

TIME TO PARADIGM SHIFT IN CZECH COLORECTAL CANCER SCREENING?

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Czech Republic – screening lab

- Czech screening: launched in 2000 based on the best available evidence at that time
 - Variations through Europe: different country backgrounds (health care systems, policy, economy)
 - New challenges in the Czech Republic: reconsideration the paradigm of the screening
- to apply the European Guidelines for QA in CRC Screening and diagnosis

The principles of CRC screening

The aim of screening is to lower the burden of cancer in the population by discovering disease in its early latent stages

- SAVING LIVES, IMPROVING QUALITY OF LIFE
- USING OF APPROPRIATE METHODS - NO HARM
- RATIONAL FUNDING: COST EFFECTIVITY

European guidelines, Segnan, Patnick, Karsa, 2010

Scientific Paradigm of Screening

- what is to be observed in screening
- the kind and structure of questions that are supposed to be asked and answered
- how the results of screening should be interpreted

Kuhn TS. The Structure of Scientific Revolutions. Chicago University Press, 1996

Q: Are we clear in CRC screening paradigm in the Czech Republic?

Start of screening in 2000 in the CR

- **EVIDENCE**
- **PROGRAMME DESIGN: GUIDELINES**
- **SCREENING METHODS AVAILABLE**
- **GLOBAL CONSENSUS**
- **PAYER'S AGREEMENT: REIMBURSEMENT SCHEME**
- **MOTIVATION OF PROVIDERS**

The crucial challenge in 2000: to start screening!

2000-2009: Era of enthusiasm

- Successful systemic implementation
- GPs and gastroenterologists involved

BUT

- Enthusiasm limited to few people
- Lack of public interest - minimal media support
- Low adherence of people
- Low participation rate (below 20%)
- Lack of feedback for providers- few data available

2009: Breakpoint in Czech CRC screening

New programme design: 4 new measures:

- FOBT on yearly basis in age 50-55, then biannually
- Screening colonoscopy as an option in age 55
- Introduction of immunochemical tests
- Involvement of gynaecologists involved in screening

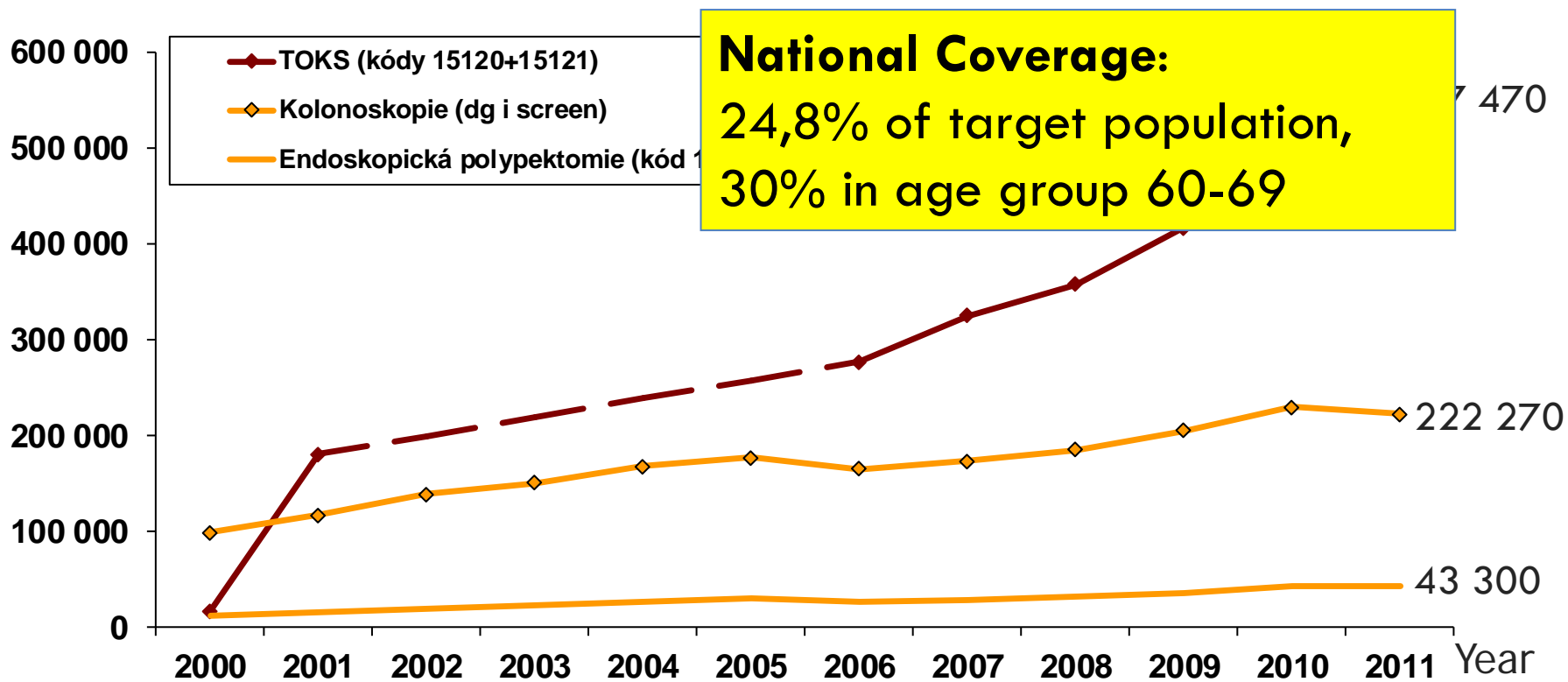
IBA: System of Data Monitoring: Quality improvement

