Table S1. BREATHE questionnaire on mammography attendance.

BREATHE questionnaire question	Options available	Free-text responses (Further categorised manually by the research team (JJKL, KAK))
Why did you go for the mammogram? (n=2544)	Know the importance of screening	
	Have a current/previous gynecological problem	
	Advised by doctors/nurses	
	My family/friends/colleagues encouraged me	
	Read/heard about it/saw an advertisement about mammogram	
	Received a letter to encourage me to go for screening	
	Ad-hoc health screening/Routine check-up	
	Others (please specify):	Company health package/staff health screening
		Symptomatic
		Family history of breast cancer/cancer
		Subsidised
		Part of health screening or insurance package
		Free of charge
Why had you not gone for a mammogram? (n=825)	Not necessary as I am healthy	
	Not at risk	
	Too old	
	Too young	
	Cost of the test is too expensive	
	Afraid of possible side effects	
	Afraid of knowing the results	
	Inconvenient	
	Not important	
	No time due to work or family commitments	
	Cannot do anything if breast cancer is detected	
	Didn't know where to go	
	Painful test	
	Embarrassing	
	Not suggested by my doctors or nurses	
	Never thought about it before	
	Others (please specify):	Don't feel like doing/lazy/not a priority
		Not aware

Table S2. Focus group discussion guide.

Aims

1. Identify factors related to non-participation in breast screening.
2. Explore attitudes towards breast screening, with or without incorporating genetic and non-genetic risk factors.
3. Explore the acceptance level of personalised risk assessment and communication as part of breast screening.
4. Find out what will motivate women to attend breast screening (e.g. less "sterile"/"medical" experience, tie-up with lifestyle activities (beauty packages?) e.g. manicure/pedicure, massage after mammography).
5. Assess breast cancer awareness and knowledge about breast health among a woman's support structure (i.e. spouse, children, family, friends, etc).
6. Find ways to engage support structure and how they can be involved in women's health (e.g. help motivate women to attend regular screening).

Question	Prompts (if any)	Question objective (ref to aim #)	Remarks	Reference (if any)
General Questions (breast cancer awareness)				
What is the estimated risk of contracting cancer in Singapore?		5		
What do you think are the 2 most frequent cancers affecting women/us?		5		
What is the estimated risk of developing breast cancer in Singaporean women?		5		http://scielo.isciii.es/pdf/pharmacy/v8n1/original2.pdf
Screening-related (general)				
Does your wife attend regular health screenings for her general health?	Why or why not?	5	Do husbands take an interest in their wife's health?	
Do you know of any breast screening programs?	Can you elaborate on the program?	1		https://doi.org/10.1016/j.heliyon.2020.e03753
Currently, the national guideline for breast screening is once a year for ages 40 to 49 and once every 2 years for ages 50 and above. Does your wife adhere to such schedules?	Why or Why not? What do you think of the frequency of screening?	1,2		
Currently, there are people who attend the first screening but very little go for subsequent ones. What are some possible barriers preventing women		2		https://doi.org/10.1016/j.heliyon.2020.e03753

from attending regular screening?				
How can the current breast screening program be improved?	For example, what are some things that will incentivise your wife to attend regular screening? What information should be provided as part of the screening result?	1,4		doi: 10.1055/a-0603-4314
Do you discuss with your family when it comes to health-related decisions, like going for screening? OR Does your wife discuss with your family when it comes to health-related decisions?	If not you, who does she discuss with?	6		
Husbands engagement				
To what extent are you involved in your wife's health?		6		
In what ways/aspects do you want to be involved? (Mentally, financially, physically present?)		6		
What aspects do you NOT want to be involved in?	Why?	6		
How can Singaporean husbands be more involved in their wife's health?		6		

Screening-related (program-related)				
What are some things that come to your mind when genetic testing is mentioned?		2	Some might have misinformation. Can better design program info for improved communication.	
Do you think that it is appropriate/good for screening programs to include results on genetic risk?	Why or why not?	2,3		https://bmjopen.bmj.com/content/8/7/e021782
What are some things that should be noted if genetic risk is included as part of screening outcome?	What are some barriers that might prevent people from going for GT?	2		
Would you like to know your wife's personal risk of getting breast cancer and have it as part of her screening result?	Why or why not?	2,3	If they are unsure of the context, can explain that current screening only includes mammography results	https://bmjopen.bmj.com/content/8/7/e021782
Upon your wife receiving a low/high-risk result, how would you feel?		3		
Do you think it is okay to have specific management recommended for each risk group?		3		https://bmjopen.bmj.com/content/8/7/e021782
Conclusion				
(Brief Conclusions) Is there anything else anyone would like to add?				

