

Towards a better paradigm for breast cancer screening

Establishing risk based strategies and informing women and health professionals about benefits and harms

Rué M., Carles M., Sala M.
on behalf of the **InforMa** group



Outline

- 1. Re-designing screening for breast cancer**
- 2. Systematic review on Decision Aids**
- 3. Informing women about benefits and harms**

Re-designing screening for breast cancer

Screening is evolving

- Tailored to the level of risk. Ongoing studies on screening for breast cancer:
 - WISDOM
 - PERSPECTIVE
 - ASSURE
 - ...
- Population provided with more extensive information on benefits and harms
- Re-defining what is cancer: [L. Esserman](#)
 - Old paradigm: inexorable progression
 - New paradigm: variable progression

Risk-based versus fixed strategies

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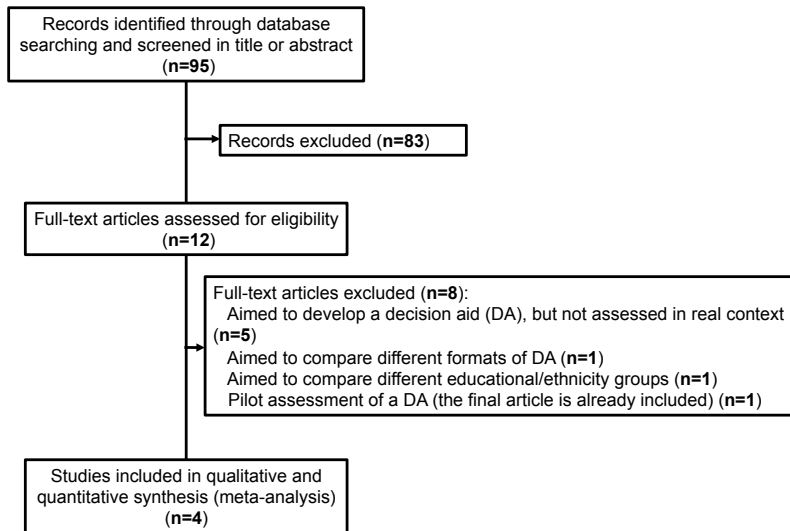
Cost-Effectiveness and Harm-Benefit Analyses of Risk-Based Screening Strategies for Breast Cancer

Ester Vilaprinco^{1,2*}, Carles Forné^{1,2*}, Misericordia Carles³, Maria Sala^{4,5}, Roger Pla^{6,7}, Xavier Castells^{4,5}, Laia Domingo⁴, Montserrat Rue^{1,2,5*}, the Interval Cancer (INCA) Study Group[†]

- Reductions \simeq 10% in costs and 20-25% in false-positive results and overdiagnosed cases were obtained for risk-based strategies.
- Optimal screening is characterized by 5-year or 3-year periodicity for the low or moderate risk-groups and 1-year periodicity for the high-risk group.

