Screening for prostate cancer:

Benefits, harms and organisation

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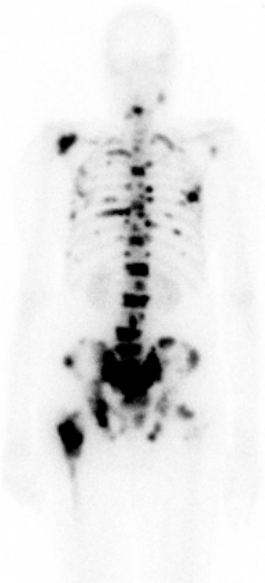
Country	Mortality		
	First	Second	Third
Albania	Lung	Prostate	Stomach
Austria	Lung	Prostate	Colorectum
Belarus	Lung	Colorectum	Prostate
Belgium	Lung	Colorectum	Prostate
Bosnia and	Lung	Colorectum	Prostate
Bulgaria	Lung	Colorectum	Prostate
Croazia	Lung	Colorectum	Prostate
Cyprus	Lung	Prostate	Colorectum
Czechia	Lung	Colorectum	Prostate
Denmark	Lung	Prostate	Colorectum
Estonia	Lung	Prostate	Colorectum
Finland	Lung	Prostate	Colorectum
France	Lung	Colorectum	Prostate
Germany	Lung	Prostate	Colorectum
Greece	Lung	Colorectum	Prostate
Hungary	Lung	Colorectum	Prostate
Iceland	Lung	Colorectum	Prostate
Ireland	Lung	Colorectum	Prostate
Italy	Lung	Colorectum	Prostate
Latvia	Lung	Prostate	Colorectum
Lithuania	Lung	Prostate	Colorectum
Luxembourg	Lung	Colorectum	Prostate
Malta	Lung	Colorectum	Prostate
Montenegro	Lung	Colorectum	Prostate
Netherlands	Lung	Colorectum	Prostate
North Macedonia	Lung	Colorectum	Prostate
Norway	Lung	Prostate	Colorectum
Poland	Lung	Colorectum	Prostate
Portugal	Lung	Colorectum	Prostate
Republic of Moldova	Lung	Colorectum	Prostate
Romania	Lung	Colorectum	Prostate
Russia	Lung	Colorectum	Prostate
Serbia	Lung	Colorectum	Prostate
Slovakia	Lung	Colorectum	Prostate
Slovenia	Lung	Prostate	Colorectum
Spain	Lung	Colorectum	Prostate
Sweden	Prostate	Lung	Colorectum
Switzerland	Lung	Colorectum	Prostate
Ukraine	Lung	Prostate	Colorectum
United Kingdom	Lung	Prostate	Colorectum

Prostate cancer in the EU (2020)

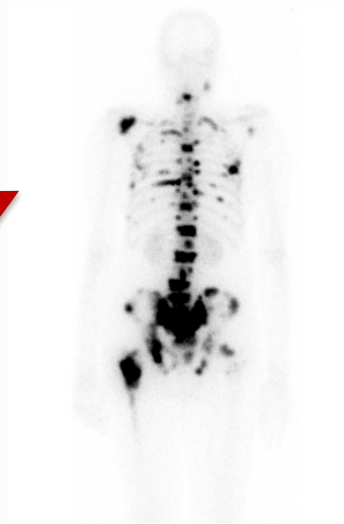
- 340,000 men diagnosed
- 70,000 men die
- 2nd or 3rd ”cancer killer” in EU men



Natural course

Symptoms
= incurable

No symptoms for many years
= curable



Screening for prostate cancer

- Cheap blood test: Prostate-specific antigen (PSA)
- Most men without clinically significant PC: Low PSA
- Most men with clinically significant PC: High PSA
- PSA is unspecific = Most men with high PSA do not have PC
- Diagnostic pathway: High PSA → ”systematic” prostate biopsy

