# abstract 1599

# Breast cancer; screening or overdiagnosis? Questioning of a family doctor

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# Aim

- The authors have tried to update their knowledge of breast cancer screening by a review of the scientific literature, the recommendations made by various national health institutions as well as expert advices.

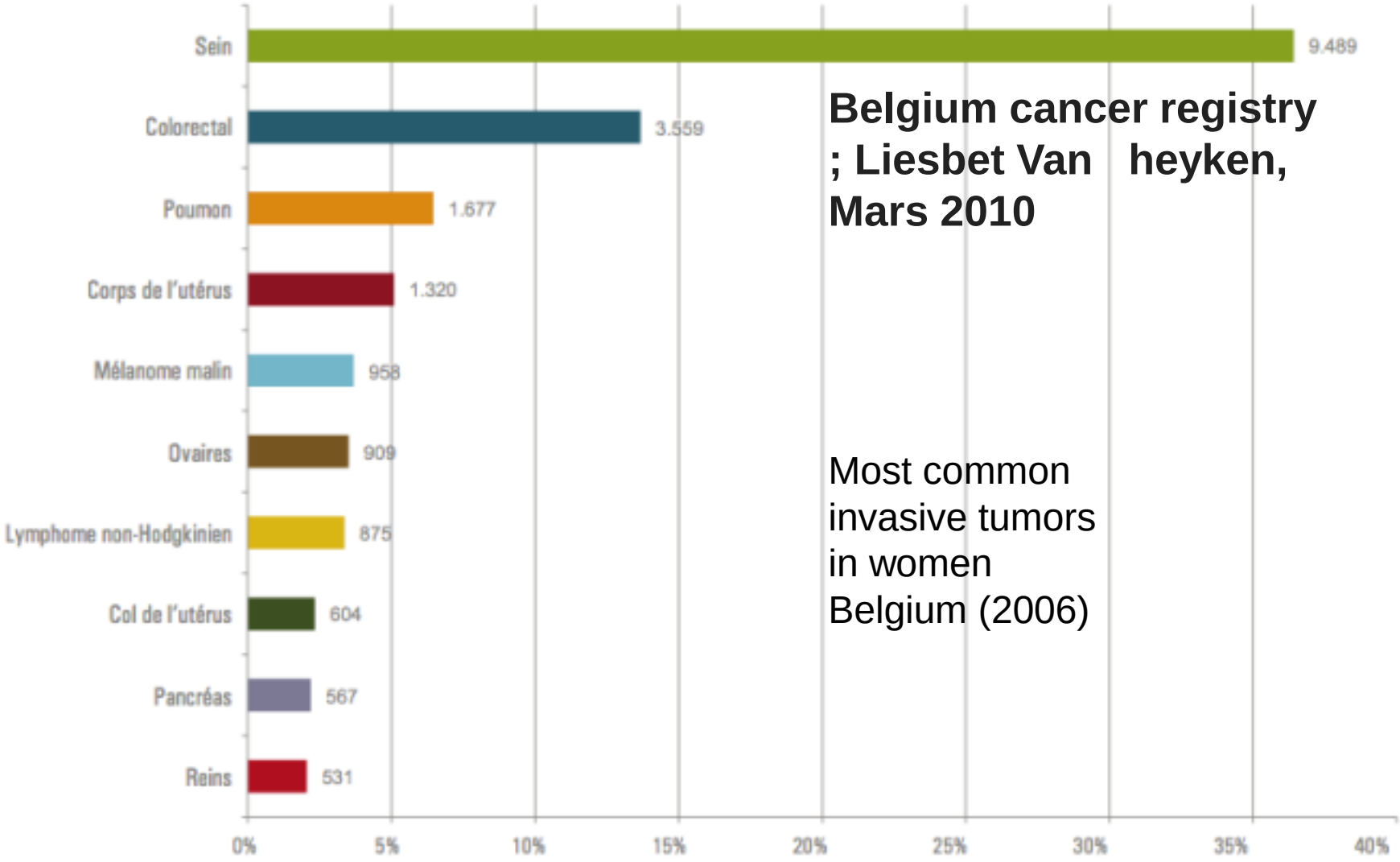
How to answer?

