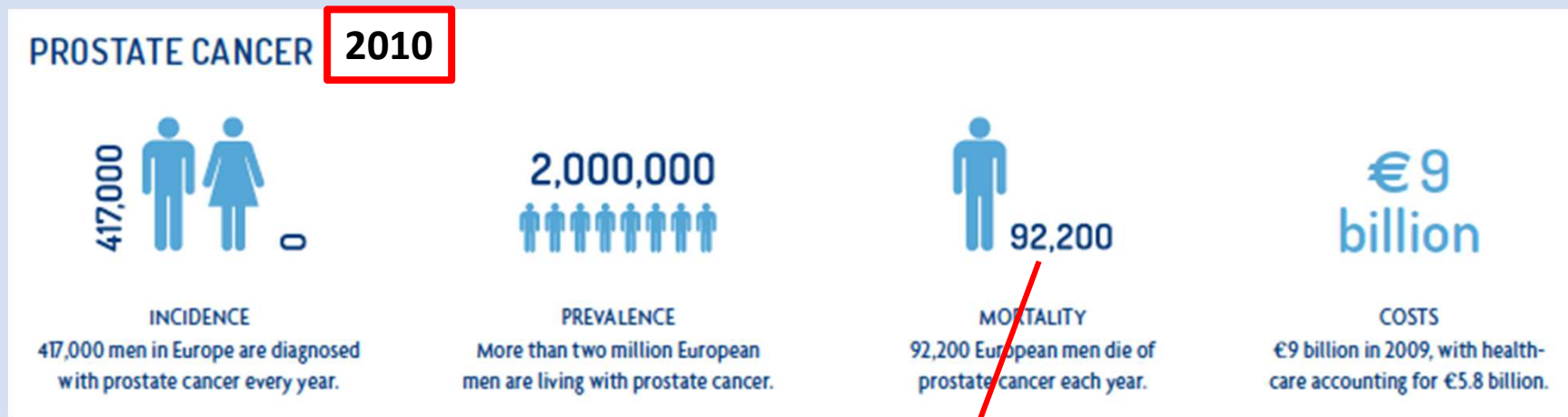


# Why Early Detection of Prostate Cancer matters



**107.000**  **in 2018 (!)**

- Prostate cancer is the most common male cancer in the EU
- 1 in 7 men in Europe will develop prostate cancer
- In its early stages (while curable) it is asymptomatic and there is no proven primary prevention.

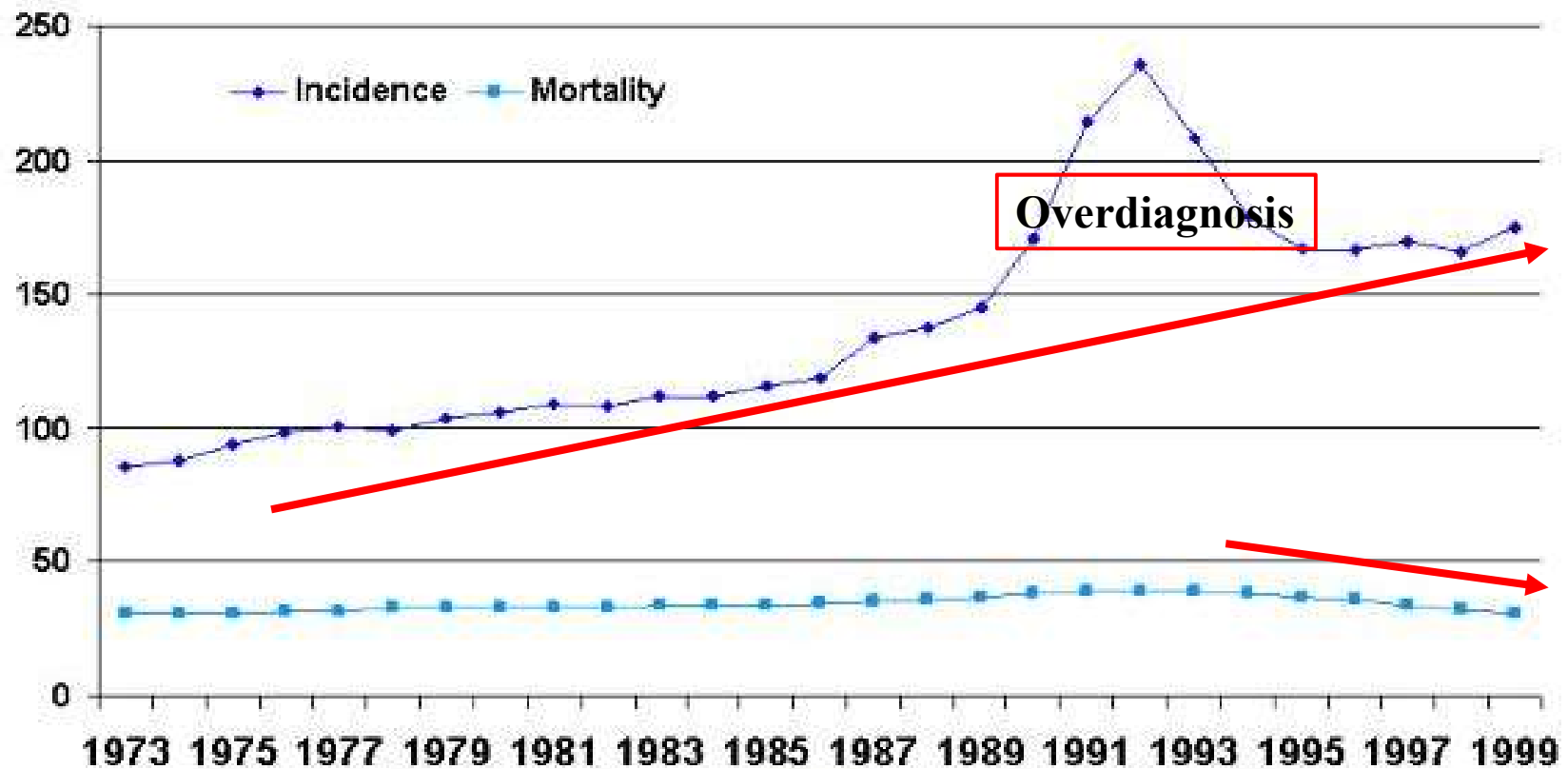
Table IV. MORTALITY-INCIDENCE RATE RATIOS<sup>1</sup> IN 13 COUNTRIES DURING 1973–77 TO 1988–92

