

# Validation Study Results for a Personalized Prevention Education Aid in Breast Cancer Risk Reduction

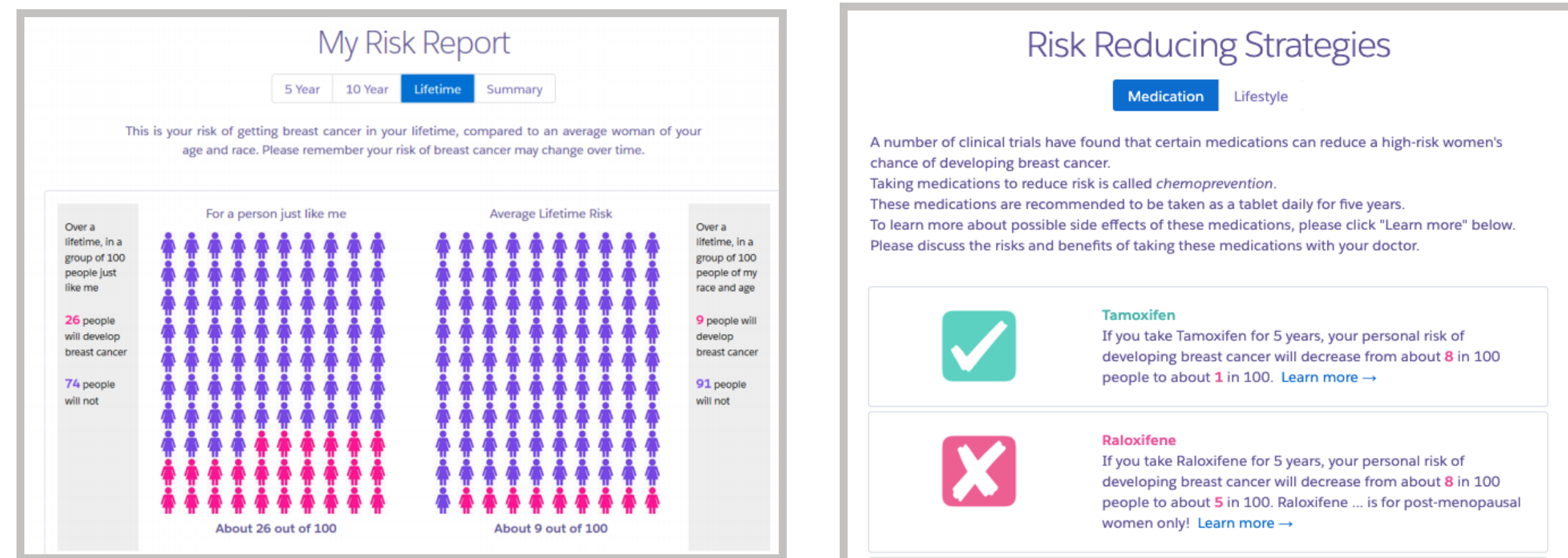
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## BACKGROUND

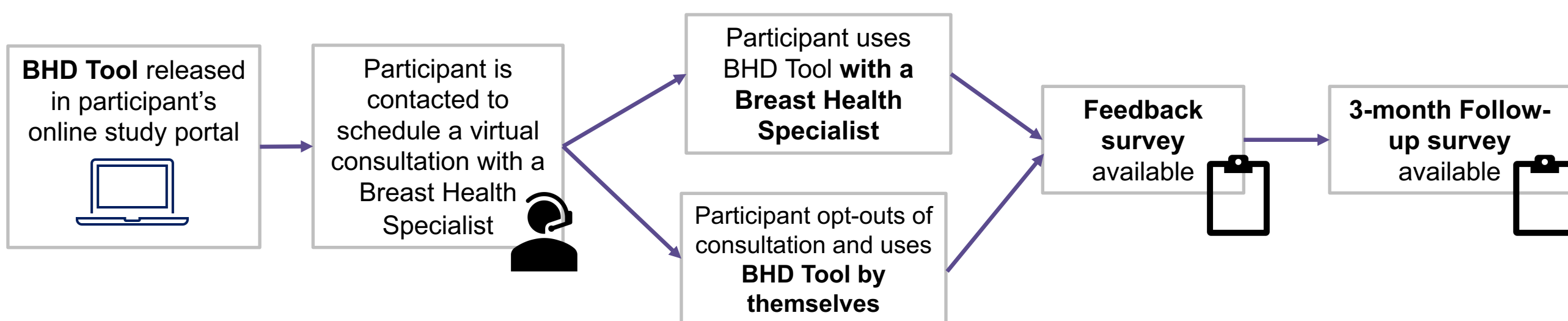
- Uptake of chemoprevention among high-risk women remains low, despite validated benefit in breast cancer risk reduction.
- The **Breast Health Decisions (BHD) tool** is a patient-facing, shared risk-assessment tool designed to inform women enrolled in the Women Informed to Screen Depending On Measures of risk (WISDOM) Study of their breast cancer risk.
- Incorporating improved BHD usability features from a pilot study (presented at SABCS 2019, P5-08-23), we assess whether individualized risk assessment and risk-reduction education for those at moderate to high breast cancer risk promotes higher uptake of chemoprevention.

