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EUROCARE-6 WORKING GROUP

Austria: M. Hackl (*National CR*); **Belgium:** E. Van Eycken; N. Van Damme (*National CR*); **Bulgaria:** Z. Valerianova (*National CR*); **Croatia:** M. Sekerija (*National CR*); **Cyprus:** V. Scoutellas; A. Demetriou (*National CR*); **Czechia:** L. Dušek; D. Krejci (*National CR*); **Denmark:** H. Storm (*National CR*); **Estonia:** M. Mägi; K. Innos* (*National CR*); **Finland:** J. Pitkääniemi (*National CR*); **France:** M. Velten (*Bas Rhin CR*); X. Troussard (*Basse Normandie, Haematological Malignancies CR*); A.M. Bouvier; V. Jooste* (*Burgundy, Digestive CR*); A.V. Guizard (*Calvados, General CR*); G. Launoy (*Calvados, Digestive CR*); S. Dabakuyo Yonli (*Cote d'Or, Gynaecologic (Breast) CR*); M. Maynadié (*Cote d'Or, Haematological Malignancies CR*); A.S. Woronoff (*Doubs CR*); J.B. Nousbaum (*Finistere, Digestive CR*); G. Coureau (*Gironde, General CR*); A. Monnereau* (*Gironde, Haematological Malignancies CR*); I. Baldi (*Gironde, Central Nervous System CR*); K. Hammas (*Haut-Rhin CR*); B. Tretarre (*Herault CR*); M. Colonna (*Iserre CR*); S. Plouvier (*Lille Area CR*); T. D'Almeida (*Limousin CR*); F. Molinié; A. Cowppli-Bony (*Loire-Atlantique/Vendée CR*); S. Bara (*Manche CR*); A. Debreuve (*Marne-Ardennes, Thyroid CR*); G. Defossez (*Poitou-Charentes CR*); B. Lapôtre-Ledoux (*Somme CR*); P. Grosclaude; L. Daubisse-Marliac (*Tarn CR*); **Germany:** S. Luttmann (*Bremen CR*); R. Stabenow (*Common CR of 4 Federal States (Brandenburg, Mecklenburg-West Pomerania, Saxony-Anhalt, Thüringen)*); A. Nennecke (*Hamburg CR*); J. Kieschke (*Lower Saxony CR*); S. Zeissig (*Rhineland-Palatinate CR*); B. Holleczeck (*Saarland CR*); A. Katalinic* (*Schleswig-Holstein CR*); **Iceland:** H. Birgisson (*National CR*); **Ireland:** D. Murray; P.M. Walsh (*National CR*); **Italy:** G. Mazzoleni; F. Vittadello (*Alto Adige CR*); F. Cuccaro (*Barletta-Andria-Trani CR*); R. Galasso (*Basilicata CR*); G. Sampietro (*Bergamo CR*); S. Rosso (*Biella CR*); C. Gasparotti; G. Maifredi (*Brescia CR*); M. Ferrante; R. Ragusa (*Catania-Messina-Enna CR*); A. Suter Sardo (*Catanzaro CR*); M.L. Gambino; M. Lanzoni (*Province of Varese and Como CR*); P. Ballotari; E. Giacomazzi (*Cremona and Mantova CR*); S. Ferretti (*Ferrara CR*); A. Caldarella; G. Manneschi (*Firenze-Prato CR*); G. Gatta*; M. Sant*; P. Baili*; F. Berrino*; L. Botta; A. Trama; R. Lillini; A. Bernasconi; S. Bonfarnuzzo; C. Vener; F. Didonè; P. Lasalvia; L. Buratti; G. Tagliabue (*Fondazione IRCCS Istituto Nazionale dei Tumori, Milan*); D. Serraino; L. Dal Maso (*Centro di Riferimento Oncologico, IRCCS, Aviano for the Friuli Venezia Giulia CR*); R. Capocaccia* (*Epidemiologia & Prevenzione Board*); R. De Angelis*; E. Demuru; C. Di Benedetto; S. Rossi*; M. Santaquilani; S. Venanzi; M. Tallon (*Istituto Superiore di Sanità, Rome*); L. Boni (*Genova CR*); S. Iacovacci (*Latina CR*); V. Gennaro (*Liguria, mesotheliomas CR*); A.G. Russo; F. Gervasi (*Province of Milan and Lodi CR*); G. Spagnoli (*Modena CR*); L. Cavalieri d'Oro (*Monza and Brianza CR*); M. Fusco; M.F. Vitale (*Napoli 3 South CR*); M. Usala (*Nuoro CR*); W. Mazzucco (*Palermo CR*); M. Michiara (*Parma CR*); G. Chiranda (*Piacenza CR*); G. Cascone; M.C. Giurdanella (*Ragusa CR*); L. Mangone (*Reggio Emilia CR*); F. Falcini (*Romagna CR*); R. Cavallo (*Salerno CR*); D. Piras (*Sassari CR*); A. Madeddu; F. Bella (*Siracusa CR*); A.C. Fanetti (*Sondrio CR*); S. Minerba (*Taranto CR*); G. Candela; T. Scuderi (*Trapani CR*); R.V. Rizzello (*Trento CR*); F. Stracci (*Umbria CR*); M. Ruge (*Veneto CR*); A. Brustolin (*Viterbo CR*); **Latvia:** S. Pildava (*National CR*); **Lithuania:** G. Smailyte (*National CR*); **Malta:** M. Azzopardi (*National CR*); **Norway:** T.B. Johannesen* (*National CR*); **Poland:** J. Didkowska; U. Wojciechowska (*National CR*); M. Bielska-Lasota*; **Portugal:** A. Pais (*Central Portugal CR*); M.J. Bento; R. Calisto (*Northern Portugal CR*); A. Lourenço (*Southern Portugal CR*); **Slovakia:** C. Safaei Diba (*National CR*); **Slovenia:** V. Zadnik; T. Zagar (*National CR*); **Spain:** C. Sánchez-Contador Escudero; P. Franch Sureda (*Balearic Islands, Mallorca CR*); A. Lopez de Munain; M. De-La-Cruz (*Basque Country CR*); M.D. Rojas; A. Aleman (*Canary Islands CR*); A. Vizcaino (*Castellon CR*); R. Marcos-Gragera; A. Sanvisens (*Girona CR*); M.J. Sanchez (*Granada CR*); M.D. Chirlaque López; A. Sanchez-Gil (*Murcia CR*); M. Guevara*; E. Ardanaz (*Navarra CR, CIBERESP*); J. Galceran; M. Carulla (*Tarragona CR*); **Switzerland:** Y. Bergeron (*Fribourg CR*); C. Bouchardy (*Geneva CR*); S. Mohsen Mousavi; P. Went (*Graubünden and Glarus CR*); S. Mohsen Mousavi; M. Blum (*Eastern Switzerland CR*); A. Bordoni (*Ticino CR*); **Netherlands:** O. Visser* (*National CR*); **UK-England:** S. Stevens ; J. Broggio (*National CR*); **UK-Northern Ireland:** D. Bennett (*National CR*) ; A. Gavin* ; **UK-Scotland:** D. Morrison (*National CR*); **UK-Wales:** D. W. Huws* (*National CR*).

* Member of the EUROCARE Steering Committee

Dataset characteristics and quality checks

A unique data collection protocol was used to collect standardised information on diagnosis and life status of cancer cases, as well as on life expectancy of the general population.^{1,2}

Data provided by the European cancer registries (CRs) were quality-checked in accordance with ENCR-JRC check procedures³ integrated with EURO CARE criteria specifically developed for the analysis of survival data.⁴

Quality controls were aimed to verify the compliance of individual data records to the study protocol requirements and to identify systematic or sparse errors in one or more variables.

Checks consisted in verifying the valid range of values of *each variable* (*vertical checks*) and the consistency between different variables (*horizontal checks*). These checks allowed to evaluate the validity of the individual records and to identify errors and anomalies regarding compulsory or optional variables.

Records with systematic errors in one or more variables were returned to registries for correction.

Compulsory fields regarded sex, dates of birth, diagnosis and last ascertainment of vital status, vital status, codes indicating cancer topography, morphology and behaviour, basis of diagnosis and whether the diagnosis was microscopically verified. Information on stage at diagnosis and treatment were also requested but were not compulsory since they were not always available to all CRs.

Missing or invalid values and inconsistencies between “compulsory” variables in a patient's record impair the use of the record and were classified as *major errors*. Major errors were always excluded from the analyses.

Cases known by death certificate only (DCO) or incidentally discovered at autopsy were also excluded. They often represent cancer cases with poor prognosis and high proportions of these cases may bias survival estimates. However, they have no effect on the prevalence estimates because they rely only on alive patients.

In prevalence estimates patients diagnosed with more than one primary tumour (multiple tumours) were included in each of the cancer-specific counts. The general principle of counting is to include patients rather than tumours, therefore only the first primary tumour for each cancer entity was considered.

A patient with multiple primary cancers contributes to separate prevalence estimates of different primary tumours. Only the first primary cancer is instead included when estimating the prevalence of all cancers combined. Consequently, cancer-specific counts do not sum up to counts of all cancers combined.

Cancer behaviour registration criteria for brain and urinary bladder are not homogeneous across Europe. Non-malignant (benign, uncertain and in situ) tumours of these entities were included to improve the international comparability of prevalence estimates.

The quality of follow-up information was assessed by checking the proportion of alive cases that were censored before the prevalence index date, the so-called cases “lost to follow-up”.

The index date was Jan 1, 2013 for all registries except Slovakia (Jan 1, 2011), Croatia, Saarland, Ferrara, Sassari, Varese, Canary Islands and Tarragona (Jan 1, 2012). Cases lost to follow-up before the index date are recaptured in the calculation of limited duration prevalence by means of registry-specific life tables. Each case lost to follow-up is assigned the survival probability estimated in the cohort of patients with complete follow-up and similar characteristics (sex, age at diagnosis, cancer site, period of diagnosis). The number of cases lost to follow-up estimated alive is obtained as the sum of the estimated survival probabilities for each lost case.

Table A.1 reports the characteristics of the dataset used for the EURO CARE-6 prevalence estimates and the results of data quality checks for the 61 European Cancer Registries (CRs) included in the study.

Overall, 23 registries cover the whole countries, whereas six countries are represented by regional registries (France, Germany, Italy, Portugal, Spain, Switzerland). The maximum duration of registration length is the difference between the prevalence index date and the first year of incidence data available in the dataset. The maximum duration ranged from minimum 9 years (Belgium and Cyprus national CRs started registration in 2004) to 35 years (all registries providing data from 1978).

Overall, the number of cancer cases included in the EURO CARE-6 dataset used for prevalence estimations was about 20.4 million.

The proportion of records with major errors was generally below 1% and does not exceed 3%.

The proportion of DCO cases and incidentally detected at autopsy cases ranged between 0% and 10.7%, depending on the specific operating conditions of the registries. Information on death certificates was not used to initiate cancer registration in Belgium, France, Denmark, and the Netherlands.

The proportion of multiple primary cancers was 6% on average. The proportion of multiple diagnoses depends on the length of registration period and on cancer survival, therefore higher values are generally reported for long-standing registries.

The proportion of non-malignant cancers was quite variable across European registries and higher values were registered for urinary bladder (up to 54.7%) than for brain cancers (up to 25.2%). This information is helpful to interpret the geographical differences in the prevalence patterns for these two neoplasms.

The proportion of lost to follow-up cases was generally very low, below 3% in most CRs. Higher proportions were registered for the Swiss registries (10% on average), especially for Geneva CR (17.8%).

Methods

Complete cancer prevalence was estimated by adjusting registry-specific prevalence observations using the so-called completeness indexes.⁵⁻⁶ The same method was also used to estimate limited duration prevalence for disease durations longer than the maximum follow up time available in each registry.

Further methodological details on cancer prevalence estimation are provided in the following.

1. Basic definitions

Prevalent cases are new and pre-existing cancer cases alive on a certain date (index date), in contrast to incidence which reflects new cases diagnosed during a given time interval. Cancer prevalence can be measured as **count** (absolute number of cases alive at the index date) or as **proportion** of the reference population (percent proportions or proportions per 100,000 inhabitants of cases alive at the index date). Crude prevalence proportions reflect the real burden of the disease in a population and are relevant for health care programming. Age-standardised prevalence proportions allow comparisons over time or between populations, which are adjusted for varying age-structure of the population. In this study we applied a direct standardisation using the European Standard Population 2013, the latest EUROSTAT revision of the standard population.

- *Limited-duration prevalence at x years* represents the number or proportion of people alive on a certain date who had a cancer diagnosis within the past x year
- *Complete prevalence* represents the number or proportion of people alive on a certain date who had a cancer diagnosis, regardless of how long before the diagnosis was or if the patient is still under treatment or is considered cured.
- *Observed prevalence at L years* is the maximum limited-duration prevalence that can be measured by a registry in operation since L years (L is the maximum registration time). For example, a registry collecting incidence and life status data from 1990 through 2020 can measure an observed prevalence of maximum 31-years, i.e. the prevalence of people diagnosed in the previous 31 years and alive at Dec 31, 2020. Observed prevalence is calculated from incidence and life status data by counting the number of all patients who are known to be alive at the index date. For cases that were censored alive before the index date (*lost to follow up*) the vital status is unknown at the index date. These cases – usually a small proportion – can be accounted for by estimating their *overall survival probability* between the censoring date and the index date. The survival probability of patients with complete follow up and similar characteristics (age, sex, period of diagnosis, type of cancer) is used to estimate the number of *lost cases estimated alive*. Lost to follow-up cases estimated to be alive at the index date are hence added to the observed prevalence (*counting method*). Unless the registration period is long enough to capture all patients alive at the index date, observed prevalence obtained with the counting method underestimates the total number of cancer survivors (complete prevalence) because it doesn't include alive cases that were diagnosed before the start of registration. Higher underestimations occur for short registration time lengths (less than 10-15 years) and for cancers with better prognosis and earlier onset.
- *Completeness index method*^{5,6} is a method to estimate complete prevalence from limited-duration prevalence. This method consists in estimating adjusting factors, known as “*completeness indexes*”, which quantify the theoretical completeness of the observed prevalence measured at a given registration time length L. Such indices are cancer, sex, age and time specific and are estimated by regressing incidence and relative survival models on representative pools of cancer registries data. Complete prevalence is obtained by simply dividing the observed prevalence at L years by the corresponding completeness index at L years.

2. Calculation of registry-specific observed limited-duration prevalence

For each of the 61 registries included in the study we computed the observed number of prevalent cases (N_{obs}) at the index date by cancer entity, sex, 5-year age groups, disease duration in years up to the maximum follow-up time L available in each registry (ranging from 9 to 35 years), using the counting method implemented in the Prevalence Session of the SEER*Stat Software.⁷

Further to counting prevalent cases at the index date, in the counting method adjustments are made to account for cases lost to follow-up estimated alive. Each lost to follow-up is assigned the survival probability estimated in a cohort of patients with complete follow-up and similar characteristics. Overall survival probabilities - considering all causes of death stratified by registry, cancer, sex, age at diagnosis (0-59, 60-74, 75+) and 10-year period of diagnosis (1978-1987, 1988-1997, 1998-2007, 2008-2015) are calculated with the Kaplan-Meier method. Such stratification ensures sufficiently robust survival estimates for all registries and cancer entities considered in the study, even in the long term. The number of cases lost to follow-up estimated alive at the prevalence index date is obtained as the sum of the estimated survival probabilities for each lost case.

The observed number of prevalent cases is computed summing up alive cases at the index date and lost cases estimated alive at the index date.

The most recent common index date for the eligible registries was Jan 1, 2013, except for Slovakia (Jan 1, 2011), Croatia, Saarland, Ferrara, Sassari, Varese, Canary Islands and Tarragona (Jan 1, 2012).

3. Calculation of complete prevalence with the completeness index method

Complete prevalence, which includes all people alive after a cancer diagnosis at the index date, regardless of the disease duration, was estimated by applying the completeness index method,⁵⁻⁶ a method specifically designed to estimate complete cancer prevalence starting from the limited-duration prevalence measured by population-based cancer registries.

The method is implemented in the COMPREV software⁸ which is distributed by the US National Cancer Institute (NCI-NIH) and is widely applied in the US in the annual reports on cancer prevalence,⁹ in periodic reports on cancer prevalence in Italy¹⁰ and by European projects like RARECAREnet, delivering prevalence indicators on rare cancers¹¹ or EUROPREVAL, estimating cancer prevalence in European countries for the first time.¹²

The completeness index - also called *R-index* - quantifies the theoretical completeness of the prevalence observed by a registry as a function of the registration time period. The completeness of observed prevalence increases with the duration of the registration activity and R-index approaches 1 as long as registration time grows. R-index assumes values in the interval [0,1]. A value equal to 1 indicates that the observed limited-duration prevalence includes all cancer cases alive at the index date, e.g. equals the complete prevalence.

