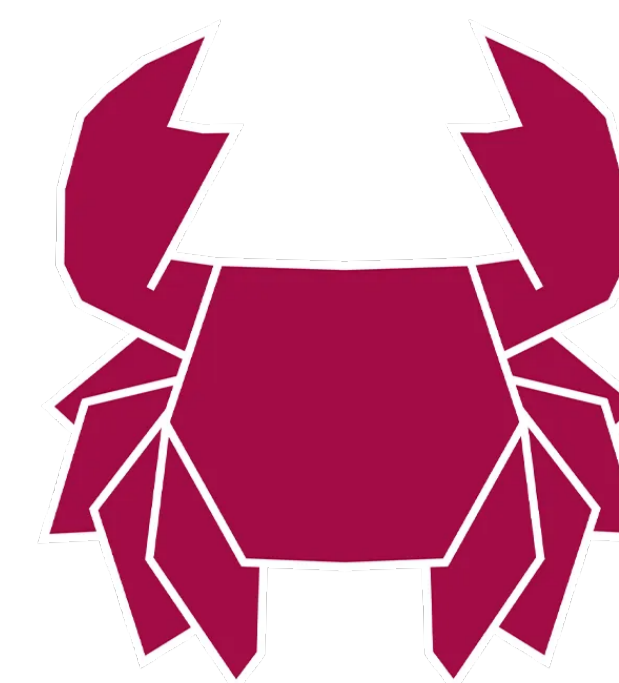


# Before/After study of a Decision Aid for breast cancer screening



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## Introduction

We have developed a Decision Aid (DA) for women at average risk of breast cancer to facilitate shared medical decision-making and informed choice regarding their participation in organized breast cancer screening. This DA is intended to provide **balanced information on the benefits and harms** of screening, especially on **overdiagnosis**, and based on French data.

- **Main objective** = Assess whether the DA is clear, understandable, and useful.
- **Secondary objective** = Improve informed choice, knowledge of the benefits and harms of BC screening, and lessen decisional conflict.

## Material & methods

### How did we design it ?

- Based on French data (Santé Publique France, Institut National du Cancer) : 2000 women undergoing screening every 2 years from age 50 to 69, with a 65% participation, 20% overdiagnosis hypothesis, and 15% relative mortality reduction, compared with 2000 woman not undergoing any screening
- Presenting data using only natural frequencies
- Respecting IPDAS simplified criteria
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### How was it evaluated ?

- Proposed by partner physicians, midwives, or through social media to average risk woman
- Designed to be read alone by the patient, with the possibility of reaching out to the professional for more explanations
- Online or paper questionnaire with questions before and after reading the DA
- 4 item screening test for decisional conflict with the SURE test
- 94 answers – 91 included in the final analysis

This is what happens when 2,000 women aged 50 to 69 in France are monitored until the end of their lives, each dot representing one woman