*I received this letter summoning me for a mammogram as two years ago. Should I do it?*

# Methods

- The current literature has been reviewed, as well as books on the issues of screening, the work of some experts helps to clarify the following points :
  - The potential benefit of routine screening of women aged 50 to 69 years
  - The risks and potential side effects of breast cancer screening by mammography.
  - Informing women invited to screening

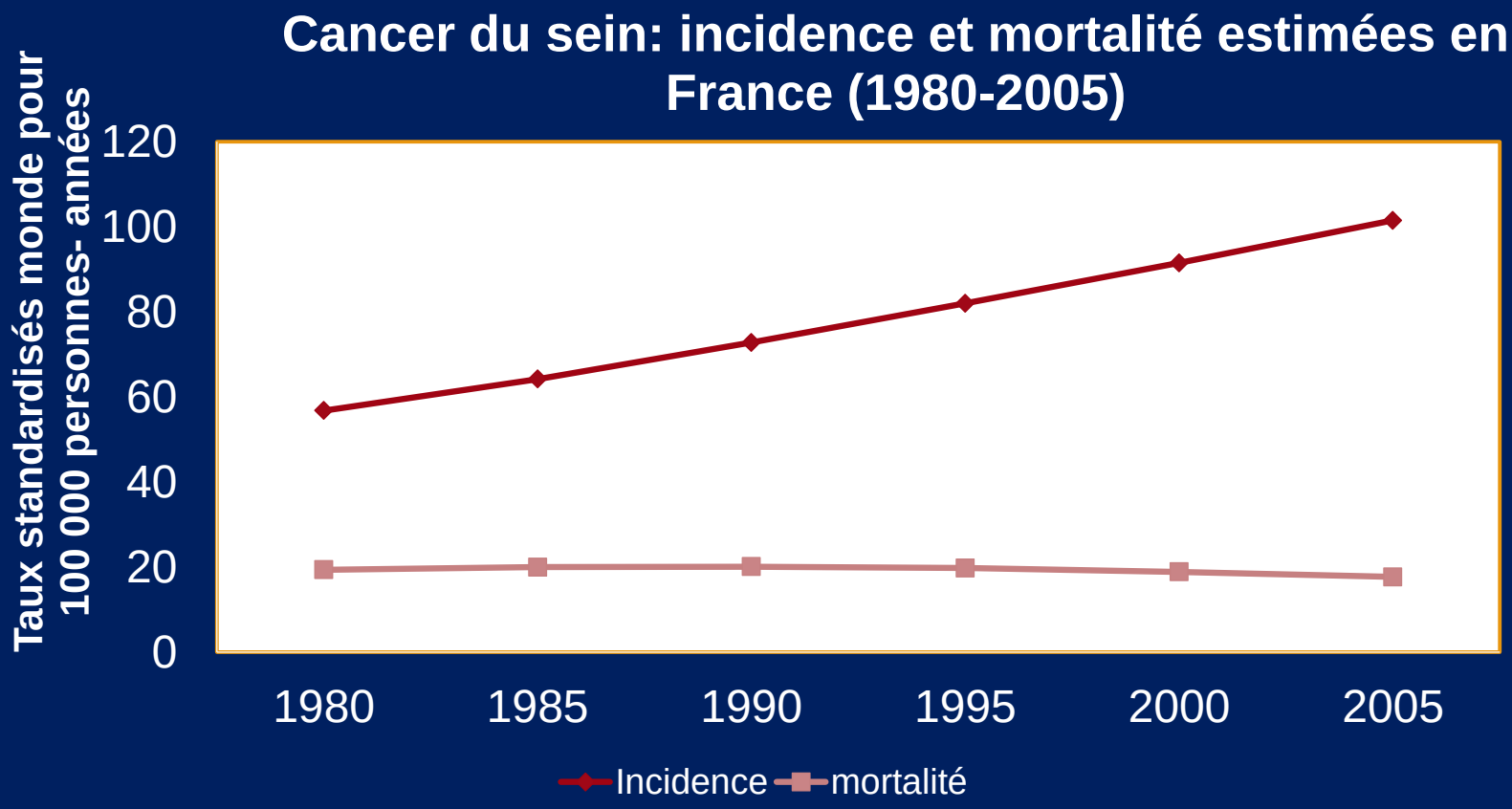
# Breast Cancer: Epidemiology




**Belgium cancer registry ; Liesbet Van heyken, Mars 2010**

Most common invasive tumors in women Belgium (2006)