The complete number of prevalent cases aged x years at the index date includes all incident cases diagnosed at age t ($t < x$) surviving up to age x, thus for x-t years. A cancer registry active since L years can observe only prevalent cases with disease duration lower than x-L. The expected complete prevalence $N'(x)$ can be therefore decomposed in two components: one *observed* (durations up to x-L) and one *unobserved* (durations between x-L and x).

The completeness index for a registration time L is defined as the ratio between the expected number of observed prevalent cases in L years $N'_{obs,L}(x)$ and the expected complete number of prevalent cases $N'(x)$, that is:

$$R_L(x) = \frac{N'_{obs,L}(x)}{N'(x)} = \frac{\sum_{t=x-L}^x I(t)S(t, x-t)}{\sum_{t=0}^x I(t)S(t, x-t)} \quad (1)$$

where $I(t)$ is the incidence of the disease at age t and $S(t, x-t)$ is the relative survival at age x for patients diagnosed with cancer at age t. The analytical details to derive equation (1) are described in the scientific paper that first proposed the methodology.⁵ Both relative survival and incidence functions are estimated from cancer registries data.

The complete number of prevalent cases (N) at age x in a registry operating since L years is therefore calculated dividing the observed number of prevalent cases (N_{obs}) by the corresponding completeness index (R) according to the relation:

$$N(x) = N_{obs,L}(x)/R_L(x)$$

where x is the age of prevalent cases (age at diagnosis plus disease duration up to the index date).

4. Calculation of European prevalence completeness indices

Prevalence completeness indexes by cancer type, age, sex and registration time were derived through the COMPREV software.⁸ This software provides completeness indexes computed by modelling incidence and relative survival data from pooled SEER-Program cancer registries (default values). Alternative R-index values can be computed by providing user-specific parameters of incidence and relative survival models. These parameters have to be estimated with other statistical packages and then provided in COMPREV as user-specific input data.

Since cancer profiles of the USA population might differ from the European patterns, either for incidence and survival, a systematic estimation of R-indexes by cancer site and sex from the European EURO CARE-6 dataset was carried out. The pool of the European cancer registries with at least 30 years of registration at the prevalence index date of Jan 1, 2013 was used at this purpose.

4.1 European completeness indices: estimation of incidence models

In the context of prevalence completeness index estimation parametric incidence models are used to describe the risk of being diagnosed with a specific cancer as a function of *age at diagnosis* and birth cohort, i.e. age at diagnosis is measured along the life span of each *birth cohort* present in the population at the index date.

Two different parametric models are foreseen by the COMPREV software to describe cancer incidence variations over time and age: *exponential* and *polynomial*.

- *Exponential Model*. In agreement with the multistage theory of carcinogenesis an exponential relationship with age can be assumed for the logit of incidence, as proposed in the first formulation of the completeness index method:⁵

$$I(x, k) = [1 + \exp - (a_k + b \cdot \log(x))]^{-1} \quad (2)$$

where $I(x, k)$ is incidence probability at age at diagnosis x for birth cohort k .

- *Polynomial Model*. A sixth-degree polynomial on age is assumed for the logit of incidence. This model may better represent incidence trends by age for some cancers deviating from a log-linear dependency and has been first proposed in a study aimed to validate the application of prevalence completeness indexes on US-SEER cancer registries data:⁶

$$I(x, k) = \left\{ 1 + \exp - \left[a_k + \sum_{i=1}^6 b_i \left(\frac{x}{m} - \frac{x_0}{m} \right)^i \right] \right\} \quad (3)$$

In both models, the birth cohort covariate (k) is included as a categorical variable to adjust for risk trends across the different birth cohorts.

The parameters of the incidence function were estimated through the *SAS Statistical Package (logistic procedure)* by fitting crude incidence rates of patients registered between 1980 and 2014 in the Pool of selected long-standing registries (30 years or more of observation at the index date of Jan 1, 2013).

Incidence data were stratified according to:

- cancer site
- sex
- 5-year age groups (0-4, 5-9, ..., 80-84, 85+)
- 5-year birth cohorts (<1889, 1890-1894, ..., 2010-2014)

The goodness of fit of the incidence models was assessed both analytically, by comparing the Akaike Information Criterion (AIC)¹³, and by visual comparison between the estimated and observed rates.

AIC was generally lower for the polynomial model, indicating a better fit for the latter in respect to exponential models (data not shown). Graphical comparisons of observed vs predicted incidence confirm this result, since predicted values are closer to the observed values when estimated through polynomial rather than exponential models.

Some examples of the goodness of fit of incidence models are reported in **Figure A.1**. Observed and predicted incidence rates by age at diagnosis or by period of diagnosis are shown for different index tumours. Polynomial models in general proved to fit observations better than exponential models, independently of cancer site, age and period of diagnosis.

4.2 Calculation of European completeness indices: estimation of relative survival models

Relative survival expresses the net probability to survive the specific cancer (removing background mortality due to other causes) and is computed as the ratio between the overall survival observed in a group of patients and the overall survival expected in a comparable group of population free from cancer, i.e. with same age, birth cohort, sex, area of residence. Relative survival is used when the cause of death is either unknown or not sufficiently reliable, as is often the case in population-based settings.

In the context of prevalence completeness index estimation, relative survival is modelled by means of parametric *mixture cure-models*.¹⁴ This class of models assumes cancer patients can be divided, according to outcome, in two categories: those that will be cured and those who will die from cancer. The fraction of cured patients (C) is exposed to the same mortality rates of the general population, whereas the remaining fraction (1-C) of fatal cases experiences an additional death risk due to cancer.

The COMPREV software supports parametric mixture cure models only, with the possibility to choose between exponential or Weibull time to death distribution of fatal cases. Age at diagnosis can be modelled as a *continuous variable* or as a *categorical variable*.

In the age-continuous formulation of the model of Weibull type, the cumulative relative survival probability of patients diagnosed at age t and year y after d years from diagnosis (follow-up time) is given by the following formula:

$$S(t, y, d) = [C + (1 - C)exp(-\lambda d)^\gamma]^{exp[\beta_1(t-t_0)+\beta_2(y-y_0)]} \quad (4)$$

where λ and γ are respectively the *scale* and *shape* parameters of the Weibull distribution of time to death for fatal cases, while the proportional hazard rate due to ‘age at diagnosis’ and ‘year of diagnosis’ is expressed, respectively, by the parameters β_1 and β_2 which modulate the baseline relative survival for reference age at diagnosis t_0 (64 years in our estimates) and central year of diagnosis y_0 (1997). The Weibull model incorporates the exponential model as a special case (shape parameters equal to unity).

In the age-stratified formulation of the model of Weibull type, the cumulative relative survival probability for the age group t is given by the following formula:

$$S_t(y, d) = [C_t + (1 - C_t)exp(-\lambda_t d)^{\gamma_t}]^{exp[\beta_{2,t}(y-y_0)]} \quad (5)$$

where all parameters of the baseline function (C , λ and γ) are age specific, as well as the parameters modulating the time period effect (β_2).

The relative survival observed in the pool of the long-standing cancer registries used for modelling incidence function (registries with follow up time ≥ 30 years) was considered for modelling relative survival. Observed relative survival in the pool was calculated with the Ederer II method with the SEER*Stat software³, excluding cases based on death certificates only or incidentally detected at autopsy. Observed relative survival of cancer patients diagnosed between 1980 and 2014 was stratified by:

- cancer site
- sex
- period of diagnosis (1980-84, 1985-89, 1990-94, 1995-99, 2000-04, 2005-09, 2010-14)
- age at diagnosis groupings (depending on cancer entities).

Mixed cure model parameters of Weibull type were estimated with non-linear regression using the NLIN procedure available in the SAS Statistical Package. The goodness of fit of the modelled survival function was evaluated through regression diagnostics indicators and by visual comparison of estimated and observed relative survival curves by follow up time.

The type of model and the age-groupings providing the best fit to observations are described below.

Cancer site	Age groups	Age stratification
Larynx, Bone, Vagina and vulva, Prostate, Penis, Non-Hodgkin lymphoma, Chronic myeloid leukaemia (CML)	0-87	age-continuous
Soft tissue	0-39, 40-87	age-stratified
Testis	0-44, 45-54, 55-64, 65+	age-stratified
Head and neck, Oesophagus, Stomach, Colon and rectum, Liver, Gallbladder, Pancreas, Lung, Skin melanoma, Breast, Cervix uteri, Corpus uteri, Ovary, Urinary bladder, Kidney, Thyroid, Multiple myeloma	0-44, 45-54, 55-64, 65-74, 75-87	age-stratified
All cancers, Brain, Hodgkin lymphoma, Chronic lymphocytic leukaemia/small lymphocytic lymphoma (CLL/SLL), Acute myeloid leukaemia (AML)	0-14, 15-44, 45-54, 55-64, 65-74, 75-87	age-stratified

Figure A.2 reports some examples of plots comparing observed vs predicted relative survival by follow up time for selected cancers. Goodness of fit of the Weibull mixture cure models was generally high: observed values lie within the 95% confidence limits estimated for predicted values.

5. Calculation of registry-specific complete prevalence estimates

Registry-specific complete prevalence estimates were derived dividing the observed limited-duration prevalence at by the corresponding completeness index according to the relation:

$$N'(x) = \frac{N_L^{obs}(x)}{R_L(x)}$$

where L is the maximum observation length of each registry and x is the age at prevalence class. The maximum length of observations ranged from 9 to 35 years at the prevalence index date (Table A.1).

Beside complete prevalence we estimated *limited-duration prevalence* at 2, 5, 10, 15, 20, 25 years from diagnosis. Limited duration prevalence for durations smaller or equal to the maximum observation period simply equals the registry's observed limited duration prevalence. For durations that are longer than the maximum observation period, limited-duration prevalence can be derived from a combination of completeness indexes. Being L the maximum observation length of a registry (for example 10 years) and L* a duration greater than L (for example 15 years), prevalence at limited duration L* >L can be estimated as follows:

$$N'_{L^*}(x) = N'(x) \cdot R_{L^*}(x) = N_L^{obs}(x) \cdot \frac{R_{L^*}(x)}{R_L(x)}$$

In this way, complete and limited duration prevalence - either counts or proportions - are derived for each registry for every duration beyond the length of registration activity. The completeness index method relies as much as possible on the observed information at maximum duration and is used just to complete the unobserved component of cancer prevalence.

6. Calculation of country-specific estimates of complete prevalence

Country-specific complete prevalence estimates correspond to registry-specific complete estimates for the 23 countries with population covered by national cancer registries. For the six countries with local cancer registration systems, the complete number of prevalent cases at the country level was obtained by applying age-specific prevalence proportions estimated for the national pool of registries to the country's resident population. In Italy, due the marked geographical north to south gradient in cancer incidence and survival, data were pooled in northern-central and southern areas and the national cancer prevalence was computed as weighted average of these two macro-areas estimates, using the resident population as weight.

The same procedure was used for calculating limited-duration prevalence at country level.

7. Time projections of country-specific complete prevalence

For each country three-year moving averages of complete and limited duration prevalence proportions, stratified by sex and age at prevalence (0-54, 55-64, 65-74, 75+), were projected to Jan 1, 2020 through regression modelling. Age-specific estimates were summed up to obtain prevalence projections for all ages combined by country, sex and cancer.

Two alternative regression models (linear and logistic) were tested. Goodness of fit of these alternative models was evaluated with the Akaike Information Criterion (AIC)¹³. The regression models were applied to the prevalence time trend based on the last 3, 4 or 5 years prior to the index date. For example, to project complete prevalence based on the latest 3-year estimates, complete prevalence at country level was calculated at the index dates of Jan 1, 2013, 2012, 2011, 2010 and 2009 to obtain three-year moving averages centred respectively in 2012, 2011 and 2010. The results obtained with the alternative projection methods for the pool of the Nordic countries in the study (Denmark, Finland, Iceland and Norway) were validated against the corresponding cancer prevalence observations published by NORDCAN.¹⁵ The Nordic registries are active since the fifties and are able to provide virtually complete observed measures, whereas incidence data available in the EURO CARE-6 study are limited to 1978 (maximum 35 years of observation). The comparison with NORDCAN therefore allowed to validate both complete prevalence estimation (up to 2013) and complete prevalence projections for the period 2014-2020.

The definition of the cancer entities in NORDCAN is based on ICD-10 Classification and slightly differs from the ICD-O-3 definition used in the study (**Table A.2**) for the following cancer entities:

- All cancers: CXX.X excl. C44, D09.0-D09.1, D30.1-D30.9 D32-D33, D35.2-D35.4, D41.1-D41.9, D42-D43, D44.3-D44.5, D45-D47
- Rectum: C19-C20
- Kidney: C64
- Urinary bladder: C65, C66, C67, C68, D09.0-1, D30.1-9, D41.1-9
- Soft tissues: C49, C46.1

The comparison against NORDCAN observations 2014-2016 (available at the time we performed the sensitivity analysis) allowed to choose linear regression models, based on the prevalence trend in the most recent 3-year period, as the final method to project complete and limited-duration cancer prevalence estimates from Jan 1, 2014 to Jan 1, 2020 (**Figures A.3 and A.4**). Resident population up to Jan 1, 2020 by country, sex and age¹⁶ was used to derive prevalence counts in all strata. Confidence intervals of the projected prevalence proportions were derived from the confidence interval of the estimated slope of the linear trend.

The uncertainty of prevalence projections depends on the trend estimated in the three-year period used as a basis for projections. Deviations from linearity, due to epidemiological changes in cancer incidence or survival, or variability due to low numerosity (possible for some cancer entities, age groups or countries) resulted in wider confidence intervals for the estimated slope and consequently for the prevalence estimate in 2020. Furthermore, the linear regression cannot capture changes that occur in later years than those used for estimation. This is the case, for example, of stomach, lung, or colon cancers, for which estimated complete prevalence fits well observations up to 2014 and appears underestimated in subsequent years.

8. Decomposition of prevalence time trends by determinant

Time trends of cancer prevalence are determined by the dynamics of three main factors: the disease risk (incidence), the probability to die of cancer patients (survival) and the demographic changes (evolution in the size and structure of the population, such as the ageing of the population). To quantify the impact of demographic changes compared to incidence and survival changes, the difference between the number of prevalent cases estimated in 2020 and in 2010 can be divided into two separate components according to the following relation:

$$N_{2020} - N_{2010} = (N_{2020} - N_{2020}^{p2010}) + (N_{2020}^{p2010} - N_{2010}) = \Delta N_{2020-2010}^{inc/surv} + \Delta N_{2020-2010}^{pop}$$

where N_{2020}^{p2010} represents the number of prevalent cases in 2020 that is obtained by applying age-specific prevalence proportions estimated in 2010 to the population age structure observed in 2020 (i.e. implicitly assuming that only the resident population has been changing from 2010 to 2020). The two terms of the above relation provide, respectively, the contribution of incidence and survival dynamics ($\Delta N_{2020-2010}^{inc/surv}$) and of population changes ($\Delta N_{2020-2010}^{pop}$) to the overall prevalent cases difference from 2010 to 2020. The second term, indeed, being the difference between N_{2020}^{p2010} and prevalent cases number in 2010, provides an estimation of the difference 2010-2020 only due to population changes, while the first one, expressing the remainder of the overall prevalence difference 2010-2020, can only be due to the combined effect of the remaining two determinants.

9. Complete prevalence estimates in Europe and EU-27

Estimated complete and limited-duration prevalent cases by country were summed up to obtain the corresponding counts for the European areas (Southern, UK and Ireland, Central, Eastern and Southern Europe) and at the European level. Two distinct measures were considered for the European level: the European pool, representing the pool of the 29 countries contributing to the EURO CARE-6 study, and the EU-27 area. The five EU-27 countries that did not contribute to EURO CARE-6 were assumed to share the same prevalence proportion of neighbouring countries (Southern Europe for Greece, Central Europe for Luxembourg, Eastern Europe for Hungary and Romania, Northern Europe for Sweden).

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Table A.1 - Populations covered by the 61 European Cancer Registries (CRs) included in the study with percentage of national population covered.

Maximum duration of registration at the index date, number of cases diagnosed until the index date, percentage of cases excluded because of major errors (inconsistencies in dates, missing/invalid information on vital status, basis of diagnosis, topography and morphology) or because detected only by death certificate or incidentally at autopsy), number of cases included in the analyses and percentage of multiple primaries, of benign and in situ cancers among cases diagnosed with brain and urinary bladder cancers, and of cases lost to follow-up before the index date.