Table S3. FGD codebook

Research main aim: Husbands of women with no history of breast cancer 1) experiences, knowledge and attitudes on breast cancer (breast CA) and mammography screening (BS), 2) potential roles in their wives' health-seeking behaviours, and 3) their acceptability and concerns regarding risk-based breast cancer screening.

Codebook reflecting definitions of codes guided by COM-B

Overarching COM-B constructs	Codes	Sub-codes	Definition	Example quotes
CAPABILITY Husband perceptions of their wives' and women physical and psychological abilities to participate in BS.	**1. Physical capability** This relates to physical skill, strength, or stamina to attend BS. Inclusion criteria: Includes isolation or bed-bound illnesses (e.g., COVID) and/or other physical disabilities that influences participation of BS. Exclusion criteria: Excludes painful mammography experience or the ability/inability to access BS due to external factors such as distance or time.	Health status	Presence/absence of women's disabilities and/or illnesses that affect capability and experience in attending BS. (Not only what it is, but can be what it isn't)	*Doesn't exist*
		Body size	How body/breasts size affect women's capability and experience in attending BS.	*M6: Yeah unfortunately, it does feel quite painful for my wife and it varies from woman to woman. Depends on their build, whether they are well-endowed, and it makes a difference.*
	2. Psychological capability This relates to the presence of awareness, knowledge and understanding that affects capability to engage in thought processes required to attend BS.	Knowledge of Breast CA Positive (Accurate knowledge)	Husbands' knowledge and understanding of Breast CA risk factors (e.g., genetic, lifestyle) and its prevalence.	*M2: I will agar-rate five to ten?* *M1: I guess for me, it'll be a 20%.* *M3: I'm going 30%.*

	Inclusion criteria: Includes mental ability (e.g., cognitive/psychological disability) to acquire knowledge on Breast CA and BS. Exclusion criteria: Excludes reflective thought processes, changes in knowledge/understanding and autonomic processes, such as emotional responses, that influence motivations and attitudes to screening. These would be coded under 'Motivation'.	Negative (Inaccurate knowledge)		
		Awareness of BS guidelines and processes • Positive (Presence of awareness) • Negative (Lack of awareness)	Husbands' awareness of the requirements for BS, how to access BS and what is done during BS (from registration to the end of the BS experience).	*M6: As for my wife, she's happy that she's above 50 then she can do it once every two years. She used to do it more regularly, almost once a year, but it's really painful for her. so now, above 50 every two years.*
		Knowledge of genetic tests and/or risk-based screening	Husbands' knowledge and understanding of genetic tests, how genetic risks work (not specific to breast CA) and/or risk-based screening.	*M1: my impression is that it's actually quite expensive. And then there are a lot of false positives*
OPPORTUNITY The physical and social environment, external to the individual (husbands and their healthy wives), that provide opportunities to engage in learning about Breast CA	**1. Physical opportunity** This relates to opportunities afforded by the environment (e.g., time, resources, locations, cues) that influence husbands and/or their wives' understanding of Breast CA and BS involvement. Inclusion criteria: Includes age (e.g., receiving message from government at a certain age to go for mammography). National screening guidelines states that mammography should be done annually for women age 40 to 49 (with doctors' recommendation) and once every 2 years for women age 50 and above. (Singapore Cancer	Affordability or financial considerations • Neutral (Suggestions on how to make BS attractive due to cost) • Positive (Examples of better affordability due to the presence of financial support)	Experiences on the presence or lack of financial privilege for BS (e.g., company insurance, financial support from husbands). This subcode includes ideas suggested on the use of monetary benefits as a leveraging factor to support BS uptake (e.g., incentives).	*M9: My wife will do the checkup according to the employment. And she does the mammogram.* *M6: Okay I'm just wondering if this is so important. Why would not the Government make it free? Just make it free. I mean they are able to blow 100 billion*

