

Implementing targeted cancer screening programmes in the Czech Republic

Overview

In 2011, cancer burden in the Czech Republic was among the highest in the OECD, with an all-cancer mortality rate of 240 per 100 000 population, above the OECD average of 211 per 100 000.¹ This high mortality rate was partly attributed to the low uptake of screening services, resulting in many cancers being detected at more advanced stages. Late detection of breast, cervical and colorectal cancers drew particular concern as measures of ineffective provision of available cancer screening services. In 2011, in an effort to increase population uptake of cancer screening services, the Ministry of Health convened an expert group to develop a national

cancer screening programme in partnership with key stakeholders, including the country's seven health insurance companies. After almost three years of planning, the finalized proposal was approved in December 2013 and allocated an initial year of funding by the European Union (EU) and Ministry of Health. Beginning in January 2014, health insurers started sending out personalized letters to eligible enrollees, inviting them to participate in cancer screenings. Over 1.5 million invitations were sent during the first eight months of the initiative. Alongside, in 2014, the Ministry of Health ran two mass-media campaigns to build a more positive public attitude towards available screening services and

associated health benefits. Costs for all screening services are covered under health insurance. Screenings are performed by general practitioners or gynaecologists (faecal occult blood test, Pap smear) or specialists (colonoscopy, mammography). Evaluation of the first year of the programme is currently underway and is being led by the Institute of Biostatistics and Analyses at Masaryk University in partnership with the National Health Statistics Centre. At present, the Ministry of Health has full responsibility for financing the initiative. Results of the evaluation are expected to help inform future directions for the initiative.

Problem definition

In 2011, cancer burden in the Czech Republic was among the highest in the OECD with an all-cancer mortality of 240 per 100 000, above the OECD average of 211 per 100 000.¹ At the time, the mortality rate for cancer accounted for 26% of all deaths, with ageing population trends expected to contribute to further increases in the cancer burden.¹ While screening services were covered by health insurance, population uptake of available screenings was limited, leading to late detection of the disease and posing challenges to effective treatment and cure (Box 1).

Box 1

What problems did the initiative seek to address?

- High cancer mortality rates.
- Weak uptake of available cancer screenings leading to late disease detection.

Health services delivery transformations

Timeline of transformations

In January 2011, in response to high cancer mortality rates, the Ministry of Health established an expert group to develop a national

cancer screening programme to increase population uptake of available screening services (Table 1). In December 2013, after almost three years of planning, the finalized proposal was approved by the Ministry of Health. Personalized cancer screening invitations were sent out almost immediately, with complementary awareness-raising activities run alongside. An evaluation of the programme's first year is currently underway and the programme will continue to be funded until 2020.

Table 1

What were the chronological milestones for the initiative?

January 2011	Expert group established by Ministry of Health to lead development of a national cancer screening programme in response to high cancer mortality rates.
January 2011–November 2013	Planning and development phase for the national cancer screening programme.
December 2013	Finalized programme approved by Ministry of Health and EU.
January 2014	Health insurance companies begin sending personalized screening invitations to eligible enrollees.
March 2014	Mass information campaign launched to sensitize the public to available cancer screenings.
September 2014	Second mass information campaign launched.
June 2015	EU funding ends for programme; Ministry of Health assumes full financial responsibility for initiative.
Present	Evaluation of the first programme year underway; funding for initiative guaranteed until 2020.

Description of transformations

Selecting services. Screenings for breast, cervical and colorectal cancers continue to be available to the population, with people over the age of 55 years specifically targeted for outreach to help increase screening uptake among this at-risk group. Cancer screening services are fully reimbursable under health insurance.

Designing care. Patient pathways have been strengthened by introducing proactive recruitment of patients for screening services. In addition, guidelines have been put in place to ensure physicians follow screening procedures.

Organizing providers. General practitioners and gynaecologists continue to offer colorectal and cervical cancer screenings in primary settings, referring patients to specialists for colonoscopy or mammography services, as well

as any necessary follow-up care for positive screening results. Primary care providers now actively invite patients to partake in cancer screenings, rather than waiting for patients to request these services or present with an abnormality.

Managing services. Health insurance companies manage implementation of changes put in place according to Ministry of Health directives, with the Ministry working to ensure that the proper technical equipment, personnel requirements and quality-control mechanisms are in place.

Improving performance. Data is collected on all screening tests, assessments and final diagnoses and all screening facilities are regularly monitored in accordance with EU recommendations by a Ministry representative to help ensure safe and effective service provision.

Engaging and empowering people, families and communities

The initiative has made a significant effort to inform the population on available cancer screening services and educate them on the associated health benefits. Furthermore, the initiative has also worked to change public attitudes towards screening and encourage widespread interest in participating in cancer prevention activities. Additionally, national information campaigns designed to sensitize the public to cancer screenings have been run through various media channels including television, radio, newspapers and publicly displayed posters and billboards in public transport. Information on cancer screening is also available to the public via the Ministry of Health’s website, including information on different types of cancer, details on available screenings and links to accredited locations where screenings can be performed.