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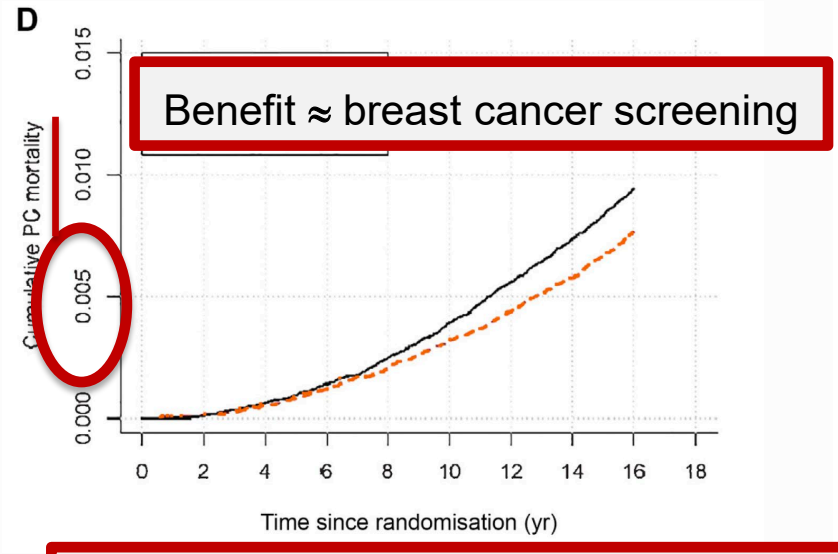
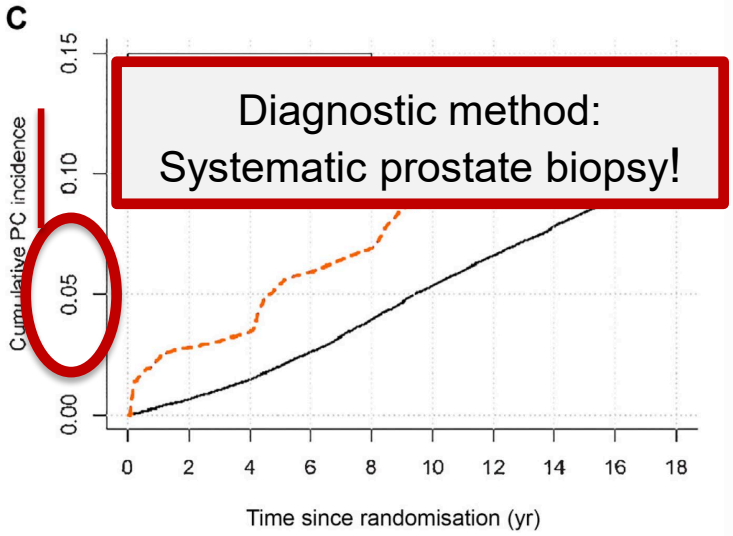
- ~~Diagnostic pathway: High PSA → ”systematic” prostate biopsy~~ (now obsolete)
- Modern pathway: High PSA → prostate MRI → targeted biopsy