and involvement in BS.	Society) Exclusion criteria: Excludes physical ability related to skills (e.g., age inhibiting attendance to screening due to body deterioration) or illnesses, where opportunities to BS have been unaffected.	• Negative (Examples of poor affordability due to lack of financial support)	This subcode excludes plans/reflections on prioritising other expenses over BS. These would be coded under 'Reflective Motivation'.	*on COVID. Well, why can't they just put in a couple of billion.? To do free BS.*
		Screening guidelines • Positive (Having awareness) • Negative (Lack of awareness)	This relates to the presence/absence of awareness of breast CA and accessibility to BS due to women's age because of current screening guidelines.	*M10: Thank you, so my wife is below that range, but I think if she notices any discomfort or pain, I think that would make her go for screening or go for testing. But, other than that, I don't think she would regularly go for breast cancer screening.*
		Time • Positive (Encourages BS) • Negative (Hinders BS) • Neutral (Suggestions made on how to make BS time efficient)	Mentions of time that discourage or encourage participation in BS. (e.g., busy, long waiting time, BS leave). This subcode includes ideas suggested on the use of time as a leveraging factor to support BS uptake.	*M6: Have a BS leave. Compulsory for women, it's given by the company. It will be paid. That day that they go for BS, they still get a salary. But that day, they don't have to turn up for work, but they have to file a record that they have done the mammogram. If not, then, then they take back one day leave.*

		Workplace initiative	Access to BS and/or breast CA knowledge through company initiatives (e.g., welfare programs).	*M1: And I guess my wife also did it in the past when the company subsidized.*
	2. Social opportunity This relates to interpersonal, social, and cultural relationships that guide individuals (husbands and their healthy wives) in their knowledge of breast CA and/or access to BS. Inclusion criteria: Includes external interactions/experiences with friends, family, national efforts, and healthcare professionals that affect husbands' and/or their healthy wives' understanding of breast CA and BS attendance. Exclusion criteria: Excludes internal thought processes that are not explicitly linked to external factors or social facilitation.	Friends & Colleagues • Positive (Having support from) • Negative (Lacking support from)	Effect of presence/absence of guidance, physical/emotional support from interactions or experiences with friends and/or colleagues. (e.g., friends signed up for mammography together) This subcode excludes individuals' motivation on BS upon reflection of their friends' breast CA stories/experiences. (e.g., decision to attend regular mammography checks due to the fear of detecting Breast CA late like a friend). These would be coded under 'Motivation'.	*M7: And it also depends on a group of people, yeah if they know their friend joins regular screening probably, they got some awareness. Otherwise, in daily conversation, and probably something out of the agenda.*
		National efforts • Positive (Good efforts made to promote breast health,	The role of different stakeholders (e.g., Ministry of Health and nonprofit organisations) play in accessibility of	*M11: Maybe there was a period of time, when there were more campaigns or publicity about it. And then they*

		BS) • Negative (Lack of efforts made to promote breast health, BS)	breast CA knowledge and BS options through public health interventions.	*kind of raised a bit of awareness and then it petered off. So people don't take notice after that. So by and large, if there's no pain or alarms or whatever. I guess most people will not be alarmed or try to do it quite regularly.*
		Family support • Positive (Having support from family) • Negative (Lack of support from family)	Effect of presence/absence of guidance, physical/emotional support from interactions or experiences with family members. This subcode excludes individuals' motivation on breast CA or BS upon reflection of their family members' breast CA stories/experiences. These would be coded under 'Motivation'.	*M4: I think I will try to find out what her concerns are and why she does not want to go for the health screening. And we can probably address the concerns and make her go for it.*
		Healthcare professionals	Effect of presence/absence of guidance and expert opinions/skills from healthcare professionals (e.g., family doctor,	*M2: And I think that, like I said, you need a trained medical professional to help interpret these results. I think, if you just give*