Countries	1973–77 <sup>1</sup>	1978–82	1983–87	1988–92
High risk				
U.S. blacks	0.35	0.33	0.39	0.25
U.S. whites	0.28	0.25	0.23	0.16
Canada	0.36	0.29	0.25	0.20
Sweden	0.49	0.43	0.38	0.38
Australia	0.55	0.45	0.41	0.33
France				0.36
Med				
Den				0.60
Eng				0.57
Italy				0.41
Spain	0.70	0.61	0.47	0.48
Israel	0.48	0.46	0.48	0.38
Low risk				
Singapore	0.40	0.44	0.55	0.38
Japan	0.49	0.44	0.42	0.42
Hong Kong	0.41	0.39	0.36	0.35

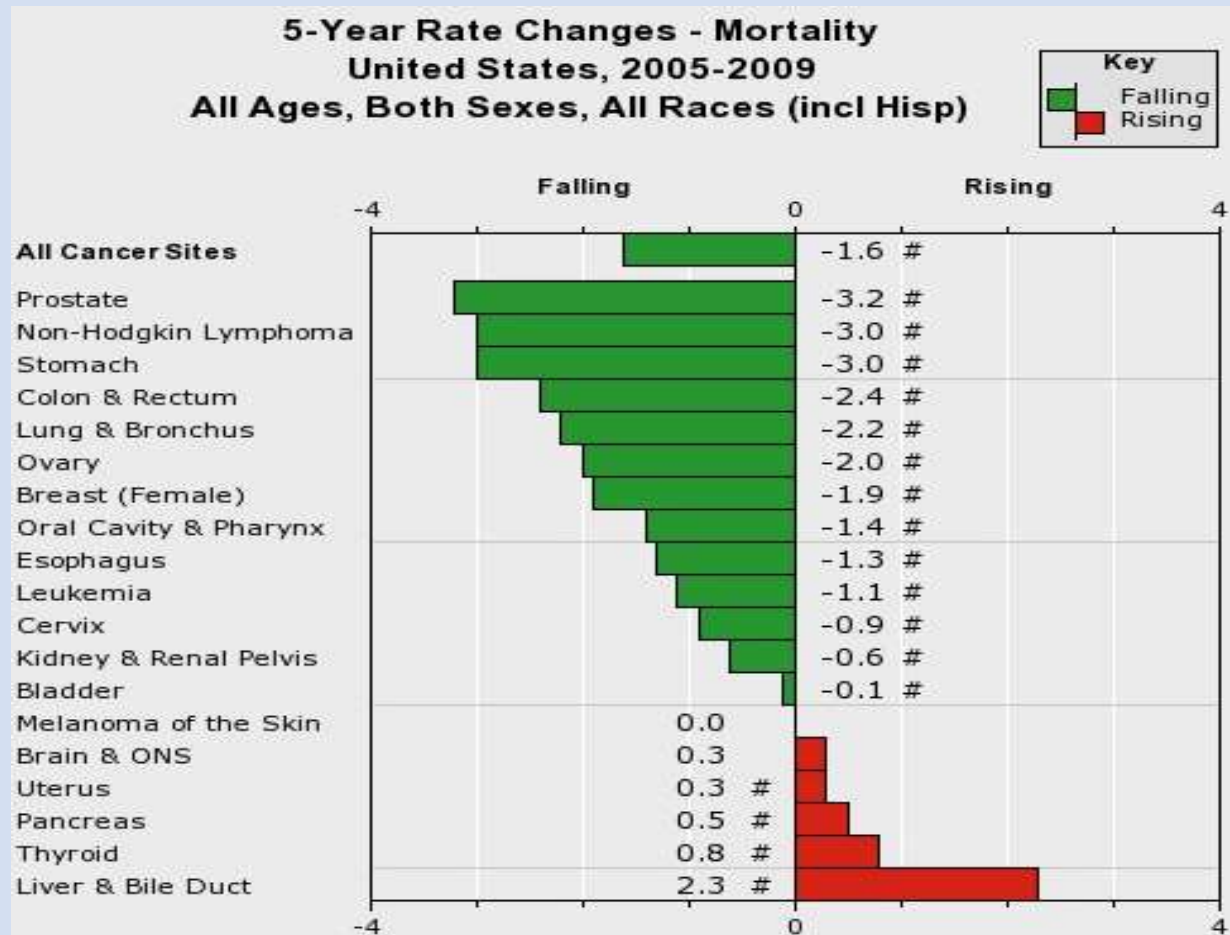
**1/3 to 1/2 PCa patients died of their disease in the pre-screening era**

