University Medical Center Groningen

rijksuniversiteit groningen

Cancer screening guidelines

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Population screening

Population screening refers to a test that is offered to all individuals in a target group, usually defined by age, as part of an organized program.

Screening involves simple tests to look for particular changes, or early signs of a disease, before a disease has developed or in its early stages before any symptoms develop.

No screening test is 100 per cent accurate and the body changes over time, which is why it is important to be screened at regular intervals.

For patients: If you are worried that you might have a symptom or sign of the disease, you should see your doctor, even if you have recently had a screening test.

Screening tests are different to diagnostic tests.

Population screening

There are eight national population based screening programs in The Netherlands:

Prenatal: infectious diseases (e.g.: hepatitis B, syphilis en hiv), Down, 20 weeks ultrasound

New born babies: heel prick test, hearing test

Cancer: cervical cancer screening, breast cancer screening, colorectal cancer screening

All screenings are paid by government

Follow-up diagnostics are covered by insurance (own risk €360)

Commercial organisations, not covered by government or insurance

Cervical cancer screening

- Starts at the age of 30 till 60 (females)
- Every five years pap smear
- Pilots in seventies
- Since 1985 available, since 1996 in current form
- Recent developments
  - HPV testing in screening program
  - HPV vaccination (at age 13)

Breast cancer screening

Start at the age of 50 till 75 (females)

Pilots in seventies en eighties

Started in 1990: women from 50 – 70

In 1998: women from 50-75

2010: from analog to digital mammography

Every two years two view digital mammography

Colorectal cancer screening

Starts at the age of 55 – 75 (males and females)

Started in 2014, January

Will be fully implemented in 2019

Test for presence of blood in the stool

If present, colonoscopy

Expected results:

1000 participants: 50 will undergo colonoscopy

4 will have cancer; 21 advanced stages polyps; 12 early stage polyps, 13 nor cancer not polyps

Population cancer screening

Information in four languages

Dutch, English, Turkish, Arabic

Leaflets and animations

Wilson and Jungner screening criteria (1968)

1. Relevance: disease is an important health problem
2. Treatable: disease must be treatable with a generally accepted treatment
3. Health infrastructure: there should be sufficient infrastructure for diagnosis
4. Recognizable: there should be a recognizable latent stadium of the disease
5. Natural course: the natural course of the disease should be known
6. Illness: there should be consensus as to who is ill or most at risk
7. Screening test: the screening test should be easy to use
8. Acceptability: the screening test should be acceptable for the general population
9. Cost-benefit: cost should be at least equal to the benefits
10. Continuity: the screening process must be continuous.

Wilson and Jungner screening criteria (1968)

How about breast cancer screening in Tabriz?

Wilson and Jungner screening criteria (1968)

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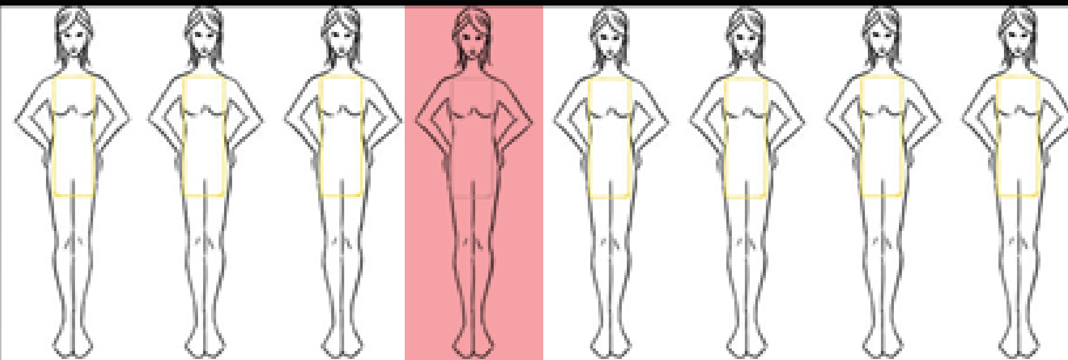
Relevance