			mammographer).	*someone a piece of paper that says low medium high, it's even more misleading than telling them nothing.*
MOTIVATION Husbands' or knowledge of their wives' and others' belief systems, values, principles, habits and/or emotional responses that influences involvement in BS.	**1. Reflective Motivation** This relates to thought processes and evaluations such as conscious effort planning, changing attitudes, evaluating beliefs on what is good or bad, and goal setting, that guide husbands and their healthy wives' involvement in BS. Inclusion criteria: Includes cognitive thought processes on priorities e.g., time with family/spending on other expenses over BS and drawing on experiences with decision-making on BS. Exclusion criteria: Excludes understanding, knowledge, and beliefs that are not explicitly associated with reflective thought or planning processes. These would be coded under 'Psychological Capability'.	Priorities	BS being underprioritised as a result of other commitments (e.g., time with children, financial power). This excludes mentions of breast screening as unimportant or not of a concern without comparison. This would be coded under 'Motivation'.	*M6: people are busy with work, people have other priorities*
		Incentives	The presence/ absence of external rewards/benefits (e.g., monetary) that influences people's motivation to participate in BS. This excludes mentions of direct benefits of BS such as early detection.	*M2: Right, lets say, you go for the screening, they will pay you for, dont know how many months of Medishield interest payment, that kind of thing.*
		Disincentives	Mentions mention of punishment (e.g., experiencing a	*M6: Have a breast screening leave. Compulsory for women,*

			disadvantage in society) for not participating in BS. This excludes the mere lack of incentives without a punishment factor. These would be coded under 'Incentives'.	*it's given by the company. It will be paid. That day that they go for breast screening, they still get a salary. But that day, they don't have to turn up for work, but they have to file a record that they have done the mammogram. If not, then, then they take back one day leave.*
		Planning around insurance benefits	Experiences and/or thought processes on restrictions in insurance benefits as justification to having reservations about participating in BS.	*M4: From what I understand, a lot of people will try not to do the health screening in Singapore, because they will have to let the insurance companies know and then after that there will be some sort of restrictions to their policy.*
		Husbands' beliefs on risk-based screening • Positive (Receptive to the concept of risk-based screening) • Negative (Resistance to the	Husbands' opinions on the significance and/or implications of having risk-based screening for their wives and other women.	*(e.g., when husbands rationalise why it is good to detect risk earlier so that they can encourage their wives to improve modifiable factors)*

		concept of risk-based screening)		
		Husbands' perspectives of their role in wives' health	Husbands' perspectives, experiences and roles on the current dynamic between them and their wives when it comes to health decision-making, health-seeking behaviours and their personal views on the extent of responsibility they should play.	*M4: I would think 100% because she's my partner in this household and also looking after the kids right. So if she's not well, I'll be losing an arm. So we need to work together to make sure our health is good.*
	2. Autonomic Motivation This relates to automatic processes such as emotional reactions (e.g., fears), impulses, habits, desires (e.g., wants and needs) that guide husbands and their healthy wives' involvement in BS. Inclusion criteria: Includes processes and reactions derived from certain personality profiles, experiences and implicit associations. Exclusion criteria: Excludes beliefs or associations based on explicit knowledge or reflective thought processes.	Fears/Concerns Presence of fear: • Positive (Motivation to BS) • Negative (Barrier to BS) Absence of fear: (Barrier to BS)	This relates to experiences (e.g., painful mammography experience, death of loved one) or personalities that trigger fear/concerns/worries, or a lack of fear/concerns which motivate or hinder BS. This includes mentions of breast CA/BS as unimportant without comparison to other things. (lack of fear)	*M7: I think, in my case. Yeah definitely, it is about their experience. She feels it's very painful so pretty reluctant to go to the next one. Although, yes, you still go there, but not so often, maybe every two years. From time to time, she also still complaining to me about that.*

Table S4. FGD thematic analysis

Research main aim: Husbands of women with no history of breast cancer 1) experiences, knowledge and attitudes on breast cancer (breast CA) and mammography screening (BS), 2) potential roles in their wives' health-seeking behaviours, and 3) their acceptability and concerns regarding risk-based breast cancer screening.

Six core themes were identified: (1) Awareness of breast health; (2) Social support structures; (3) Priorities; (4) Fears, (5) Incentives, and (6) Attitudes toward risk-based screening. This table presents the core themes, sub-themes, illustrative codes, and related COM-B constructs derived from the analysis.

