# Czech Cancer Care in Numbers – Presentation of the Czech Society for Oncology







By the Institute of Institute of Biostatistics and Analyses, Masaryk University, on behalf of the Board of the Czech Society for Oncology

# Cancer epidemiology in the Czech Republic

The cancer load of the Czech population ranks among the highest worldwide [1,2] and has been growing continuously. Each year in the Czech Republic (total population over 10.5 million), more than 77,000 people are diagnosed with cancer and nearly 28,000 die from it. Czech men are most frequently affected by colorectal cancer, closely followed by trachea, bronchus and lung cancer and prostate cancer. The most frequent diagnoses in Czech women are breast cancer, followed by colorectal cancer, cancer of the uterus, and trachea, bronchus and lung cancer. All these diagnoses also rank among the most frequent ones with respect to mortality rates in both men and women.

The Czech Society for Oncology has also developed an information system which employs data from population records, data from clinical registries and data provided by an expert panel to predict the number of cancer patients who would be probably treated in the years to come. The predictions of epidemiological benchmarks are adjusted using survival probability models, making it possible to estimate quite reliably the number of cancer patients who would probably undergo a specific stage of anticancer treatment in a given year.

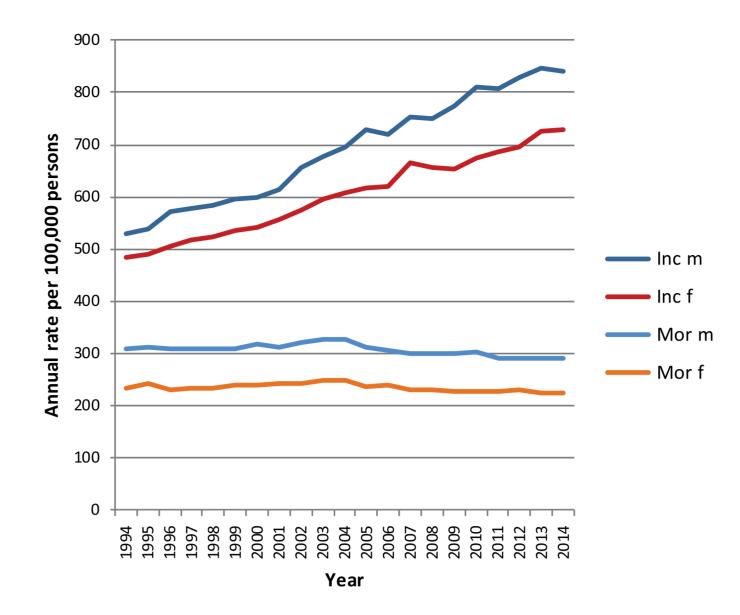


Figure 1. Time trends of cancer (all cancer diagnoses, C00–C97) incidence and in the Czech Republic. Source: Czech National Cancer Registry