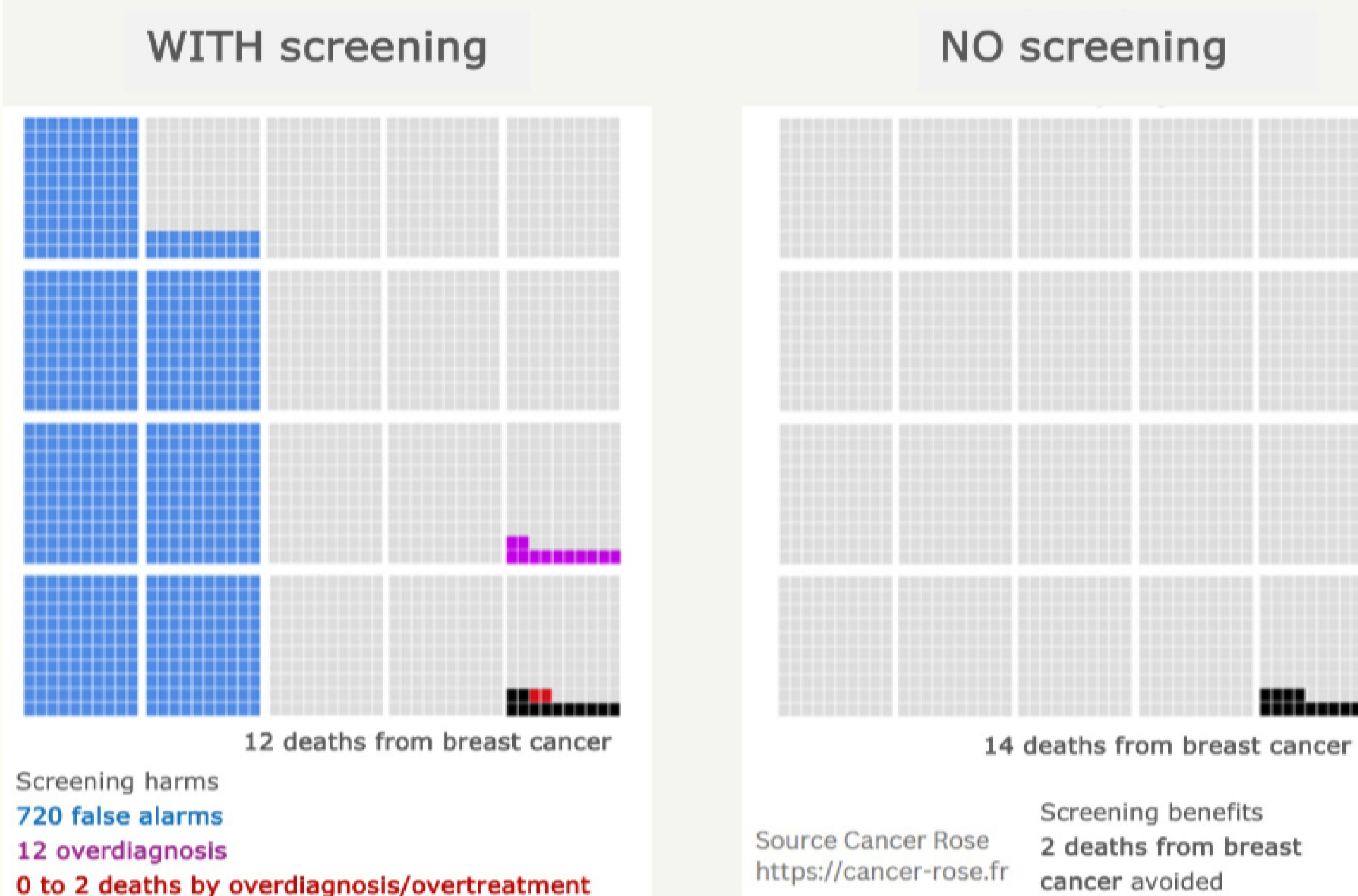


Figure 1 : 2000 women undergoing BC screening from age 50 to 69 compared with no screening