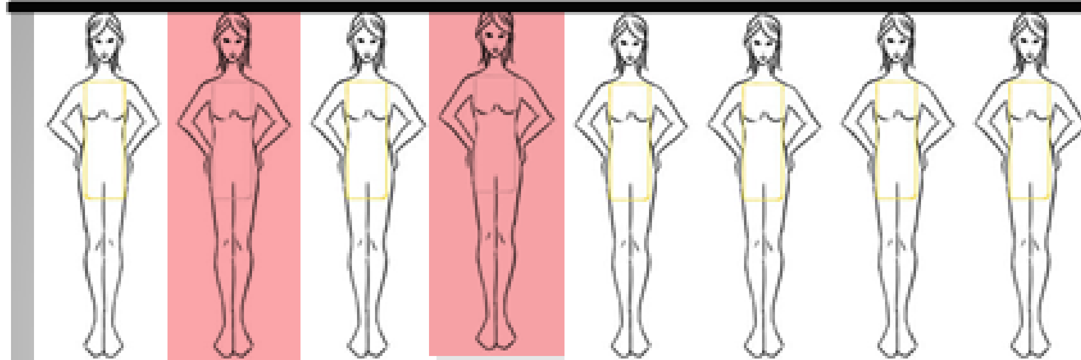
Breast cancer is a common health problem



Relevance

Breast cancer is a common health problem

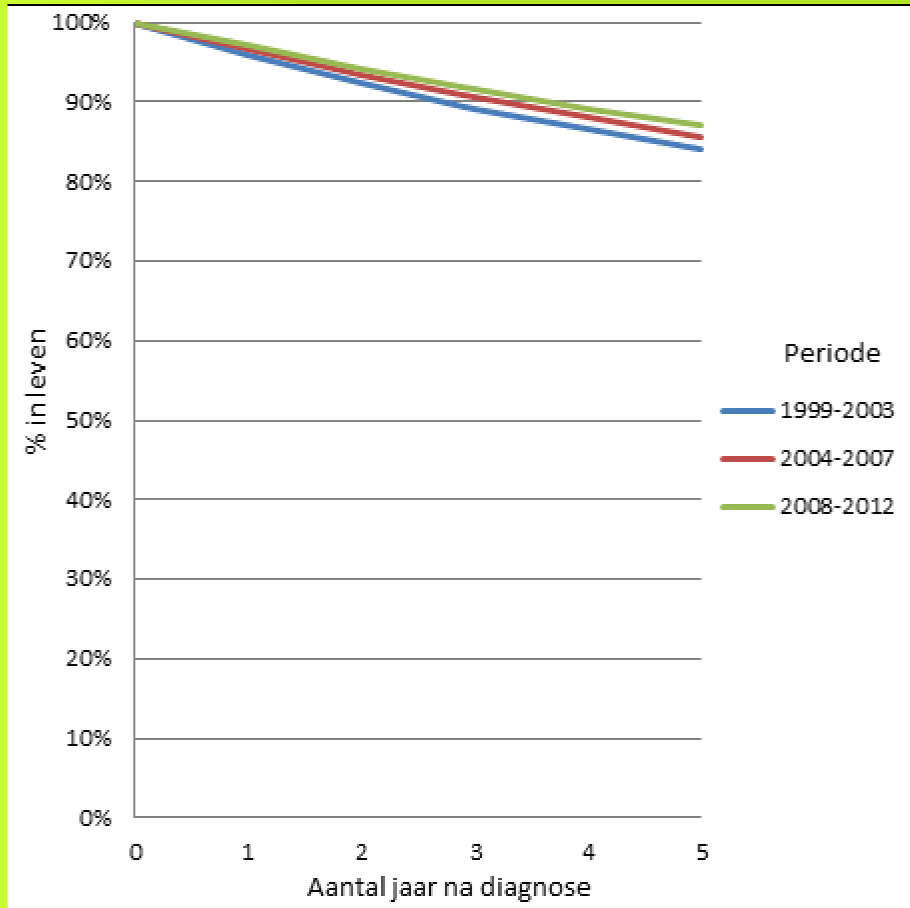
About 20% has a family history for breast cancer