Health system enabling factors

The Ministry of Health led the development of the national cancer screening programme, with responsibility of implementing the programme resting with regional and local councils. While the majority of initial funding for the programme was provided by the EU, the Ministry of Health now covers all programme costs and has guaranteed funding for activities until 2020. The initiative capitalized on resources already in place for performing cancer screenings, limiting the required investment in infrastructure.

All seven of the country’s health insurance companies have supported the initiative and specially designed software has been introduced to enable insurers to transform data on patients participating in screenings. This software is also used to support ongoing monitoring and evaluation efforts for the initiative which are led by the Institute of Biostatistics and

Table 2

How was the delivery of health services transformed through the initiative?

Before	After
Selecting services	
Cancer screening services available but have low uptake; standard cancer treatments offered.	Increased public awareness of available cancer screening services; at-risk groups targeted for outreach to encourage uptake of breast, cervical and colorectal cancers.
Designing care	
Evidence supports benefits of screening in reducing mortality for certain cancers; screening services offered according to set criteria and guidelines.	Criteria and guidelines for screening remain in place; patients are actively recruited into care.
Organizing providers	
General practitioners and gynaecologists perform cervical and colorectal cancer screenings, referring patients to specialists for colonoscopy and mammography screening, as well as further treatment services as needed.	Organizational structure of providers remains unchanged; referral systems have been strengthened; general practitioners and gynaecologists actively invite patients to participate in screenings.
Managing services	
No formalized cancer screening programme in place; necessary resources for cancer screening available.	Health insurance companies invite enrollees to participate in screenings per Ministry of Health directives; Ministry ensures necessary resources and quality-control mechanisms are in place.
Improving performance	
Regular monitoring of screening centres ensures safety and quality standards are continually met.	Safety and quality standards remain in place; screening data collected and monitored in accordance with EU recommendations.

Analyses at Masaryk University. The Institute works in partnership with the National Health Statistics Centre which is responsible for maintaining national cancer registries (Table 3).

Outcomes

Still in the early stages of implementation, evaluation of the initiative’s impact is ongoing. As of August 2014, approximately 1.5 million people had been mailed an invitation to participate in cancer screenings and millions more were exposed to educational messages through media campaigns.

Table 3

How has the health system supported transformations in health services delivery?

System enablers	Example
Information	<ul style="list-style-type: none"> National cancer registries maintained by the National Health Statistics Centre. Institute of Biostatistics and Analyses leading monitoring and evaluation of initiative.
Innovation	<ul style="list-style-type: none"> Specially designed software developed for insurance companies to enable transformation of data on patients participating in screenings.

Change management

Key actors

The development of the cancer screening programme was driven by the Ministry of Health with support from key stakeholders (Box 2). The Ministry established an expert group to plan the initiative and connected with medical professionals, insurance companies and other organizations to ensure all stakeholders had a consistent understanding of proposed activities. All seven health insurance companies took on additional responsibilities to encourage screening in their enrolled populations, working with primary care providers to promote the uptake of screening services. Monitoring and evaluation of the initiative is carried out by the Institute of Biostatistics and Analyses, in partnership with the National Health Statistics Centre.

Box 2

Who were the key actors and what were their defining roles?

- **Ministry of Health.** Established an expert group to develop the national cancer screening programme; ran mass information campaigns relating to cancer; provided 15% of initial funding for activities and will fund 100% of the initiative between 2015 and 2020.
- **EU.** Provided 85% of initial funding for the initiative.

- **Health insurance companies.** Identify eligible enrollees and send personalized invitations to encourage participation in screening services.
- **Institute of Biostatistics and Analyses.** Leads monitoring and evaluation for the initiative.

Initiating change

The initiative took several years to plan and importantly involved engaging key stakeholders to secure their support. Once the programme was finalized and funds were approved by the Ministry of Health and EU, implementation of activities began almost immediately as all the necessary preparatory steps had been taken and key stakeholders were in agreement with planned changes.

Implementation

Health insurance companies are responsible for identifying at-risk patients and sending targeted screening invitations as they have easy access to the information needed to enable accurate profiling. Primary care providers support this activity by following up with patients about screening invitations received and proactively offering opportunistic screenings and referrals. Two public information campaigns were run during the first year of the programme to further encourage uptake of screenings.

Moving forward

Funding for the programme is guaranteed until 2020. An evaluation of the programme's first year is currently underway and results will be used to help inform future directions for the initiative. Meanwhile, health insurers will continue to invite enrollees to participate in cancer screenings.

Highlights

- Strong Ministerial leadership provided an overarching direction for the initiative, promoting alignment across key stakeholders.
- Use of existing data helped identify key problems and supported tailoring of the initiative to meet observed gaps in services delivery.
- Mass media campaigns proved useful in educating the public and involving them in the initiative.
- The initiative prioritized a proactive approach to addressing cancer mortality, shifting away from a reliance on reactive service provision.

1 Organization for Economic Co-operation and Development, (2013). *Cancer Care: Assuring Quality to Improve Survival*. Retrieved from <http://www.oecd.org/els/health-systems/Cancer-Care-Czech-Republic-2013.pdf>