

# WEB-BASED DECISION AIDS FOR BREAST CANCER SCREENING: A SYSTEMATIC REVIEW

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### **COMMUNICATION IN ORGANIZED CANCER SCREENING**

Invitation letter based on cancer screening benefits

Balanced information on both benefits and harms

Information on benefits and harms + values and preferences

Strong recommendation

(Invitation letter)

Nuanced recommendation

(Invitation letter + leaflet on benefits and harms)

Nuanced recommendation

Invitation letter + decision aid

Participation





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**Participation** 

Informed articipation

Informed decision making



### **DECISION AIDS IN ORGANIZED CANCER SCREENING**

The **ECIBC's Guidelines Development Group** suggests using a decision aid in an organized breast cancer screening program. (Conditional recommendation)

This recommendation was updated considering available evidence until May 2021.

### Low certainty of evidence

The desirable effects were judged as <u>moderate</u> due to increases in informed decision-making and participants' adequate knowledge about screening, while the undesirable anticipated effects were judged as <u>trivial.</u>...they should be evidence-based and appropriate to the context of their use.





### **DECISION AIDS IN ORGANIZED CANCER SCREENING**



Decision aids (DAs) are evidence-based tools designed to help individuals make specific and deliberate choices for healthcare.

Among the different formats, web-based DAs are the most promising delivery modalities due to the easiness of distribution and access to the women in organized screening programs.

## **OBJECTIVE**



To identify, summarize and assess the quality of available web-based DAs for cancer screening programs:

**Breast cancer Screening** 

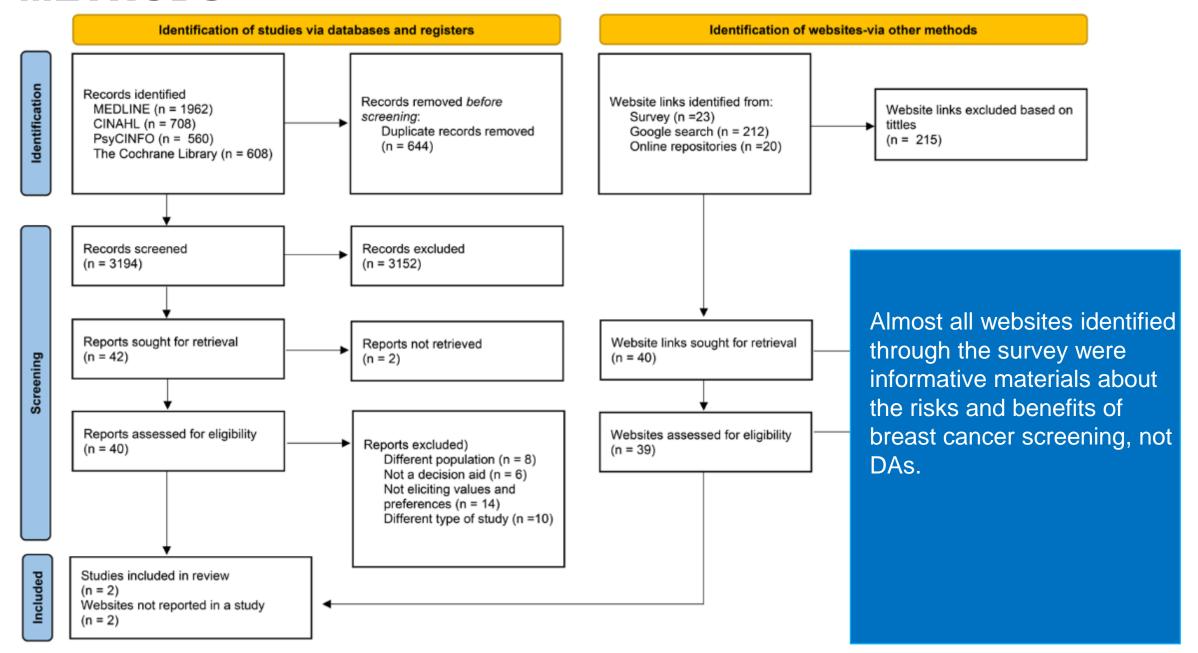
Colorectal cancer Screening

# **METHODS**

- Sources to identify websites: Search Engine (Google); DAs repositories; survey for members of the ICSN
- Sources to identify published studies: Pubmed; Cochrane Library; CINAHL; PsyCINFO
- The International Patient Decision Aid Standards Instrument (IPDASi) was used to assess the quality of DA (ten domains)

