

Cancer survivors in the German population. Prevalence estimates for major cancer sites in 2013.

Nina Buttmann-Schweiger*, Stefan Dahm* & Klaus Kraywinkel*

The number of individuals living with cancer increases in countries with an ageing population

Cancer survival rates in Germany rank among the highest in Europe¹. An ageing population, implementation of early detection programs and advances in treatment options will further increase the population of individuals living with cancer². The hereby growing demand for health care and social services and associated financial

resources makes cancer prevalence estimation increasingly public health relevant. Cancer registration must have been carried out long enough so that people surviving have been registered at diagnosis. For the first time, we provide 15-year cancer prevalence estimates for Germany from our long-term cancer registry data.

Data from established German cancer registries

Prevalences in 2013 are the sum of n-year partial prevalences, derived from the number of patients alive aged 1-99 years that were diagnosed with cancer in the past n-th year (n=1,..,15). Prevalence was estimated from the product of incidence and survival rate. We used nationwide cancer incidence-estimates from population-based cancer registry data since 1999 and survival estimates in the year of diagnosis³.

How common is cancer in our society?

In 2013, an estimated 1.73mio women and 1.68mio men in Germany lived with a diagnosis of cancer that had been diagnosed within the past 15 years. Most common sites were the prostate (618.843), and the breast (719.664 cases) (Fig.2). While the proportion of 1-year prevalent cases among the 15-year prevalence in prostate cancer in men, and breast cancer in women was <10%, the 1-year prevalence proportion of lung cancer in both gender held 25% (Fig3).

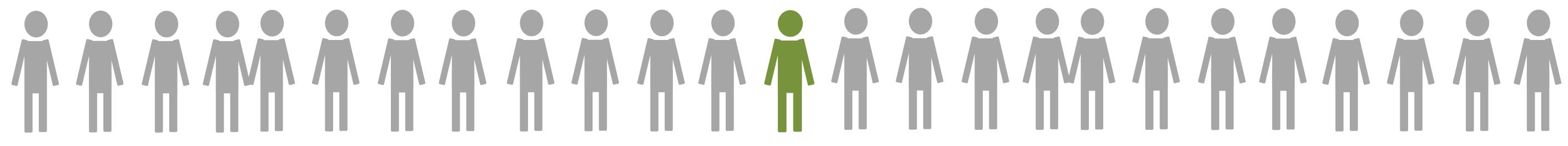
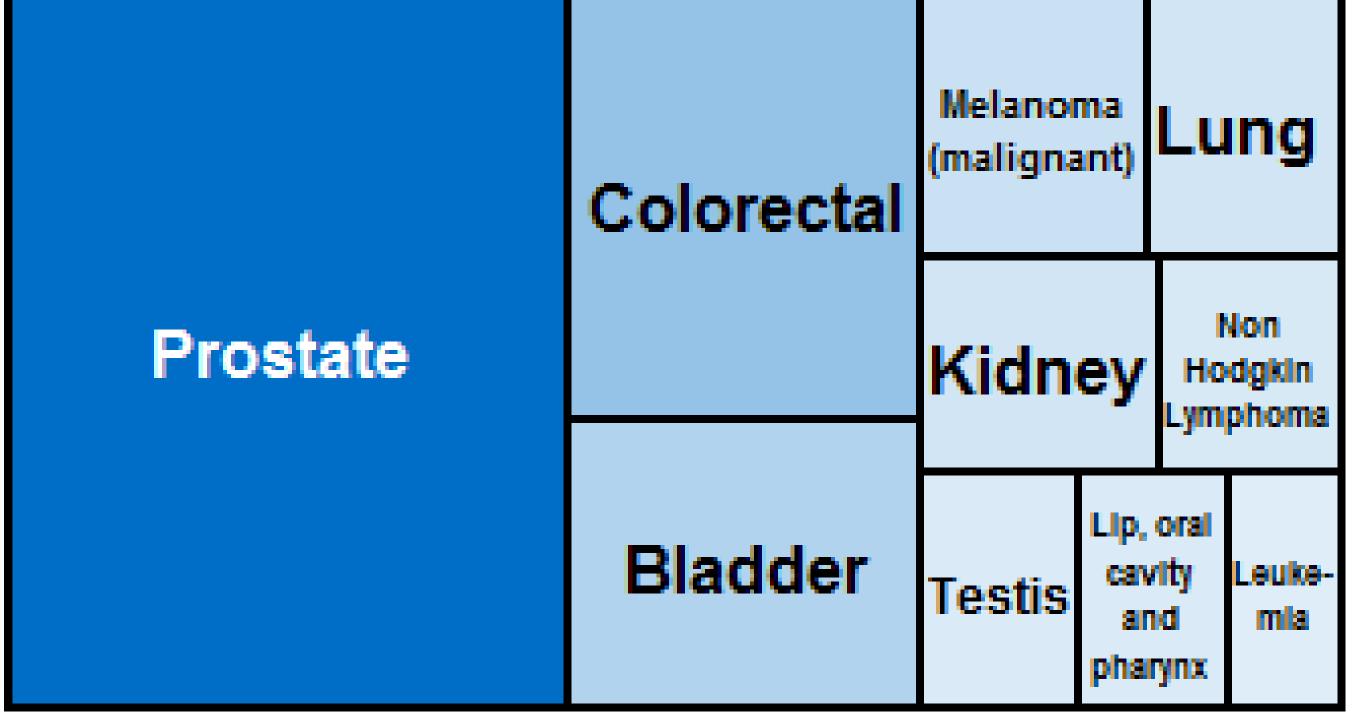


Figure 1. One in 25 individuals in Germany lives with cancer that has been diagnosed at some point in the past 15 years.