Area	Country	Registry population (percentage of national population covered, %)	Maximum registration length at the index date* (years)	Number of cases diagnosed to the index date*	Excluded cases		Number of cases included in analysis	Multiple primaries (%)	Proportion of benign, uncertain and in situ cancers (%)		Cases lost to follow-up ^s (%)	
					Major Errors (%)	DCO/ Incidentally Detected at autopsy (%)			Brain	Urinary Bladder		
Northern Europe	Denmark	National (100.0)	35	905,012	1.9	0.2	886,125	6.4	25.2	50.9	0.7	
	Finland	National (100.0)	35	714,871	2.6	0.1	696,079	6.9	11.3	5.9	0.0	
	Iceland	National (100.0)	35	35,591	0.0	2.4	34,731	10.0	21.4	4.9	0.0	
	Norway	National (100.0)	35	706,397	1.5	0.7	691,336	9.7	20.6	4.6	0.0	
Central Europe	Austria	National (100.0)	30	1,047,788	0.0	10.7	936,173	6.3	0.0	0.0	0.0	
	Belgium	National (100.0)	9	575,829	0.4	0.0	573,206	6.3	14.5	49.1	0.8	
	France	Bas Rhin	(1.7)	23	117,020	0.2	0.0	116,791	9.3	0.0	0.0	1.1
		Doubs	(1.1)	23	58,706	0.1	0.0	58,645	7.7	0.0	0.0	0.4
		Haut-Rhin	(1.2)	23	79,774	0.6	0.0	79,286	8.3	0.0	0.0	3.1
		Herault	(1.7)	18	91,105	0.5	0.0	90,660	6.3	0.0	0.0	2.6
		Isere	(1.9)	23	116,499	0.6	0.0	115,829	7.9	0.0	0.0	1.2
		Somme	(0.9)	23	61,503	0.3	0.0	61,291	7.8	0.0	0.0	4.2
		Tarn	(0.6)	23	45,791	0.1	0.0	45,738	8.0	0.0	0.0	0.6
		<i>7 French CRs Pool</i>	<i>(9.9)</i>	<i>18 - 23</i>	<i>570,398</i>	<i>0.4</i>	<i>0.0</i>	<i>568,240</i>	<i>8.0</i>	<i>0.0</i>	<i>0.0</i>	<i>1.8</i>
	Germany	Bremen	(0.8)	13	56,280	0.1	6.9	52,313	6.5	6.8	48.2	6.5
		Common CR of 4 Federal States: Brandenburg, Mecklenburg-West Pomerania, Saxony-Anhalt, Thüringen	(12.9)	11	727,582	0.3	7.2	672,684	5.8	5.7	38.5	0.0
		Hamburg	(2.2)	15	151,352	0.8	9.3	136,039	9.6	0.0	32.5	7.9
		Saarland	(1.3)	19	116,095	0.8	5.4	108,954	6.7	11.8	52.3	0.0
		<i>4 German CRs Pool</i>	<i>(17.2)</i>	<i>11 - 19</i>	<i>1,051,309</i>	<i>0.4</i>	<i>7.3</i>	<i>969,990</i>	<i>6.5</i>	<i>5.7</i>	<i>39.9</i>	<i>1.5</i>
		Netherlands	National (100.0)	24	1,809,356	0.7	0.4	1,789,542	8.9	5.1	48.5	0.0
	Switzerland	Geneva	(5.9)	35	69,145	0.0	2.6	67,331	10.7	13.5	46.5	17.8
		Graubünden and Glarus	(2.9)	24	25,291	0.0	0.8	25,077	8.1	8.1	41.8	6.0
		Eastern Switzerland	(6.9)	32	68,350	0.0	3.8	65,763	8.0	13.8	49.2	7.4
		Ticino	(4.3)	13	24,578	0.0	1.7	24,160	7.4	0.0	6.2	3.8
<i>4 Swiss CRs Pool</i>		<i>(20)</i>	<i>13 - 35</i>	<i>187,364</i>	<i>0.0</i>	<i>2.7</i>	<i>182,331</i>	<i>8.9</i>	<i>11.4</i>	<i>43.3</i>	<i>10.2</i>	

Area	Country	Registry population (percentage of national population covered, %)	Maximum registration length at the index date* (years)	Number of cases diagnosed to the index date*	Excluded cases		Number of cases included in analysis	Multiple primaries (%)	Proportion of benign, uncertain and in situ cancers (%)		Cases lost to follow-up ^s (%)	
					Major Errors (%)	DCO/ Incidentally Detected at autopsy (%)			Brain	Urinary Bladder		
Eastern Europe	Bulgaria	National (100.0)	20	544,023	0.2	10.2	487,275	2.5	1.3	0.2	0.0	
	Czechia	National (100.0)	19	960,283	0.0	6.8	894,541	6.8	0.0	6.5	0.0	
	Estonia	National (100.0)	35	180,618	0.0	4.2	173,007	5.0	13.6	1.5	3.5	
	Latvia	National (100.0)	13	119,928	0.2	7.7	110,439	3.7	0.8	0.3	0.0	
	Lithuania	National (100.0)	20	277,739	1.2	4.3	262,530	4.6	1.7	11.9	2.5	
	Poland	National (100.0)	12	1,518,096	0.2	2.8	1,474,000	2.0	0.0	3.7	0.0	
	Slovakia	National (100.0)	33	570,881	0.0	9.8	514,700	4.9	10.7	1.4	0.0	
Southern Europe	Croatia	National (100.0)	12	252,861	0.0	6.0	237,757	2.4	0.0	0.0	0.0	
	Cyprus	National (100.0)	9	25,932	1.9	8.6	23,226	2.5	0.0	21.3	0.0	
	Italy ⁺	Catania-Messina-Enna (S)	(3.2)	10	93,833	0.1	1.6	92,290	3.7	0.0	49.5	4.1
		Ferrara (N-C)	(0.6)	21	56,577	0.5	1.4	55,481	7.5	8.6	47.0	3.0
		Latina (N-C)	(0.9)	17	41,120	0.5	1.6	40,247	4.8	10.2	26.1	9.1
		Modena (N-C)	(1.1)	25	97,512	0.0	0.3	97,216	7.9	5.8	1.9	1.5
		Napoli 3 Sud (S)	(2)	17	50,834	0.2	1.5	49,971	3.5	10.1	47.2	1.2
		Nuoro (S)	(0.4)	10	11,471	0.0	1.5	11,300	4.0	11.1	51.7	0.0
		Palermo (S)	(2.1)	10	59,453	0.1	2.8	57,769	3.4	20.8	42.5	0.4
		Parma (N-C)	(0.7)	35	89,511	0.0	2.2	87,485	7.0	8.4	23.7	4.3
		Ragusa (S)	(1)	32	42,922	0.0	1.8	42,147	4.3	16.1	48.1	0.6
		Reggio Emilia (N-C)	(0.9)	17	51,225	0.1	0.3	51,047	6.2	12.0	47.9	2.8
		Romagna (N-C)	(2)	27	173,711	0.0	1.8	170,618	8.4	13.7	35.0	0.2
		Sassari (S)	(0.8)	20	43,169	0.0	2.8	41,940	5.0	9.0	38.7	0.1
		Siracusa (S)	(0.7)	14	24,942	0.0	2.4	24,345	3.6	0.0	54.7	3.9
		Sondrio (N-C)	(0.3)	15	17,405	0.0	0.5	17,319	6.3	13.7	52.1	0.8
		Umbria (N-C)	(1.5)	19	103,597	0.0	0.5	103,119	7.5	0.0	0.0	1.4
		Varese (N-C)	(1.5)	34	142,600	0.0	1.5	140,409	7.9	3.1	4.6	3.6
	<i>16 Italian CRs Pool</i>	<i>(19.6)</i>	10 - 35	1,099,882	0.1	1.5	1,082,703	6.4	8.4	30.8	2.3	
	Malta	National (100.0)	20	28,583	0.6	2.4	27,718	2.7	7.7	37.8	0.0	
	Portugal	Southern Portugal (44.5)	13	252,507	0.3	0.1	251,377	4.1	0.0	0.0	2.2	
	Slovenia	National (100.0)	30	235,957	0.0	3.5	227,618	6.2	15.3	25.9	0.5	
	Spain	Balearic Islands, Mallorca	(1.9)	25	72,879	1.3	2.8	69,831	5.8	6.3	32.4	0.7
Basque Country		(4.7)	27	271,738	0.3	2.2	264,939	6.8	10.7	22.2	0.0	
Canary Islands		(3.8)	16	93,929	0.6	2.2	91,266	5.9	4.1	26.5	0.0	

Area	Country	Registry population (percentage of national population covered, %)	Maximum registration length at the index date* (years)	Number of cases diagnosed to the index date*	Excluded cases		Number of cases included in analysis	Multiple primaries (%)	Proportion of benign, uncertain and in situ cancers (%)		Cases lost to follow-up [§] (%)
					Major Errors (%)	DCO/ Incidentally Detected at autopsy (%)			Brain	Urinary Bladder	
Southern Europe	Spain	Girona (1.6)	19	58,820	0.2	3.2	56,827	6.5	10.8	38.5	5.3
		Granada (2)	28	81,506	0.0	4.0	78,226	5.7	9.8	9.0	0.0
		Tarragona (1.7)	30	78,138	0.3	4.0	74,828	7.2	4.2	8.2	0.1
		<i>6 Spanish CRs Pool (15.6)</i>	16 - 30	657,010	0.4	2.8	635,917	6.5	8.6	22.0	0.6
UK and Ireland	UK England	National (100.0)	18	4,339,233	2.2	3.0	4,110,349	6.3	2.6	0.0	0.0
	UK Northern Ireland	National (100.0)	20	153,963	0.1	1.4	151,629	6.9	21.9	51.2	0.0
	UK Scotland	National (100.0)	35	910,162	0.0	0.4	906,786	7.7	9.6	28.0	0.6
	UK Wales	National (100.0)	22	355,893	0.1	4.9	338,089	7.3	6.1	6.6	0.0
	Ireland	National (100.0)	19	307,333	0.7	1.4	300,903	6.4	11.5	19.9	0.0
POOL of 61 CRs		(51.7)	9 - 35	20,394,799	0.9	3.3	19,538,317	6.3	6.7	20.3	0.6

*The index date was Jan 1, 2013 for all registries except Slovakia (Jan 1, 2011), Croatia, Saarland, Ferrara, Sassari, Varese, Canary Islands and Tarragona (Jan 1, 2012).

§Proportion of cases censored alive before the prevalence index date out of all cases alive at the end of follow up.

*For Italy, N-C and S indicate northern-central and southern regions respectively.

Table A.2 – Definition of the cancer entities analysed in the study according to the Third Revision of the International Classification of Diseases for Oncology (ICD-O-3)

Cancer entities	Detailed description	ICD-O-3 Topography	ICD-O-3 Morphology
All cancers	All malignant cancers excluding non-melanoma skin cancer	SEER Site recode (https://seer.cancer.gov/siterecode/)	
Head and neck	Tongue, gum, floor of mouth, other and unspecified mouth, oropharynx, nasopharynx, hypopharynx, other oral cavity and pharynx	C01-C06, C09-C14	excluding 9050-9055, 9140, 9590-9992
Oesophagus		C15	excluding 9050-9055, 9140, 9590-9992
Stomach		C16	excluding 9050-9055, 9140, 9590-9992
Colon Rectum	Colon, rectum, rectosigmoid junction, anal canal, anus and intestine NOS	C18-C21, C260	excluding 9050-9055, 9140, 9590-9992
Liver	Liver and intrahepatic bile ducts (excluding metastatic and uncertain behaviour)	C22	excluding 9050-9055, 9140, 9590-9992
Gallbladder	Gallbladder, ampulla of Vater and extrahepatic bile ducts	C23-C24	excluding 9050-9055, 9140, 9590-9992
Pancreas		C25	excluding 9050-9055, 9140, 9590-9992
Larynx		C32	excluding 9050-9055, 9140, 9590-9992
Lung	Trachea, bronchus and lung (excluding mesotheliomas)	C339, C34	excluding 9050-9055, 9140, 9590-9992
Bone	Bones, joints and articular cartilage	C40-C41	excluding 9050-9055, 9140, 9590-9992
Soft tissue	Connective subcutaneous and other soft tissue (including heart)	C380, C47, C49	excluding 9050-9055, 9140, 9590-9992
Skin melanoma		C440-C449	8720-8790
Breast	Female breast	C500-C509	excluding 9050-9055, 9140, 9590-9992
Vagina and vulva	Vagina, vulva and other and unspecified female genital organs	C51, C529, C578, C579	excluding 9050-9055, 9140, 9590-9992
Cervix uteri		C53	excluding 9050-9055, 9140, 9590-9992
Corpus uteri	Corpus, isthmus, other	C54	excluding 9050-9055, 9140, 9590-9992
Ovary	Ovary and other uterine adnexa	C569, C570-C574, C577	excluding 9050-9055, 9140, 9590-9992
Prostate		C619	excluding 9050-9055, 9140, 9590-9992
Testis		C62	excluding 9050-9055, 9140, 9590-9992
Penis	Penis and other male genital organs	C60, C63	excluding 9050-9055, 9140, 9590-9992
Urinary bladder	Urinary bladder (including benign, uncertain and in situ neoplasms)	C67	excluding 9050-9055, 9140, 9590-9992
Kidney	Kidney and other and unspecified urinary organs (excluding bladder)	C64-C66, C68	excluding 9050-9055, 9140, 9590-9992
Brain	Excluding meningiomas and including benign and uncertain neoplasms	C71	excluding 9050-9055, 9140, 9530-9539, 9590-9992
Thyroid		C739	excluding 9050-9055, 9140, 9590-9992
Multiple myeloma	Multiple myeloma, plasma cell leukaemia, plasmacytoma NOS, plasmacytoma extramedullary		9731-9734
Hodgkin lymphoma			9650-9667
Non-Hodgkin lymphoma	Malignant lymphomas NOS or diffuse, mature B-cell lymphomas, mature T- and NK-cell lymphomas, adult T-cell leukaemia/lymphoma (HTLV-1 positive)		9590-9596, 9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9761, 9826, 9827
Chronic lymphocytic leukaemia/small lymphocytic lymphoma (CLL/SLL)	Small B-cell lymphocytic lymphoma, B-cell chronic lymphocytic leukaemia/small lymphocytic lymphoma		9670, 9823
Acute myeloid leukaemia (AML)	Acute myeloid leukaemia		9840, 9861, 9866-9867, 9870-9874, 9891, 9895-9897, 9898, 9910, 9920, 9930-9931, 9984, 9987
Chronic myeloid leukaemia (CML)	Chronic myeloid leukaemia		9863, 9875

Table A.3a - Complete cancer prevalence in women by European country as of Jan 1, 2020. All cancers and first eight leading cancers. Number of prevalent cases with 95% confidence intervals in brackets.