The crucial challenge in 2009: to increase uptake!

(through organizational and technical measures)

Number of FOBTs, colonoscopies and polypectomies performed 2000-2011

Source of data: National Reference Centre



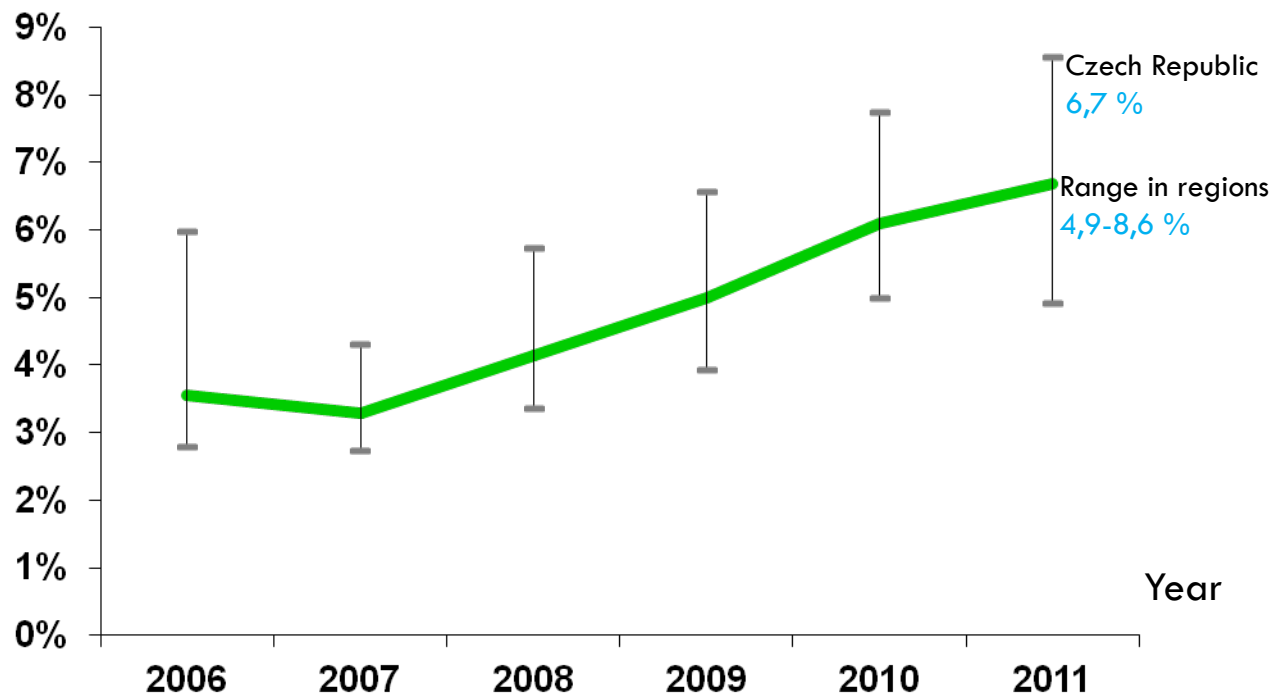
Trends in a FOBT positivity

Men and women since 50

FOBT Positivity

FOBT negative, positive

Source: National Reference Centre



Frič 1999: Evidence of cost-benefit for colorectal cancer screening: studies show positivity rate 1-4%