## Results

**Main objective** : High ratings for comprehension, usefulness and easiness of use

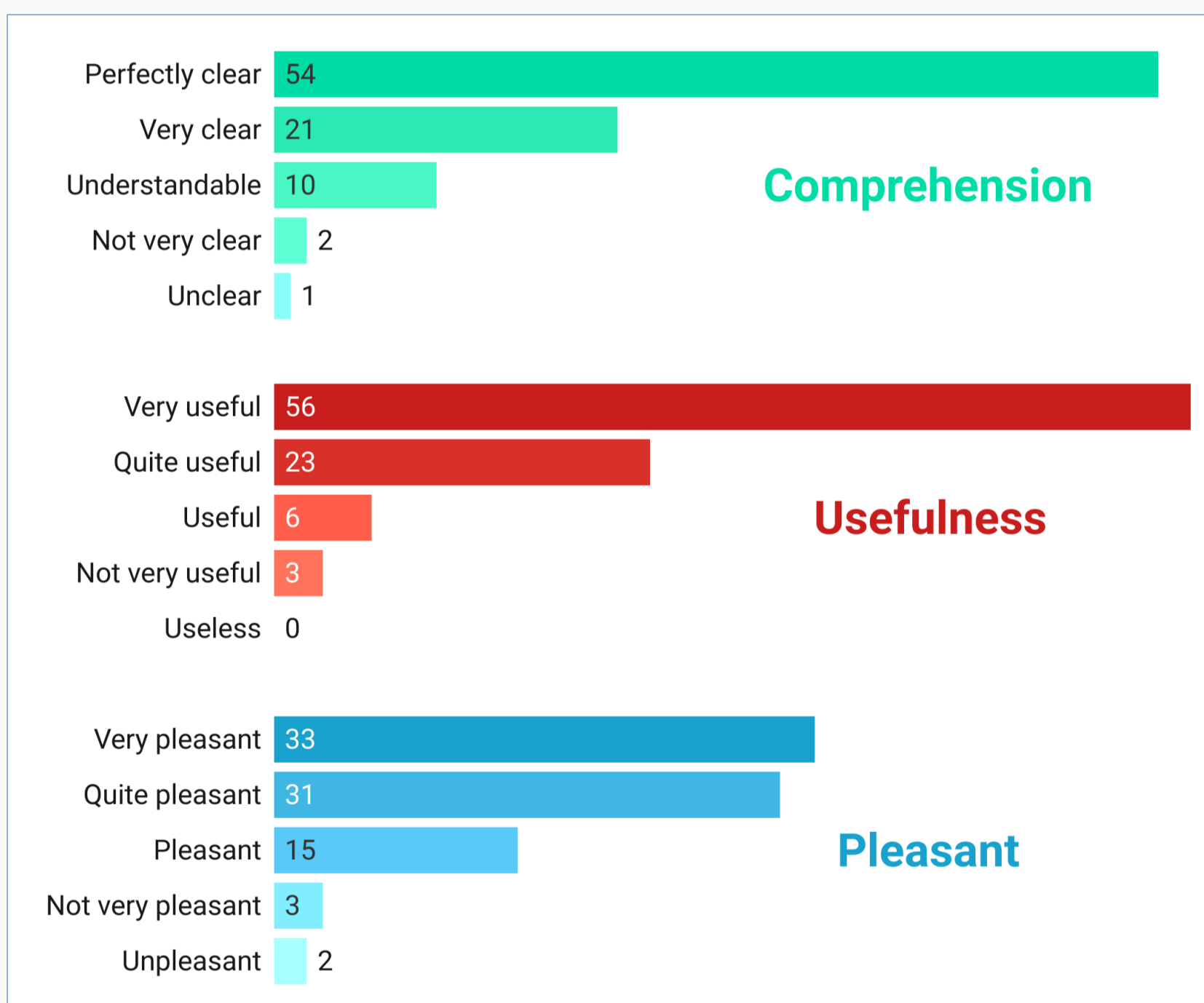


Figure 2 : main objective results