European Randomised Study of Screening for Prostate Cancer

8 countries, 162,389 men aged 55–69 years at first invitation



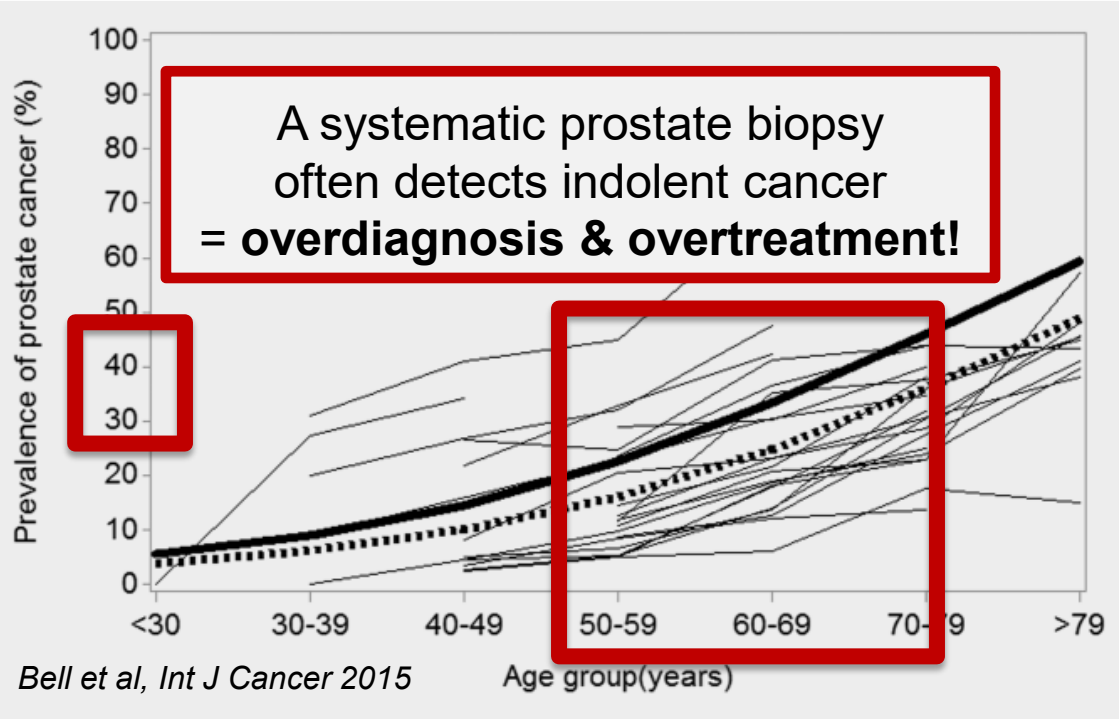
Benefit ≈ breast cancer screening



Diagnostic method:
Systematic prostate biopsy!

Ratio prevented PC deaths : overdiagnosis = 1 : 13

Prostate cancer incidentally found on autopsy



Bell et al, Int J Cancer 2015

The National Board of Health and Welfare 2018

Recommendation: Do not offer screening for prostate cancer

Motivation: The benefit does not clearly outweigh harms
Harms: overdiagnosis and overtreatment

But also: Unorganised PSA testing is widespread but ineffective and unequal
This problem was also recognised by the Swedish government

Support for regional projects that organise testing for prostate cancer

Socialstyrelsen

Swedish Organised Prostate Cancer Testing (OPT)

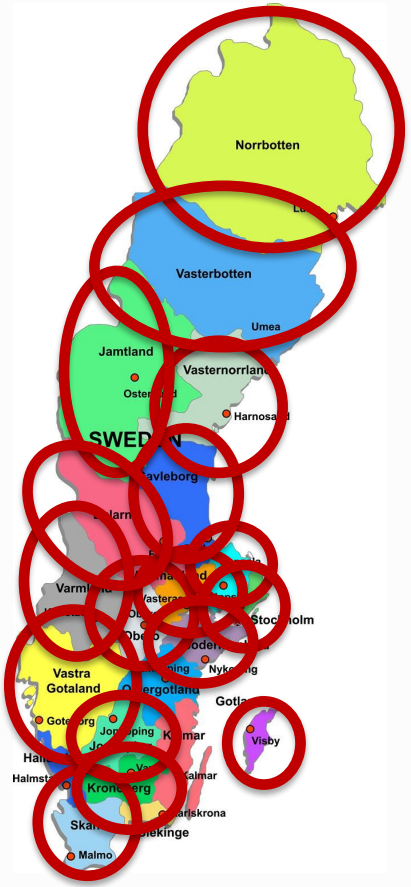
- Regional, population-based, screening-like projects
- Managed by the regional public healthcare providers
- Stepwise implementation over 5-10 years to cover all men aged 50 – 74 years
- Nationally coordinated (information, test algorithm, admin system, register, research)
- Filling diagnostic and practical knowledge gaps for national screening programme