Country	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary
Austria	214,001	88,825	21,984	14,252	15,387	13,306	6,555	11,103	8,215
	(211,259-216,743)	(87,212-90,438)	(21,346-22,623)	(13,725-14,779)	(14,764-16,010)	(13,084-13,528)	(6,269-6,840)	(10,771-11,436)	(7,624-8,806)
Belgium	368,311	170,813	38,455	15,143	21,626	24,079	10,822	15,441	8,045
	(364,592-372,029)	(166,252-175,374)	(37,835-39,075)	(14,837-15,448)	(21,127-22,124)	(23,690-24,469)	(10,507-11,137)	(13,576-17,305)	(7,413-8,678)
Bulgaria	135,492	49,567	15,104	4,890	17,825	2,958	1,904	19,795	7,739
	(132,000-138,984)	(47,937-51,196)	(14,575-15,632)	(4,569-5,210)	(17,216-18,433)	(2,905-3,010)	(1,701-2,107)	(19,210-20,380)	(7,423-8,054)
Croatia	105,376	38,053	10,706	9,749	9,680	4,818	2,243	8,987	5,115
	(101,506-109,246)	(34,630-41,476)	(9,998-11,414)	(9,280-10,218)	(9,129-10,231)	(4,376-5,261)	(2,029-2,457)	(7,482-10,491)	(4,816-5,414)
Cyprus	19,892	8,286	1,773	3,784	1,343	512	653	754	684
	(19,314-20,471)	(7,811-8,760)	(1,586-1,961)	(3,304-4,264)	(1,095-1,591)	(422-603)	(482-825)	(452-1,056)	(421-947)
Czechia	269,850	97,353	30,484	16,240	28,882	17,624	7,381	23,725	11,850
	(267,543-272,157)	(94,901-99,805)	(28,810-32,158)	(15,622-16,859)	(28,287-29,478)	(17,124-18,125)	(7,025-7,737)	(22,639-24,811)	(11,174-12,526)
Denmark	174,828	77,654	19,661	3,416	11,412	20,477	5,680	9,053	5,183
	(169,450-180,206)	(72,751-82,557)	(19,321-20,001)	(3,312-3,519)	(11,117-11,706)	(20,044-20,909)	(5,502-5,858)	(8,748-9,359)	(4,913-5,454)
Estonia	31,016	9,840	4,019	1,411	3,361	1,767	775	2,902	1,424
	(30,080-31,952)	(9,554-10,127)	(3,726-4,312)	(1,271-1,552)	(3,237-3,486)	(1,570-1,964)	(695-855)	(2,775-3,029)	(1,308-1,539)
Finland	155,180	77,713	13,992	7,860	12,997	10,291	6,136	2,610	5,063
	(152,655-157,705)	(75,537-79,888)	(13,602-14,381)	(7,481-8,238)	(12,523-13,472)	(10,035-10,547)	(6,008-6,263)	(2,385-2,836)	(4,673-5,452)
France	1,998,030	947,248	186,073	136,176	114,749	124,689	73,943	67,739	53,277
	(1,974,371-2,021,688)	(935,176-959,319)	(176,651-195,496)	(133,618-138,733)	(108,116-121,381)	(119,340-130,039)	(71,051-76,835)	(61,491-73,986)	(49,073-57,481)
Germany	2,538,373	1,109,602	260,742	83,400	182,353	158,538	80,677	146,233	75,004
	(2,465,800-2,610,946)	(1,069,206-1,149,997)	(250,297-271,187)	(78,243-88,557)	(172,121-192,585)	(152,617-164,460)	(74,235-87,120)	(134,507-157,958)	(71,703-78,304)
Iceland	8,434	3,793	765	576	442	675	288	471	185
	(7,867-9,000)	(3,600-3,987)	(643-887)	(522-630)	(371-514)	(566-784)	(238-338)	(428-514)	(106-263)
Ireland	108,875	46,491	11,097	3,127	6,244	9,473	4,079	6,344	3,427
	(107,652-110,099)	(45,963-47,020)	(10,875-11,320)	(2,853-4,000)	(5,813-6,676)	(9,346-9,601)	(3,887-4,272)	(5,939-6,749)	(3,248-3,607)
Italy	1,938,749	814,192	227,628	217,846	128,822	82,458	69,325	59,102	51,298
	(1,889,529-1,987,968)	(788,223-840,162)	(220,971-234,285)	(209,629-226,063)	(123,773-133,870)	(79,867-85,049)	(66,151-72,499)	(53,421-64,782)	(48,092-54,505)
Latvia	47,766	14,860	4,595	3,407	5,126	1,749	1,023	4,388	2,829
	(46,761-48,771)	(14,066-15,653)	(4,296-4,895)	(3,201-3,614)	(5,037-5,214)	(1,486-2,012)	(810-1,235)	(4,222-4,553)	(2,688-2,969)
Lithuania	71,815	19,522	6,651	6,882	9,067	3,099	1,788	9,033	3,742
	(70,444-73,187)	(18,985-20,058)	(6,402-6,899)	(6,611-7,152)	(8,806-9,327)	(3,022-3,176)	(1,626-1,950)	(8,533-9,533)	(3,450-4,034)
Malta	11,356	4,958	990	809	1,021	513	566	188	344
	(10,667-12,045)	(4,540-5,377)	(849-1,130)	(713-906)	(893-1,149)	(455-572)	(460-672)	(9-366)	(208-480)
Norway	134,152	49,328	18,916	4,498	11,341	15,330	5,283	6,914	4,745
	(132,199-136,104)	(48,284-50,373)	(18,413-19,419)	(4,384-4,612)	(10,852-11,830)	(14,957-15,703)	(5,138-5,428)	(6,788-7,040)	(4,304-5,186)
Poland	697,667	248,317	66,362	44,083	81,147	22,201	12,413	67,550	37,766
	(685,218-710,115)	(244,102-252,533)	(63,567-69,156)	(42,372-45,794)	(78,941-83,353)	(21,522-22,880)	(11,860-12,965)	(64,766-70,334)	(37,307-38,224)
Portugal	264,720	109,686	32,679	24,762	14,203	10,934	10,791	20,368	5,698
	(261,066-268,375)	(107,019-112,352)	(31,932-33,427)	(23,729-25,795)	(12,739-15,668)	(10,208-11,660)	(10,185-11,398)	(18,461-22,275)	(5,422-5,974)
Slovakia	117,498	36,654	14,251	6,061	13,615	5,924	2,888	11,459	4,731
	(114,960-120,036)	(35,368-37,940)	(13,541-14,961)	(5,631-6,492)	(12,743-14,487)	(5,598-6,250)	(2,727-3,049)	(11,118-11,800)	(4,361-5,101)
Slovenia	51,569	19,133	6,599	2,292	5,043	4,149	1,607	3,658	1,597
	(50,606-52,532)	(18,442-19,824)	(6,450-6,749)	(2,203-2,381)	(4,903-5,182)	(4,063-4,236)	(1,514-1,701)	(3,287-4,029)	(1,456-1,738)
Spain	1,079,898	437,370	139,305	65,785	83,398	51,563	46,018	51,516	31,285
	(1,062,800-1,096,996)	(428,657-446,082)	(131,452-147,159)	(64,904-66,666)	(79,863-86,932)	(49,739-53,387)	(44,654-47,383)	(48,532-54,499)	(29,353-33,216)
Switzerland	233,973	103,814	24,025	12,868	12,954	22,823	8,841	6,372	6,811
	(229,285-238,660)	(101,815-105,814)	(21,562-26,487)	(12,075-13,661)	(12,522-13,386)	(21,939-23,707)	(8,034-9,649)	(4,657-8,086)	(5,660-7,962)

Country	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary
Netherlands	488,842	228,090	59,276	8,044	28,056	50,304	15,296	15,865	11,473
	(483,436-494,249)	(225,345-230,835)	(57,613-60,940)	(7,751-8,337)	(27,488-28,624)	(49,558-51,050)	(14,723-15,869)	(15,079-16,652)	(11,148-11,797)
UK-England	1,279,662	603,726	130,420	30,806	92,818	97,466	47,449	41,640	40,038
	(1,249,718-1,309,605)	(589,948-617,504)	(124,658-136,183)	(30,352-31,260)	(89,998-95,639)	(95,286-99,646)	(45,763-49,135)	(39,792-43,488)	(38,628-41,449)
UK-Northern Ireland	45,206	19,475	5,089	1,078	3,412	3,443	1,743	2,115	1,380
	(44,349-46,064)	(18,895-20,054)	(4,967-5,211)	(976-1,179)	(3,240-3,585)	(3,222-3,664)	(1,665-1,821)	(1,992-2,238)	(1,257-1,503)
UK-Scotland	144,885	65,546	16,367	3,302	9,286	11,824	5,315	6,697	4,324
	(142,547-147,222)	(64,646-66,445)	(15,726-17,007)	(3,187-3,417)	(9,004-9,568)	(11,519-12,130)	(5,061-5,570)	(6,519-6,875)	(4,054-4,594)
UK-Wales	83,018	38,937	8,788	1,377	6,816	5,787	2,529	3,160	2,847
	(81,397-84,639)	(37,776-40,098)	(8,397-9,180)	(1,255-1,500)	(6,370-7,262)	(5,614-5,961)	(2,105-2,953)	(2,970-3,350)	(2,598-3,095)
European area									
Northern Europe	472,593	208,489	53,334	16,349	36,192	46,772	17,387	19,049	15,175
	(466,314-478,872)	(203,020-213,957)	(52,603-54,066)	(15,937-16,761)	(35,447-36,938)	(46,137-47,408)	(17,119-17,654)	(18,646-19,452)	(14,523-15,828)
Central Europe	5,841,529	2,648,391	590,556	269,882	375,124	393,740	196,135	262,752	162,824
	(5,764,723-5,918,335)	(2,605,819-2,690,964)	(576,150-604,961)	(264,032-275,732)	(362,884-387,365)	(385,664-401,816)	(188,991-203,279)	(249,200-276,305)	(157,279-168,369)
Eastern Europe	1,371,104	476,113	141,465	82,975	159,023	55,322	28,172	138,851	70,080
	(1,357,587-1,384,621)	(470,719-481,506)	(138,055-144,875)	(81,043-84,908)	(156,484-161,561)	(54,354-56,289)	(27,412-28,932)	(135,740-141,963)	(69,069-71,090)
Southern Europe	3,471,560	1,431,677	419,681	325,028	243,510	154,948	131,204	144,572	96,022
	(3,419,168-3,523,953)	(1,403,928-1,459,427)	(409,331-430,031)	(316,671-333,385)	(237,144-249,876)	(151,664-158,232)	(127,683-134,725)	(137,692-151,451)	(92,242-99,801)
UK and Ireland	1,661,646	774,175	171,762	39,690	118,576	127,993	61,116	59,955	52,016
	(1,631,530-1,691,761)	(760,297-788,054)	(165,945-177,579)	(39,125-40,255)	(115,670-121,483)	(125,771-130,216)	(59,347-62,885)	(58,042-61,869)	(50,543-53,490)
European Pool	12,818,432	5,538,845	1,376,798	733,925	932,425	778,776	434,013	625,179	396,116
	(12,719,572-12,917,291)	(5,485,610-5,592,081)	(1,357,808-1,395,788)	(723,519-744,330)	(918,080-946,771)	(769,705-787,846)	(425,815-442,211)	(609,543-640,816)	(389,141-403,091)
EU27	12,076,728	5,112,614	1,304,233	753,436	908,137	687,670	396,867	642,015	383,601
	(11,982,427-12,171,028)	(5,061,090-5,164,138)	(1,286,269-1,322,197)	(743,028-763,844)	(894,057-922,217)	(678,910-696,430)	(388,891-404,843)	(626,539-657,490)	(376,867-390,335)

Table A.3b - Complete cancer prevalence in women by European country as of Jan 1, 2020. All cancers and first eight leading cancers. Crude and age-standardised prevalence proportion per 100,000 with 95% confidence intervals in brackets.

Country	Crude prevalence proportion per 100,000									Age-standardised Prevalence proportion per 100,000								
	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary
Italy	6,338	2,662	744	712	421	270	227	193	168	5,375	2,248	573	665	340	245	193	164	144
	(6,177-6,498)	(2,577-2,746)	(722-766)	(685-739)	(405-438)	(261-278)	(216-237)	(175-212)	(157-178)	(5,239-5,511)	(2,174-2,322)	(556-590)	(642-689)	(327-352)	(237-252)	(183-203)	(148-179)	(134-153)
Belgium	6,305	2,924	658	259	370	412	185	264	138	5,954	2,771	602	252	338	399	174	251	130
	(6,242-6,369)	(2,846-3,002)	(648-669)	(254-264)	(362-379)	(406-419)	(180-191)	(232-296)	(127-149)	(5,896-6,013)	(2,704-2,839)	(592-612)	(247-257)	(330-346)	(392-405)	(169-179)	(222-280)	(120-140)
Germany	6,025	2,634	619	198	433	376	192	347	178	5,180	2,293	490	186	344	338	166	308	152
	(5,853-6,197)	(2,538-2,730)	(594-644)	(186-210)	(409-457)	(362-390)	(176-207)	(319-375)	(170-186)	(5,013-5,348)	(2,199-2,387)	(467-513)	(175-197)	(323-365)	(325-352)	(149-182)	(287-330)	(145-159)
Denmark	5,975	2,654	672	117	390	700	194	309	177	5,669	2,509	623	115	362	677	183	301	167
	(5,791-6,159)	(2,486-2,822)	(660-684)	(113-120)	(380-400)	(685-715)	(188-200)	(299-320)	(168-186)	(5,491-5,847)	(2,345-2,673)	(612-635)	(111-118)	(352-372)	(662-692)	(177-189)	(291-310)	(158-176)
France	5,744	2,723	535	392	330	358	213	195	153	5,266	2,491	468	375	289	339	193	181	140
	(5,676-5,812)	(2,688-2,758)	(508-562)	(384-399)	(311-349)	(343-374)	(204-221)	(177-213)	(141-165)	(5,204-5,327)	(2,460-2,522)	(444-493)	(368-382)	(273-305)	(324-353)	(185-201)	(165-197)	(129-151)
Netherlands	5,581	2,604	677	92	320	574	175	181	131	5,321	2,477	639	90	301	555	166	176	125
	(5,519-5,642)	(2,573-2,635)	(658-696)	(88-95)	(314-327)	(566-583)	(168-181)	(172-190)	(127-135)	(5,261-5,382)	(2,445-2,508)	(621-656)	(87-93)	(295-307)	(547-563)	(160-172)	(167-184)	(121-128)
Finland	5,548	2,778	500	281	465	368	219	93	181	4,779	2,372	418	256	381	325	188	89	156
	(5,458-5,638)	(2,701-2,856)	(486-514)	(267-295)	(448-482)	(359-377)	(215-224)	(85-101)	(167-195)	(4,701-4,857)	(2,306-2,437)	(406-429)	(245-267)	(368-395)	(317-333)	(184-191)	(83-96)	(144-168)
Switzerland	5,395	2,394	554	297	299	526	204	147	157	5,156	2,291	513	294	279	510	194	145	150
	(5,287-5,503)	(2,347-2,440)	(497-611)	(278-315)	(289-309)	(506-547)	(185-222)	(107-186)	(131-184)	(5,061-5,251)	(2,246-2,335)	(461-564)	(277-311)	(270-289)	(491-529)	(178-211)	(110-180)	(125-175)
UK-Wales	5,178	2,429	548	86	425	361	158	197	178	4,752	2,220	489	83	383	338	144	189	164
	(5,077-5,279)	(2,356-2,501)	(524-573)	(78-94)	(397-453)	(350-372)	(131-184)	(185-209)	(162-193)	(4,660-4,844)	(2,155-2,285)	(467-512)	(76-90)	(358-408)	(327-348)	(120-168)	(179-199)	(150-177)
UK-Scotland	5,157	2,333	583	118	331	421	189	238	154	4,957	2,240	553	116	314	409	182	233	148
	(5,074-5,240)	(2,301-2,365)	(560-605)	(113-122)	(320-341)	(410-432)	(180-198)	(232-245)	(144-164)	(4,877-5,038)	(2,208-2,271)	(531-575)	(112-119)	(305-324)	(398-420)	(173-190)	(227-239)	(139-158)
Croatia	5,050	1,824	513	467	464	231	108	431	245	4,365	1,560	423	427	387	200	95	380	215
	(4,865-5,236)	(1,660-1,988)	(479-547)	(445-490)	(438-490)	(210-252)	(97-118)	(359-503)	(231-259)	(4,223-4,508)	(1,426-1,693)	(393-453)	(408-445)	(364-409)	(183-218)	(86-103)	(324-435)	(200-230)
Norway	5,041	1,854	711	169	426	576	199	260	178	5,176	1,907	732	172	440	590	204	265	183
	(4,968-5,115)	(1,814-1,893)	(692-730)	(165-173)	(408-445)	(562-590)	(193-204)	(255-265)	(162-195)	(5,100-5,251)	(1,867-1,948)	(712-751)	(168-177)	(420-459)	(575-604)	(198-210)	(260-270)	(166-200)
Czechia	4,977	1,796	562	300	533	325	136	438	219	4,584	1,643	510	282	480	304	126	409	202
	(4,934-5,020)	(1,750-1,841)	(531-593)	(288-311)	(522-544)	(316-334)	(130-143)	(418-458)	(206-231)	(4,541-4,627)	(1,600-1,685)	(481-538)	(271-293)	(469-491)	(296-312)	(120-132)	(390-428)	(191-213)
Slovenia	4,936	1,831	632	219	483	397	154	350	153	4,403	1,627	540	209	411	363	137	324	139
	(4,844-5,028)	(1,765-1,897)	(617-646)	(211-228)	(469-496)	(389-405)	(145-163)	(315-386)	(139-166)	(4,322-4,484)	(1,566-1,688)	(528-551)	(200-217)	(399-423)	(356-370)	(128-146)	(294-354)	(127-152)
Portugal	4,870	2,018	601	456	261	201	199	375	105	4,262	1,768	490	424	214	180	175	334	92
	(4,803-4,937)	(1,969-2,067)	(587-615)	(437-475)	(234-288)	(188-215)	(187-210)	(340-410)	(100-110)	(4,198-4,325)	(1,724-1,811)	(478-502)	(408-441)	(193-235)	(170-190)	(164-187)	(304-364)	(88-96)
Lithuania	4,821	1,310	446	462	609	208	120	606	251	4,176	1,129	357	418	503	181	103	544	222
	(4,729-4,913)	(1,274-1,346)	(430-463)	(444-480)	(591-626)	(203-213)	(109-131)	(573-640)	(232-271)	(4,094-4,258)	(1,099-1,158)	(342-371)	(400-435)	(489-516)	(177-184)	(94-113)	(517-570)	(200-244)
Iceland	4,760	2,141	432	325	250	381	163	266	104	5,463	2,502	517	353	303	406	183	284	119
	(4,440-5,079)	(2,032-2,250)	(363-501)	(295-355)	(209-290)	(319-442)	(134-191)	(242-290)	(60-149)	(5,086-5,840)	(2,381-2,623)	(437-596)	(314-392)	(260-346)	(347-465)	(151-214)	(256-312)	(65-174)
Austria	4,732	1,964	486	315	340	294	145	246	182	4,397	1,833	432	305	303	279	136	229	168
	(4,671-4,793)	(1,928-2,000)	(472-500)	(304-327)	(326-354)	(289-299)	(139-151)	(238-253)	(169-195)	(4,335-4,459)	(1,796-1,869)	(420-444)	(293-316)	(291-315)	(274-284)	(129-142)	(221-237)	(155-182)
UK-Northern Ireland	4,687	2,019	528	112	354	357	181	219	143	4,947	2,147	560	116	380	371	192	224	150
Ireland	(4,598-4,776)	(1,959-2,079)	(515-540)	(101-122)	(336-372)	(334-380)	(173-189)	(206-232)	(130-156)	(4,852-5,042)	(2,087-2,208)	(547-574)	(105-126)	(360-399)	(347-395)	(183-201)	(211-237)	(136-163)
	4,652	1,447	448	332	499	170	100	427	276	3,925	1,208	349	296	402	142	90	388	243
Latvia	(4,554-4,750)	(1,370-1,525)	(418-477)	(312-352)	(491-508)	(145-196)	(79-120)	(411-443)	(262-289)	(3,853-3,996)	(1,154-1,263)	(325-372)	(280-312)	(395-409)	(123-160)	(72-108)	(372-404)	(232-254)
	4,564	1,993	398	325	410	206	228	75	138	4,458	1,939	387	324	398	203	223	76	138
Malta	(4,287-4,841)	(1,825-2,161)	(341-454)	(287-364)	(359-462)	(183-230)	(185-270)	(4-147)	(84-193)	(4,191-4,724)	(1,778-2,099)	(334-440)	(289-359)	(349-447)	(181-226)	(180-266)	(7-144)	(84-191)
	4,481	2,114	457	108	325	341	166	146	140	4,480	2,119	451	108	324	342	166	146	140
UK-England	(4,376-4,585)	(2,066-2,162)	(436-477)	(106-109)	(315-335)	(334-349)	(160-172)	(139-152)	(135-145)	(4,372-4,587)	(2,069-2,168)	(432-471)	(107-110)	(314-334)	(334-349)	(160-172)	(140-153)	(135-145)
	4,475	1,812	577	273	346	214	191	214	130	4,153	1,696	514	265	312	202	177	197	122
Spain	(4,404-4,546)	(1,776-1,848)	(545-610)	(269-276)	(331-360)	(206-221)	(185-196)	(201-226)	(122-138)	(4,083-4,224)	(1,660-1,732)	(481-547)	(262-268)	(297-326)	(196-208)	(171-183)	(186-208)	(115-129)