# Incidence constantly increasing with a stable mortality




Aurélien Belot, estimation nationale de l'incidence et de la mortalité par cancer en France entre 1980 et 2005, INVS

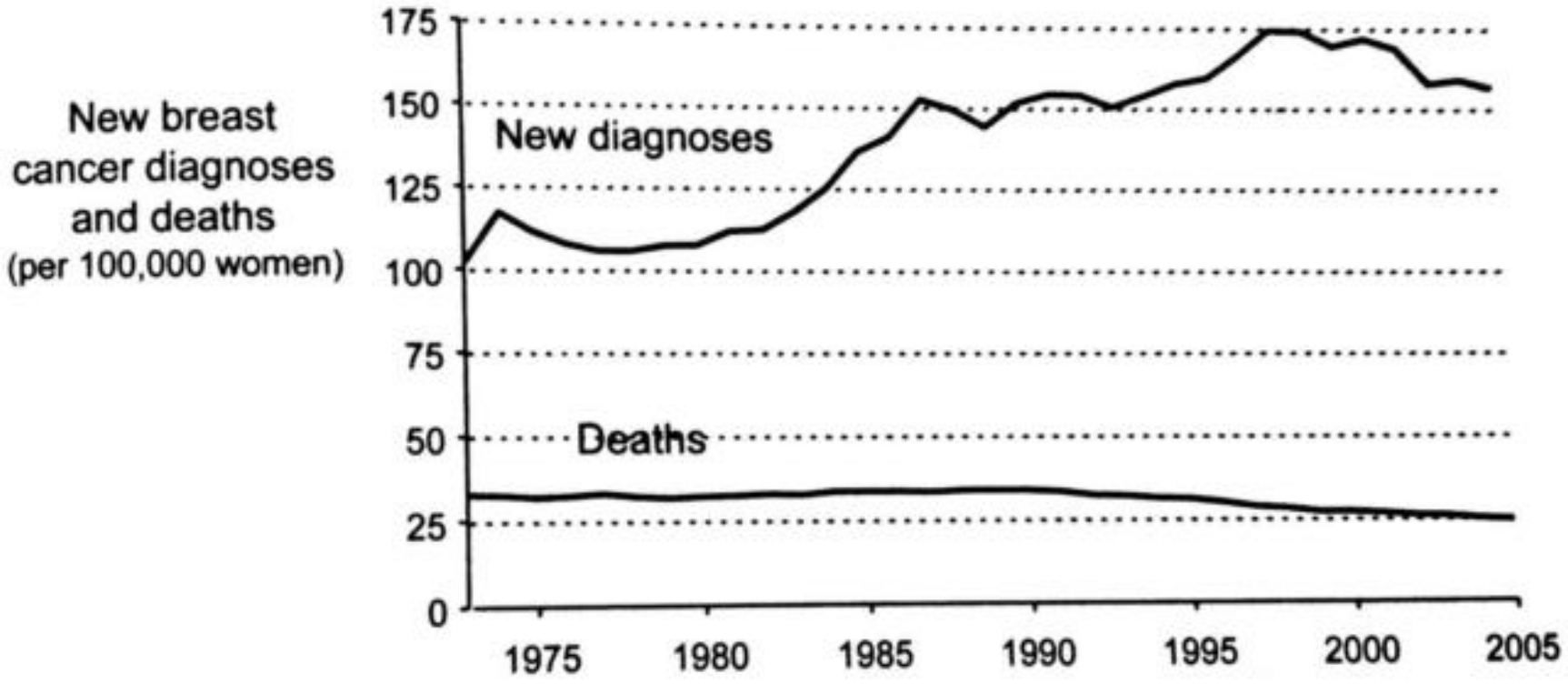



FIGURE 6.2 *New Diagnoses and Deaths from Breast Cancer in the United States, 1973–2005*

Welch HG. Overdiagnosed: Making People Sick in the Pursuit of Health 2012 .