<sup>1</sup> The ratio of mortality to incidence in each country, by time period.

## When Prostate Specific Antigen (PSA) testing was introduced, prostate cancer was detected early, and mortality declined

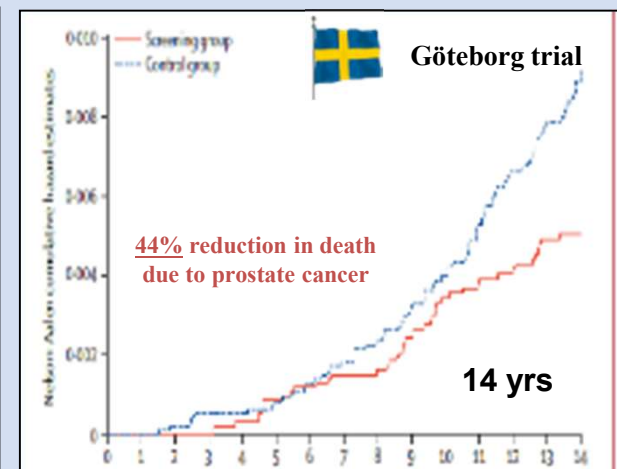
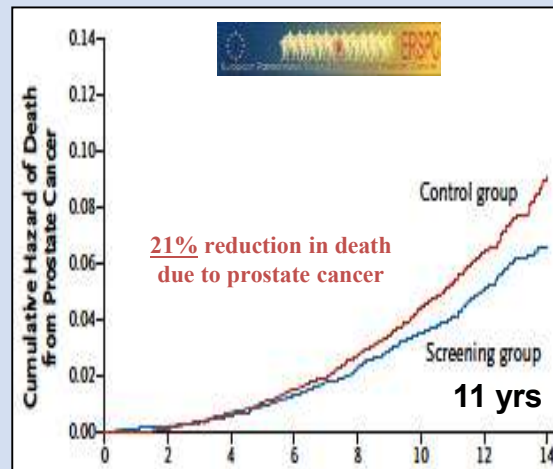
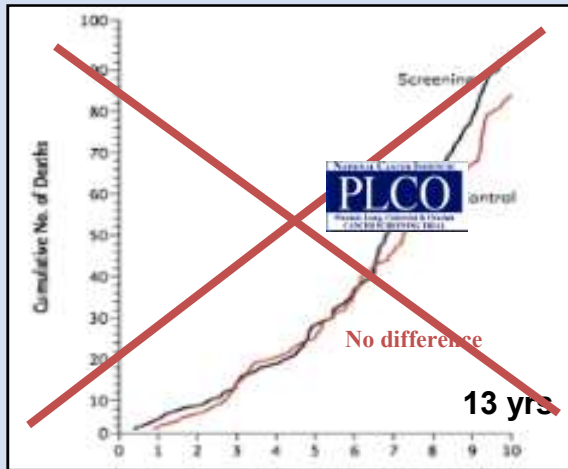


# Changes of Cancer Mortality



**At the cost of overdiagnosis and overtreatment**

# Prostate Cancer Screening RCT's



	<b>PLCO</b>	<b>ERSPC</b>	<b>Göteborg</b>
	76,693 men	182,000 men	20,000 men
	negative	NNS=1055 NNT=37	NNS=293 NNT=12
	52% contamination 30% dilution → underpowered	relaxed screening	---

# What we know about PSA

1. It can be used for early detection
2. Population based screening:
  - results in stage migration at diagnosis
  - decreases prostate cancer death
  - *exposes to overdiagnosis and overtreatment*

And therefore... PSA testing has been discouraged.