Country	Crude prevalence proportion per 100,000									Age-standardised prevalence proportion per 100,000								
	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary	All cancers	Breast	Colon Rectum	Thyroid	Corpus Uteri	Skin melanoma	Non-Hodgkin L.	Cervix uteri	Ovary
Estonia	4,433	1,406	574	202	480	253	111	415	204	3,823	1,216	454	179	397	225	98	379	180
	(4,299-4,566)	(1,365-1,447)	(532-616)	(182-222)	(463-498)	(224-281)	(99-122)	(397-433)	(187-220)	(3,724-3,922)	(1,183-1,249)	(423-485)	(163-195)	(380-414)	(203-247)	(89-106)	(363-394)	(165-195)
Cyprus	4,386	1,827	391	834	296	113	144	166	151	4,733	1,993	441	855	330	122	157	172	163
	(4,258-4,514)	(1,722-1,932)	(350-432)	(728-940)	(242-351)	(93-133)	(106-182)	(100-233)	(93-209)	(4,593-4,872)	(1,880-2,106)	(395-487)	(740-971)	(269-391)	(100-144)	(115-199)	(94-250)	(100-226)
Ireland	4,343	1,855	443	125	249	378	163	253	137	5,090	2,178	550	132	305	439	194	278	162
	(4,294-4,392)	(1,834-1,876)	(434-452)	(114-136)	(232-266)	(373-383)	(155-170)	(237-269)	(130-144)	(5,025-5,154)	(2,152-2,203)	(540-560)	(121-143)	(283-327)	(433-446)	(186-202)	(259-297)	(152-170)
Slovakia	4,208	1,313	510	217	488	212	103	410	169	4,178	1,297	515	213	484	211	103	407	167
	(4,117-4,298)	(1,267-1,359)	(485-536)	(202-232)	(456-519)	(200-224)	(98-109)	(398-423)	(156-183)	(4,086-4,270)	(1,250-1,343)	(489-541)	(198-228)	(455-513)	(198-224)	(97-109)	(396-419)	(153-180)
Bulgaria	3,783	1,384	422	137	498	83	53	553	216	3,295	1,196	348	127	414	73	47	490	193
	(3,685-3,880)	(1,338-1,429)	(407-436)	(128-145)	(481-515)	(81-84)	(48-59)	(536-569)	(207-225)	(3,209-3,381)	(1,157-1,235)	(336-359)	(119-136)	(399-429)	(71-74)	(41-53)	(476-505)	(184-203)
Poland	3,562	1,268	339	225	414	113	63	345	193	3,341	1,181	318	215	384	108	60	319	181
	(3,499-3,626)	(1,246-1,289)	(325-353)	(216-234)	(403-426)	(110-117)	(61-66)	(331-359)	(190-195)	(3,283-3,398)	(1,161-1,202)	(305-330)	(206-223)	(374-395)	(105-111)	(57-63)	(305-332)	(179-184)
Dispersion by country																		
<i>Min</i>	3,562	1,268	339	86	249	83	53	75	104	3,295	1,129	318	83	214	73	47	76	92
<i>Quartile 1</i>	4,481	1,812	448	137	330	212	136	195	140	4,262	1,627	432	132	312	202	126	181	140
<i>Median</i>	4,870	1,993	535	259	410	341	166	260	168	4,733	1,993	490	252	362	325	166	265	156
<i>Quartile 3</i>	5,395	2,429	601	325	465	381	194	375	182	5,176	2,291	550	324	398	399	188	334	180
<i>Max</i>	6,338	2,924	744	834	609	700	228	606	276	5,954	2,771	732	855	503	677	223	544	243
<i>Ratio Max/Min</i>	1.8	2.3	2.2	9.7	2.4	8.5	4.3	8.0	2.6	1.8	2.5	2.3	10.3	2.3	9.3	4.7	7.2	2.6
European area																		
Northern Europe	5,520	2,435	623	191	423	546	203	223	177	5,204	2,289	576	185	390	523	191	216	167
	(5,447-5,594)	(2,371-2,499)	(614-632)	(186-196)	(414-431)	(539-554)	(200-206)	(218-227)	(170-185)	(5,133-5,274)	(2,227-2,351)	(568-584)	(180-189)	(382-398)	(515-530)	(188-194)	(212-221)	(160-174)
Central Europe	5,820	2,639	588	269	374	392	195	262	162	5,216	2,373	498	256	317	364	174	240	145
	(5,743-5,896)	(2,596-2,681)	(574-603)	(263-275)	(362-386)	(384-400)	(188-203)	(248-275)	(157-168)	(5,143-5,290)	(2,332-2,414)	(484-511)	(250-261)	(307-328)	(357-372)	(167-181)	(228-251)	(140-150)
Eastern Europe	3,963	1,376	409	240	460	160	81	401	203	3,656	1,262	372	227	416	149	76	370	188
	(3,924-4,002)	(1,361-1,392)	(399-419)	(234-245)	(452-467)	(157-163)	(79-84)	(392-410)	(200-205)	(3,620-3,691)	(1,247-1,277)	(363-380)	(221-232)	(409-423)	(147-152)	(74-78)	(362-378)	(185-191)
Southern Europe	5,425	2,237	656	508	381	242	205	226	150	4,778	1,973	539	481	321	222	181	200	134
	(5,343-5,507)	(2,194-2,281)	(640-672)	(495-521)	(371-390)	(237-247)	(200-211)	(215-237)	(144-156)	(4,706-4,851)	(1,934-2,012)	(524-553)	(470-493)	(313-330)	(217-226)	(176-187)	(190-209)	(128-139)
UK and Ireland	4,559	2,124	471	109	325	351	168	165	143	4,578	2,138	469	110	327	353	168	165	143
	(4,477-4,642)	(2,086-2,162)	(455-487)	(107-110)	(317-333)	(345-357)	(163-173)	(159-170)	(139-147)	(4,493-4,663)	(2,099-2,177)	(454-485)	(108-111)	(318-335)	(346-359)	(163-173)	(160-171)	(139-147)
European Pool	5,254	2,270	564	301	382	319	178	256	162	4,785	2,069	491	288	336	298	162	238	149
	(5,213-5,295)	(2,248-2,292)	(557-572)	(297-305)	(376-388)	(315-323)	(175-181)	(250-263)	(160-165)	(4,747-4,823)	(2,049-2,090)	(483-498)	(284-292)	(331-341)	(295-302)	(158-165)	(232-243)	(146-151)
EU27	5,279	2,235	570	329	397	301	174	281	168	4,747	2,010	487	313	343	278	156	256	152
	(5,238-5,320)	(2,212-2,257)	(562-578)	(325-334)	(391-403)	(297-304)	(170-177)	(274-287)	(165-171)	(4,708-4,784)	(1,989-2,031)	(480-494)	(309-317)	(338-349)	(275-282)	(152-159)	(251-262)	(149-154)

Table A.4a – Complete cancer prevalence in men by European country as of Jan 1, 2020. All cancers and first eight leading cancers. Number of prevalent cases with 95% confidence intervals in brackets.

Country	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non-Hodgkin L.	Lung
Austria	193,952	74,915	26,851	12,943	11,685	11,445	11,819	7,615	8,198
	(189,112 - 198,791)	(71,533 - 78,297)	(25,758 - 27,944)	(11,949 - 13,938)	(11,371 - 11,999)	(10,803 - 12,087)	(11,363 - 12,275)	(7,532 - 7,699)	(7,843 - 8,554)
Belgium	288,620	106,190	42,433	32,091	13,776	13,888	8,962	12,302	17,523
	(282,772 - 294,467)	(102,397 - 109,983)	(41,481 - 43,385)	(30,628 - 33,555)	(12,522 - 15,030)	(13,645 - 14,130)	(8,451 - 9,474)	(11,734 - 12,869)	(16,522 - 18,524)
Bulgaria	79,911	16,400	16,269	10,543	2,010	4,017	4,523	1,875	4,252
	(78,224 - 81,599)	(13,357 - 19,444)	(15,816 - 16,722)	(10,175 - 10,912)	(1,937 - 2,083)	(3,622 - 4,411)	(4,169 - 4,877)	(1,729 - 2,021)	(3,915 - 4,589)
Croatia	81,004	19,109	14,336	8,486	3,982	4,868	3,726	2,164	4,825
	(78,702 - 83,305)	(18,564 - 19,654)	(12,700 - 15,971)	(7,489 - 9,484)	(3,437 - 4,528)	(4,657 - 5,080)	(3,147 - 4,305)	(1,906 - 2,422)	(3,711 - 5,938)
Cyprus	16,226	5,634	2,244	1,582	389	454	798	676	702
	(15,723 - 16,728)	(5,490 - 5,779)	(2,123 - 2,365)	(1,348 - 1,816)	(237 - 541)	(345 - 564)	(533 - 1,063)	(546 - 806)	(479 - 925)
Czechia	228,088	77,188	39,640	19,495	15,158	19,275	12,619	6,890	9,180
	(227,002 - 229,174)	(76,507 - 77,868)	(39,091 - 40,189)	(18,854 - 20,135)	(14,344 - 15,972)	(18,767 - 19,783)	(12,166 - 13,073)	(6,844 - 6,935)	(8,696 - 9,664)
Denmark	136,939	48,643	19,829	14,181	14,633	5,208	10,004	6,922	5,673
	(134,066 - 139,812)	(46,071 - 51,214)	(19,229 - 20,429)	(13,522 - 14,839)	(14,476 - 14,790)	(5,007 - 5,410)	(9,783 - 10,225)	(6,608 - 7,237)	(5,493 - 5,852)
Estonia	24,991	12,056	2,923	1,549	920	1,850	479	728	1,409
	(24,342 - 25,640)	(11,933 - 12,179)	(2,679 - 3,166)	(1,455 - 1,643)	(851 - 989)	(1,734 - 1,965)	(446 - 511)	(630 - 826)	(1,307 - 1,512)
Finland	121,325	59,657	13,806	8,075	9,158	5,197	3,284	6,584	2,533
	(117,957 - 124,694)	(57,160 - 62,154)	(13,299 - 14,314)	(7,625 - 8,526)	(8,716 - 9,599)	(4,740 - 5,655)	(3,212 - 3,356)	(6,360 - 6,808)	(2,150 - 2,917)
France	1,773,782	788,471	202,108	72,134	98,535	93,602	68,655	81,491	95,124
	(1,722,854 - 1,824,710)	(745,299 - 831,643)	(193,256 - 210,959)	(68,948 - 75,320)	(96,554 - 100,516)	(90,146 - 97,059)	(64,006 - 73,303)	(80,796 - 82,187)	(91,404 - 98,844)
Germany	2,336,036	864,119	335,488	236,383	143,691	151,283	140,769	90,060	114,526
	(2,262,077 - 2,409,996)	(828,426 - 899,811)	(325,650 - 345,326)	(229,010 - 243,756)	(135,143 - 152,239)	(140,507 - 162,059)	(137,038 - 144,500)	(85,695 - 94,424)	(107,054 - 121,997)
Iceland	6,730	2,613	719	655	353	437	391	336	211
	(6,497 - 6,964)	(2,444 - 2,781)	(621 - 817)	(589 - 720)	(290 - 416)	(370 - 503)	(317 - 464)	(258 - 414)	(111 - 311)
Ireland	106,214	47,751	13,652	5,992	5,655	4,049	4,806	4,820	3,800
	(104,446 - 107,982)	(47,138 - 48,365)	(13,408 - 13,895)	(5,677 - 6,307)	(5,332 - 5,977)	(3,842 - 4,256)	(4,452 - 5,160)	(4,384 - 5,255)	(3,410 - 4,189)
Italy	1,574,923	503,430	249,626	227,521	72,521	95,247	50,273	79,833	76,322
	(1,539,994 - 1,609,852)	(488,129 - 518,731)	(237,430 - 261,823)	(218,300 - 236,742)	(70,122 - 74,920)	(90,664 - 99,831)	(47,560 - 52,985)	(77,964 - 81,701)	(69,163 - 83,480)
Latvia	30,383	9,767	3,186	2,641	744	2,610	850	802	2,229
	(29,721 - 31,045)	(9,605 - 9,929)	(2,925 - 3,447)	(2,477 - 2,806)	(629 - 858)	(2,449 - 2,771)	(711 - 988)	(611 - 993)	(2,090 - 2,367)
Lithuania	58,370	31,208	5,347	3,215	1,193	3,764	856	1,454	1,410
	(56,201 - 60,539)	(29,137 - 33,280)	(5,124 - 5,571)	(3,013 - 3,418)	(1,124 - 1,261)	(3,437 - 4,091)	(785 - 928)	(1,371 - 1,536)	(1,304 - 1,516)
Malta	8,139	2,449	1,111	1,204	353	443	382	453	455
	(7,796 - 8,482)	(2,148 - 2,751)	(908 - 1,313)	(1,088 - 1,319)	(269 - 437)	(371 - 515)	(350 - 413)	(384 - 522)	(380 - 530)
Norway	130,033	57,666	18,092	10,158	11,663	5,615	8,132	6,086	3,950
	(128,360 - 131,706)	(56,036 - 59,297)	(17,346 - 18,838)	(9,975 - 10,342)	(10,982 - 12,344)	(5,241 - 5,988)	(7,932 - 8,332)	(5,581 - 6,590)	(3,758 - 4,142)
Poland	450,957	112,534	70,641	48,060	13,974	29,657	24,242	11,444	37,037
	(441,495 - 460,419)	(106,937 - 118,131)	(69,109 - 72,173)	(46,663 - 49,457)	(13,722 - 14,226)	(28,161 - 31,154)	(22,525 - 25,959)	(10,611 - 12,276)	(36,283 - 37,791)
Portugal	212,446	73,411	40,247	12,003	7,054	8,063	3,542	10,592	8,298
	(208,423 - 216,469)	(70,964 - 75,859)	(38,493 - 42,001)	(11,056 - 12,950)	(6,653 - 7,455)	(7,042 - 9,085)	(3,212 - 3,873)	(9,810 - 11,374)	(7,872 - 8,724)
Slovakia	88,538	18,920	18,231	7,226	4,821	6,615	6,325	2,637	4,393
	(86,076 - 91,000)	(17,858 - 19,982)	(17,632 - 18,830)	(6,945 - 7,507)	(4,667 - 4,975)	(6,388 - 6,842)	(6,198 - 6,452)	(2,352 - 2,922)	(4,072 - 4,714)
Slovenia	47,163	17,324	8,988	3,382	3,404	2,653	2,816	1,759	1,878
	(46,448 - 47,878)	(16,681 - 17,966)	(8,855 - 9,120)	(3,173 - 3,590)	(3,295 - 3,514)	(2,479 - 2,826)	(2,674 - 2,958)	(1,719 - 1,798)	(1,697 - 2,059)
Spain	1,077,537	381,584	191,427	156,537	34,718	49,551	26,891	47,426	45,306
	(1,062,412 - 1,092,661)	(368,485 - 394,684)	(186,230 - 196,625)	(151,894 - 161,180)	(33,739 - 35,698)	(47,557 - 51,544)	(24,564 - 29,218)	(45,241 - 49,612)	(42,190 - 48,422)
Switzerland	209,582	81,515	24,944	19,284	19,620	8,554	13,241	10,191	8,512
	(204,950 - 214,215)	(76,540 - 86,490)	(24,238 - 25,651)	(17,463 - 21,104)	(19,016 - 20,224)	(7,749 - 9,358)	(12,609 - 13,874)	(8,817 - 11,565)	(6,590 - 10,434)