### Images of the Breast Health Decisions Tool Risk-assessment Tool



## METHODS

- In February 2020, the tool was released to WISDOM study participants identified in the top 2.5% 5-year risk by age (calculated by the Breast Cancer Surveillance Consortium Model modified by a polygenic risk score), excluding mutation carriers.
- A **feedback survey** was conducted to assess the tool's utility in motivating women to pursue risk-reducing strategies. A **follow-up survey** was sent after 3 months to gauge whether women took action on risk-reducing strategies.



## RESULTS

### Feedback Survey Results

Table 1: BHD Tool User Demographics

	# of Participants	% (out of n=99)
<b>Age</b>		
40-49	22	22.2%
50-59	34	34.3%
60-74	43	43.3%
<b>Ethnicity</b>		
White	90	90.1%
Mixed Race	6	6.1%
American Indian/Pacific Islander	1	1.0%
Prefer not to answer or unspecified	2	2.0%
<b>Educational Level</b>		
High school graduate	1	1.0%
Some college or technical school	16	16.2%
College graduate or more	82	82.8%
<b>BMI</b>		
Underweight (Below 19)	1	1.0%
Normal weight (19-25)	63	63.6%
Overweight (26-30)	23	23.2%
Obese (31+)	12	12.1%
<b>Hormone Therapy</b>		
Never Taken	63	63.36%
Have Taken	36	36.4%
Currently taking	14	38.9%
Not currently taking	22	61.1%

Table 2: Responses to "How helpful was the BHD Tool in understanding your breast cancer risk?"

	# of Responses	% (out of n=99)
<b>Strongly Agree</b>	46	46.5%
<b>Agree</b>	36	36.4%
Neutral	11	11.1%
Disagree	5	5.1%
Strongly Disagree	1	1.0%
<b>Total</b>	99	

Table 3: Responses to "The Breast Health Decisions tool eased my worries and anxiety about my breast cancer risk."

	# of Responses	% (out of n=99)
<b>Strongly Agree</b>	8	8.1%
<b>Agree</b>	28	28.3%
Neutral	35	35.6%
Disagree	22	22.2%
Strongly Disagree	6	6.1%
<b>Total</b>	99	

Figure 1: % of BHD Tool Users who Used the Tool Individually vs with a Breast Health Specialist