# **METHODS**





# **RESULTS**





### **ICSN SURVEY**

69 responses. Response rate 9% (n=69/783).
Representing 28 different countries.
20% (n=14) have DAs in their organization
35% (n=24) reported at least a DA for cancer screening

We reviewed 20 URL links: Only one was a DA URL link <a href="https://www.donnainformata-mammografia.it/">https://www.donnainformata-mammografia.it/</a>

Thank you to all the participants who provided their valuable input!



# **RESULTS**

Decision aid	Canadian Taskforce	Donna Informata	Healthwise	Mammoscreen
URL	https://canadiantaskforce.ca/breast-cancer-update-shared-decision-making-tool-age-50-59/	https://www.donnainformata- mammografia.it/en/	https://www.healthwise.net/ohridecisionaid/Content/StdDocument.aspx?DOCHWID=abh0460	https://www.mongooseprojects. com/mammoscreen/app/#menu
Country	Canada	Italy	USA	USA
Languages	English and French	Italian and English	English	English
Requirement to register	No	No	No	Yes / login
Intended to be used independently	Yes	Yes	Unclear	Yes
Downloadable report	Yes	Yes	Yes	Yes
Interactive	No	Yes	Yes	Yes
Risk factors assessment	No	No	Yes	Yes
Section for values and preferences	Yes	Yes	Yes	Yes



# **RESULTS**

	Information area	Canadian Taskforce	Donna informata	Healthwise	Mammoscreen
Outcomes	Cancer diagnosis	Yes	Yes	Yes	Yes
	Cancer deaths	Yes	Yes	Yes	Yes
	Lives saved	Yes	Yes	Yes	Yes
	Overdiagnosis	Yes	Yes	Yes	Yes ("precancer")
	False positives	Yes	Yes	Yes	Yes
	False-negative	No	Yes	Yes	Yes
	Unnecessary biopsies	Yes	No	Yes	No
	Other	Psychological and physical harm	Radiation, anxiety, and concern	Radiation, concern, and harm by additional tests	Radiation

# **RESULTS: IPDAS INSTRUMENT**



Dimensions	Maximum score	Mean (%) 95% CI	Canadian Taskforce	Donna informata	Healthwise	Mamoscreen
Information	32	81.9 (73.5-90.3)	71.9	87.5	84.4	78.1
Probabilities	28	86.4 (68.3-104.6)	78.6	96.4	96.4	64.3
Values	16	65.0 (49.9-80.1)	56.3	56.3	56.3	81.3
Decision	8	82.5 (64.8-100.2)	75.0	62.5	87.5	100.0
Development	24	40.0 (15.0-65.0)	25.0	50.0	29.2	70.8
Evidence	28	62.1 (47.9-76.4)	67.9	53.6	71.4	46.4
Disclosure	8	92.5 (78.6-106.4)	100.0	87.5	100.0	75.0
Plain Language	4	40.0 (-1.6-81.6)	25.0	25.0	25.0	100.0
Evaluation	8	42.5 (21.7-63.3)	25.0	50.0	25.0	62.5
Test	36	73.9 (58.2-89.6)	66.7	88.9	86.1	66.7



# CONCLUSION

- Websites or leaflets informing about the benefits and harms of breast cancer screening are often wrongly considered DAs.
- Screening teams should be trained in medical-decision making.
- A Framing effect was observed (our decisions are influenced by the way information is presented).
- DAs are not fully implemented in organized cancer screening programs.

Lack of maintenance or updates of the web-based DA identified (some errors were detected).

However.... To overcome these challenges is possible

ICSN Working Group on Decision Aids for Cancer Screening?

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