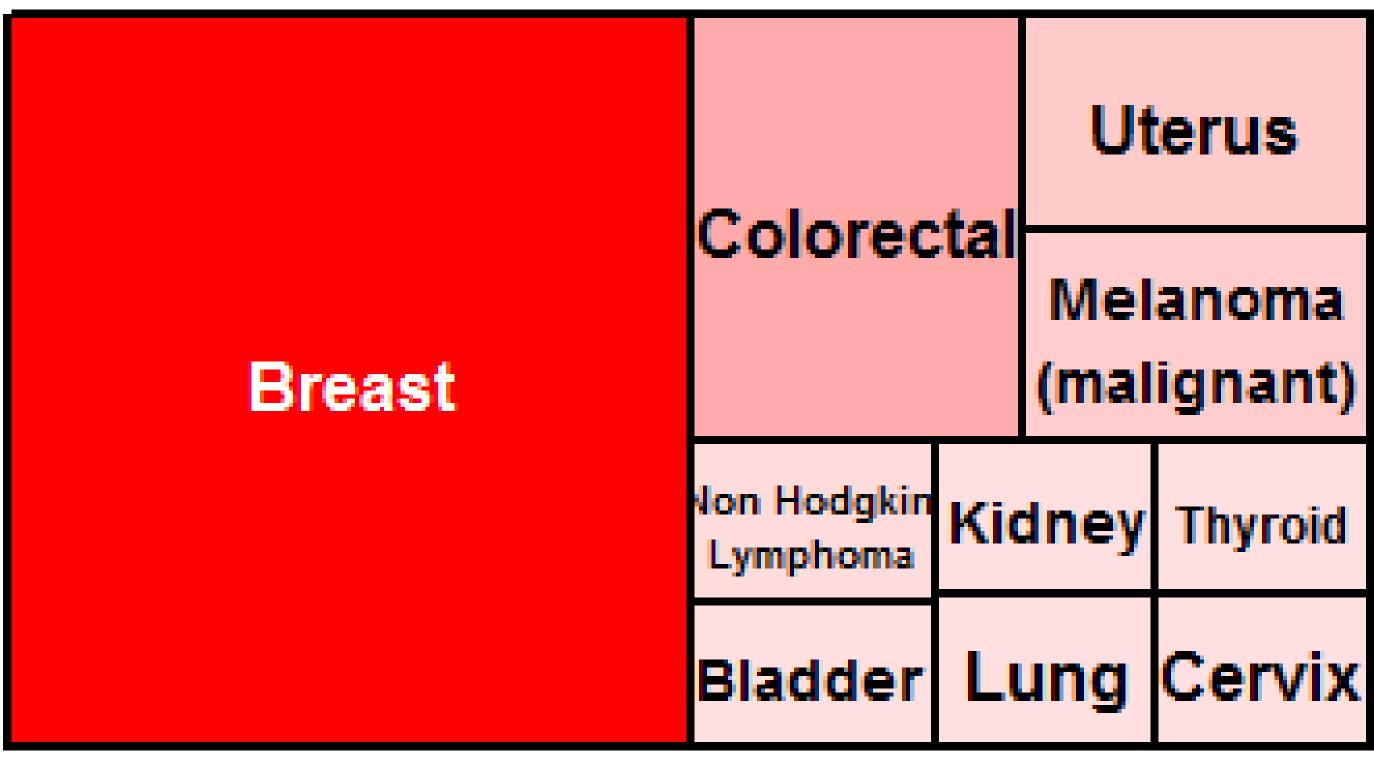
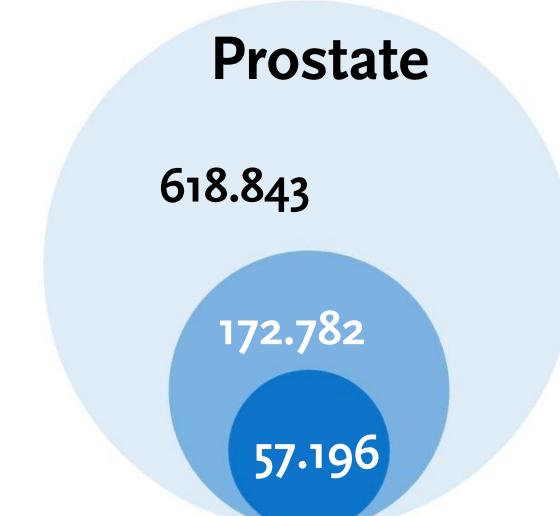
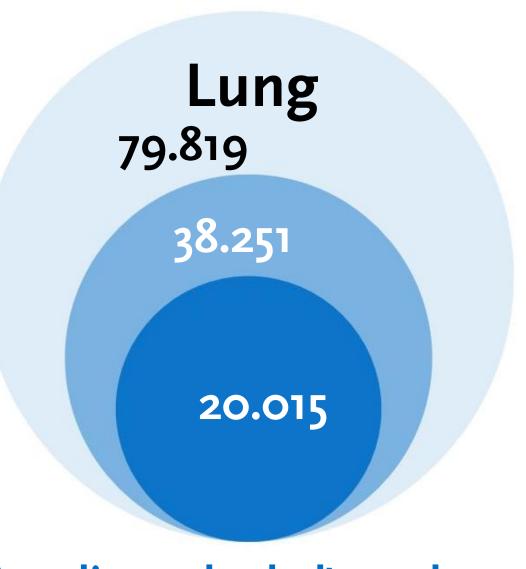
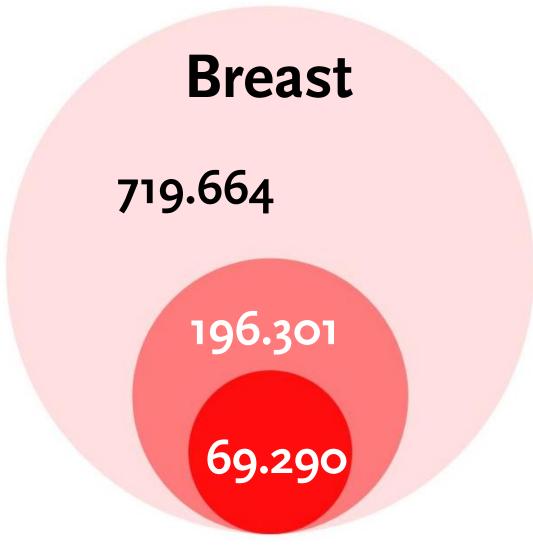