Country	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non-Hodgkin L.	Lung
Netherlands	385,973	135,578	67,147	49,904	34,860	15,813	18,605	18,810	17,930
	(378,063 - 393,882)	(132,185 - 138,971)	(65,010 - 69,285)	(47,972 - 51,836)	(33,946 - 35,774)	(15,201 - 16,424)	(18,156 - 19,053)	(18,424 - 19,195)	(16,153 - 19,707)
UK-England	1,016,568	388,816	150,830	43,664	72,365	42,130	53,896	54,784	35,500
	(974,618 - 1,058,518)	(368,458 - 409,174)	(143,611 - 158,049)	(40,432 - 46,896)	(70,269 - 74,461)	(40,700 - 43,561)	(52,681 - 55,111)	(53,436 - 56,131)	(33,773 - 37,228)
UK-Northern Ireland	35,231	12,263	5,846	3,177	2,071	1,634	1,989	1,733	1,360
	(33,744 - 36,719)	(11,310 - 13,217)	(5,457 - 6,236)	(2,841 - 3,513)	(2,007 - 2,136)	(1,489 - 1,778)	(1,898 - 2,080)	(1,627 - 1,839)	(1,277 - 1,443)
UK-Scotland	105,153	32,460	18,436	11,635	7,691	4,667	6,487	5,669	4,598
	(102,584 - 107,722)	(31,063 - 33,857)	(17,911 - 18,961)	(11,249 - 12,021)	(7,458 - 7,923)	(4,421 - 4,914)	(6,287 - 6,687)	(5,475 - 5,863)	(4,078 - 5,119)
UK-Wales	67,390	26,788	10,896	3,743	4,743	2,886	3,337	2,778	2,095
	(65,675 - 69,106)	(25,415 - 28,161)	(10,713 - 11,078)	(3,694 - 3,792)	(4,490 - 4,996)	(2,566 - 3,206)	(3,127 - 3,548)	(2,347 - 3,210)	(1,898 - 2,293)
European area									
Northern Europe	395,028	168,578	52,446	33,069	35,806	16,457	21,810	19,928	12,366
	(390,290 - 399,767)	(164,637 - 172,520)	(51,358 - 53,534)	(32,248 - 33,891)	(34,977 - 36,635)	(15,829 - 17,085)	(21,495 - 22,126)	(19,288 - 20,568)	(11,891 - 12,842)
Central Europe	5,187,944	2,050,787	698,971	422,739	322,167	294,585	262,051	220,469	261,813
	(5,097,362 - 5,278,527)	(1,994,220 - 2,107,355)	(685,469 - 712,473)	(414,097 - 431,382)	(313,230 - 331,103)	(283,202 - 305,967)	(256,001 - 268,101)	(215,789 - 225,148)	(253,001 - 270,624)
Eastern Europe	961,238	278,074	156,237	92,730	38,819	67,789	49,894	25,828	59,910
	(950,982 - 971,495)	(271,253 - 284,894)	(154,395 - 158,078)	(91,101 - 94,359)	(37,937 - 39,701)	(66,100 - 69,477)	(48,071 - 51,716)	(24,906 - 26,750)	(58,880 - 60,940)
Southern Europe	3,017,437	1,002,942	507,979	410,714	122,423	161,279	88,428	142,903	137,785
	(2,979,081 - 3,055,793)	(982,631 - 1,023,252)	(494,503 - 521,455)	(400,294 - 421,135)	(119,736 - 125,109)	(156,169 - 166,390)	(84,780 - 92,076)	(139,908 - 145,897)	(129,881 - 145,688)
UK and Ireland	1,330,556	508,078	199,660	68,211	92,525	55,366	70,515	69,784	47,354
	(1,288,429 - 1,372,683)	(487,595 - 528,562)	(192,405 - 206,915)	(64,923 - 71,498)	(90,375 - 94,674)	(53,858 - 56,874)	(69,214 - 71,817)	(68,287 - 71,281)	(45,495 - 49,212)
European Pool	10,892,204	4,008,460	1,615,293	1,027,464	611,739	595,476	492,698	478,912	519,227
	(10,784,600 - 10,999,809)	(3,944,475 - 4,072,444)	(1,594,772 - 1,635,814)	(1,013,413 - 1,041,514)	(602,087 - 621,392)	(582,779 - 608,172)	(485,280 - 500,115)	(473,050 - 484,773)	(507,192 - 531,263)
EU27	10,269,805	3,730,824	1,535,209	1,035,252	543,960	584,144	448,367	433,822	509,564
	(10,170,750 - 10,368,860)	(3,670,316 - 3,791,332)	(1,515,983 - 1,554,435)	(1,021,663 - 1,048,842)	(534,566 - 553,354)	(571,542 - 596,746)	(441,055 - 455,680)	(428,299 - 439,344)	(497,795 - 521,333)

Table A.4b - Complete cancer prevalence in men by European country as of Jan 1, 2020. All cancers and first eight leading cancers. Crude and age-standardised prevalence proportion with 95% confidence intervals in brackets.

	Crude prevalence proportion per 100,000									Age-standardised prevalence proportion per 100,000								
	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non-Hodgkin L.	Lung	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non-Hodgkin L.	Lung
Germany	5,692	2,106	818	576	350	369	343	220	279	5,554	2,065	794	559	344	358	339	214	271
	(5,512-5,873)	(2,019-2,193)	(794-841)	(558-594)	(329-371)	(342-395)	(334-352)	(209-230)	(261-297)	(5,387-5,720)	(1,985-2,146)	(770-817)	(543-576)	(323-366)	(335-380)	(329-348)	(204-224)	(255-288)
France	5,452	2,424	621	222	303	288	211	251	292	5,822	2,637	676	242	316	306	211	264	308
	(5,296-5,609)	(2,291-2,556)	(594-648)	(212-232)	(297-309)	(277-298)	(197-225)	(248-253)	(281-304)	(5,657-5,987)	(2,501-2,773)	(645-707)	(232-252)	(310-322)	(295-317)	(197-225)	(262-266)	(296-320)
Italy	5,421	1,733	859	783	250	328	173	275	263	5,102	1,610	801	730	239	308	172	261	245
	(5,301-5,542)	(1,680-1,786)	(817-901)	(751-815)	(241-258)	(312-344)	(164-182)	(268-281)	(238-287)	(4,990-5,214)	(1,562-1,658)	(762-838)	(700-760)	(231-247)	(293-322)	(163-182)	(255-267)	(222-268)
Belgium	5,080	1,869	747	565	243	245	158	217	308	5,574	2,109	834	640	256	268	156	233	341
	(4,977-5,183)	(1,802-1,936)	(730-764)	(539-591)	(220-265)	(240-249)	(149-167)	(207-227)	(291-326)	(5,466-5,682)	(2,039-2,180)	(816-851)	(613-666)	(234-277)	(264-273)	(147-165)	(223-243)	(321-360)
Switzerland	4,910	1,910	584	452	460	200	310	239	199	5,402	2,171	655	512	499	221	312	257	218
	(4,801-5,018)	(1,793-2,026)	(568-601)	(409-494)	(445-474)	(182-219)	(295-325)	(207-271)	(154-244)	(5,281-5,522)	(2,040-2,302)	(635-675)	(462-561)	(483-514)	(203-239)	(298-326)	(219-295)	(167-268)
Norway	4,804	2,131	669	375	431	208	300	225	146	5,640	2,580	825	470	498	240	302	256	174
	(4,743-4,866)	(2,070-2,191)	(641-696)	(369-382)	(406-456)	(194-221)	(293-308)	(206-243)	(139-153)	(5,574-5,707)	(2,501-2,659)	(788-862)	(461-478)	(465-531)	(223-257)	(294-311)	(231-281)	(166-181)
Denmark	4,727	1,679	685	490	505	180	345	239	196	4,985	1,804	740	533	525	187	345	249	209
	(4,628-4,826)	(1,590-1,768)	(664-705)	(467-512)	(500-511)	(173-187)	(338-353)	(228-250)	(190-202)	(4,886-5,084)	(1,714-1,894)	(718-763)	(510-556)	(519-531)	(179-195)	(338-353)	(237-261)	(203-216)
Spain	4,645	1,645	825	675	150	214	116	204	195	4,988	1,805	894	734	158	228	115	212	209
	(4,579-4,710)	(1,588-1,701)	(803-848)	(655-695)	(145-154)	(205-222)	(106-126)	(195-214)	(182-209)	(4,915-5,060)	(1,743-1,868)	(869-918)	(714-753)	(153-162)	(219-237)	(105-126)	(203-222)	(196-221)
Slovenia	4,487	1,648	855	322	324	252	268	167	179	4,802	1,810	932	357	344	268	265	176	185
	(4,419-4,555)	(1,587-1,709)	(843-868)	(302-342)	(313-334)	(236-269)	(254-281)	(164-171)	(161-196)	(4,734-4,869)	(1,750-1,870)	(918-945)	(336-378)	(333-354)	(251-286)	(252-279)	(172-179)	(167-204)
Lithuania	4,475	2,393	410	247	91	289	66	112	108	5,342	2,957	508	311	104	333	64	124	124
	(4,309-4,641)	(2,234-2,551)	(393-427)	(231-262)	(86-97)	(264-314)	(60-71)	(105-118)	(100-116)	(5,175-5,509)	(2,786-3,128)	(489-527)	(292-330)	(97-110)	(300-367)	(58-71)	(116-131)	(112-135)
Netherlands	4,463	1,568	777	577	403	183	215	218	207	4,757	1,714	849	640	416	194	214	225	226
	(4,372-4,555)	(1,528-1,607)	(752-801)	(555-599)	(393-414)	(176-190)	(210-220)	(213-222)	(187-228)	(4,660-4,855)	(1,677-1,751)	(819-879)	(612-667)	(403-428)	(186-202)	(209-219)	(220-230)	(201-250)
Finland	4,447	2,187	506	296	336	191	120	241	93	4,540	2,269	525	307	339	192	120	240	89
	(4,324-4,570)	(2,095-2,278)	(487-525)	(279-312)	(319-352)	(174-207)	(118-123)	(233-250)	(79-107)	(4,425-4,655)	(2,182-2,356)	(508-542)	(290-324)	(321-357)	(173-210)	(117-122)	(232-247)	(77-102)
Austria	4,429	1,711	613	296	267	261	270	174	187	4,810	1,915	680	328	284	285	266	183	203
	(4,319-4,540)	(1,634-1,788)	(588-638)	(273-318)	(260-274)	(247-276)	(259-280)	(172-176)	(179-195)	(4,689-4,931)	(1,830-2,000)	(652-709)	(302-354)	(276-292)	(268-301)	(256-276)	(181-185)	(195-211)
Portugal	4,371	1,511	828	247	145	166	73	218	171	4,321	1,498	821	245	143	164	73	215	168
	(4,289-4,454)	(1,460-1,561)	(792-864)	(227-266)	(137-153)	(145-187)	(66-80)	(202-234)	(162-180)	(4,236-4,405)	(1,447-1,548)	(785-858)	(225-265)	(135-151)	(143-184)	(67-80)	(199-231)	(159-176)
Czechia	4,326	1,464	752	370	288	366	239	131	174	4,957	1,723	903	451	331	418	238	143	201
	(4,306-4,347)	(1,451-1,477)	(741-762)	(358-382)	(272-303)	(356-375)	(231-248)	(130-132)	(165-183)	(4,933-4,981)	(1,710-1,736)	(892-914)	(435-468)	(315-348)	(406-430)	(229-247)	(142-144)	(192-211)
Ireland	4,322	1,943	556	244	230	165	196	196	155	5,676	2,671	779	345	292	210	195	243	210
	(4,250-4,394)	(1,918-1,968)	(546-565)	(231-257)	(217-243)	(156-173)	(181-210)	(178-214)	(139-170)	(5,581-5,770)	(2,636-2,706)	(767-791)	(325-365)	(274-310)	(200-219)	(179-211)	(224-261)	(186-234)
UK-Wales	4,322	1,718	699	240	304	185	214	178	134	4,380	1,752	712	249	308	188	213	179	137
	(4,212-4,432)	(1,630-1,806)	(687-710)	(237-243)	(288-320)	(165-206)	(201-228)	(150-206)	(122-147)	(4,266-4,495)	(1,661-1,843)	(700-724)	(246-252)	(292-324)	(165-210)	(200-226)	(151-207)	(123-150)
Croatia	4,108	969	727	430	202	247	189	110	245	4,369	1,064	794	473	212	259	191	113	262
	(3,992-4,225)	(942-997)	(644-810)	(380-481)	(174-230)	(236-258)	(160-218)	(97-123)	(188-301)	(4,236-4,502)	(1,033-1,095)	(713-875)	(421-526)	(182-242)	(248-269)	(162-221)	(98-127)	(205-320)
Estonia	3,971	1,916	464	246	146	294	76	116	224	4,912	2,432	619	313	173	366	73	131	278
	(3,868-4,075)	(1,896-1,935)	(426-503)	(231-261)	(135-157)	(276-312)	(71-81)	(100-131)	(208-240)	(4,788-5,035)	(2,403-2,462)	(574-663)	(293-334)	(161-184)	(345-387)	(68-79)	(113-149)	(257-299)
UK-Scotland	3,936	1,215	690	436	288	175	243	212	172	4,276	1,360	770	497	309	186	241	225	192
	(3,840-4,032)	(1,163-1,267)	(670-710)	(421-450)	(279-297)	(165-184)	(235-250)	(205-219)	(153-192)	(4,178-4,374)	(1,305-1,415)	(750-791)	(482-511)	(299-319)	(177-196)	(234-249)	(216-233)	(170-213)
UK-Northern Ireland	3,764	1,310	625	339	221	175	213	185	145	4,550	1,659	783	430	263	211	214	218	179
	(3,605-3,923)	(1,208-1,412)	(583-666)	(303-375)	(214-228)	(159-190)	(203-222)	(174-197)	(136-154)	(4,326-4,773)	(1,520-1,798)	(726-839)	(381-478)	(254-272)	(190-232)	(203-224)	(204-233)	(168-190)
Cyprus	3,735	1,297	517	364	90	105	184	156	162	4,559	1,686	650	458	102	125	192	177	203
	(3,619-3,850)	(1,264-1,330)	(489-544)	(310-418)	(55-125)	(79-130)	(123-245)	(126-185)	(110-213)	(4,424-4,695)	(1,642-1,730)	(619-682)	(387-529)	(55-149)	(97-153)	(116-268)	(143-210)	(138-267)
UK-England	3,641	1,393	540	156	259	151	193	196	127	4,085	1,611	619	183	285	168	195	215	145
	(3,491-3,791)	(1,320-1,465)	(514-566)	(145-168)	(252-267)	(146-156)	(189-197)	(191-201)	(121-133)	(3,911-4,258)	(1,527-1,695)	(589-650)	(169-198)	(277-293)	(162-174)	(191-200)	(209-220)	(138-152)

