

Czech Cancer Care in Numbers

presentation of the Czech Society for Oncology



...by the Institute of Biostatistics and Analyses, Faculty of Medicine, Masaryk University
...on behalf of the Board of the Czech Society for Oncology



About the Czech Society for Oncology

The Czech Society for Oncology (CSO) is a voluntary independent association of physicians, pharmacists and other professionals working in healthcare (oncology in particular) and related services. As of 28 August 2017, CSO had 946 members. CSO pays attention to development and spreading of scientifically proved findings in oncology and related fields, striving to use them in cancer care and putting a special emphasis on cancer prevention. CSO is engaged in the lifelong education of physicians and is an active partner in the transformation of management and financing of the Czech healthcare system.

CSO also supports the development of cancer screening programmes and cooperates with several patients organisations and always defends interests of cancer patients, who are empowered by a constant access to regularly updated on-line information on cancer prevention and treatment, thus enhancing their participation in treatment.

Czech National Cancer Control Programme

Czech National Cancer Control Programme was created in accordance with the conditions and needs of the Czech Republic and in compliance with the conclusions of WHO Consultation on Strategies to Improve and Strengthen Cancer Control Programmes in Europe held on 25–28 November 2003 in Geneva.

Aims:

- Lowering cancer incidence and mortality.
- Improving quality of life of cancer patients.
- Making the best use of available resources for cancer diagnosis and treatment in the Czech Republic
- Optimising approach to modern diagnostic and treatment methods

Strategy:

- Fight against malignant tumours as a part of nationwide and regional political agenda
- Making the fight against malignant tumours an interest of vital concern to lay and professional public
- Emphasising importance of cancer risk factors and decreasing their effects
- Ensuring early and effective diagnosis of cancer
- Ensuring equity in accessibility of cancer care for all patients, including palliative care
- Sustainability of the fight against cancer by cost control
- Assessment and continuous evaluation of indicators, outputs and outcomes, functioning and effectiveness
- Supporting clinical oncology as an important and stand-alone speciality
- International cooperation and harmonization within EU and WHO partnership structure

Cancer epidemiology in the Czech Republic

The cancer burden in the Czech population ranks among the highest worldwide [1,2] and has been growing continuously. Each year in the Czech Republic (with a total population over 10.5 million), over 82,000 people are diagnosed with cancer and over 27,000 patients die from it. Czech men are most frequently affected by prostate cancer, closely followed by colorectal and lung cancer. The most frequent diagnoses in Czech women are breast cancer, followed by colorectal, lung, and uterine cancer. Lung, colorectal, breast, prostate, and pancreatic cancers rank among the most frequent ones with respect to mortality rates.

Czech National Cancer Registry and IT background of cancer care

In cooperation with other institutions, CSO has developed an information system that provides a complex view of cancer epidemiology, diagnosis and results of cancer care. The Czech National Cancer Registry is the main point of this system – a unique population-based database which involves all cancer cases diagnosed in the Czech Republic since 1977. This almost 40-year time series makes it possible to perform long-term assessment of epidemiological trends for individual cancer types, evaluation of treatment outcomes and patient survival rates and, last but not least, to predict the numbers of cancer patients to be treated in the years to come (Figure 2).

National cancer screening programmes

All internationally recommended cancer screening programmes are available for citizens of the Czech Republic. People aged 50 years and over can participate in colorectal cancer screening, women aged over 45 can undergo mammography, and all adult women can attend cervical cancer screening. In accordance to the recommendation by the Council of the European Union, all screening examinations are offered by means of organised programmes, with strictly defined procedures and ensured quality control. Health care facilities selected for providing screening examinations (mammography centres, colonoscopy centres, and cytology laboratories) are therefore continuously monitored to provide high-quality examinations. A system of personalised invitation to cancer screening was launched in early 2014, which turned the organised programmes into population-based. Personalised invitations led to an increase in uptake, particularly in the colorectal cancer screening programme (Figure 3).

Improvement of cancer care and prolonged survival of cancer patients

Considering the high incidence of cancer, outcomes of cancer care are of key importance. Over the last 10–15 years, the Czech cancer care has made a significant progress in terms of gradually increasing survival of cancer patients and decreasing mortality rates. In most cancer types, the Czech Republic has achieved markedly better outcomes than other Eastern bloc countries, getting closer to the European average, as confirmed by the EURO-CARE-5 study [3] and the CONCORD-2 study [4], as well as by the annual comparison of healthcare systems in OECD and EU countries [5]. In some cases, such as colorectal cancer, the Czech Republic has seen by far the biggest drop in mortality in a decade when compared to other European countries (Figure 4).