**Secondary objective** : better informed choice, improved knowledge and less decisional conflict with the SURE test

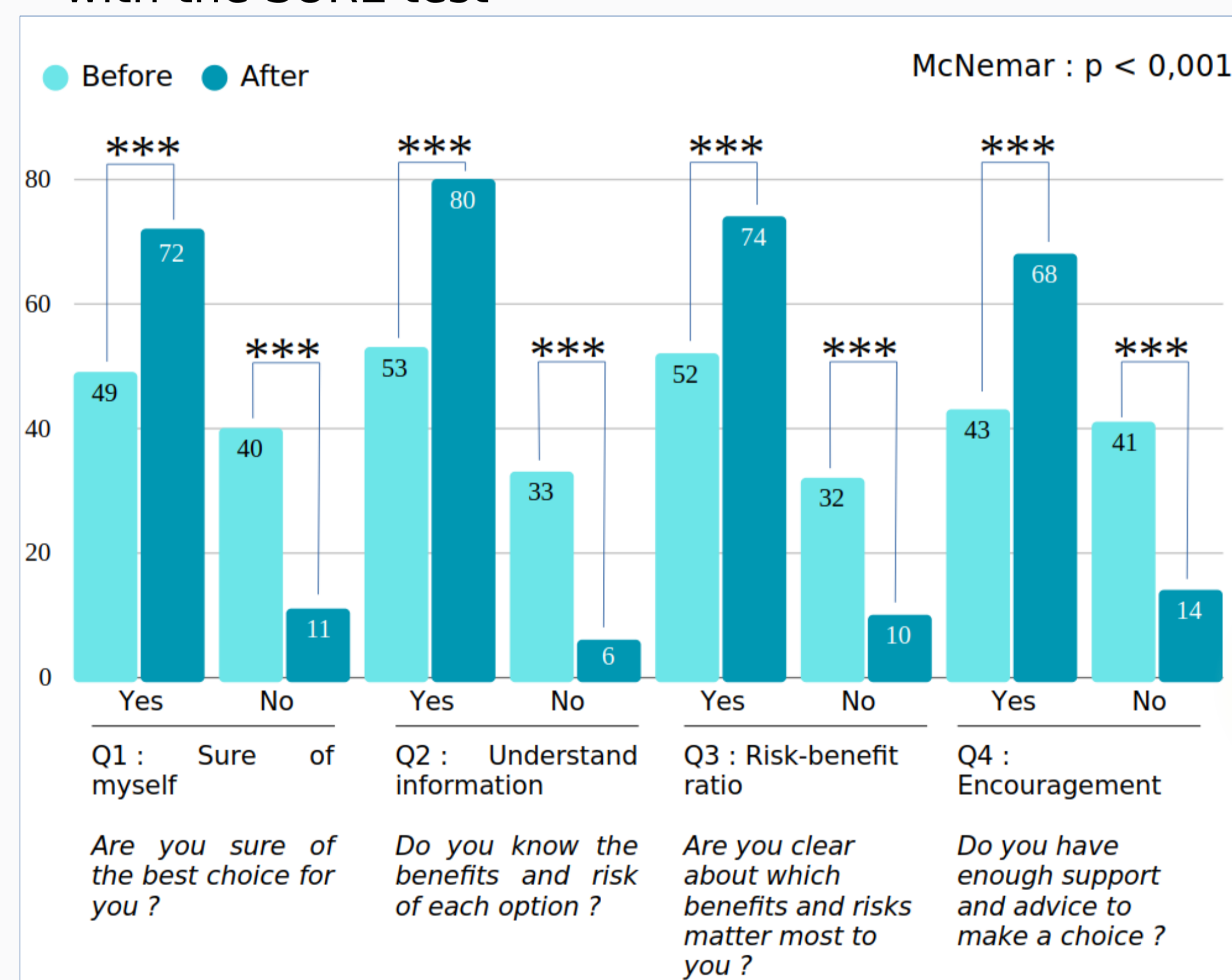
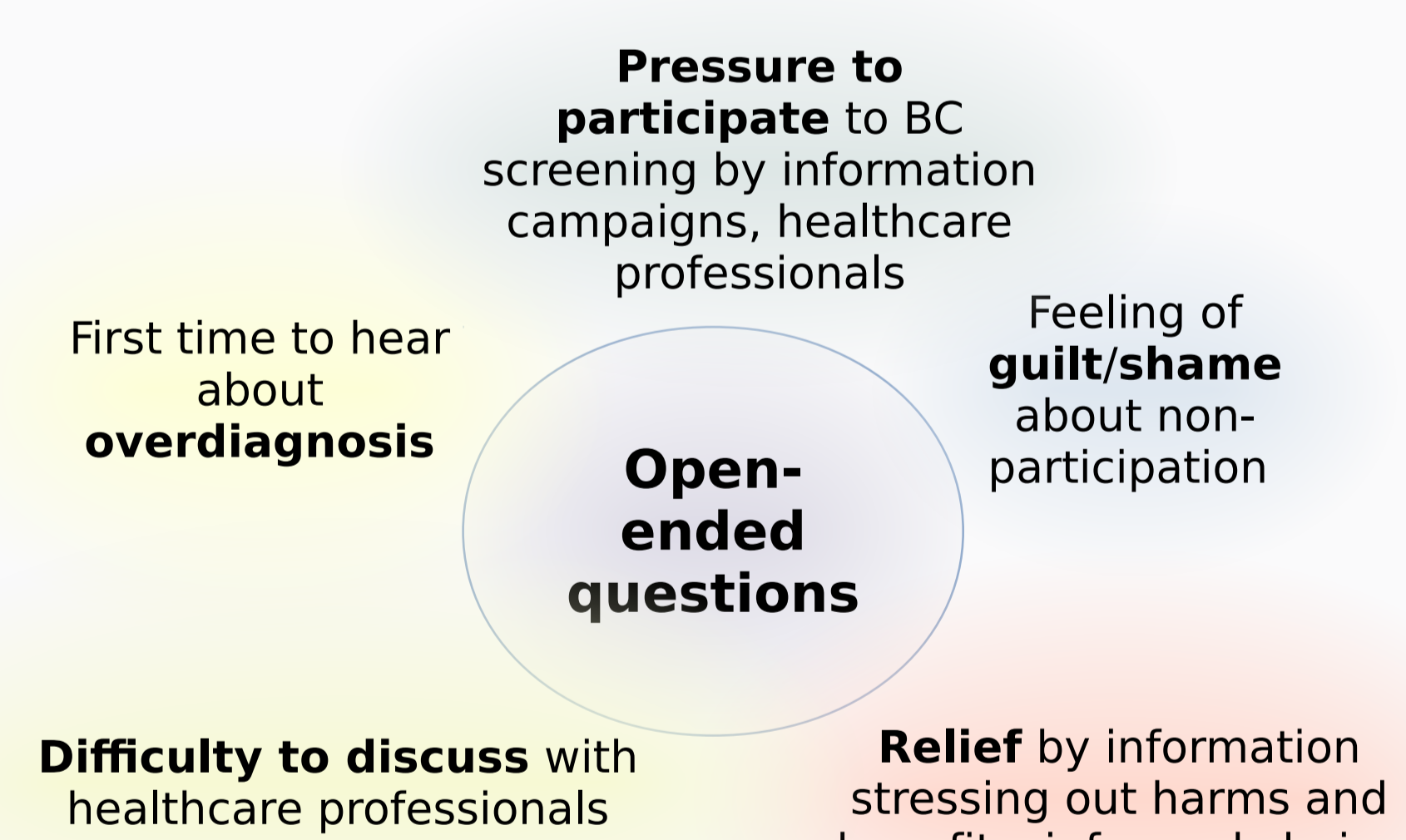