Country	Crude prevalence proportion per 100,000									Age-standardised prevalence proportion per 100,000								
	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non Hodgkin L.	Lung	All cancers	Prostate	Colon Rectum	Urinary bladder	Skin melanoma	Kidney	Testis	Non Hodgkin L.	Lung
Iceland	3,600 (3,475-3,725)	1,398 (1,308-1,488)	385 (332-437)	350 (315-385)	189 (155-223)	234 (198-269)	209 (169-248)	180 (138-221)	113 (59-166)	4,840 (4,698-4,981)	2,060 (1,942-2,179)	549 (468-631)	504 (464-545)	229 (184-273)	315 (258-371)	227 (188-266)	229 (184-273)	145 (58-232)
Latvia	3,449 (3,374-3,524)	1,109 (1,090-1,127)	362 (332-391)	300 (281-318)	84 (71-97)	296 (278-315)	96 (81-112)	91 (69-113)	253 (237-269)	4,145 (4,065-4,225)	1,411 (1,384-1,437)	460 (422-498)	374 (350-399)	97 (80-115)	347 (323-370)	94 (75-112)	98 (77-119)	309 (290-328)
Slovakia	3,322 (3,229-3,414)	710 (670-750)	684 (662-706)	271 (261-282)	181 (175-187)	248 (240-257)	237 (233-242)	99 (88-110)	165 (153-177)	4,411 (4,300-4,521)	1,042 (991-1,093)	967 (945-989)	392 (372-413)	232 (225-239)	314 (305-322)	231 (226-236)	118 (101-136)	238 (221-255)
Malta	3,063 (2,934-3,192)	922 (808-1,035)	418 (342-494)	453 (409-496)	133 (101-164)	167 (140-194)	144 (132-155)	170 (144-196)	171 (143-199)	3,613 (3,475-3,750)	1,163 (1,048-1,278)	513 (425-601)	556 (509-602)	147 (112-183)	190 (157-222)	146 (134-159)	196 (171-221)	221 (188-253)
Poland	2,454 (2,403-2,506)	613 (582-643)	385 (376-393)	262 (254-269)	76 (75-77)	161 (153-170)	132 (123-141)	62 (58-67)	202 (197-206)	3,032 (2,978-3,087)	824 (791-857)	507 (494-519)	345 (337-354)	90 (89-92)	194 (186-202)	130 (120-140)	71 (66-76)	249 (244-253)
Bulgaria	2,372 (2,321-2,422)	487 (396-577)	483 (469-496)	313 (302-324)	60 (57-62)	119 (107-131)	134 (124-145)	56 (51-60)	126 (116-136)	2,526 (2,470-2,583)	549 (449-649)	530 (517-543)	336 (325-348)	63 (60-65)	122 (111-134)	134 (121-147)	57 (52-61)	128 (117-140)
Dispersion by country																		
<i>Min</i>	2,372	487	362	156	60	105	66	56	93	2,526	549	460	183	63	122	64	57	89
<i>Quartile 1</i>	3,735	1,297	506	262	146	175	134	131	146	4,369	1,498	619	328	158	190	134	143	174
<i>Median</i>	4,326	1,645	625	339	243	208	196	185	174	4,802	1,752	740	430	263	228	195	214	209
<i>Quartile 3</i>	4,645	1,910	747	452	304	261	239	218	207	5,102	2,109	821	512	331	308	238	233	245
<i>Max</i>	5,692	2,424	859	783	505	369	345	275	308	5,822	2,957	967	734	525	418	345	264	341
<i>Ratio Max/Min</i>	2.4	5.0	2.4	5.0	8.5	3.5	5.3	4.9	3.3	2.3	5.4	2.1	4.0	8.4	3.4	5.4	4.7	3.8
European area																		
Northern Europe	4,637 (4,582-4,693)	1,979 (1,933-2,025)	616 (603-628)	388 (379-398)	420 (411-430)	193 (186-201)	256 (252-260)	234 (226-241)	145 (140-151)	5,015 (4,960-5,070)	2,189 (2,140-2,238)	687 (672-701)	437 (426-447)	447 (436-459)	206 (198-215)	256 (252-260)	247 (238-256)	157 (151-162)
Central Europe	5,374 (5,280-5,467)	2,124 (2,066-2,183)	724 (710-738)	438 (429-447)	334 (324-343)	305 (293-317)	271 (265-278)	228 (224-233)	271 (262-280)	5,514 (5,423-5,605)	2,211 (2,152-2,269)	749 (735-763)	455 (446-464)	340 (330-349)	313 (302-324)	268 (262-275)	232 (227-237)	277 (268-286)
Eastern Europe	2,958 (2,927-2,990)	856 (835-877)	481 (475-486)	285 (280-290)	120 (117-122)	209 (203-214)	154 (148-159)	80 (77-82)	184 (181-188)	3,560 (3,526-3,593)	1,094 (1,070-1,117)	612 (605-620)	364 (358-370)	141 (138-144)	246 (240-251)	152 (146-158)	89 (86-92)	222 (218-225)
Southern Europe	4,960 (4,897-5,023)	1,649 (1,615-1,682)	835 (813-857)	675 (658-692)	201 (197-206)	265 (257-274)	145 (139-151)	235 (230-240)	227 (214-239)	4,955 (4,892-5,017)	1,656 (1,622-1,689)	836 (814-857)	677 (659-693)	200 (196-205)	264 (256-272)	145 (139-151)	233 (228-238)	226 (213-239)
UK and Ireland	3,743 (3,625-3,862)	1,429 (1,372-1,487)	562 (541-582)	192 (183-201)	260 (254-266)	156 (152-160)	198 (195-202)	196 (192-201)	133 (128-138)	4,218 (4,080-4,356)	1,662 (1,595-1,729)	648 (624-672)	226 (215-238)	287 (281-294)	174 (169-179)	200 (197-204)	215 (211-220)	153 (147-159)
European Pool	4,656 (4,610-4,702)	1,714 (1,686-1,741)	691 (682-699)	439 (433-445)	262 (257-266)	255 (249-260)	211 (207-214)	205 (202-207)	222 (217-227)	4,918 (4,872-4,965)	1,847 (1,819-1,876)	740 (731-749)	473 (467-479)	272 (268-277)	268 (263-273)	209 (206-212)	212 (209-215)	234 (229-240)
EU27	4,699 (4,654-4,744)	1,707 (1,679-1,735)	702 (694-711)	474 (467-480)	249 (245-253)	267 (262-273)	205 (202-208)	199 (196-201)	233 (228-239)	4,941 (4,896-4,986)	1,830 (1,802-1,859)	749 (740-758)	507 (501-513)	258 (254-263)	280 (274-286)	204 (200-207)	205 (202-208)	245 (239-250)

Table A.5 - Complete cancer prevalence in Europe (EUROCARE-6 Pool) as of Jan1, 2020 by cancer entity and age at prevalence date. Crude prevalence proportions per 100,000 inhabitants and number of prevalent cases (thousands) with 95% confidence intervals in brackets and percent proportion of young (0-54 years) and elderly (75 years or more) prevalent cases. Cancer entities with prevalence proportion lower than 50 per 100,000.

Cancer site	Crude prevalence proportion per 100,000					Number of prevalent cases (thousands)					% Prevalent cases aged 0-54 and 75+	
	0-54	55-64	65-74	75+	All ages	0-54	55-64	65-74	75+	All ages	0-54	75+
WOMEN												
Vagina and vulva	10 (10-11)	60 (57-62)	88 (81-94)	193 (179-205)	46 (44-48)	16 (15-17)	20 (19-20)	24 (22-25)	53 (50-57)	113 (108-117)	14	47
Brain	36 (35-37)	59 (55-63)	58 (53-64)	49 (41-58)	43 (42-44)	56 (54-57)	19 (18-21)	16 (14-17)	14 (11-16)	105 (101-108)	53	13
Multiple myeloma	5 (4-6)	54 (48-60)	115 (107-123)	147 (138-155)	40 (38-41)	8 (7-9)	18 (16-20)	31 (29-33)	41 (38-43)	97 (93-101)	8	42
Soft tissue	20 (19-21)	47 (43-51)	78 (73-83)	81 (71-90)	37 (35-38)	31 (30-32)	15 (14-17)	21 (20-22)	22 (20-25)	90 (86-93)	34	24
Pancreas	5 (5-6)	36 (33-39)	79 (73-84)	90 (82-98)	27 (26-28)	8 (7-9)	12 (11-13)	21 (20-23)	25 (23-27)	66 (63-69)	12	38
AML	14 (14-15)	38 (34-42)	38 (33-42)	38 (33-43)	23 (22-24)	23 (22-23)	12 (11-14)	10 (9-11)	11 (9-12)	56 (53-58)	41	20
Liver	3 (3-4)	20 (17-23)	42 (36-48)	64 (56-72)	17 (15-18)	5 (4-6)	6 (5-7)	11 (10-13)	18 (16-20)	41 (38-44)	12	44
Gallbladder	1 (1-2)	18 (16-21)	43 (38-49)	68 (65-70)	16 (15-17)	2 (2-3)	6 (5-7)	12 (10-13)	19 (18-19)	39 (37-41)	5	49
Bones	13 (12-14)	17 (14-21)	24 (17-30)	19 (13-25)	16 (14-17)	20 (19-21)	6 (5-7)	6 (5-8)	5 (4-7)	38 (35-41)	53	13
CML	6 (6-6)	20 (18-22)	33 (31-36)	19 (15-23)	12 (12-13)	9 (9-10)	7 (6-7)	9 (8-10)	5 (4-6)	30 (29-32)	30	17
Larynx	2 (2-2)	27 (23-31)	36 (33-40)	30 (25-35)	12 (11-13)	3 (2-4)	9 (8-10)	10 (9-11)	8 (7-10)	30 (28-32)	10	27
Oesophagus	1 (1-2)	18 (16-20)	29 (27-32)	35 (32-38)	11 (10-11)	2 (2-2)	6 (5-7)	8 (7-9)	10 (9-11)	26 (24-27)	8	38
MEN												
Multiple myeloma	7 (6-7)	76 (73-80)	161 (152-171)	235 (219-251)	50 (48-51)	11 (10-11)	24 (23-25)	38 (36-40)	43 (40-46)	116 (112-120)	9	37
Liver	7 (6-8)	82 (78-85)	135 (125-144)	186 (174-199)	44 (43-46)	12 (10-13)	26 (25-27)	32 (30-34)	34 (32-36)	103 (100-107)	12	33
Soft tissue	20 (19-21)	61 (58-65)	92 (85-98)	142 (132-152)	43 (41-44)	33 (31-34)	19 (18-20)	22 (20-23)	26 (24-28)	99 (96-103)	33	26
Pancreas	6 (5-6)	57 (54-61)	100 (92-107)	142 (128-155)	33 (31-34)	9 (8-10)	18 (17-19)	24 (22-25)	26 (23-28)	76 (73-80)	12	34
Oesophagus	4 (4-5)	61 (55-67)	109 (99-118)	130 (123-137)	32 (31-34)	7 (6-8)	19 (17-21)	26 (23-28)	24 (22-25)	76 (72-79)	9	32
AML	13 (13-14)	39 (37-41)	53 (48-57)	49 (44-55)	24 (23-24)	21 (21-22)	12 (12-13)	12 (11-14)	9 (8-10)	55 (53-57)	38	16
Penis	4 (4-4)	30 (28-31)	63 (59-66)	103 (93-114)	21 (20-22)	7 (6-7)	9 (9-10)	15 (14-16)	19 (17-21)	50 (48-52)	14	38
Bones	14 (13-15)	29 (24-35)	25 (19-32)	29 (25-32)	18 (17-19)	22 (21-24)	9 (7-11)	6 (4-8)	5 (5-6)	43 (40-45)	51	12
CML	9 (8-9)	29 (27-31)	33 (29-37)	42 (39-46)	17 (16-17)	14 (13-15)	9 (8-10)	8 (7-9)	8 (7-8)	39 (37-40)	36	21
Gallbladder	2 (1-2)	19 (16-23)	49 (42-55)	89 (73-106)	16 (14-17)	2 (2-3)	6 (5-7)	12 (10-13)	16 (13-19)	36 (33-40)	6	44

Table A.6 - Time trends from Jan 1, 2010 to Jan 1, 2020 of complete cancer prevalence in Europe (EUROCARE-6 Pool) by cancer type and sex. Overall number of prevalent cases (thousands) and percent relative difference 2010-2020: total, due to population ageing, due to incidence and survival changes (Inc&Surv). Cancer entities with prevalence proportion higher than 50 per 100,000.

Cancer entity	Men and women						Women						Men					
	Number of prevalent cases (thousands)		Relative Difference (%) 2010-2020			Number of prevalent cases (thousands)		Relative Difference (%) 2010-2020			Number of prevalent cases (thousands)		Relative Difference (%) 2010-2020					
	2010	2020	Total	Ageing	Inc & Surv	2010	2020	Total	Ageing	Inc & Surv	2010	2020	Total	Ageing	Inc & Surv			
All cancers	16,805	23,711	41	15	26	9,339	12,818	37	12	25	7,466	10,892	46	19	27			
Breast	3,828	5,539	45	13	32	3,828	5,539	45	13	32	..	..	..	..	..
Prostate	2,346	4,008	71	24	47	..	..	..	..	..	2,346	4,008	71	24	47
Colon Rectum	2,163	2,992	38	19	19	1,036	1,377	33	15	18	1,128	1,615	43	23	21			
Skin melanoma	846	1,391	65	12	52	502	779	55	10	45	344	612	78	16	62			
Urinary Bladder	1,037	1,327	28	21	7	229	300	31	15	16	808	1,027	27	23	4			
Kidney	630	968	54	16	38	249	373	50	12	37	381	595	56	19	38			
Corpus uteri	741	932	26	14	12	741	932	26	14	12	..	..	..	..	..
Thyroid	559	930	66	8	58	449	734	64	7	56	111	196	77	10	67			
Non-Hodgkin L.	585	913	56	14	43	280	434	55	12	43	305	479	57	15	42			
Lung	566	844	49	18	31	176	325	84	14	71	390	519	33	20	13			
Cervix uteri	627	625	-0.3	9.7	-10	627	625	-0.3	9.7	-10	..	..	..	..	..
Testis	359	493	37	2	36	..	..	..	..	..	359	493	37	2	36
Head and Neck	301	446	48	14	34	88	138	58	12	46	213	307	44	15	29			
Ovary	347	396	14	11	3	347	396	14	11	3	..	..	..	..	..
Stomach	338	376	11	20	-9	146	164	12	16	-4	192	212	11	24	-13			
Hodgkin L.	234	316	35	2	33	111	151	36	1	35	123	165	34	3	32			
CLL/SLL	214	292	36	18	19	94	124	32	15	18	120	168	40	20	19			
Larynx	227	237	5	19	-15	25	30	20	13	7	201	207	3	20	-17			
Brain	177	232	31	4	28	81	105	29	3	26	96	127	33	4	29			
Soft tissue	145	189	31	10	21	70	90	29	8	20	75	99	33	12	21			

CLL/SLL: Chronic lymphocytic leukaemia/small lymphocytic lymphoma.

Figure A.1 – Goodness of fit of incidence regression models by cancer site, sex, age, and period of diagnosis. Observed vs estimated values (exponential and polynomial models) of incidence rates (values per 100,000). Selected examples.

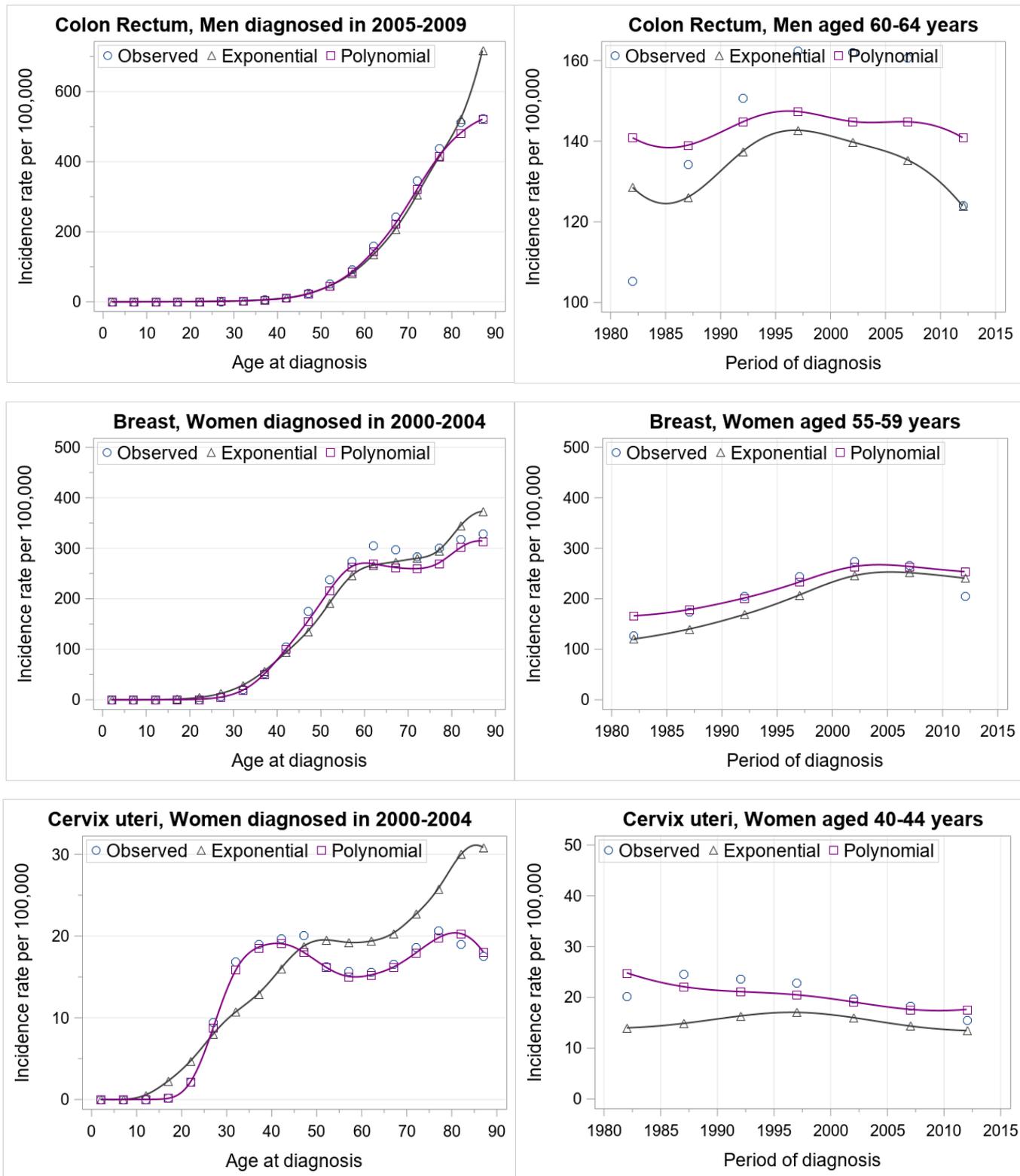


Figure A.2 – Goodness of fit of the Weibull mixture cure models by cancer site, sex, age, and period of diagnosis. Observed vs predicted relative survival ratios by follow up time. Selected examples.