Family history
2 op 8 women will develop breast cancer

Treatable disease

Breast cancer is a treatable disease

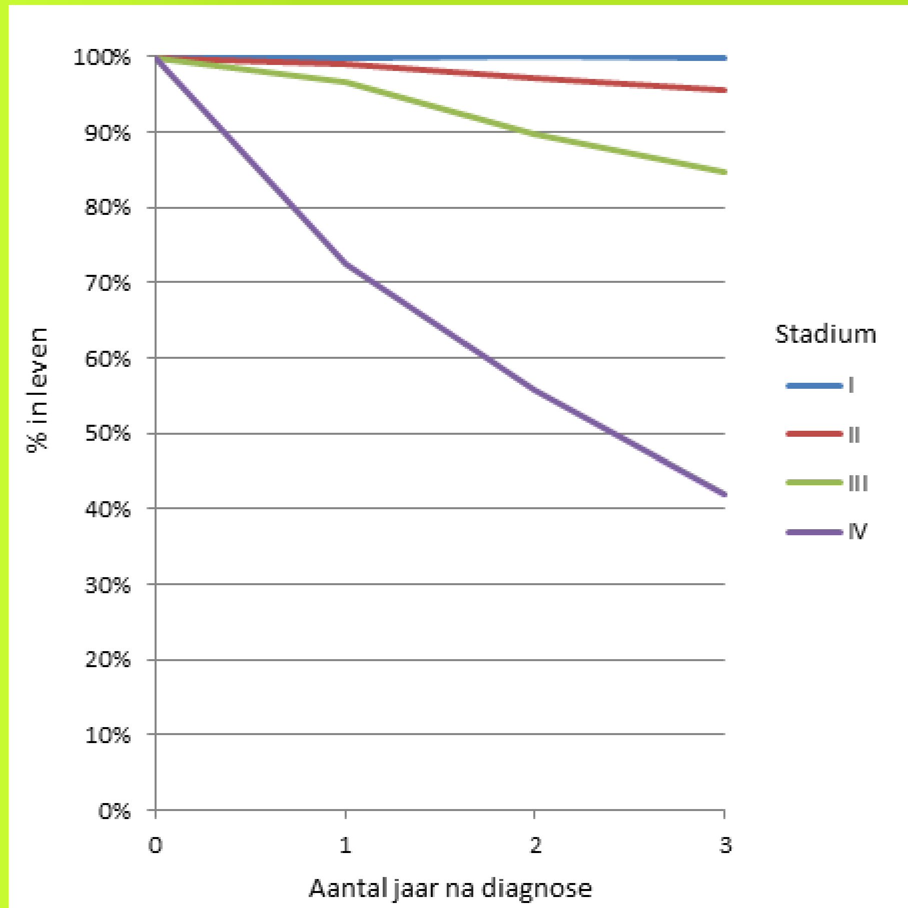


After 5 years: 86%

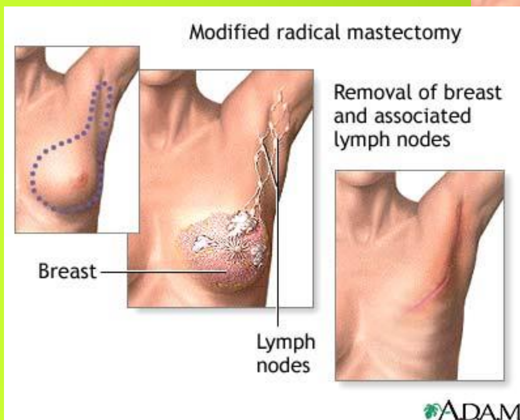
After 10 years: 77%

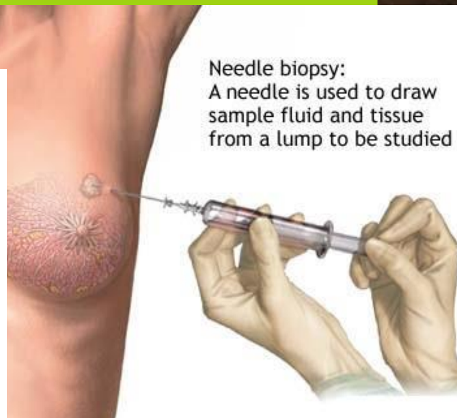
Treatable disease

Breast cancer is a treatable disease



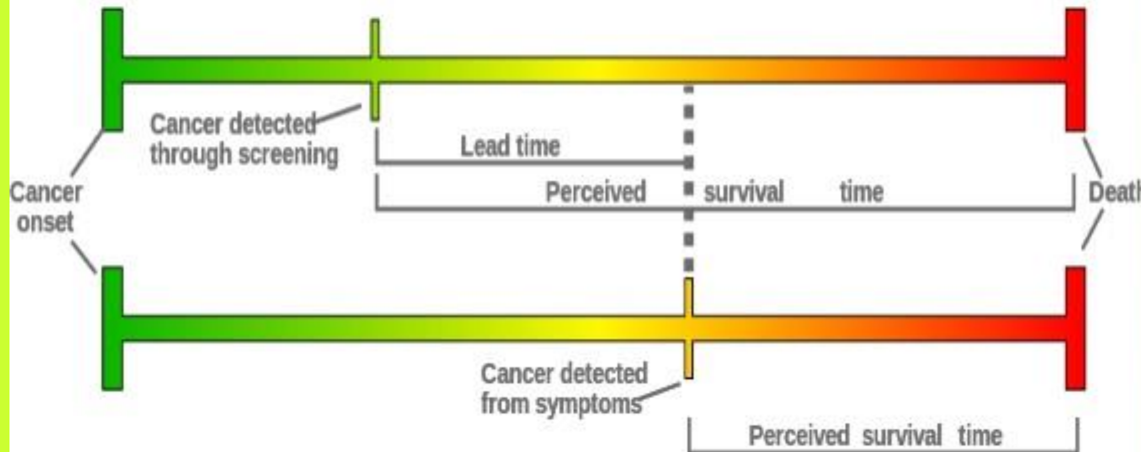