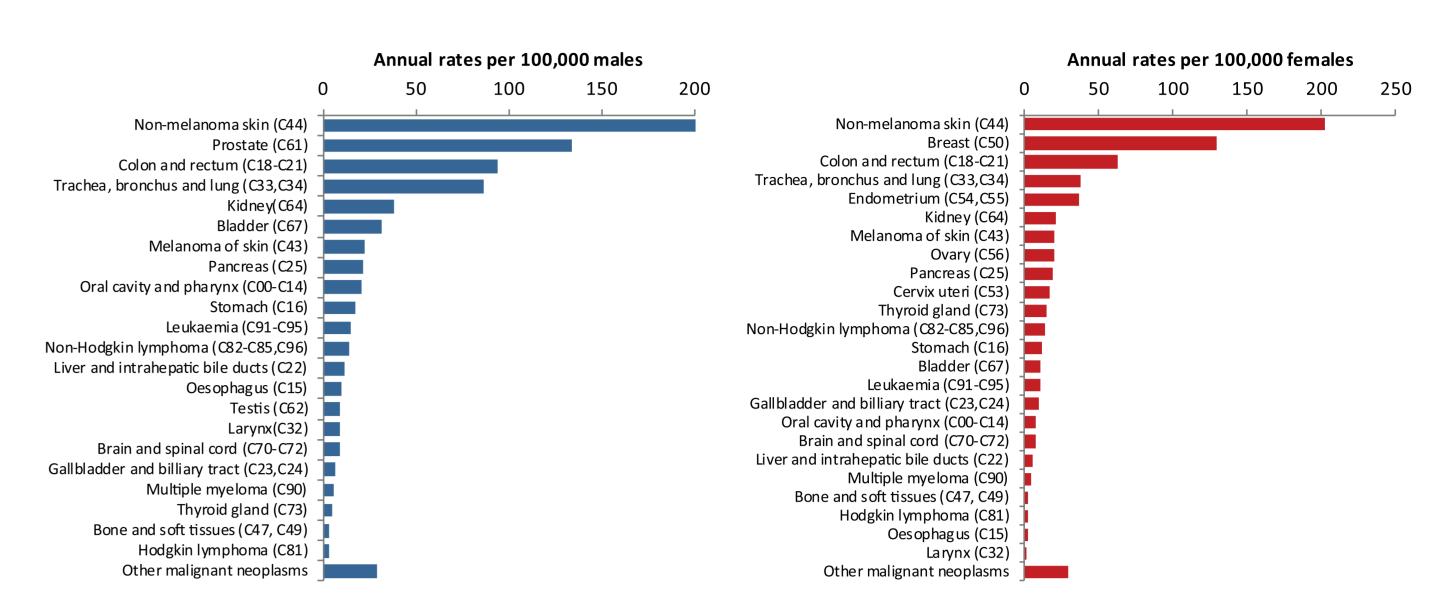


Figure 2. Incidence of individual cancer diagnoses in the Czech males and females in the period 2010–2014. Source: Czech National Cancer Registry

Find more at www.svod.cz

## **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 of NOP
- Supporting clinical oncology as an important and stand-alone specialty in terms of education, clinical practice, and research. Strengthening the specialty position as a guarantor of good clinical practice in cancer care
- International cooperation and harmonization within EU and WHO partnership structures

▶ Find more at www.onconet.cz and www.linkos.cz

# 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. The personalised invitation was reflected in increased uptake, particularly in the colorectal cancer screening programme.