In spite of these positive findings, several challenges for the Czech cancer care have been identified: promotion of prevention and healthy lifestyle (preventive examinations, smoking cessation, reduction of obesity and other risk factors), availability of new drug treatments, or strengthening the feedback mechanisms to promote best practices in cancer diagnosis and treatment among providers.

Czech pilot model of a comprehensive cancer network

The Work Package 6 of the EU Joint Action CanCon focuses on the concept of Comprehensive Cancer Care Network (CCCN). Pooling of resources and a larger patient base would enable a CCCN to make rational short-term and long-term plans capitalising on complementary expertise of individual professionals, while avoiding unnecessary and costly duplications. This would provide a seamless pathway of care for patients nearer their homes, which would be sustainable at the same time. A pilot model of such CCCN has been set up in the Czech Republic, namely in the Vysočina Region and the South Moravian Region. The pilot model covers all components of cancer care: from cancer prevention and organised screening programmes through standard diagnostic and treatment procedures to follow-up plans; specialised care focused on rare tumours as well as palliative care are also included.

References

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3. De Angelis R et al. Cancer survival in Europe 1999–2007 by country and age: results of EURO-CARE-5 – a population-based study. *Lancet Oncol* 2014; 15(1): 23–34.
4. Allemani C et al. Global surveillance of cancer survival 1995–2009: analysis of individual data for 25 676 887 patients from 279 population-based registries in 67 countries (CONCORD-2). *Lancet* 2015; 385(9972): 14–20.
5. OECD/EU. Health at a Glance: Europe 2016 – State of Health in the EU Cycle. OECD Publishing, Paris 2016. Available from: <http://dx.doi.org/10.1787/9789264265592-en>.