Thematic analysis table reflecting definitions of themes and sub-themes guided by COM-B

COM-B constructs	Theme	Theme description	Sub-themes	Example quotes
Psychological Capability **Social Opportunity**	**Awareness of breast health**	Husbands' understanding of breast cancer and breast screening processes. This includes their awareness of breast cancer risk factors, the likelihood of women getting breast cancer, the important role of early detection in breast cancer prognosis, and current mammography procedures and experiences.	• Awareness of breast cancer • Awareness of mammography processes	**Identifying the top 2 most common cancers affecting women** M6: Breast and colon cancers. M10: I think it is breast and cervical cancer. **Identifying risk factors of breast cancer** M10: I'll say, perhaps genetics and lifestyle and food. M14: For me, lifestyle and inheritance from the parents, maybe. M16: Lifestyle habits like smoking or drinking **Identifying estimated risks of developing breast ca** M11: 10% M15: 5 to 10% **Awareness of mammography processes** M11: Is mammogram very painful?... I'm just curious what actually happens in a mammogram?

				M7: I heard my wife complain that it was very painful and feel very bad. M6: Yeah unfortunately, it does feel quite painful for my wife and it varies from woman to woman. Depends on their build, whether they are well-endowed, and it makes a difference. M17: i'm very ignorant when it comes to on the use of medisave and….My impression that like health screening packages and stuff, medisave is not able to cover costs, maybe i'm wrong. M14: I'm not too sure, what is the cost of one mammogram? Costs might be a barrier but I am not very sure. M9: How convenient it is when they go for screening? I don't know if there's a long waiting time and all that. That would discourage them so we make it more convenient.
Social Opportunity **Physical Opportunity** **Reflective Motivation**	**Social support structures**	The effects of interpersonal relationships and community engagement on breast cancer awareness and mammography attendance.	• Interpersonal influences • Community engagement	**<u>Interpersonal influences</u>** M19: yeah for myself actually I I mean I follow my wife for the regular checkups and appointments with doctors and all that so that is On that going in and what other medical things she needs to go ahead, go for but, as of now for a mammogram or something like that, no, no, nothing, as I mean spoken, but never really go in depth with it… M17: Maternity visits we make it happen. But other than that other than maternity it's just yeah. she she goes for her appointments by yourself and. And that's that… M12: same with me, maybe exercise and just keep a watch on her diet, you know, plenty of vegetables.

				M18: I don't really talk about it, I think, it is her privacy also, so i leave it to her to discuss if she needs to., can be quite sensitive. M6: They are going to talk to their mother who doesn't know any better. They will consult their own mother even though as adults, they are well-educated. So then there is this unusual psychology going on there. M7: …And it also depends on a group of people, yeah if they know their friend joins regular screening probably, they got some awareness. Otherwise, in daily conversation, and probably something out of the agenda. M3: OK, I usually will reschedule their appointments and go full screening on another day. **Community engagement** M14: I'll just tell her to discuss with the family doctor so that she can get the best advice and we do whatever they recommend… M14: … when you go to the doctor for discussion, both of you need to go together. This way, it might be better because you're discussing it with the doctor then finally you're going to come back and discuss it at home. Excellent. M19: i've i've seen, but really never took a closer look at it because when you go to clinics and all that they actually have posters with regards to the breast screening, but I never really paid much attention to it yeah. M11: Maybe there was a period of time, when there were more campaigns or publicity about it. And then they kind of

				raised a bit of awareness and then it petered off. So people don't take notice after that. M6: … bring it into the workplace because most women work nowadays. And then have regular lunchtime talks, maybe at least make sure every company does it twice a year. I mean just half an hour or one hour during lunchtime, and make everyone come. And then put in some real examples and then after that straight away have a registration form for them to book dates, so that they will not take like three weeks to think and then forget about it.
Physical Opportunity **Reflective Motivation**	**Priorities**	Current circumstances that affect individuals' perceived importance and decision-making regarding breast screening.	• Convenience • National screening guideline	**<u>Convenience</u>** M18: Women busy with the children, working… where got time to do checkup… Especially for the working woman… M19: I think, Singapore, the work life balance is a bit… Because both couples are working to find a time and all that so finding special time for appointments and all this it's a bit challenging at times so that's why some people just put it off, and more emphasis is placed on family than oneself. M9: I don't know if there's a long waiting time and all that. That would discourage them so we make it more convenient. M1: I guess you can make it like something routine. So maybe when ladies go to polyclinics then based on the records, the doctor can just see if the screening was done recently, if not, then maybe they can just do the screening as part of the consultation. M7: … We can build a folder there where automatically each one have a file so starting from year 50, if you go to do the test. You got it green, so you won't get an alert within this year. And next year, you will have a message or reminder and