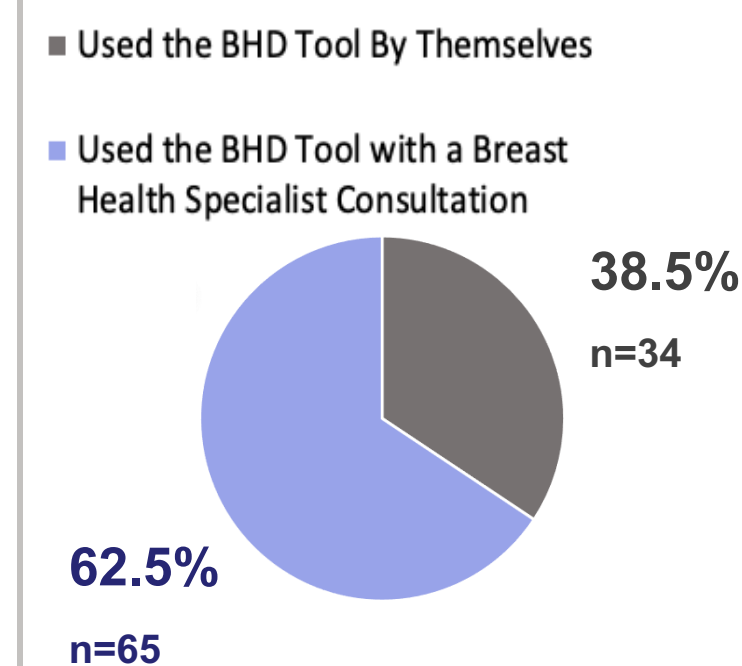
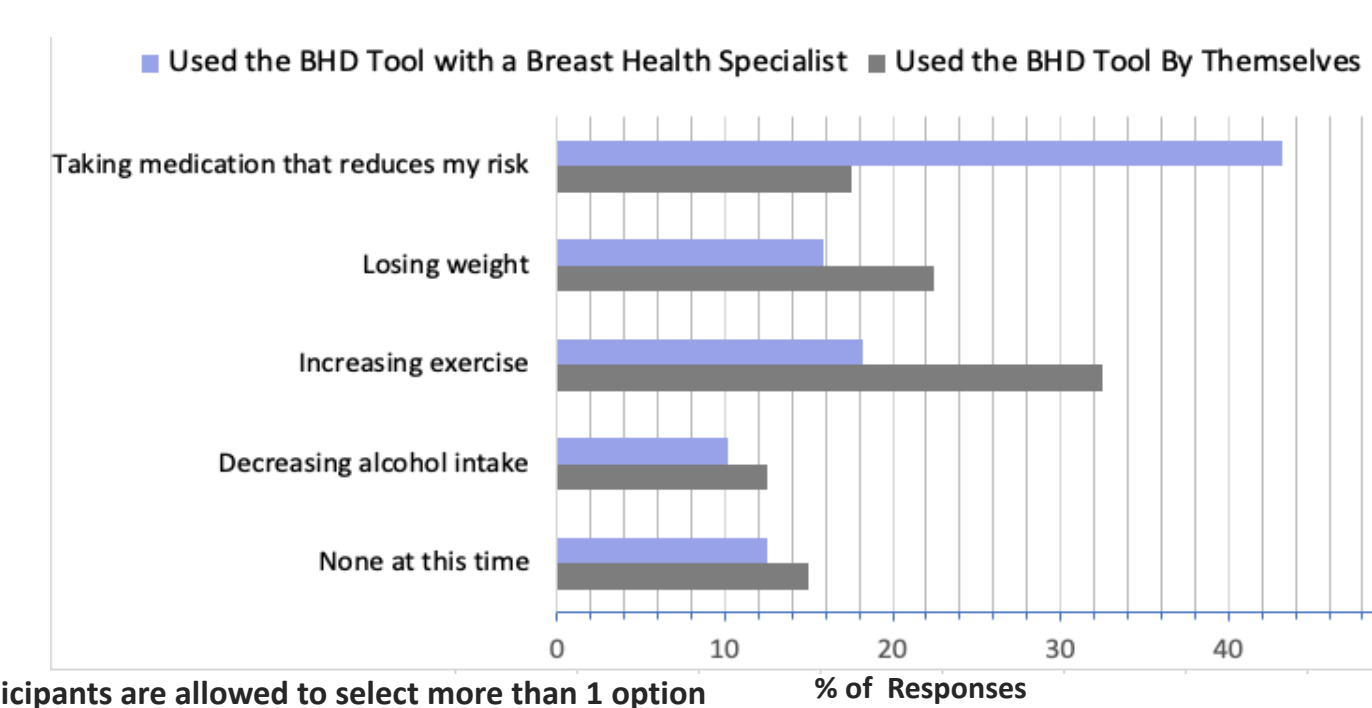


Figure 2: % of Responses to "I am considering the following to reduce my chance of developing breast cancer?"