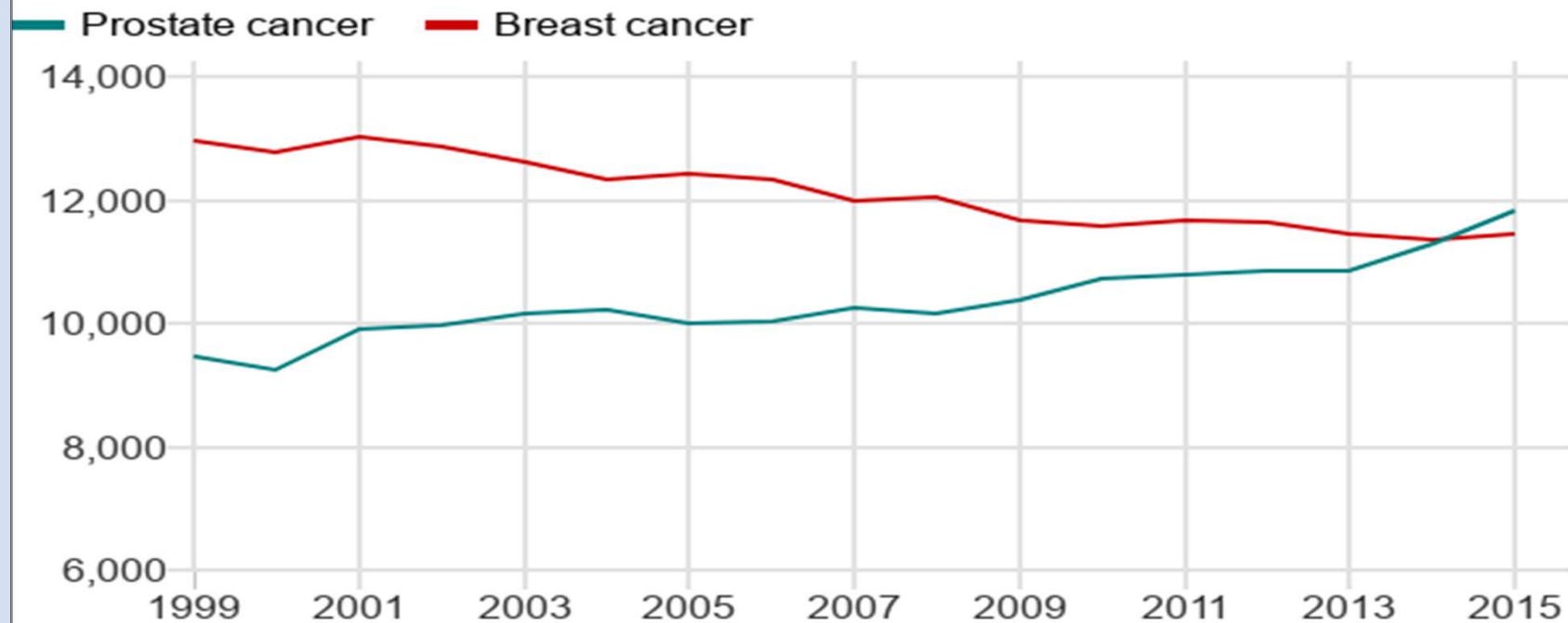
Anti - PSA Propaganda !