Systematic review on Decision Aids

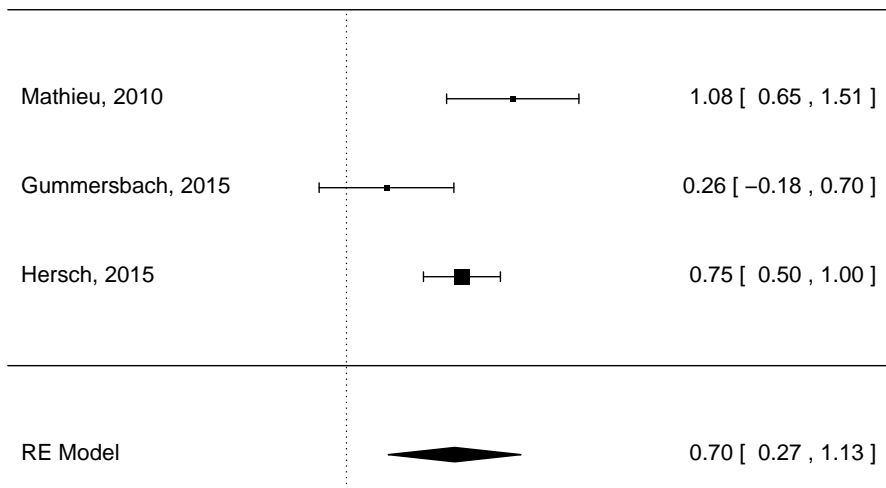
Systematic review of DAs



Effect of DAs on Knowledge

KNOWLEDGE

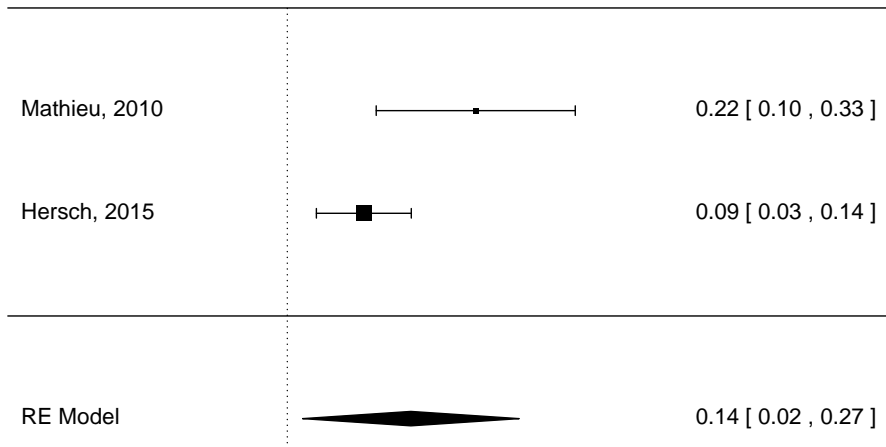
Mean difference, Intervention – Control [95% CI]



Effect of DAs on Informed Choice

INFORMED CHOICE

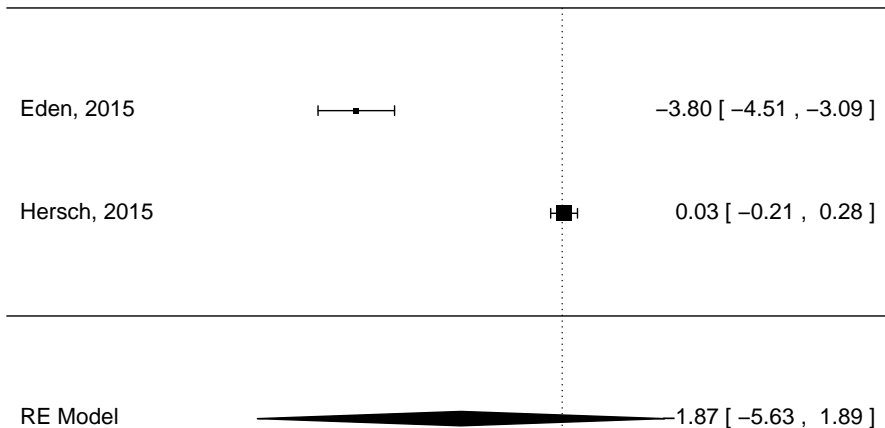
Risk difference, Intervention – Control [95% CI]



Effect of DAs on Decision Conflict

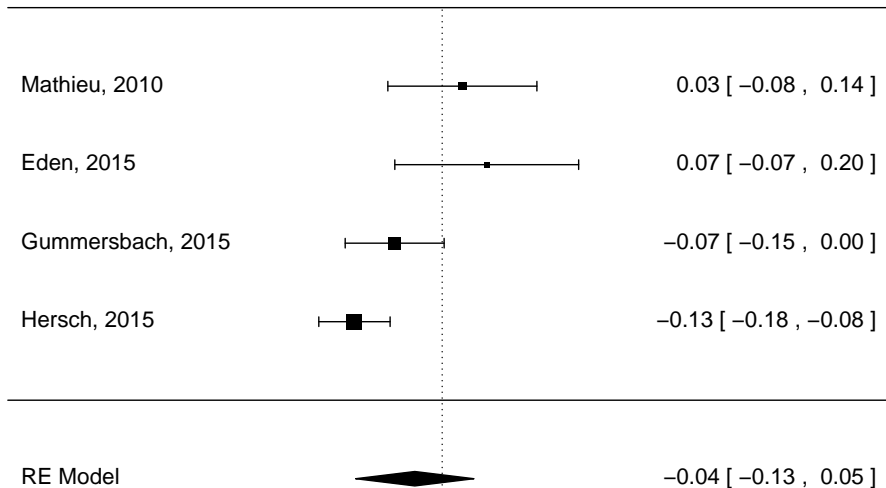
DECISION CONFLICT

Mean difference, Intervention – Control [95% CI]



Effect of DAs on Screening Decision

DECIDED TO BE SCREENED Risk difference, Intervention – Control [95% CI]



Conclusions of the systematic review

- **Variability** on:
 - Type and amount of information in the DA
 - Information given to the control group
- **Heterogeneity** in all the observed results
- **Decision Aids**:
 - Increase informed choice
 - Increase knowledge
 - Affect significantly decision conflict and intention to be screened in some studies.