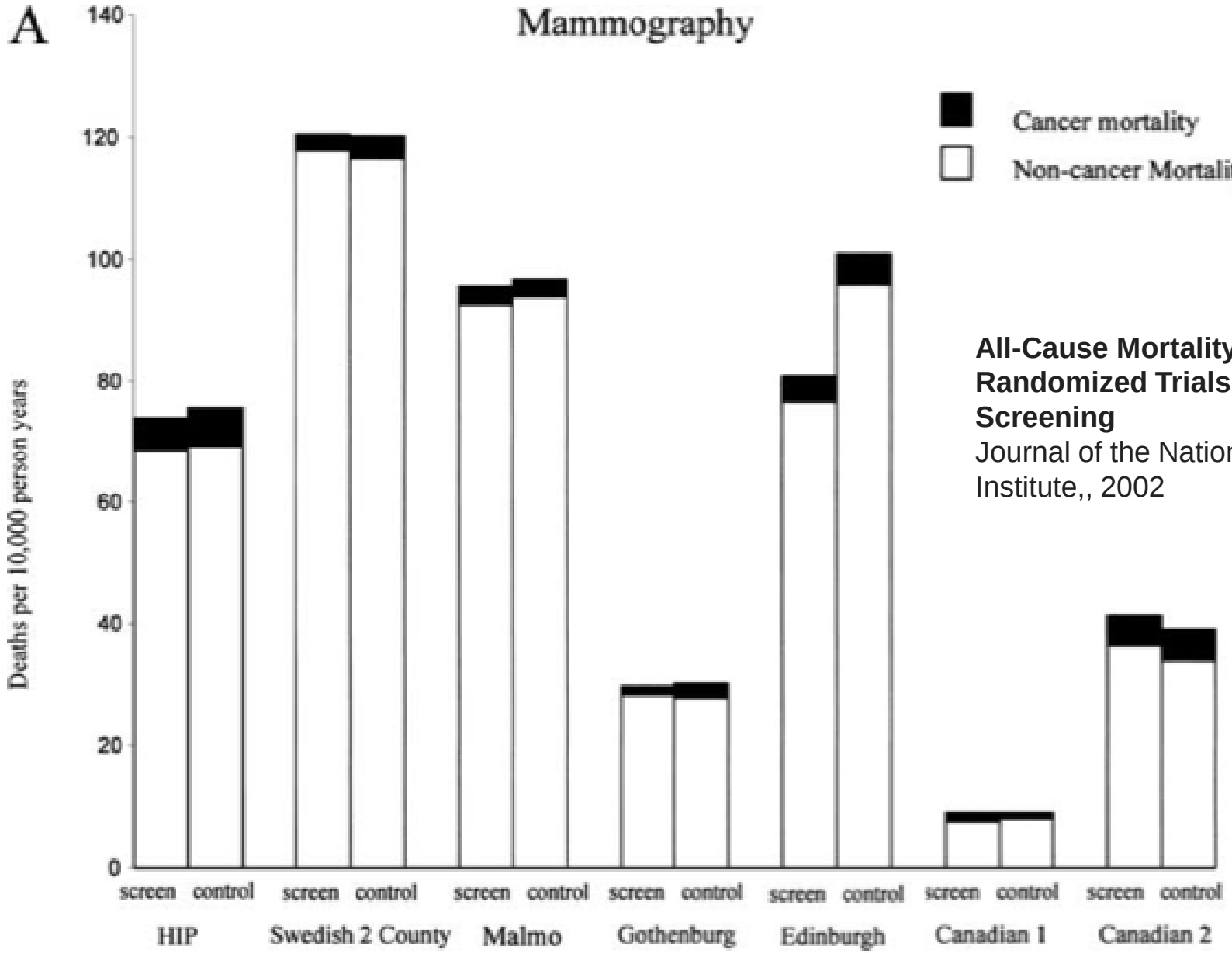
# Incidence constantly increasing with a stable mortality

- two hypotheses
  - Effectiveness of screening facing an epidemic of fatal cancers

  OR

  - very important cancers overdiagnosis

# Studies validating the screening are heterogeneous




**All-Cause Mortality in Randomized Trials of Cancer Screening**
Journal of the National Cancer Institute,, 2002

# Cochrane (2009)

Gøtzsche PC, Nielsen M. Screening for breast cancer with mammography. Cochrane Database of Systematic Reviews 2011

- 7 RCT studied total of 600,000 women
  - If we consider the 3 good quality trials
    - No decrease 10-year specific mortality
    - No reduction in global mortality at 13 years