**What happened with less PSA testing?**

# UK: PCa death increased by 17% in 10 y.

## More people now die from prostate than breast cancer

UK prostate and breast cancer deaths, 1999-2015

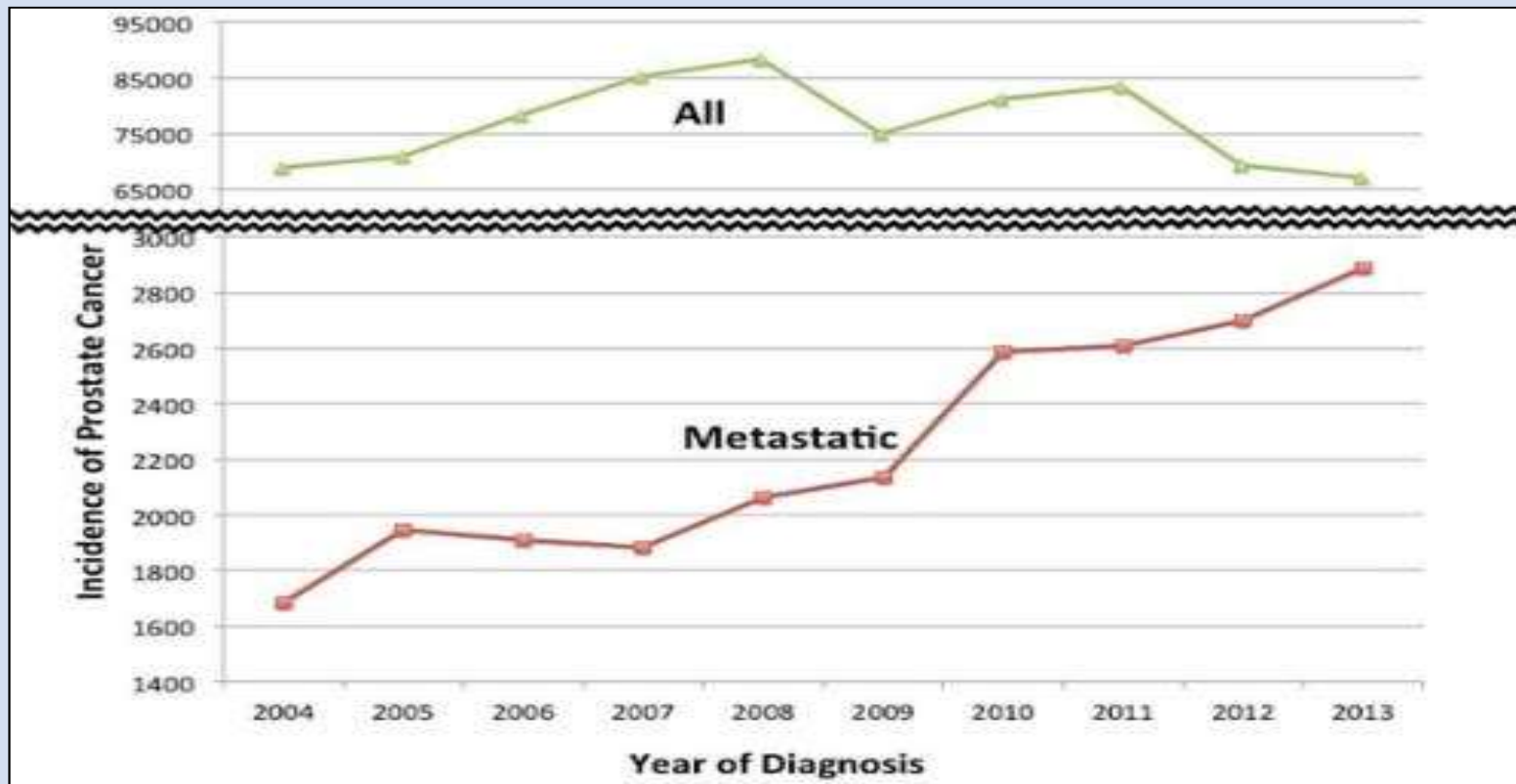


Source: Prostate Cancer UK

BBC

<http://spcsg.ca/reading-material/prostate-cancer-deaths-overtake-breast-cancer/>