				if you do the test it will become green again. So, you have 12 months to complete this. If after 6 months and you haven't done it, you will for example, get a message, and it can link you and give you a clear indication where you should go, where to make the appointment… **National screening guideline** M17: Because I assumed the national guidelines pre 40 is not to screen. M19: same for me, I don't see it (regular mammography) as important, as of now yeah. M18: probably one or two years time i'll go check up on that (regular mammography) yea, once she hits 40 which is in two weeks time.
Autonomic Motivation	**Fear**	Avoidance of routine mammography due to emotional reactions (e.g., concerns, worries, anxiety) derived from personalities, experiences, and/or implicit associations.	<no sub-themes>	**Fear** M4: From what I understand, a lot of people will try not to do the health screening in Singapore, because they will have to let the insurance companies know [if they have cancer] and then after that there will be some sort of restrictions to their policy.(fear of insurance benefits being affected) M7: I think, in my case. Yeah definitely, it is about their experience. She feels it's very painful so pretty reluctant to go to the next one. Although, yes, you still go there, but not so often, maybe every two years. From time to time, she also still complaining to me about that. (fear of pain) M1: Well, for me, I think my wife isn't so keen to go for screening. I think she just doesn't want to find out when there are bad results. (fear of diagnosis) M6: …'if I don't screen, I don't know. If I screen, I'll find

				something so it's better not to screen.' That kind of psychology is in the background… (fear of diagnosis)
Physical Opportunity **Reflective Motivation**	**Incentives**	Presence of rewards and/ or personal gains that may motivate mammography participation. This theme excludes the advantage of early detection from attending mammography.	<no sub-themes>	M6: Okay I'm just wondering if this is so important. Why would not the Government make it free? Just make it free. I mean they are able to blow 100 billion on COVID. Well, why can't they just put in a couple of billion.? To do free breast screening. Just do it. M1: My mom has gone for mammograms before. And I guess my wife also did it in the past when the company subsidized. M15: If company includes it (mammography) into their health benefits, that will be helpful. M6: Have a breast screening leave. Compulsory for women, it's given by the company. It will be paid. That day that they go for breast screening, they still get a salary. But that day, they don't have to turn up for work, but they have to file a record that they have done the mammogram…. M2: Right, lets say, you go for the screening, they will pay you for, dont know how many months of Medishield interest payment, that kind of thing.
Psychological Capability **Reflective Motivation**	**Attitudes towards risk-based screening**	**Husbands' acceptance and concerns of risk-based screening**	Reliability (Husbands' concerns on the dependability of risk-based screening results that can be used to inform breast screening	M1: …And then there are a lot of false positives so you end up getting alarmed for no reason, so I think generally it's not like a routine thing that people do. M17: I mean, I guess, my my initial question would be is this risk factor, something that changes over time, or is there, like a one-time shot… That's it for or is it something that would be done every year… M19: For myself, I think it's good to have it so if it's a yearly

			attendance and/or treatment decisions)	thing then no but if it's like once every 10 years right as you're saying that. Yeah then once in every 10 years looks fine.