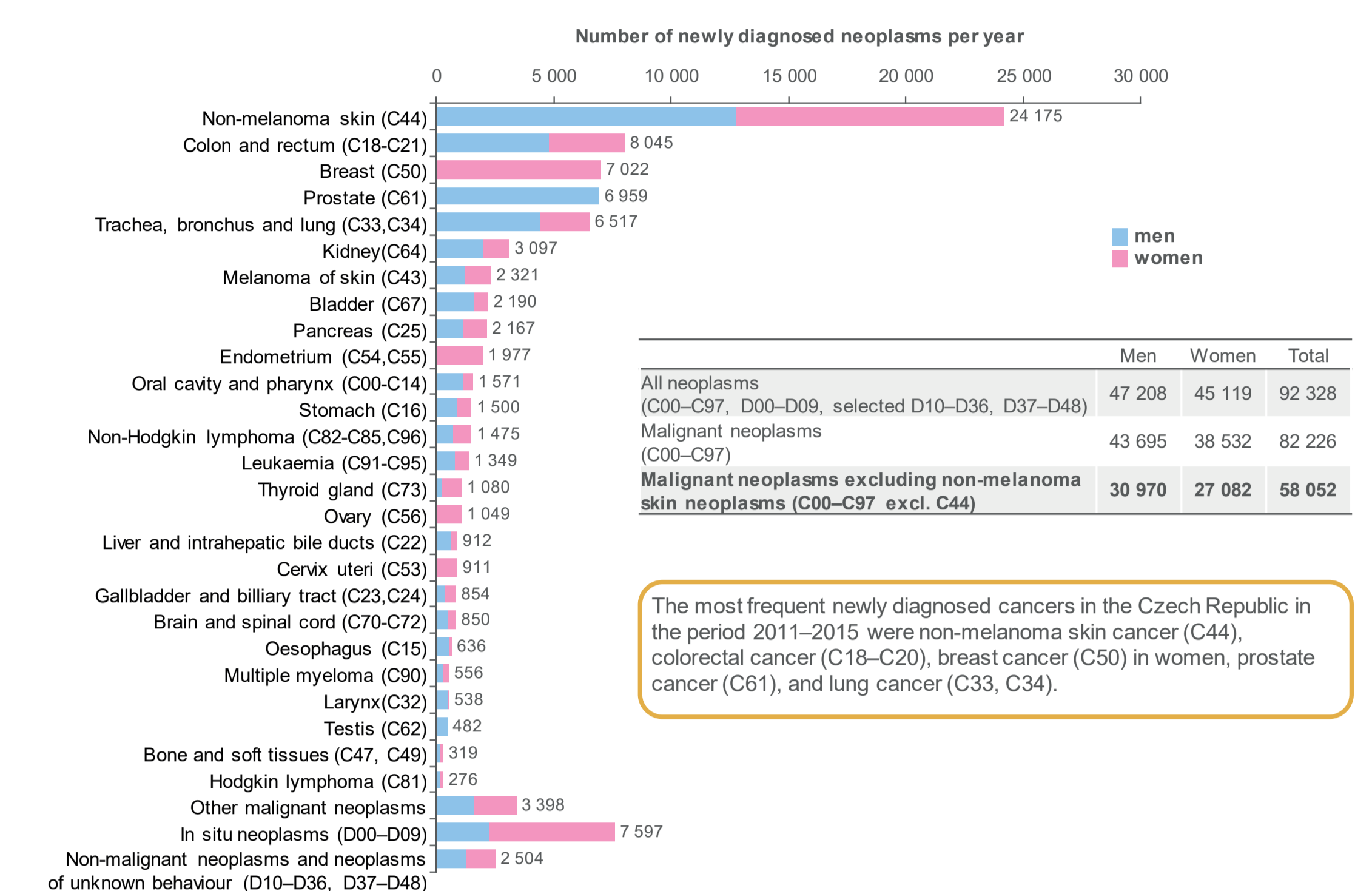


Figure 1. Incidence of individual cancer diagnoses in Czech men and women in the period 2011–2015. Source: Czech National Cancer Registry

