not included, because the data from the same registry, which also provided data for a longer period (1990–2011) for the age range 0–14 years, were preferentially included in these tables.

Tables 13.3 and 13.4 show the laterality distribution of cases of ovarian and testicular cancer, respectively, in the age groups 0–4, 5–9, 10–14, and 15–19 years and the total age range. These tables include all cases classified in the subgroups Xc, Xd, and Xe of ICCC-3-2017 and sorted by the sex of the patient. The total age range is 0–14 years for the relevant paediatric registries (with no data in the columns for 15–19 years) and 0–19 years for the other registries.

There are two differences between the inclusion criteria for the laterality tables in the book and online. First, the tables in the book contain only the datasets with 20 or more cases of a given tumour, whereas the online tables include all the eligible registries (and the numbers for the datasets with fewer than 20 cases are shown in italic). Second, the tables in the book include only the registries with complete information on laterality (≥ 95% of cases in the diagnostic category of interest coded as either unilateral or bilateral), whereas in the online tables all eligible datasets were included.

Annex tables

The Annex tables summarize information relevant to the contributing registries or to childhood malignancies. These tables were placed at the end of the IICC-3 publication to facilitate readers' access to these reference sources. The titles of these tables are self-explanatory, and in the legend, placed just under the title, the criteria for inclusion of individual items and the meanings of the column headings are explained, the abbreviations are spelled out, and any special signs are defined. A short overview of the content of each Annex table is provided below.

In Table A.1, all registries and datasets included in any of the three IICC volumes are listed. The registries were considered to be participants if their data were tabulated or if they were listed as contributors to a pool. The content of Table A.1 is identical in the book and online versions.

Table A.2, Table A.3, Table A.4, and Table A.5 relate to ICCC-3-2017 (described in Chapter 3), and their content is identical in the book and online versions. Table A.2 shows the allocation of the eligible ICD-O codes into the 12 diagnostic groups and their subgroups of ICCC-3-2017. The split of the subgroups into divisions is defined in Table A.3. The morphology codes outside ICD-O-3 [1] that were used in IICC-3-2017 are listed in Table A.4, as defined in ICD-O-3.1 [2] or in the referenced volumes of the WHO Classification of Tumours series [3–9]. Table A.5 shows the numbers of unique cases allocated to each ICCC-3-2017 category in the IICC-3 database. To avoid counting a case twice in populations covered by more than one registry, the cases were counted from only one registry for each overlapping area, calendar year, or diagnostic group.

Table A.6 provides an overview of the period and population covered by each registry and dataset with respect to national childhood populations and with respect to the all-age population of the registration area. The percentage of the population covered was calculated for the population counted in the reference year shown for each registry and dataset. All of the datasets presented in standard or abbreviated tables online are included in the online version of Table A.6, whereas the statistics for the ethnic-specific datasets of the individual registries in the USA and in SEER-9 are not included in the book version of Table A.6.

The size of the total population and that of children (ages 0–14 years) and adolescents (ages 15–19 years) is shown in Table A.7, as estimated for 2010 by the United Nations [10]. The calendar years in which a national census for each represented country was held, as relevant to the IICC-3 period, are also shown. Finally, Table A.7 shows the availability and quality of mortality data [11], based on the WHO Mortality Database [12].

Table A.8 presents the type of missing details in the submitted material. It includes information on the extent of imputation of population counts and on the age variable used for calculation of incidence rates. All of the datasets presented in standard or abbreviated tables online are included in the online version of Table A.8, whereas the statistics for the ethnic-specific datasets of the individual registries in the USA and in SEER-9 are not included in the book version of Table A.8.

Table A.9 describes selected characteristics of each listed dataset. Some of these characteristics were highlighted, if their values were higher or lower than the expected ranges (see Fig. 4.1). This assessment applied to the incidence rates, the sex ratios (based on sex-specific ASR), the percentages of cases of a given age, every value of basis of diagnosis, and the unspecified malignancies, within the total number of cases in the dataset. The proportion of non-malignant tumours among all tumours affecting the CNS was also calculated, and the criteria for registration of these tumours were categorized. All of the datasets presented in standard or abbreviated tables online are included in the online version of Table A.9, whereas the statistics for the ethnic-specific datasets of the individual registries in the USA and in SEER-9 are not included in the book version of Table A.9.

Table A.10 shows the systems used to code the malignancies at the time they were registered during the calendar years contributed to IICC-3 for each participating registry. In instances of inconsistency between sources, the coding system was derived from the submitted cancer data, from specific communication with the registry, and from the questionnaire, in that order. All contributing registries are listed, and the content of the book and online versions of Table A.10 is identical.

Results of the internal consistency checks of individual records and the proportion of rare cancers within datasets are shown in Table A.11. Unexpectedly high or low percentages are highlighted according to the arbitrary cut-off points summarized in Fig. 4.1. All of the datasets presented in standard or abbreviated tables are included in the online version of Table A.11, whereas the statistics for the ethnic-specific datasets of the individual registries in the USA and in SEER-9 are not included in the book version of Table A.11.

In Table A.12, the tables available for each registry and each dataset are mapped. The total numbers of cases in the age ranges 0–14 years and 0–19 years are also shown for the registries with more than 15 cases; smaller numbers of cases are replaced by the sign #. The paediatric registries providing data only for the cases younger than 15 years are identified. The contribution of each registry to a national pool is indicated, although for the registries in the USA additional information on contribution to pools can be found in Table 6.1 (in Chapter 6). The content of the book and online versions of this table is identical.

Table A.13 lists the comparative tables that constitute Chapter 7 to Chapter 13, together with the numbers of the tables, inclusion criteria, differences between the book and online versions, and the filenames of the tables available online. As a rule, the book versions of the comparative tables show the selected statistics for the datasets with a standard table in the book, whereas the online version includes additional datasets, as indicated in Table A.12. The information about the available tables included in Table A.13 itself is identical between the book and online versions.

ONLINE LOCATION OF THE IICC-3 MATERIAL

The book is downloadable in PDF format from the IARC Publications website at https://publications.iarc.who.int/658. The online versions of the tables described above are available in the Results section of the IICC-3 website at https://iicc.iarc.who.int/results/. All data users are strongly encouraged to also consult the page https://iicc.iarc.who.int/results/updates, on which updates, errata, and other useful information may be published.

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