## USA: More aggressive PCa



Prostate cancer increasingly detected too late

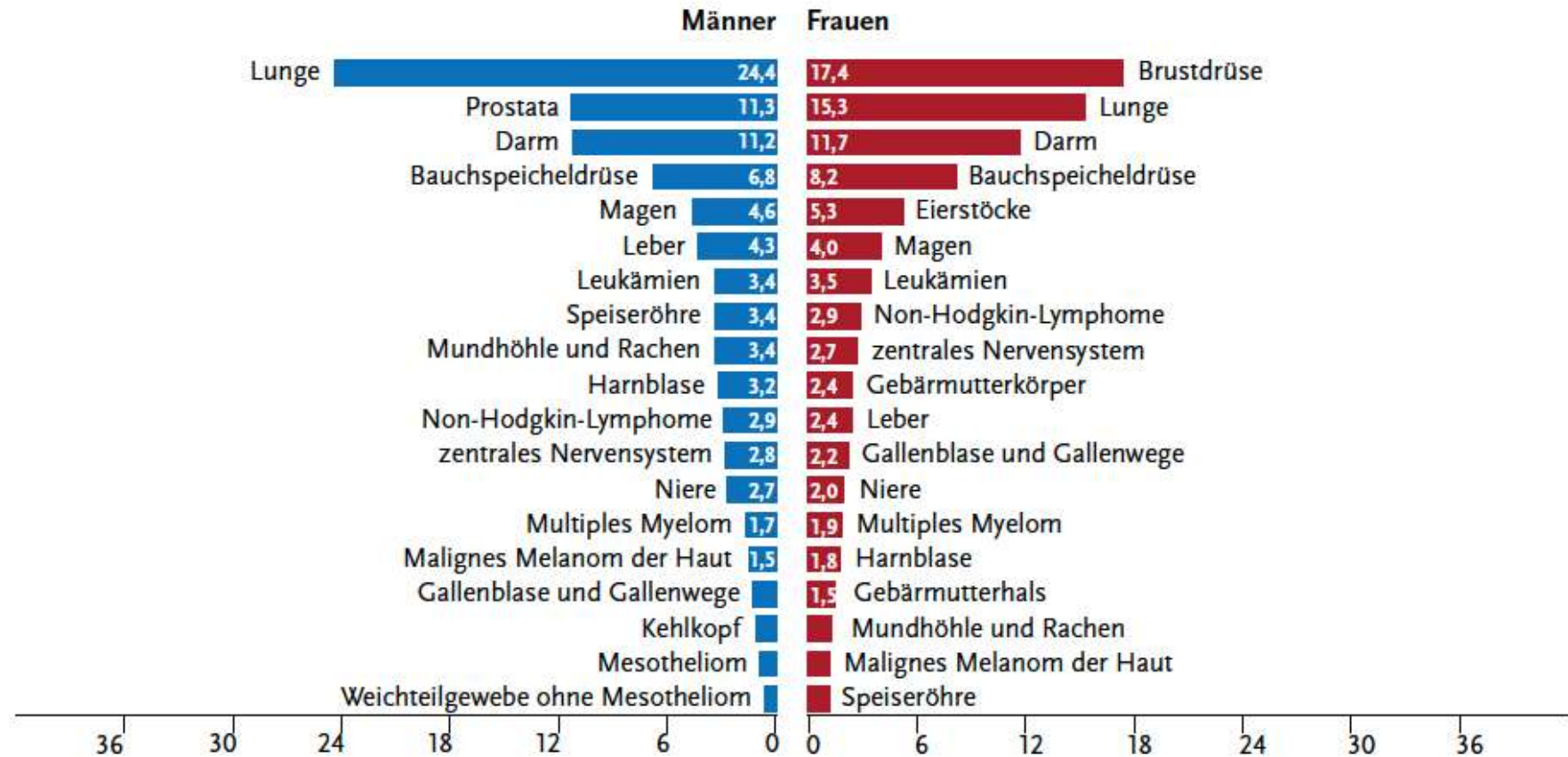
Weiner A. et al., Prostate Cancer and Prostatic Diseases, 2016