Health infrastructure





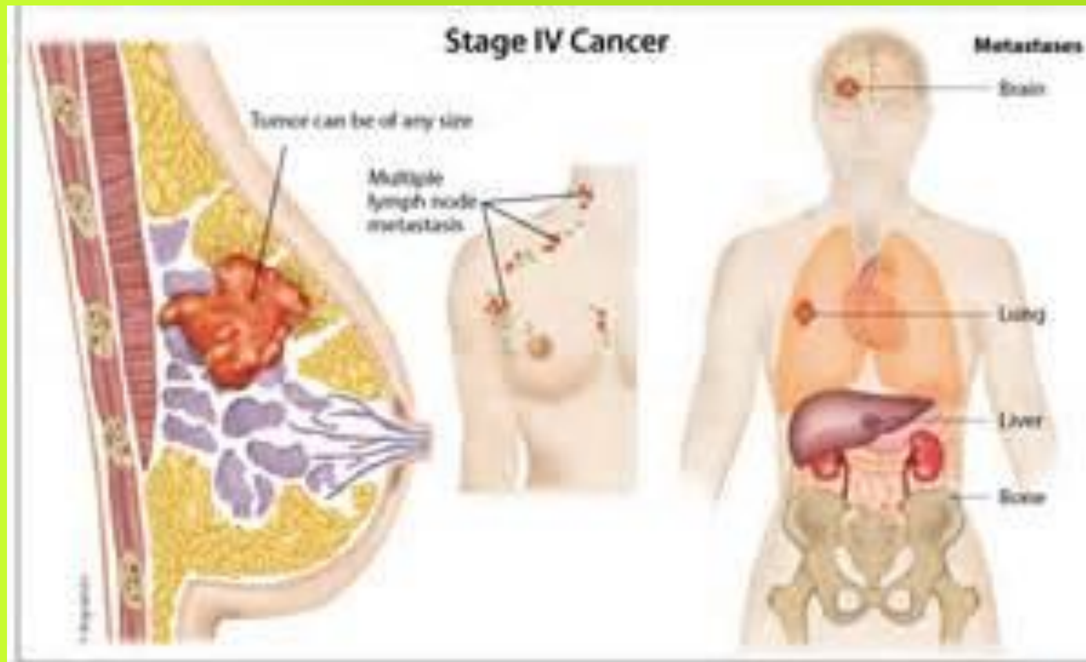
Recognizable

There is a recognizable latent stadium of the disease



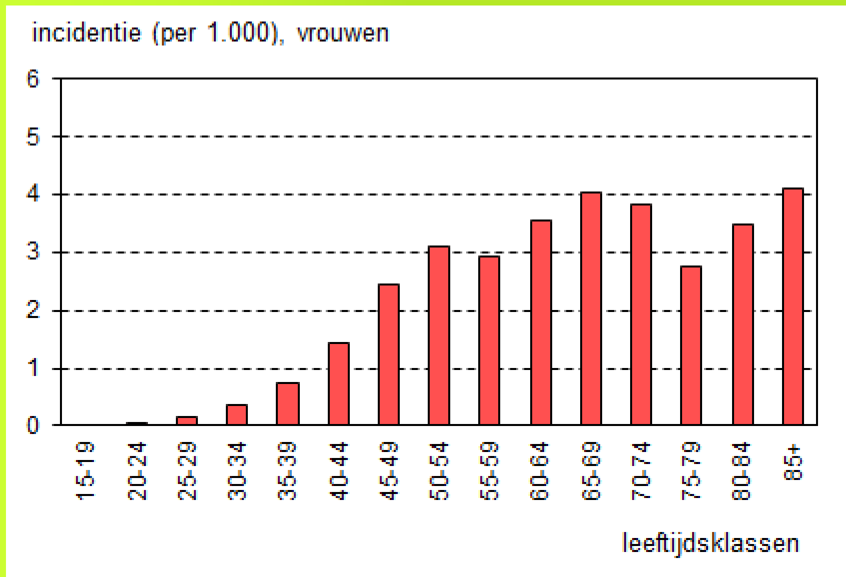
Natural course

The natural course of breast cancer is known



Illness

There is consensus as to who is most at risk



In 2015:

17.000 breast cancers diagnosed.