Informing women about benefits and harms

Qualitative study. Designing a DA

- Design: Focus groups with guided discussions
 - Decision making about breast cancer screening
 - Acceptability and feasibility of a decision aid (leaflet)

- Study population
 - Women aged 40-69 (7 groups, 39 women)
 - Healthcare professionals (2 groups, 23 professionals)

- Setting and Time
 - Catalonia and the Canary Islands, in 2015

Conclusions of the qualitative study

- Women positively value receiving information regarding the benefits and risks of breast cancer screening.
- The information on overdiagnosis generates confusion among women and controversy among professionals.
- Faced with the new information presented by the DA, the majority of women express a need of shared decision making.
- Feasibility might be limited by lack of knowledge and attitudes of resistance from healthcare professionals.

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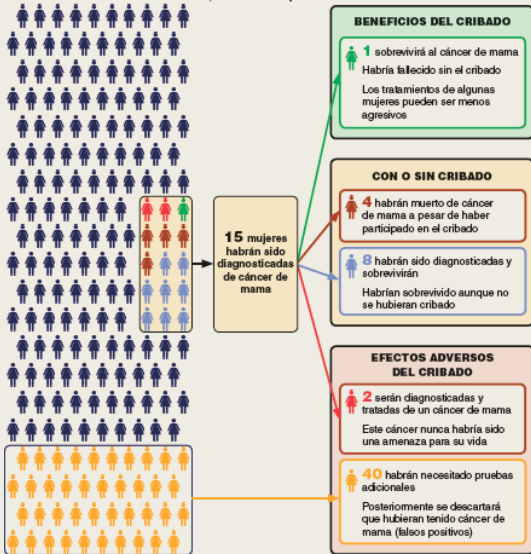
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Some comments from women and health professionals

- “That is so crazy!” *Women 68, on overdiagnosis*
- “How can I make a decision if it is beneficial to my health? I mean, I don’t quite understand why you’re asking me if I need a tool, when I know it’s beneficial.” *Woman, 51*
- “There is enough evidence about benefits of the program and, therefore, they can’t be debated as there are some standards that have already been established by scientific evidence and are not debatable.” *Health professional in a screening program*

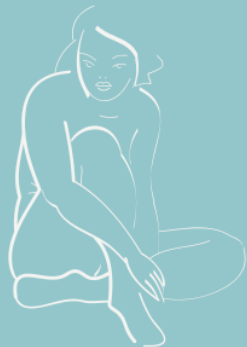
BENEFICIOS Y EFECTOS ADVERSOS A LARGO PLAZO DE LA DETECCIÓN PRECOZ DEL CÁNCER DE MAMA

Si un grupo de 200 mujeres entre 50 y 69 años se hacen mamografías de cribado cada 2 años, cuando cumplan 80 años...



Por cada muerte evitada por el programa de cribado, 2 mujeres son diagnosticadas y tratadas de un cáncer que nunca hubiera puesto en riesgo su vida.