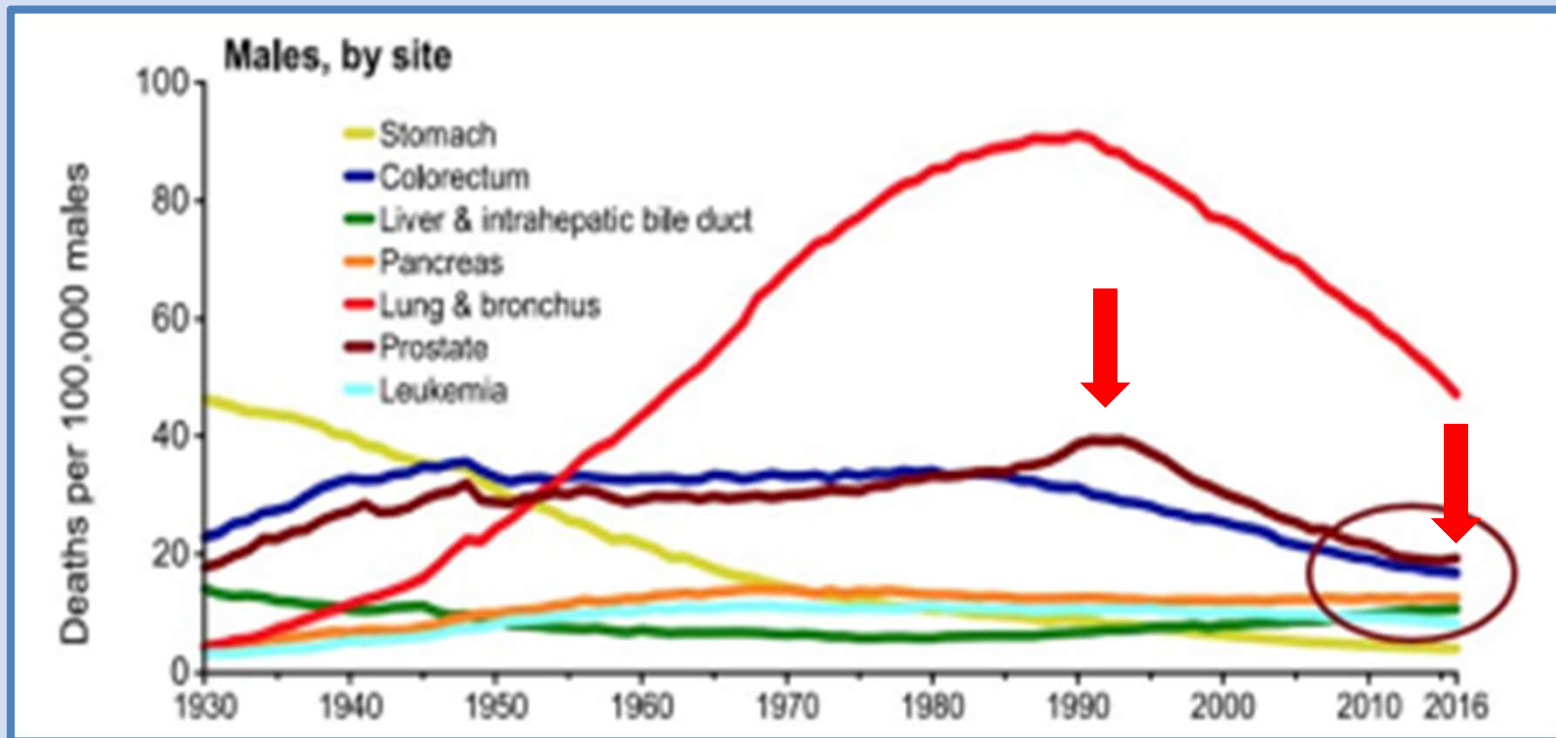
# Germany and world-wide: PCa Mortality ranks 2<sup>nd</sup>

Abbildung 3.0.2

Prozentualer Anteil der häufigsten Tumorlokalisationen an allen Krebssterbefällen in Deutschland 2014



# What has been the consequence of less PSA testing?



Overall, the ever decreasing mortality rate from PCa has come to a stop


**And we let this happen!**

# Times have changed !

## 1. We are able to avoid over diagnosis:

- Better use of PSA: age-related PSA, PSA Density
- Risk Calculators (PCPT and ERSPC) +/- Molecular Biomarkers
- **mp(bp)MRI before biopsy**
  - ....decrease of number of biopsies
  - .....detect more significant and less insignificant cancers

Mannaerts et al., Eur. Urol. Oncol. 2018

  
Amin et al., J. Urol. 2020

## 2. We reduce overtreatment:

- Application of Active Surveillance in 65% of low & intermediate risk

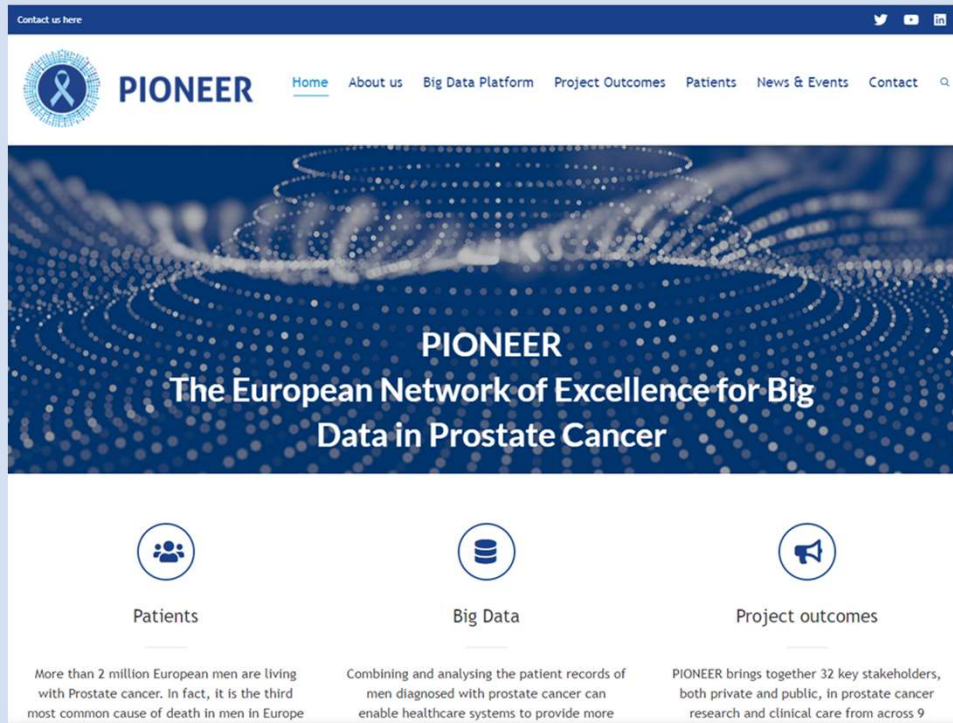
Nomogram to predict disease progression for men on AS