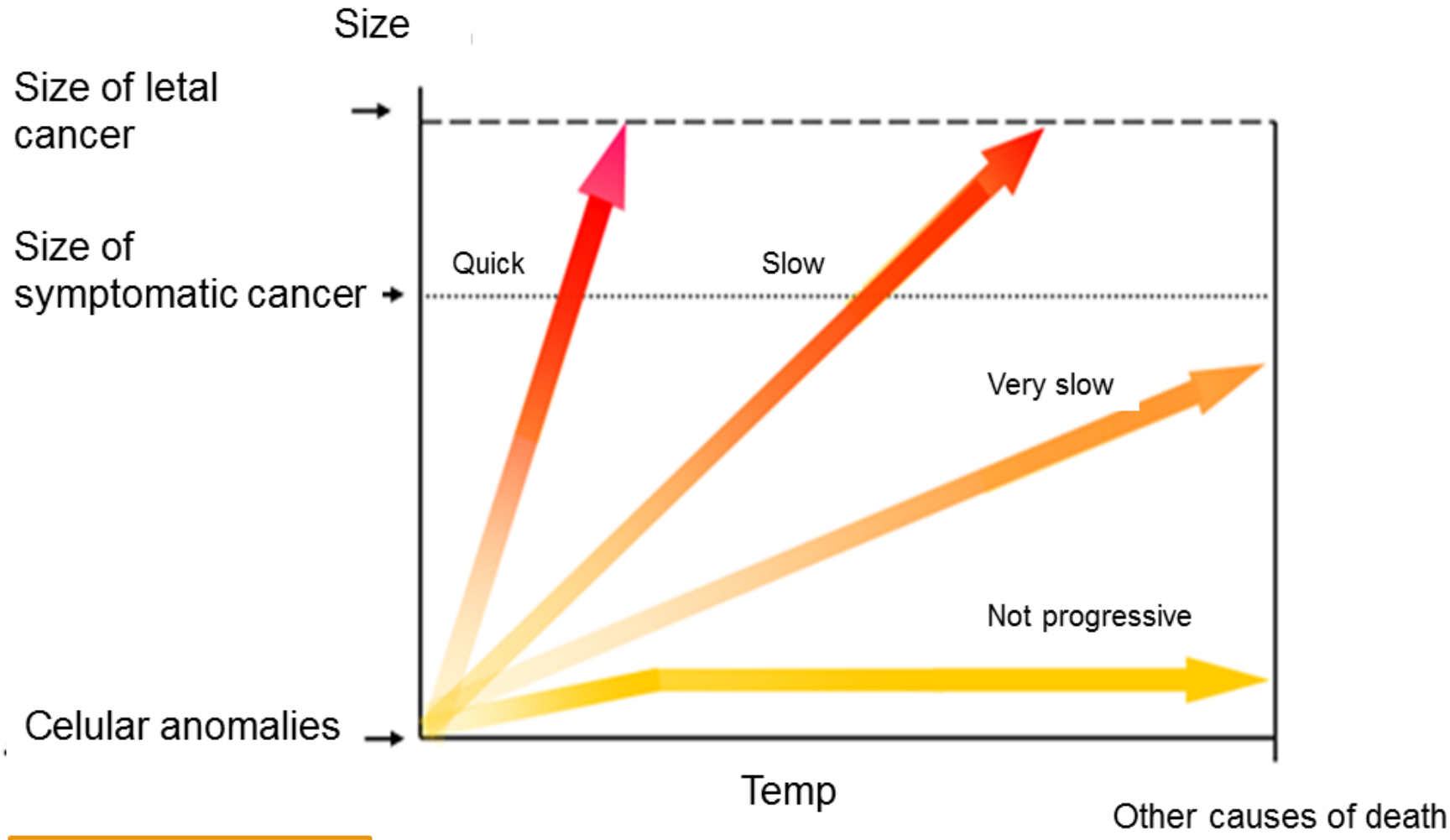
  - If we consider these 7 RCT (with their bias) a decrease in mortality of 15% was obtained
    - NNS 2000 for 10 years
    - 200 (10%) False Positive
    - 10 (0.5%)) over-diagnosed and treated unnecessarily

# Independent UK panel on BCS (2012)

- for every 10 000 UK women aged 50 years invited to screening for the next 20 years, 43 deaths from breast cancer would be prevented and 129 cases of breast cancer, invasive and non-invasive, would be overdiagnosed