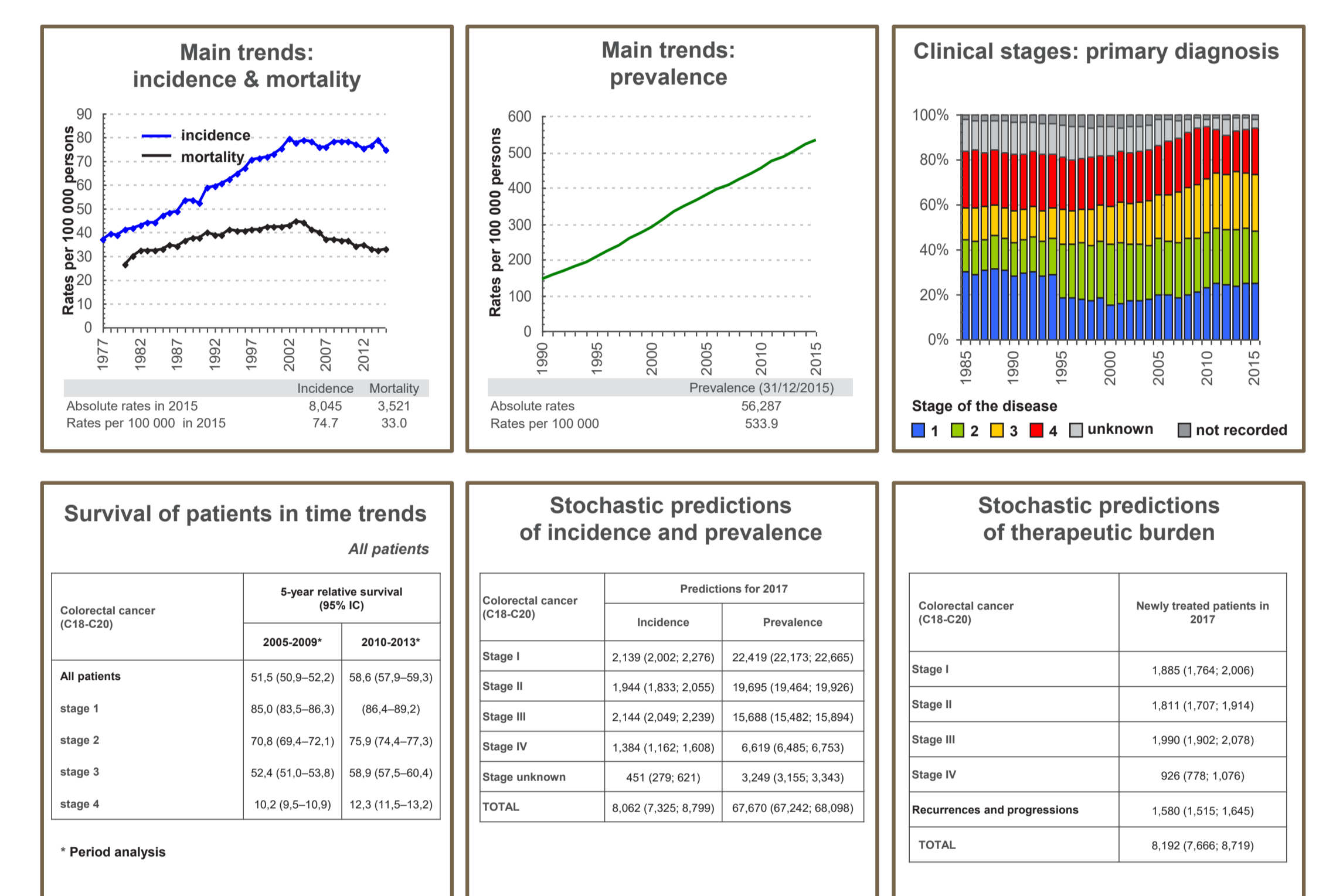


Figure 2. A complex view on the epidemiology of a selected cancer type (colorectal cancer in this case) using CNCR data. Source: Czech National Cancer Registry