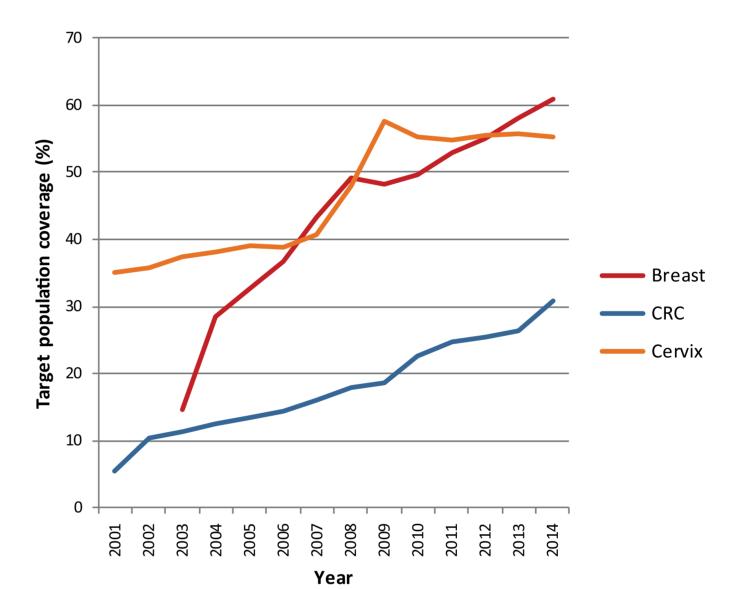


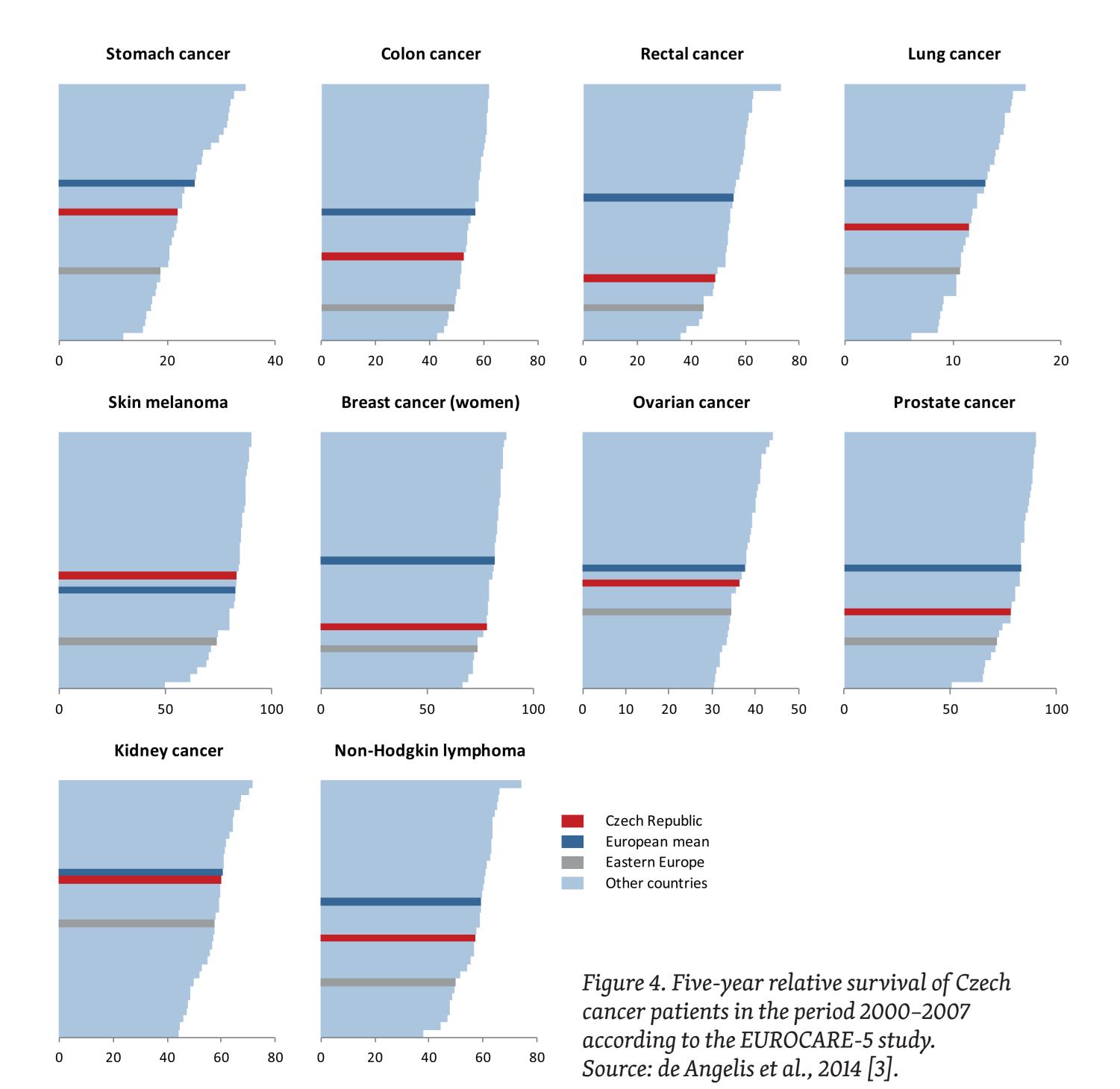
Figure 3. Time trends of the target population coverage in three Czech national cancer screening programmes (breast, colorectal, and cervical cancer).