Independent UK panel on Breast Cancer Screening.
The benefits and harms of breast cancer screening: an independent review.
Lancet 2012 Nov 17

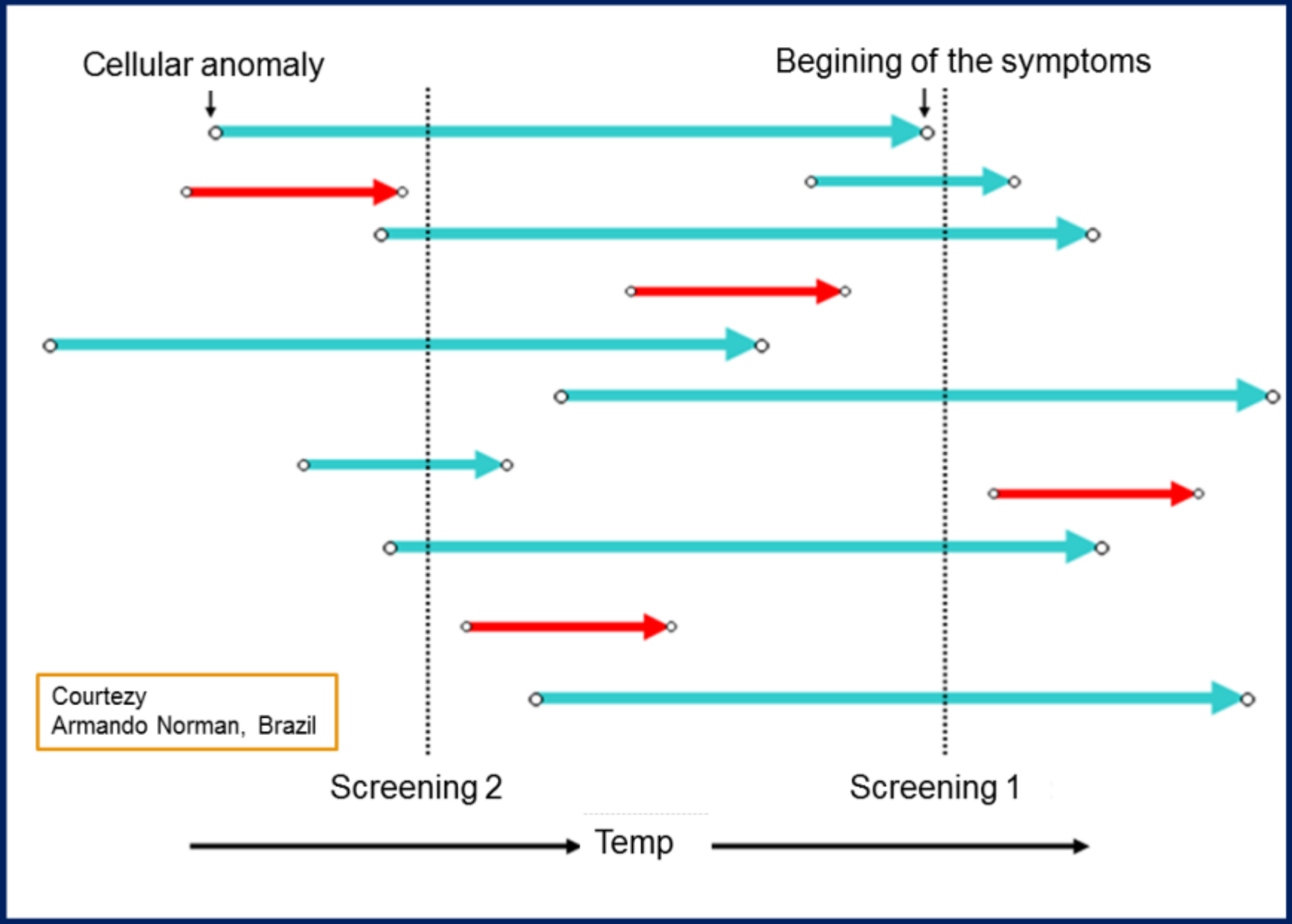
# Heterogeneity of diseases




Courtezy
Armando Norman, Brazil

# Different growing speed

Quick or slow grow



# And what about our patients?

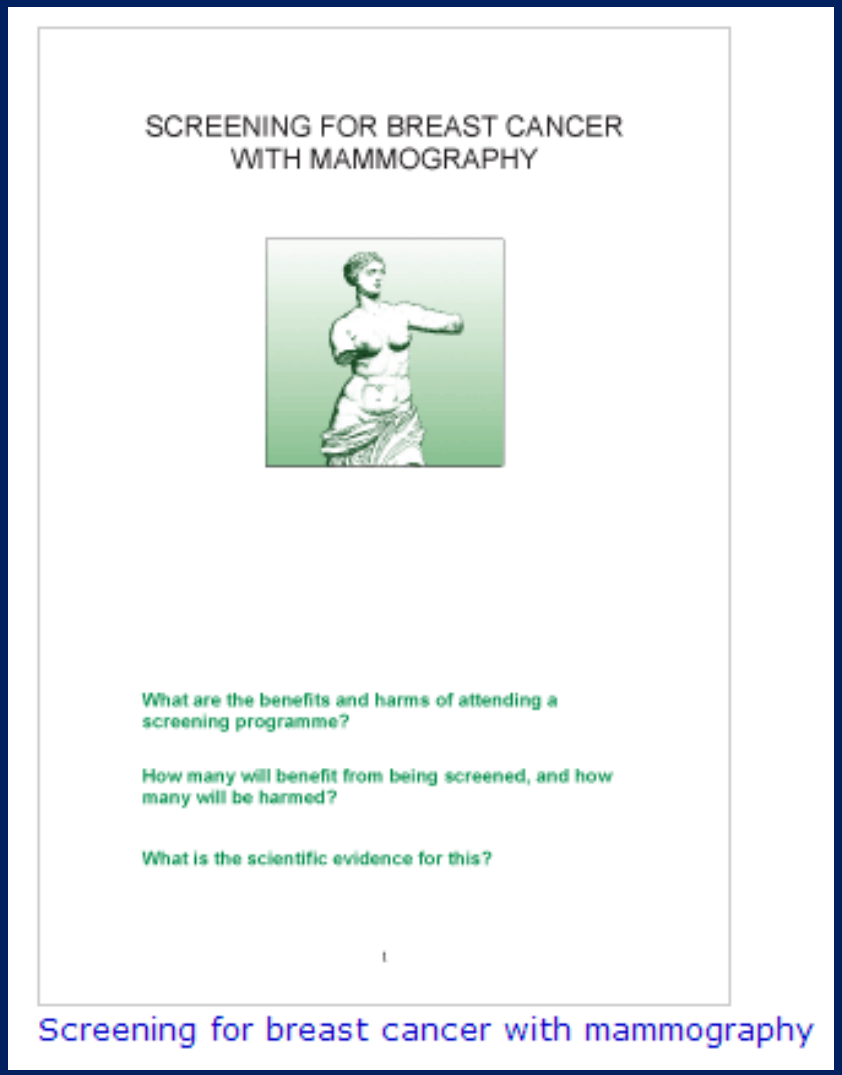

- Two studies have attempted to assess women's knowledge about mammography screening
  - 92% don't know the risks of overtreatment
  - 68% believe that screening reduces the risk of getting cancer
  - 60% believe that being screened decreases by more than 50% mortality

Gotzsche, the fact or may be not; BMJ 2009

Schwartz LM,US women's attitues to false positive mammography results; BMJ 2000

# Role of the family doctor

- Information Manager for the benefit of our patients for:
  - A clear and accurate information, free from ambiguity
  - Allow patients to decide their choice knowingly
  - Combat false beliefs
    - Each tumor detected is not a fatal cancer
    - Screening don’t reduces the number of aggressive treatment
    - Screening don’t prevents the occurrence of cancer
  - Explain The risk of false positive & The risk of false negative




**The Nordic Cochrane Centre**

**Mammography screening leaflet**

Available in 15 languages

http://www.cochrane.dk/

Gotzsche PG, Hartling OJ, Nielsen M, Brodersen J.
Screening for breast cancer with mammography.
The Nordic Cochrane Center; 2012. 15p.

# Take home message

- Effectiveness of screening remains debatable (NNS 2000)
- Reality side effects of mass screening
  - Overdiagnosis, overtreatment, false negative ect.
- Most women uninformed about the advantages / disadvantages of screening
- Family doctor privileged interlocutor for clear information and combat false beliefs.

Bibliography on Mendeley.com

**http://tinyurl.com/lassoued**