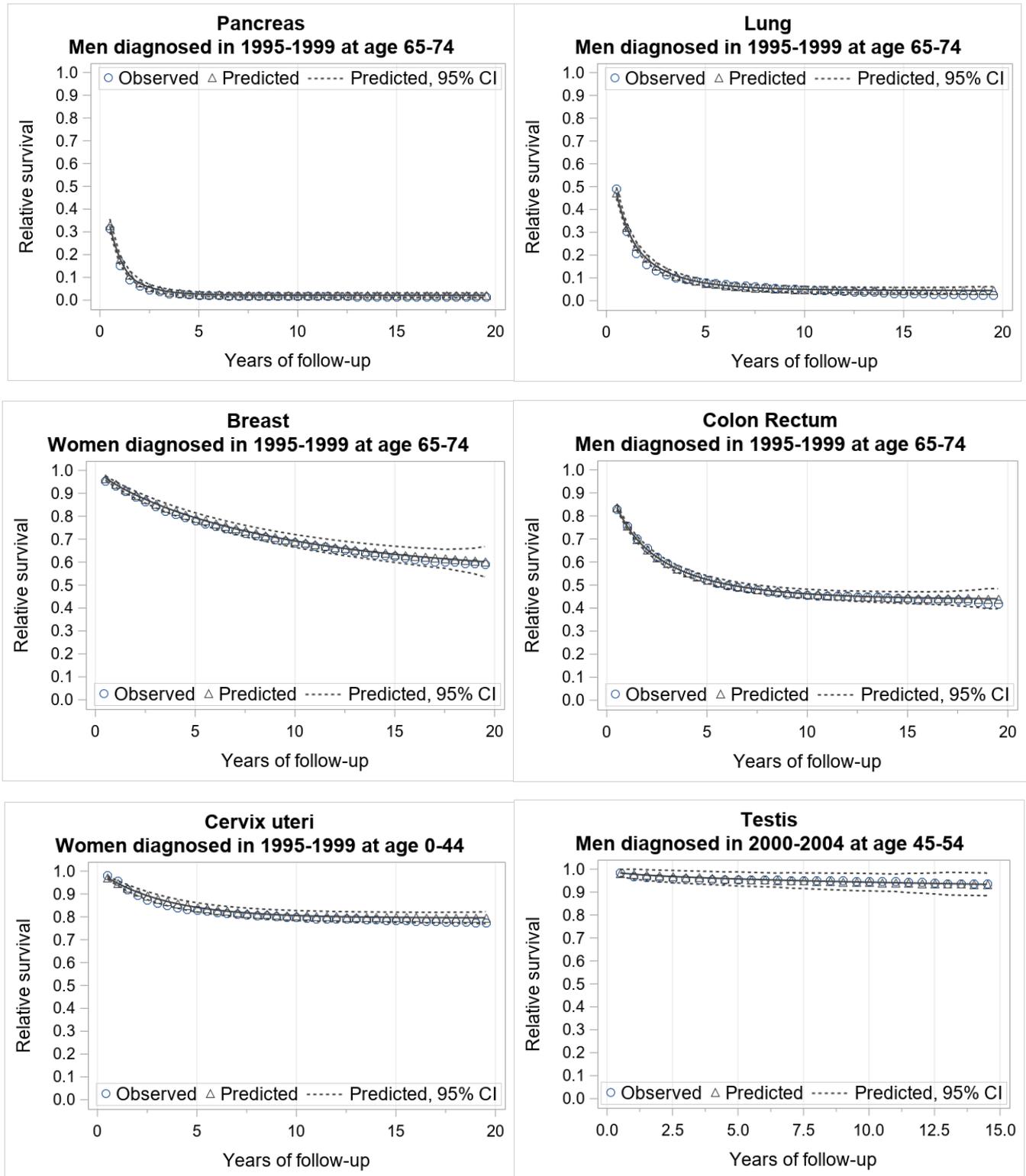
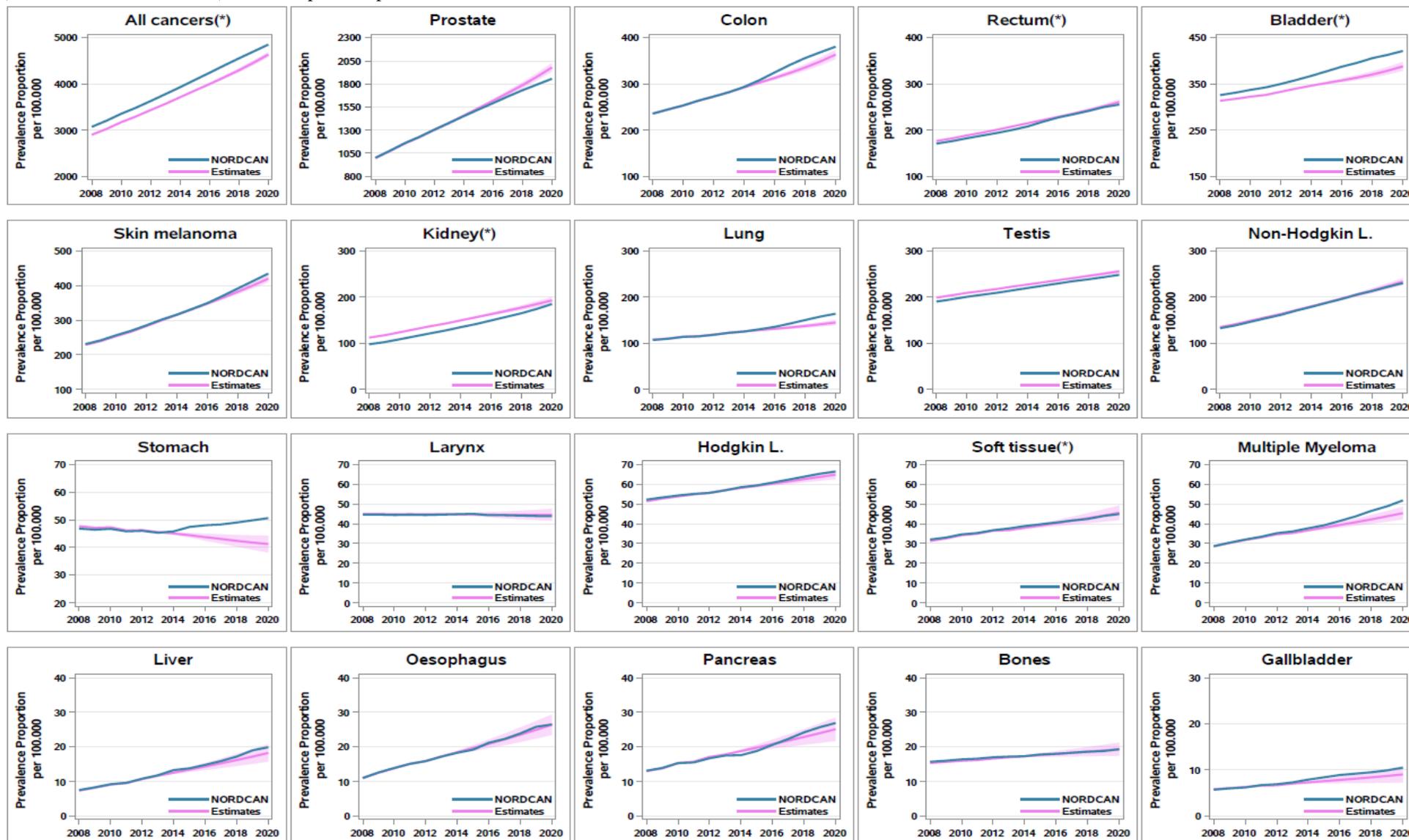
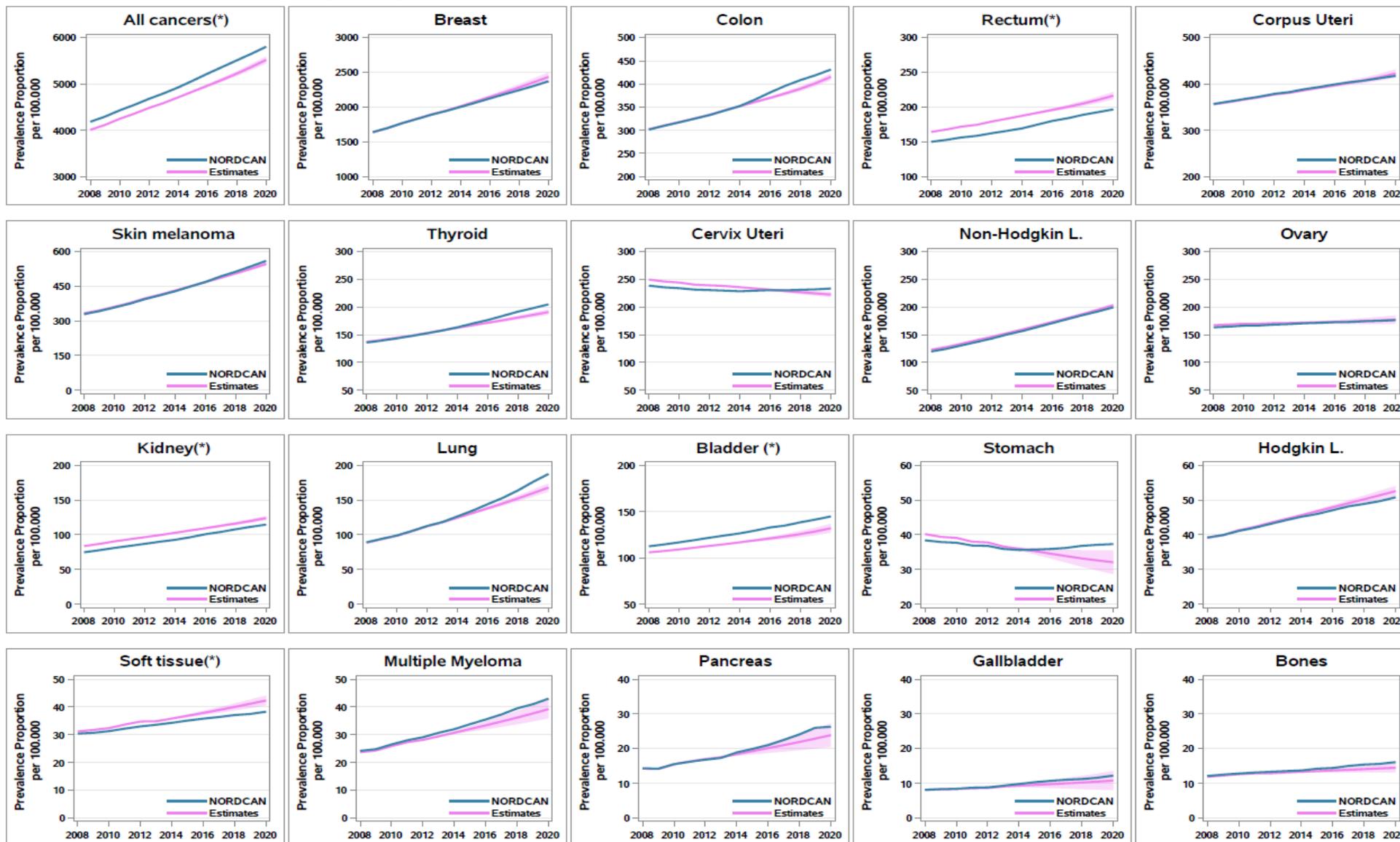


Figure A.3 – Comparison of estimated complete prevalence projections 2008-2020 (linear regression, 3-year period) against observed prevalence in Denmark, Finland, Iceland, and Norway (source NORDCAN dataset), Men. Proportions per 100,000



* Cancer sites with definition not fully comparable in NORDCAN (ICD-10, see page 8 for details) and EURO CARE-6 (Table A.2).

Figure A.4 - Comparison of estimated complete prevalence projections 2008-2020 (linear regression, 3-year period) against observed prevalence in Denmark, Finland, Iceland, and Norway (source NORDCAN dataset), Women. Proportions per 100,000



* Cancer sites with definition not fully comparable in NORDCAN (ICD-10, see page 8 for details) and EUROCARE-6 (Table A.2)

Figure A. 5 - Scatter plot of crude prevalence proportions as of Jan 1, 2020 vs crude incidence rates 2004-2010 in the 29 European countries included in study. Results of the linear regression of prevalence on incidence: intercept, slope, and coefficient of determination (Rsquared). Men, first eight leading cancers. Proportions and rates per 100,000

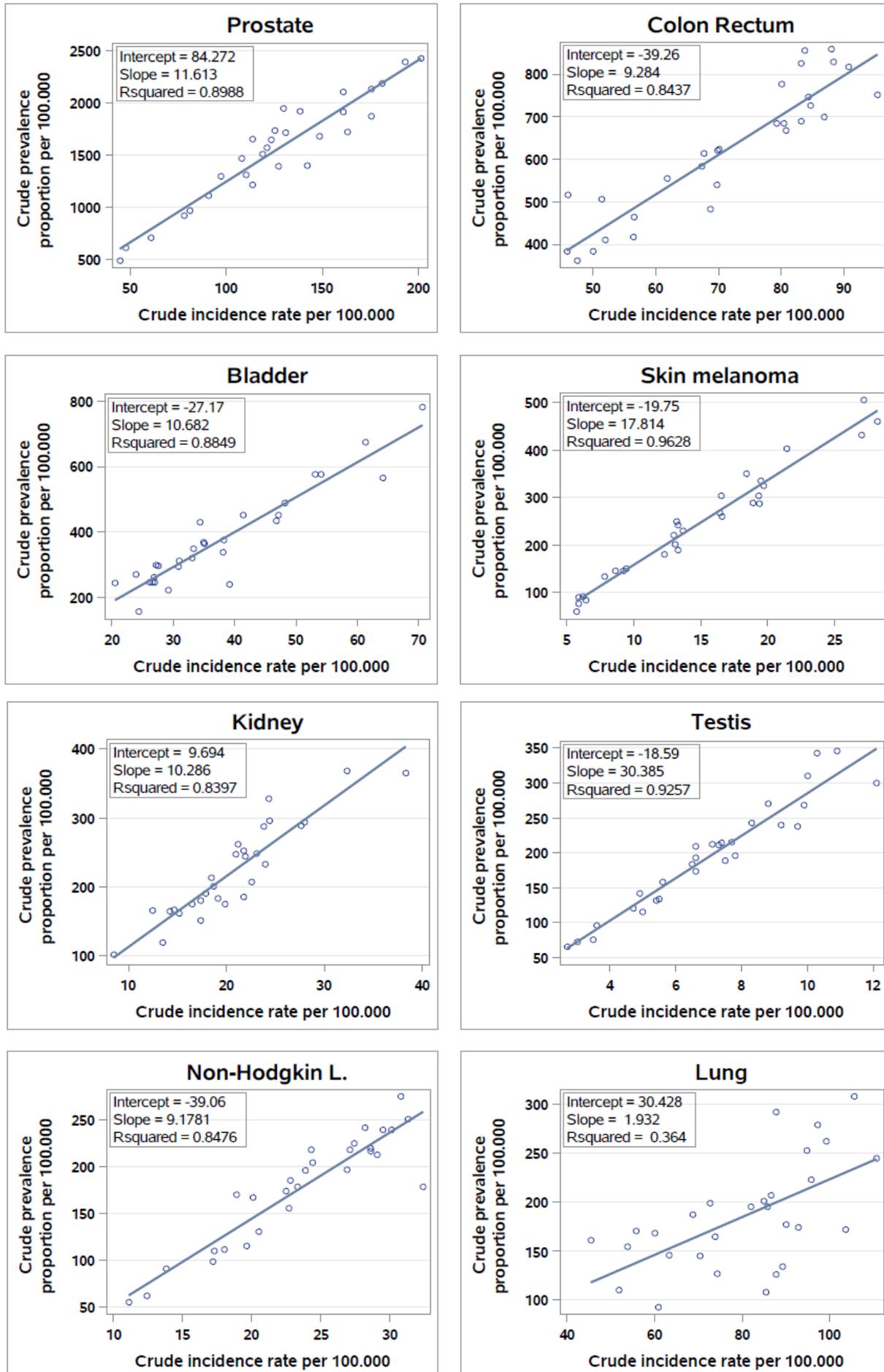


Figure A. 6 - Scatter plot of crude prevalence proportions as of Jan 1, 2020 vs crude incidence rates 2004-2010 in the 29 European countries included in study. Results of the linear regression of prevalence on incidence: intercept, slope, and coefficient of determination (Rsquared). Women, first eight leading cancers. Proportions and rates per 100,000