  
Van Hemelrijck, EAU20

# Recommendations for the EU Beating Cancer Plan

1. Early detection saves lives
2. Prostate cancer deaths can (rather easily) be dramatically reduced
3. Our adult male population needs to be informed
  - No one needs to die from prostate cancer
  - No uninformed mass screening, but a risk stratified approach (Algorithm)
  - A well informed healthy men should be offered early detection
4. Review of 2003 EU Council Recommendations on Cancer Screening with potential addition of prostate cancer, gives EU a unique opportunity – not to be missed.
5. EU funding must then be channelled for information campaigns & technical support and for implementation across EU Member States – no one left behind.

# Recommendations for the EU Beating Cancer Plan

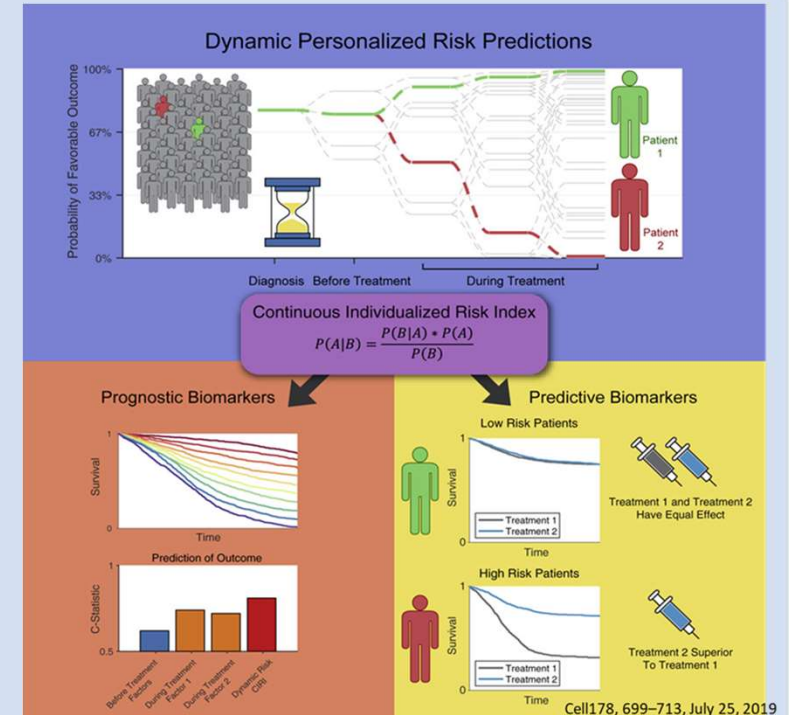


**PIONEER**  
The European Network of Excellence for Big Data in Prostate Cancer

**Patients**  
More than 2 million European men are living with Prostate cancer. In fact, it is the third most common cause of death in men in Europe

**Big Data**  
Combining and analysing the patient records of men diagnosed with prostate cancer can enable healthcare systems to provide more

**Project outcomes**  
PIONEER brings together 32 key stakeholders, both private and public, in prostate cancer research and clinical care from across 9



6. EU Cancer Research Mission can support new tools for risk stratification and early detection. In the near future, AI will reinforce us with this process.



# Early detection: Working together as a community

Together we call for:

- **EBCP Screening Recommendations to be prioritized**
- **Attention to the Inequalities in cancer screening, including known inequalities** in relation to socio-economic groups and marginalised populations
- **European-level networking and exchange on** cancer screening
- Horizon Europe research support to **improve risk stratification knowledge** in respect to cancer screening.
- Attention to the early detection needs of **ALL** cancers with **EU4Health support for a pan-European awareness campaigns**



## Co-Chairs



**Nicolò Matteo Luca Battisti**  
INTERNATIONAL SOCIETY OF GERIATRIC ONCOLOGY



**Hendrik Van Poppel**  
EUROPEAN ASSOCIATION OF UROLOGY



## Co-Chairs



**Jan van Meerbeeck**  
EUROPEAN RESPIRATORY SOCIETY



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**Mark Lawler**  
BOARD MEMBER OF THE EUROPEAN CANCER ORGANISATION