Dusek, IBA, 2013

2013: FOBTs in use

FOBT	Use	Adherence	POCT	Sensitivity Specificity	Auto reading	Cut off	Expenses
g- FOBT terminated since 2012	some	+	YES	19-50% > 90%	NO	NO	1 EUR +GP fee
Immuno FOBT Qualitative	most	+++	YES	> gFOBT	NO	NO	1 EUR + GP fee
Immuno FOBT Quantitative	1/4	+++	YES	> gFOBT	YES	YES	3 EUR + GP fee
Immuno FOBT Quantitative Lab based	some	?	NO	> gFOBT	YES	YES	1-3 EUR +logistics



False-positive FOBTs and Colonoscopy

- If false-positive FOBT results are common, then many patients selecting a FOBT regimen will be exposed to the same invasive testing as those selecting a colonoscopy regimen.
- After 10 years of annual FOBT 23% (95% confidence interval (CI), 18,2-27,0) will receive at least one FOBT+, CRC- result.

Hubbard, Johnson, Hsia, The cumulative risk of false-positive fecal occult blood test after 10 years of colorectal cancer screening, Cancer Epidemiology Biomarkers and Prevention, 2013

Q: Are we clear in CRC screening paradigm in the Czech Republic?

The prevailed paradigms understood by physicians were:

- „The coverage is a main target.“
- „Any screening method is good.“
- „More positives will mean more cancers detected.“

European guidelines:

- Quality and safety aspects, ethical issues

Step to population screening in 2014

January 2014: introduction of an **address invitation** system (for all three screening programmes) accompanied by **media campaign**

The crucial challenge in 2014: to increase coverage
(through **equal access to information**)

Quality of information given by GPs

A qualitative study among French GPs delivering FOBT

Study focus on

- The core content of the consultation
- Communication style used between GPs and patients

Method: audio taping

Results: The core content included primarily biomedical statements with a large portion dedicated to technical aspects. The communication was not patient-centred.

Aubin-Auger, Mercier, Mignotte et al. Delivering the faecal occult blood test: More instructions than shared decisions. A qualitative study among French GPs, European Journal of General Practice, 2013

Content of a paradigm for CRC screening in the Czech Republic I.

1. what is to be observed:

- coverage, involvement of providers

- **quality and safety**

- FOBTs

- Colonoscopy

- Information

▶ **standardization**

- **feedback of people**

- **attitudes of people and providers**

Content of a paradigm for CRC screening in the Czech Republic II.

2. questions to be asked and answered

- How to get people screened? How to recruit them for colonoscopy?

- **How to proceed and ensure the standardization of methods?**
- **How to communicate (risk of) screening?**
- **Do all providers understand screening?**
- **Do people understand screening?**

Content of a paradigm for CRC screening in the Czech Republic III.

3. Interpretation of results

- coverage, FOBT adherence, FOBT positivity rate, **false positivity and false negativity**, regional differences
- **colonoscopy waiting times, compliance with colonoscopy in FOBT+,**
- colonoscopy finding, **adherence to guidelines in follow up**, staging, incidence, mortality
- complication rate, caecum intubation
patient feedback on colonoscopic services

Screening Paradigm shift in 2014?

Paradigm shift =

dramatic change in the paradigm of a scientific community

- Prevailed paradigm of „The coverage is a main target“, „Any screening method is good“ should be reconsidered.
- It is time to overthrow an old paradigm that „More positives will mean more cancers detected“ from heads of practitioners.

Conclusion

New paradigm should emphasize principles:

- **Quality and safety of procedures**
 - **Standardization of FOBT methods (national cut-off)**
 - **QA of colonoscopies**

- **Equity and quality in information**
 - **Equal access to information (address invitation)**
 - **Communication strategy**

„People who use CRC screening services should receive accurate and accessible information that reflects the most current evidence about the CRC screening test and its potential contributions to reducing illness as well as information about its risks and limitations“.

A...B

Need for an educational campaign for doctors

on institutional level

- to put screening high in agenda of National Societies of GPs
- to put screening high in agenda of international GP organizations (WONCA, ESPCG, EUROPREV)
- to support interdisciplinary cooperation on CRC screening

Need for a new educational campaign for doctors

on practice level

- to put screening high in agenda of practice
- to improve practice organization in order to make time for prevention available
- to educate and to employ the staff of the practice in screening
- to advertise screening in office by leaflets, posters or TV programmes
- to use “family policy”; to influence men-towards through their wives

Need for a new educational campaign for doctors

on individual doctor level

to be able

- to explain colorectal cancer screening incl. address invitation system
- to explain screening methods
- to inform about benefit and risk/possible harm of the screening
- to recruit patients for screening
- to deliver FOBT if appropriate and to counsel positive result eventually
- to refer for colonoscopy and to prepare patient for colonoscopy
- to explain colonoscopy finding and follow up programme
- to explain the CRC treatment options



Thanks for
your attention