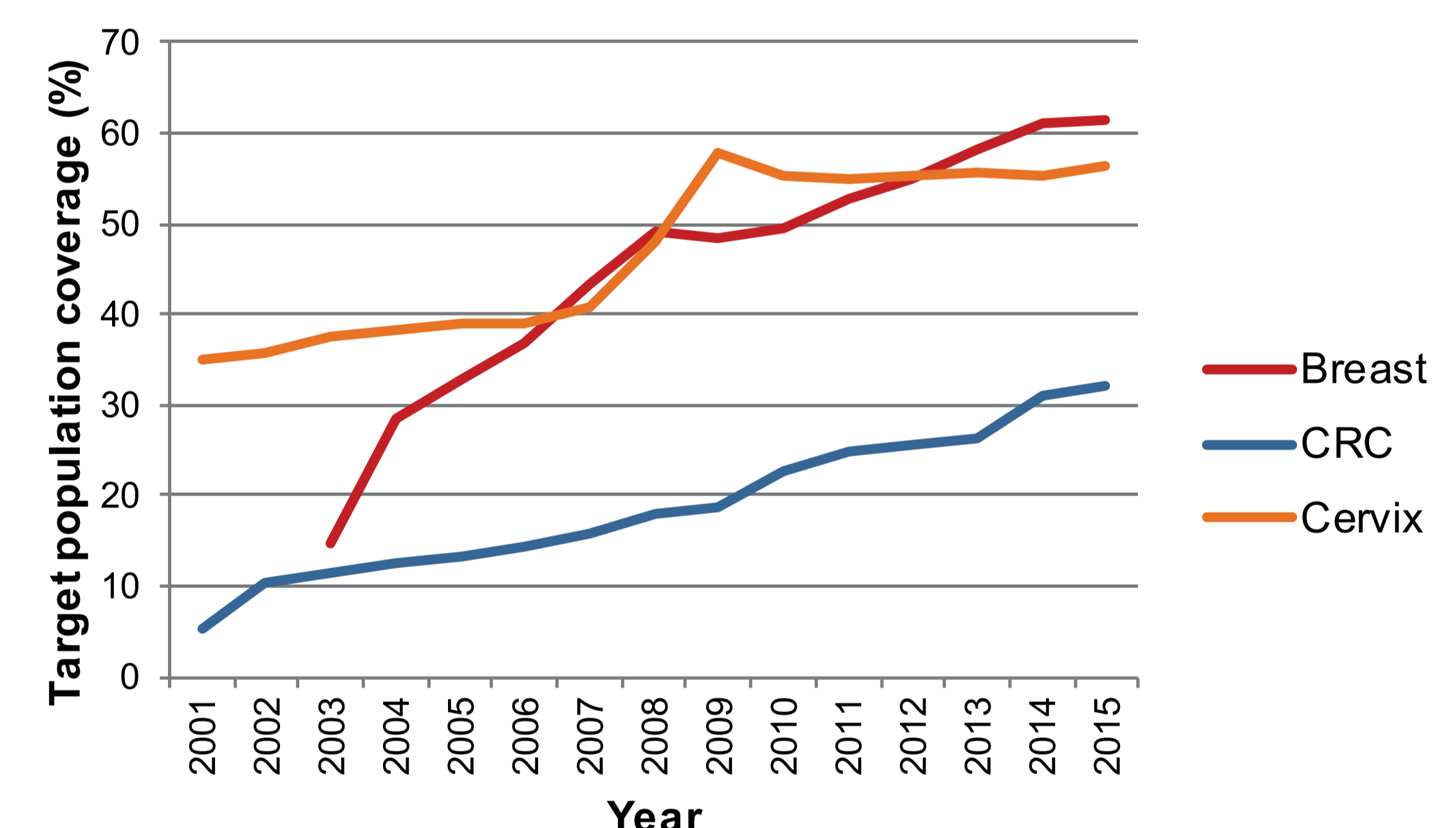


Figure 3. Time trends of the target population coverage in three Czech national cancer screening programmes (breast, colorectal, and cervical cancer). Source: health care payers and screening registries

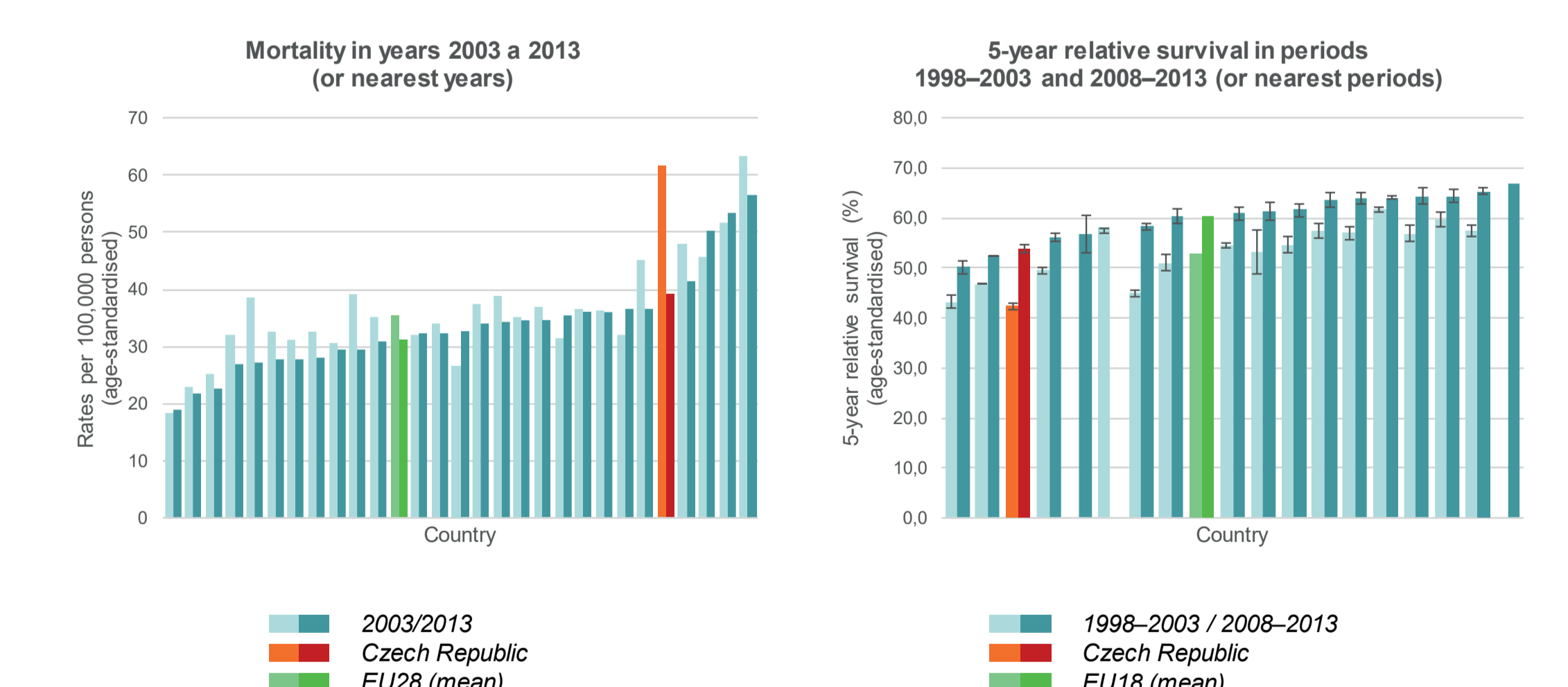


Figure 4. Comparison of mortality and 5-year relative survival in CRC patients in EU countries in the years 2003 and 2013. Source: OECD/EU. Health at a Glance: Europe 2016 – State of Health in the EU Cycle [5]