## 3-Month Follow-up Survey Results

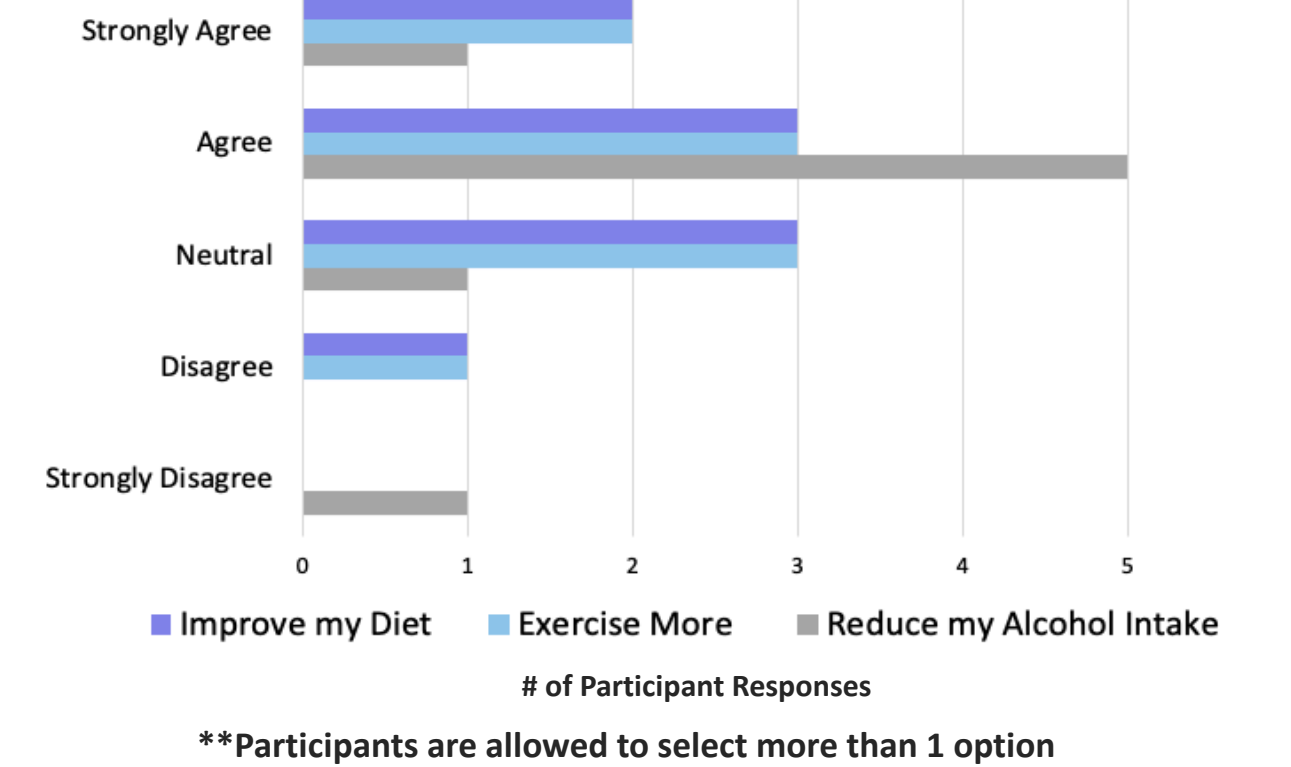
Figure 3: Risk-Reduction Strategies Being Used by Participants\*\*



Table 4: Reasons Participants Did Not take Risk-reducing Medication\*\*

	# of Responses	% (n= 25 )
<b>Not recommended or offered by my physician</b>	7	28.0%
<b>Fear of side effects</b>	7	28.0%
I do not need to reduce my chance	4	16.0%
Access to care	3	12.0%
Don't like meds	2	8.0%
Personal motivation	1	4.0%
Health issues	1	4.0%
Financial barriers	0	0%
<b>Total</b>	25	

Figure 4: Responses to "The Breast Health Decisions Tool influenced my decision to..."\*\*



## DISCUSSION & CONCLUSIONS

- The BHD tool effectively communicates risk and eases anxiety about cancer risk.
- Active breast health specialist consultations increased participants consideration of chemoprevention.
- Chemoprevention uptake did not increase after use of the BHD Tool.
- Lessons learned:**
  - Improvements to tool: Show % change in presence of side effects with and without chemoprevention, not absolute values
  - Importance of contacting participants' primary care physicians (PCPs) to improve chemoprevention uptake
  - The COVID-19 pandemic may be dissuading patients' decisions to seek additional consultations for medications, ability to exercise, or change diet.
- Early results with narrow demographic data may not be representative of entire population
- Future Directions:** Improve tool graphics, coordinate with PCPs, expand to target populations

## ACKNOWLEDGEMENTS

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