Figure 2. 15-year -prevalence: Ten most prevalent cancer sites in men (blue) and women (red). Plots are scaled proportionally according to number of prevalent cases.







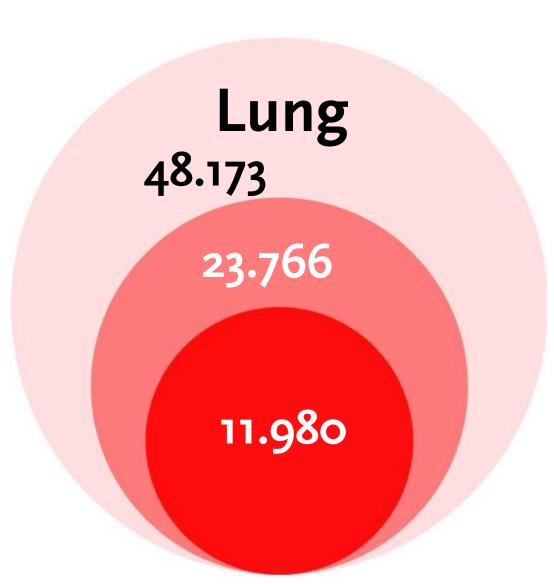


Figure 3. One (dark shaded)-, three (medium shaded), and 15-year (light shaded) prevalence of common cancer sites in men and in women.

Plots are scaled proportionally according to site-specific numbers of 15-year prevalences.

More than 3.4 mio men and women in the German population ever had a diagnosis of cancer

A substantial number of individuals in Germany live with a past diagnosis of cancer. The differences in prevalence proportions after breakdown of cancer prevalence figures by time since diagnosis reflects the heterogeneity of prognosis and age-pattern by cancer site. Further classification of stage-, age- and site-specific long-term-prevalence figures will be an informative source for the allocation of social- and healthcare resources. Problems with missed cancer deaths arise in long-term survival estimates,

resulting in overestimation of prevalence estimates. For European countries, the magnitude of this bias is approximately 1%4. Appropriate correction methods for long-term survival times of cases known from death certificates only and "immortal" cases need to be further adressed. **References:** 1. Baili P. Results of EUROCARE 5, Eur J Cancer.2015; 2. Maddams J. Projections of cancer prevalence in the UK, Br J Cancer. 2012; .www.krebsdaten.de; 4. Rossi S. Database of EUROCARE 5, Eur J Cancer. 2015

For more details on prevalence estimates and further information on accessibility of German cancer registry data please contact:

*Department of Epidemiology and Health Monitoring, German Centre for Cancer Registry Data (ZfKD)

Robert Koch-Institute, General Pape-Straße 62-64, 12101 Berlin, Germany, E-Mail: ButtmannN@rki.de, Fon: +49 30 18754 3381