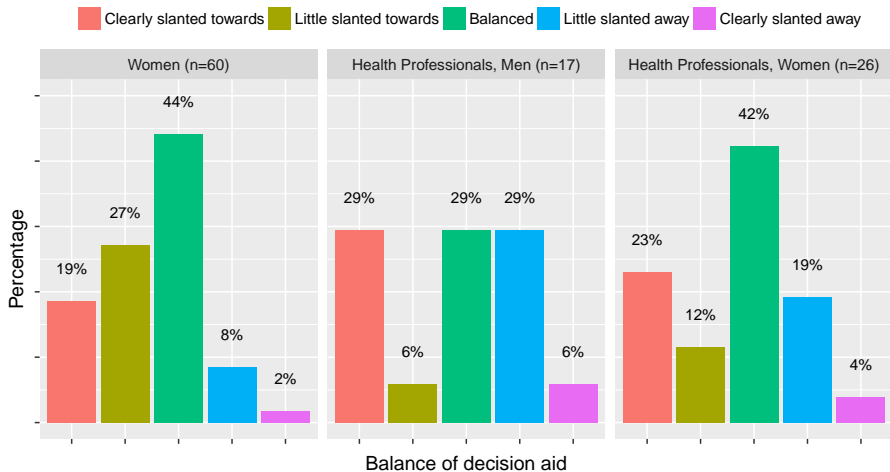
LA DETECCIÓN PRECOZ DEL CÁNCER DE MAMA



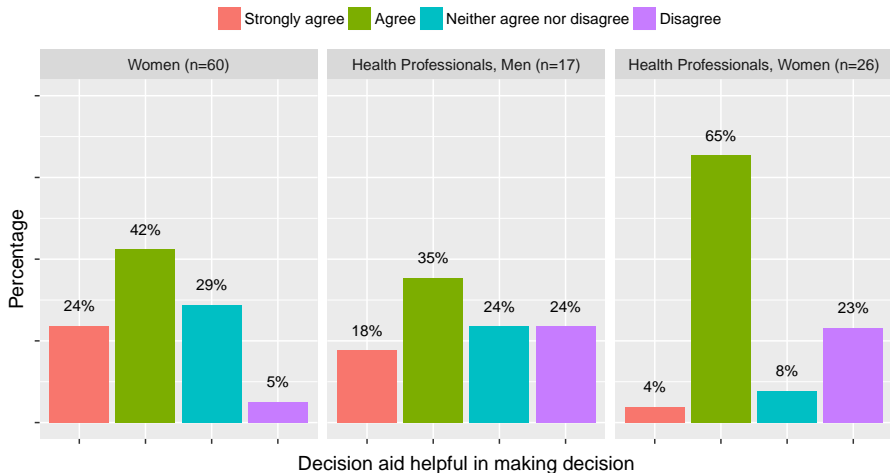
AYUDÁNDOTE A DECIDIR

Piloting the acceptability of the DA

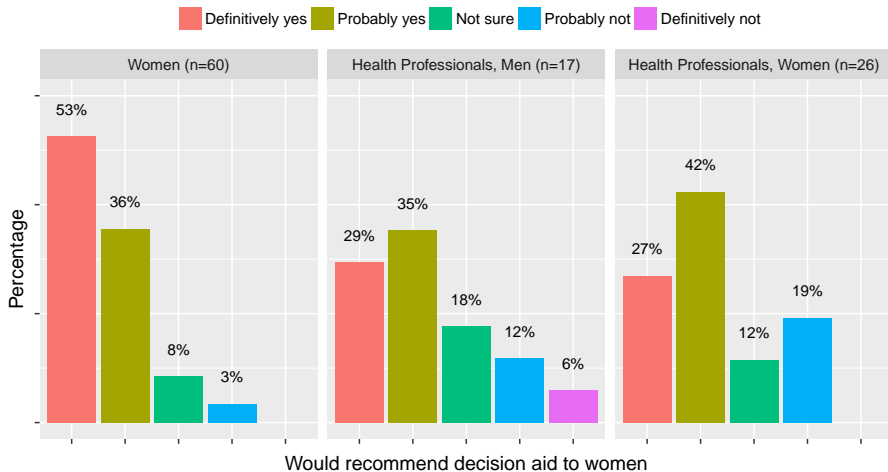
Is the DA balanced w.r.t. screening?



Is the DA helpful?



Would you recommend it?



Ongoing RCT

- **Aim:** Assess the impact of a decision aid on knowledge, informed choice, decisional conflict, and participation in screening.
- **Study protocol:** Based on Hersch, BMJ open 2014.
- **Study sample:** 200 Intervention (new leaflet), 200 Control (standard care)
- **Study population:** Women aged \simeq 50, before being invited to the first screening exam.
- **Instruments:** 2 questionnaires, web or phone.
- **Completion status:** 25%

Conclusions

- It is time for a new **risk-based** screening approach
 - More research on risk measurement
 - New classification of lesions
- **Women** want to know and are ready to be informed
- **Health professionals** would prefer “not to touch it”
- **Decision aids** can be the tool to engage health professionals and women in share decision making

The InforMa Study Group

- *IRBLLEIDA-University of Lleida*: M. Martínez-Alonso, A. Pons, M. Rué, J. Soler.
- *University Rovira i Virgili*: M. Carles, M. J. Pérez, R. Pla.
- *IMIM, Hospital del Mar Medical Research Institute*: A. Burón, X. Castells, A. Romero, M. Sala.
- *Cancer Prevention and Control Program, Catalan Institute of Oncology*: M. García, C. Vidal.
- *Canary Islands Health Service*: L. Perestelo, A. Toledo.
- *ÀreaQ, Evaluation and Qualitative Research*: A. Cardona, N. Codern.
- *Autonomous University of Barcelona*: M. Feijoo.
- *Field work team*: S. Buil, M. Ortega, S. Pla, C. Vinyals, S. Vinyals.

Thank you!

Thanks to the women and health professionals that participate in the study