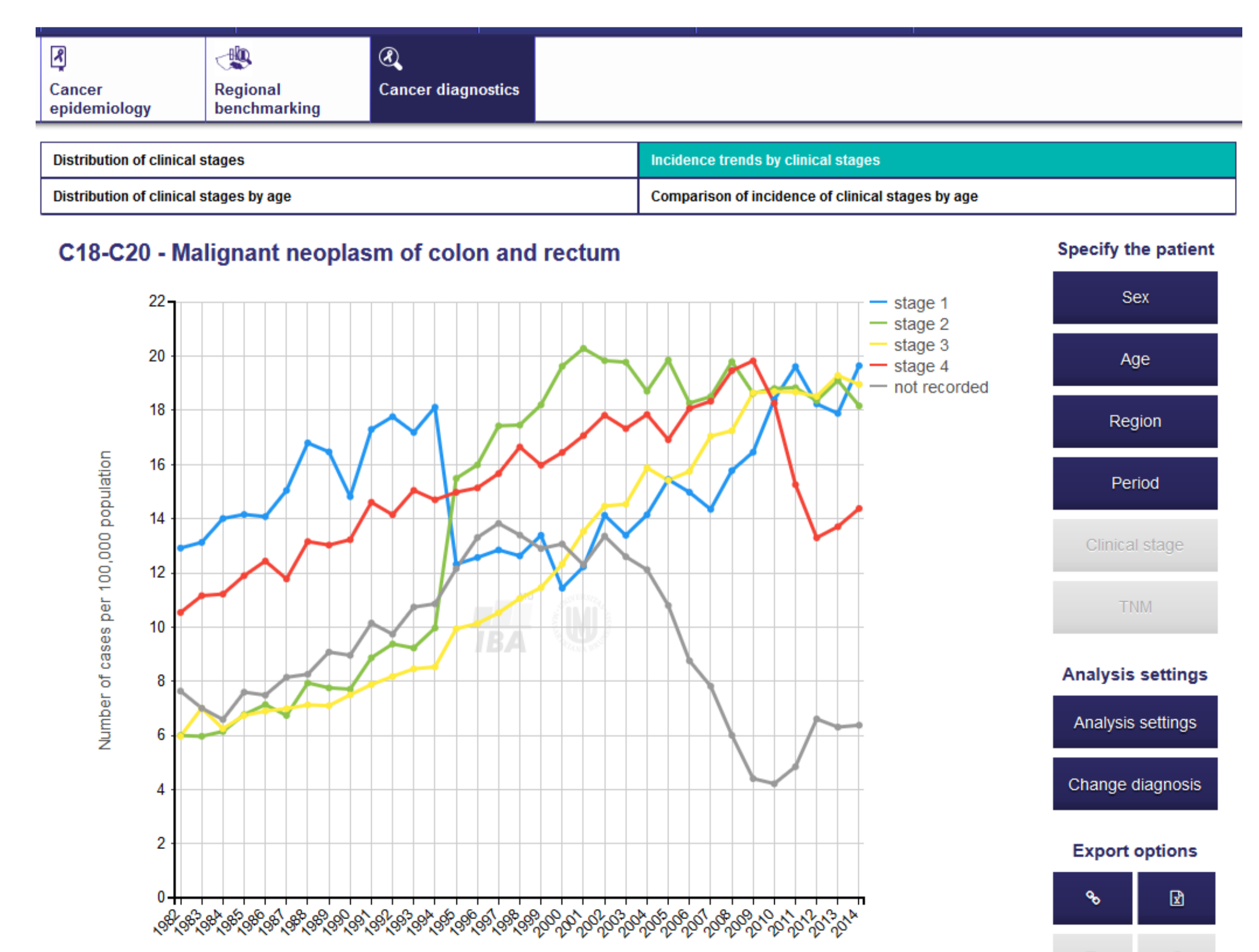


Figure 5. Website of the CCCN pilot model including an interactive browser