			Understanding risk (Husbands' perception of the information required for interpreting breast cancer risk results and preferred method of receiving and discussing such information.)	M10: Yeah I agree that more information is better, but at the same time, I think if we want to give them. If we want to give numbers as results perhaps like what some of us have already shared. A consultation to explain that numbers would be really helpful instead of, you know, having a number that a lot of people may not understand. I wouldn't know the technicalities of those numbers, perhaps. Maybe an explanation or short consultation after getting the result might be helpful. M2: I think this is something which shouldn't be automatically included. It should be interpreted in the presence of a doctor who knows what he or she is doing. Because there is always a risk of false positives and can cause more alarm, so there needs to be someone who is aware of how the results are interpreted. I don't think this should just be sent directly to laypeople patients. M2: So I would like to see that, but I would not like average patients to see this kind of results, because if talking about low to medium and high. That doesn't mean anything in itself. There needs to be a number. Like what is the incidence? Let's say per 100k people over a lifetime, for example. People need to know the base rate, what's the chance of false positives. All these factors are very important. And I think that, like I said, you need a trained medical professional to help interpret these results. I think, if you just give someone a piece of paper that says low medium high, it's even more misleading than telling them nothing. M17: I mean, I think it's okay to offer, but at the same time, I think, education is going to be very important, with the information that you give the patient.

				M17: …We as humans generally don't understand risk very well, or how to quantify risk and that's all the genetic markers are, it's this piece of information that you can use to then kind of guide some decisions there they're not definitive they're not absolutes and so that education part.
			Reactions to risk results (This refers to personal reactions or emotions that may arise when discussing a hypothetical risk result.)	**Low risk** M17: So at this point, you know kind of default think of ourselves as low risk already. So getting a low risk test score. I don't think we change anything, compared to the opposite of getting a higher score will probably change a lot... Or at least prevent you know stir up a lot of feelings. **High risk** M17: I think I mean the initial thing that comes in, is fear, anxiety. M17: I would hope, and I just hope that after an initial shock that. It comes down and then you are just aware of the tools that you have for annual screening. M18: I mean life is like that so expect the Unexpected. M19: I mean when you have this kind of thing you will feel fearful, hey why, from where is this and what's the reason behind it and how could you prevent it… like I don't know where this is from, there must be a reason behind it so maybe maybe medications or form of diet or something like that to prevent it yeah.
			Usability of risk-based screening (Husbands'	M7: I think if we want to show the results, then we better show or give the suggestion as well. Not just give a number, possibility. Tell them what to do next. 25% versus 12%, what's the difference? what should I do? If we cannot give a clear

			perceptions of the extent to which risk results can be utilised to drive screening behaviour)	suggestion, professional suggestion, practical suggestion, then it will make people very worried, think too much, but just don't know what to do. M6: Taking input from what has been shared. Sounds like although if you include genetic information that can predict the risk in a more specific way, it may not be helpful if there's not much that can be done. M16: Yes, better to know early than later. M6: For example, to give a very like very specific example, if your risk is high, but then you decided to screen more regularly. That means if you're able to take action at an early stage, then the surgery will be a lot simpler… M17: So so so to me it's just it comes back to then, you know what is, what is your position to help you do with the data. M17: You know, do they recommend diet exercise changes or adjustments to lifestyle… or not I mean because you have the things you can control and the things you can't control. M17: And so I guess it also becomes what you do as someone receiving this information or supposed to someone receiving this information, what are you actually prepared to do or not prepared to do in terms of compensating for these additional risk factors that may be found through genetic testing. M6: …Other things are more related to the treatment options, because if you know the genetic profile. Breast cancer is not one breast cancer, there are a few types, then the genetic profile is related to whatever type, then they can kind of know

				in advance if they do have the breast cancer. What are the treatment options and some of the more difficult ones, treatment options are very limited. Then, all the more they need to maintain a healthy lifestyle, more regular screening, so that they will not have breast cancer, knowing that the risk is already higher… M17: Something to know, and then you can use that information to…adjust lifestyle, or just other risk factors M14: Plan the insurance as soon as possible and so that you can at least support her financially and it lets you get the proper treatment as possible and in terms of emotional, I think.It can help us better prepare ourselves for sort of diverse outcomes. M13: Only if they are kept private to the person. If insurance companies get a hold of it... M17: Well, I guess, another thing that I hadn't really thought on this, I mean the the insurance or health insurance life insurance…side of things.
			Other sentiments	M17: …So I mean for some people i'm sure it looks great, but for to be to be rolled out en masse. I think there is too much I think there's too much room for misinformation or not even like malicious misinformation, but just misunderstanding about about what to do with the information and then also trust. trusting the information and. You know what what to do as follow ups. M6: …Which means, maybe I don't know whether is possible, to make it optional for those who want to know, they can

				know. For those that refuse to know, they then you don't tell them