Figure 3 : Before/after results for the SURE test



## Conclusion

- Decision Aid **validated for a small-scale study**
- It can be **distributed for a wider use** : we recommend a systematic informatory leaflet or better a decision aid with every invitation letter for a screening program
- **Improves informed choice and lessens decisional conflict**
- Pursuing informed choice and positively valuing personal preferences has a very **positive psychological impact** on women
- **Decision aids should be widely used by physicians** to enable shared decision making with their patients

### I AM INVITED TO BREAST CANCER SCREENING



In France, breast screening X-rays (mammograms) are offered every two years to women aged 50 to 74. They are not mandatory.

Potential benefits	Main harms
<ul style="list-style-type: none"> <li>Sometimes, mammograms can detect some cancers earlier.</li> <li>Treatment can then be less severe, and the chances for recovery better.</li> </ul>	<ul style="list-style-type: none"> <li>An abnormality on a mammogram is most often a false alarm.</li> <li>Some of the detected true cancer cells are in fact harmless.</li> </ul>

**I get informed I decide**



Deciding whether or not to be screened is a personal decision, legally guaranteed. Yet it is important to be well informed.

### MY MAMMOGRAM IS NORMAL

No cancer      False negative

A cancer may appear shortly after a normal mammogram. Consult your doctor if symptoms appear between two mammograms.