Swedish OPT

2020: 2 regional projects

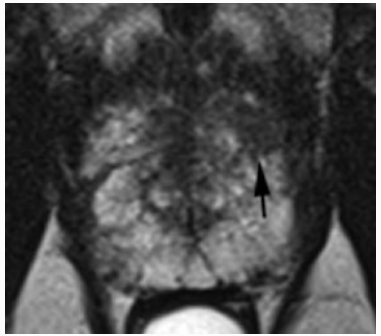
2022: 4 more projects

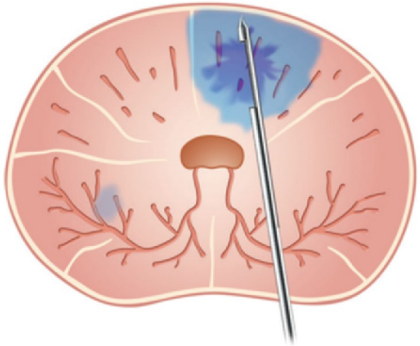
2023: 11 more projects

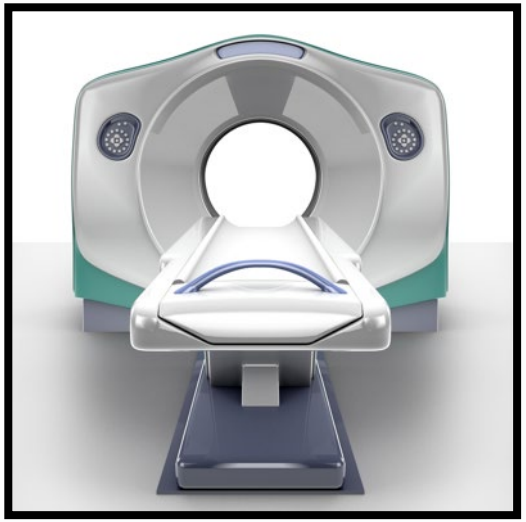


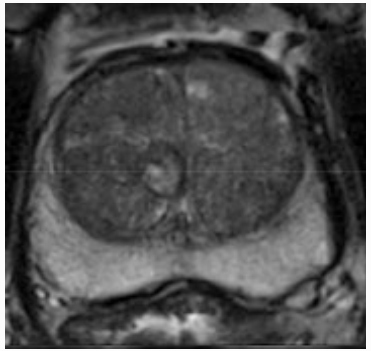
Modern diagnostic pathway:

PSA → prostate MRI → targeted biopsy









> 50% of men
No biopsy

Less overdiagnosis

European Commission

Press release | 9 December 2022 | Brussels

European Health Union: Commission welcomes adoption of new EU cancer screening recommendations

- The Recommendation invites Member States to **evaluate the feasibility and effectiveness of organised prostate cancer screening** for men, on the basis of prostate-specific antigen (**PSA**) testing in combination with magnetic resonance imaging (**MRI**) scanning

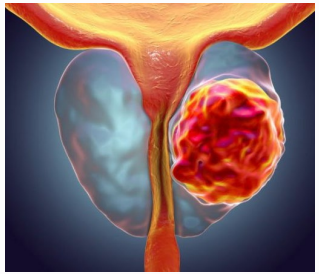
Key knowledge gaps

- Diagnostic outcomes from repeated screening rounds using MRI
- Use of complimentary tests for selecting men for an MRI (MRI resources)
- Optimal use of MRI for men with persistently raised PSA (MRI resources)
- Answers will be provided by:
  - Ongoing randomised screening trials (Sweden, Finland, Germany)
  - OPT programmes

Swedish OPT projects: Key learning experiences

- Detailed planning is essential
- Communicate with all stakeholders
- Secure necessary resources for all diagnostic steps and for treatment
- Start a few, small pilot projects to test infrastructure and identify pitfalls
- Actively prevent men to divert from screening to routine clinical follow-up
- Register, report, analyse and feed back all outcomes

Learning by doing is better than doing without learning!



Thank you for your attention!