Source: health care payers and screening registries

Find more at www.mamo.cz,
 www.kolorektum.cz and www.cervix.cz

## Survival of Czech cancer patients

Although cancer mortality rates have been high in the Czech Republic in comparison with other countries, recent studies have demonstrated major increase in survival rates. For most cancer types the 5-year relative survival rates of cancer patients are significantly higher than survival times of cancer patients in other Eastern European countries and are catching up with survival rates in Western and Northern European countries [3,4]. In spite of these positive findings there have been several challenges for the Czech cancer care, which were identified, e.g., in the country note to the OECD's publication Cancer Care: Assuring Quality to Improve Survival [5]: promotion of prevention and healthy life style (preventive examinations, reduction of smoking, obesity and other risk factors), availability of new drug treatment, 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, for patients nearer their homes, a seamless pathway of care that will be at the same time sustainable.

A pilot model of such CCCN has been set up in the Czech Republic, namely in the Vysočina Region and 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 rare tumours-focused care as well as palliative are also included.

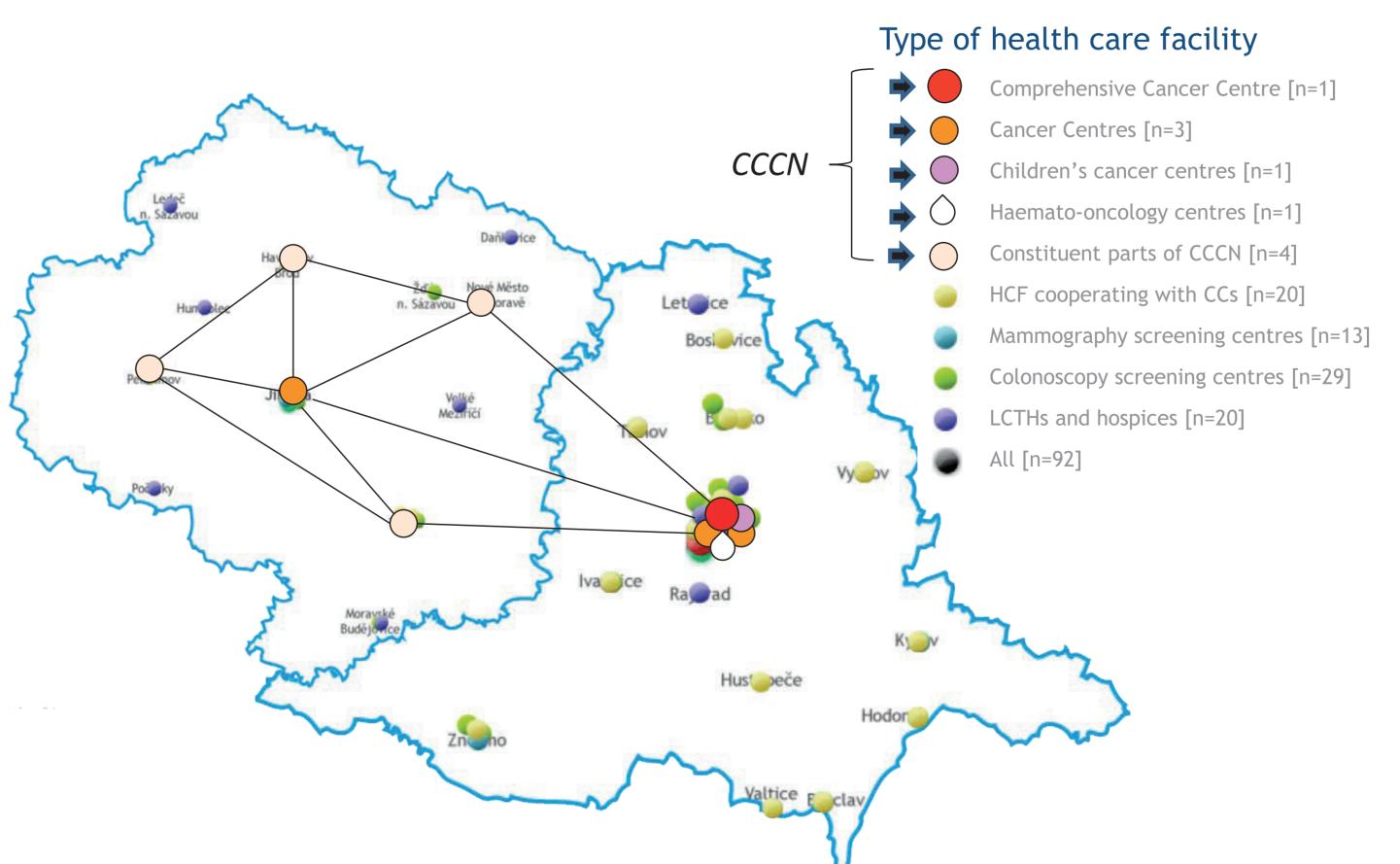


Figure 5. Summary of cancer care in the target area of the Czech CCCN pilot model

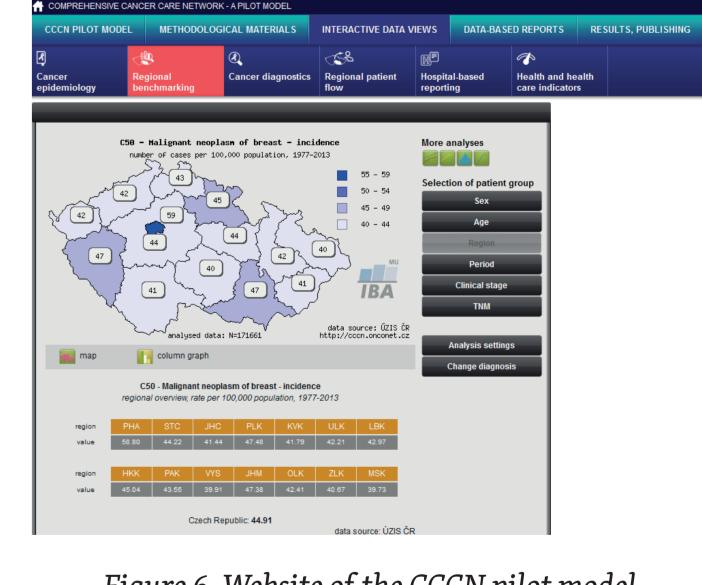


Figure 6. Website of the CCCN pilot model

Find more at cccn.onconet.cz

## References

- 1. Institute of Health Information and Statistics of the Czech Republic (IHIS). National Health Information System (NHIS),
- Czech National Cancer Registry [cited 8 May 2014]. Available from: http://www.uzis.cz/registry-nzis/nor.

  2. Ferlay J, et al. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet].
- Lyon, France: International Agency for Research on Cancer; 2013 [cited 6 May 2014]. Available from: http://globocan.iarc.fr.

  3. De Angelis R, et al. Cancer survival in Europe 1999–2007 by country and age: results of EUROCARE-5 a population-based study. Lancet Oncol 2014; 15(1): 23–34.
- 4. Pavlik T, et al. Trends in stage-specific population-based survival of cancer patients in the Czech Republic in the period 2000-2008. Cancer Epidemiol 2014; 38(1): 28–34.
- 5. OECD. Cancer Care: Assuring Quality to Improve Survival. Country note Czech Republic. OECD Publishing, 2014 [cited 7 May 2014]. Available from: http://www.oecd.org/els/health-systems/Cancer-Care-Czech-Republic-2013.pdf.