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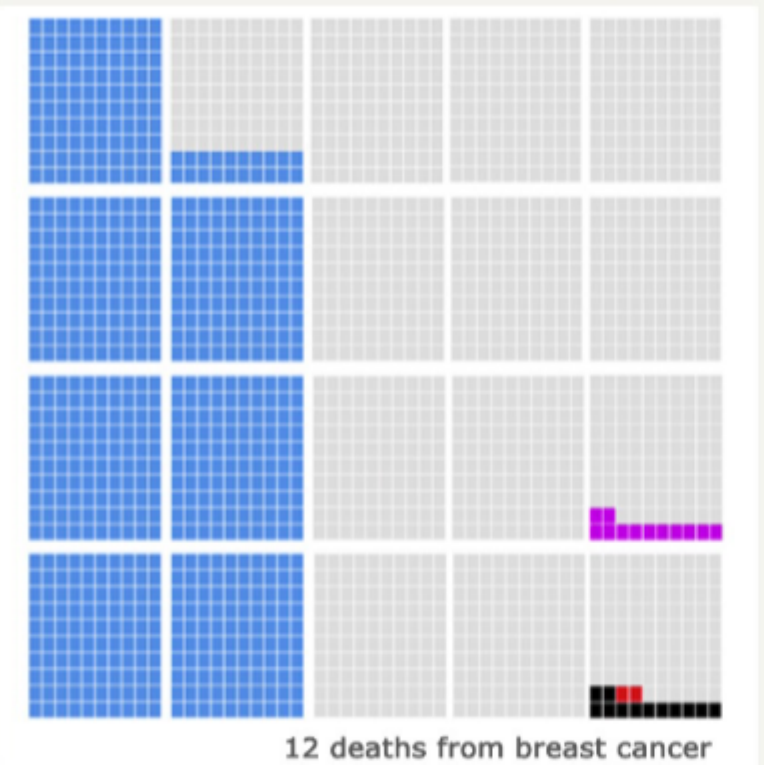
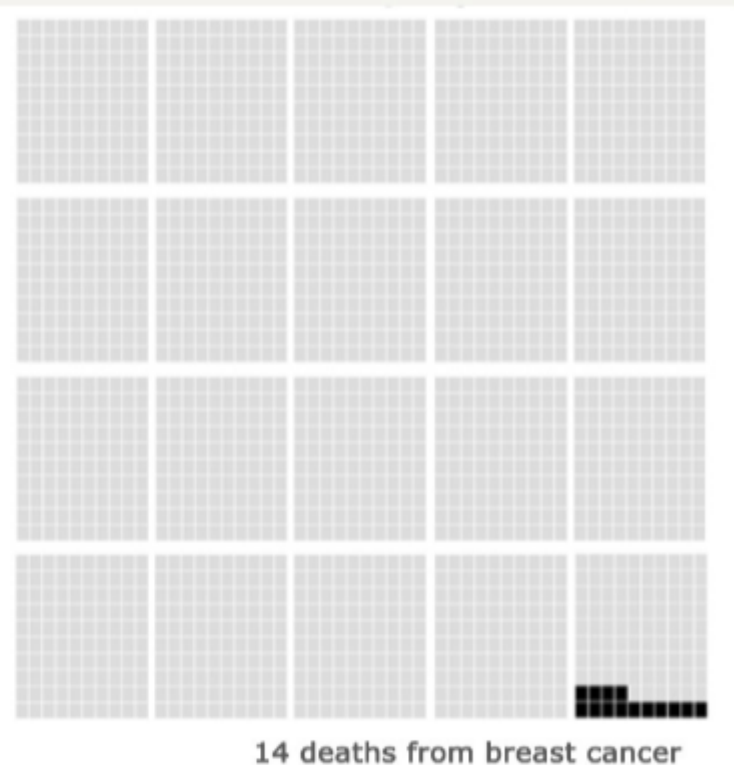
### MY MAMMOGRAM IS NOT NORMAL

False alarm      Cancer

False alarms are frequent and distressing. 9 times out of 10, when a mammogram detects a suspicious image, subsequent examinations (sometimes a biopsy) show that it's not a cancer.


Some of the detected true cancers develop very slowly (or not at all) and are harmless: these are known as "overdiagnosis". We don't know how to recognize them, so they are also treated, at the cost of numerous undesirable effects: this is "over-treatment".

### This is what happens when 2,000 women aged 50 to 69 in France are monitored until the end of their lives, each dot representing one woman


WITH screening	NO screening
 <p>12 deaths from breast cancer</p> <p>Screening harms 720 false alarms 12 overdiagnosis 0 to 2 deaths by overdiagnosis/overtreatment</p>	 <p>14 deaths from breast cancer</p> <p>Screening benefits 2 deaths from breast cancer avoided</p> <p>Source Cancer Rose <a href="https://cancer-rose.fr">https://cancer-rose.fr</a></p>

**Risks of X-Rays**  
Mammography uses X-Rays. We don't know how many cancers they cause. But the younger you are, the more mammograms you have, and the greater the risk.  
Starting too early is not without danger!

**Association Cancer Rose**  
This independent association has published a decision aid, with clear explanations and the scientific references used for this leaflet.  
<https://cancer-rose.fr/oad/>




### SCREENING DOES NOT REDUCE HEAVY TREATMENT



The number of complete breast removals (mastectomies), radiotherapy and chemotherapy has risen, while the number of deaths from breast cancer have not decreased.

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### SCREENING POORLY IDENTIFIES BREAST CANCERS



Some cancers detected by mammography and subsequently confirmed are not life-threatening (overdiagnosis). The most aggressive tumors, those that develop rapidly, are rarely detected by screening.

### I AM INVITED TO BREAST CANCER SCREENING

If I don't do it

Like half the women my age, I prefer not to undergo systematic mammography every two years.

**I am zen**      **I am watchful**

I don't have to undergo painful and unnecessary tests. I avoid the stress of false alarms. I don't receive heavy treatments.

I'm always alert to the slightest abnormality, whether for my breasts or my entire body.

**Now I know I choose**  
Whatever my decision about whether or not to take part in organized screening, I consult if I notice any unusual symptoms or abnormalities in my breasts. I will then be offered a diagnostic mammogram.