16.991 females

108 males

About 20% under 50

About 27% over 70

Illness

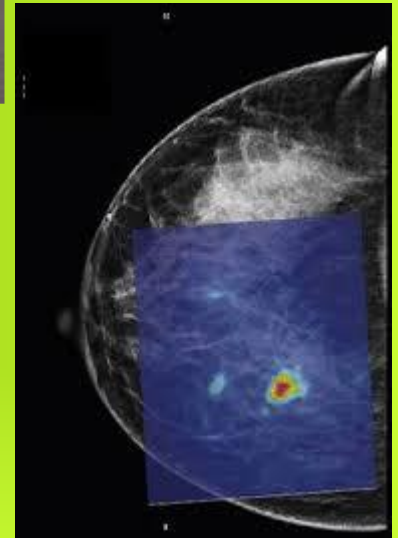
There is consensus as to who is most at risk

Final Assessment Categories			
Category		Management	Likelihood of cancer
0	Need additional imaging or prior examinations	Recall for additional imaging and/or await prior examinations	n/a
1	Negative	Routine screening	Essentially 0%
2	Benign	Routine screening	Essentially 0%
3	Probably Benign	Short interval-follow-up (6 month) or continued	>0 % but ≤ 2%
4	Suspicious	Tissue diagnosis	4a. low suspicion for malignancy (>2% to ≤ 10%) 4b. moderate suspicion for malignancy (>10% to ≤ 50%) 4c. high suspicion for malignancy (>50% to <95%)
5	Highly suggestive of malignancy	Tissue diagnosis	≥95%
6	Known biopsy-proven	Surgical excision when clinical appropriate	n/a

25 out of 1000 will be referred
7 out of 25 will be diagnosed with cancer.

Screening test

The screening test is easy to use



Acceptability

Overall, mammography is acceptable for the general population

However, it can be painful

Not 100% sensitivity

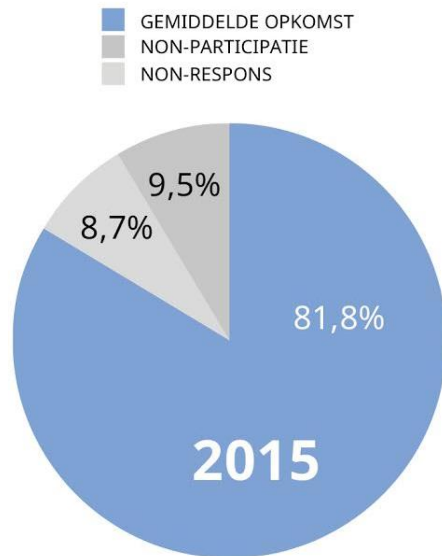
Low dose of X-ray

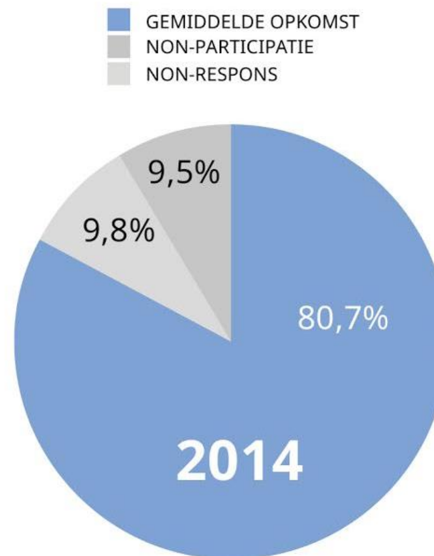
Cost benefit

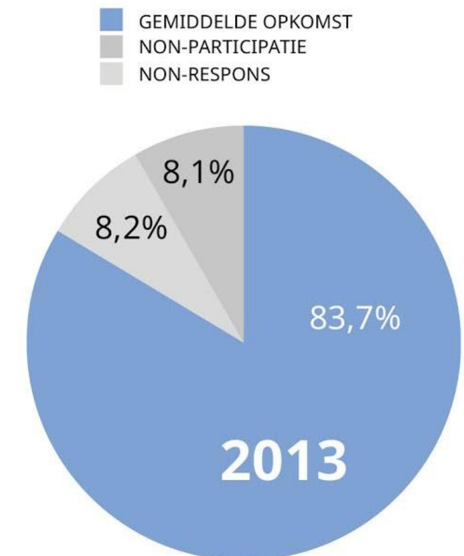
It is considered to be cost-effective

Continuous

The screening process is continuous







Data from region North

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THANK
YOU
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