



Factors Influence Breast Cancer Screening Practices Amongst Arabic Women Living in the State of Qatar

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Acknowledgement

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Research Key Investigators

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Bahrain
Awali
Ar Rumaythah

Gulf of Bahrain

Hawar
(disputed
between
Qatar and
Bahrain)

Qatar

Kuwait
Iran
Area mapped
Qatar
Saudi Arabia
U.A.E.



A note on Terminology

I refer throughout the presentation to 'Arabic' women. This term defines our study group as Arabic speakers, despite the fact that they are not all ethnically Arab. We use the term Arabic as a shorthand for 'Arabic-speaking'

Background

Qatar Statistics Authority, 2010

- Population: 1,696,563
- Qatari citizens represent 24.4% of the population
- Qatari female citizens represent 36.7% of the female population
- GDP per capita: More than \$88,000 for 2010 (<http://www.forbes.com>)

Qatar Non Communicable Diseases - Country Profiles

NCD mortality		
<i>2008 estimates</i>	<i>males</i>	<i>females</i>
Total NCD deaths (000s)	0.9	0.4
NCD deaths under age 60 (percent of all NCD deaths)	60.8	34.4
<i>Age-standardized death rate per 100 000</i>		
All NCDs	367.5	433.7
Cancers	101.1	84.3
Chronic respiratory diseases	26.2	30.6
Cardiovascular diseases and diabetes	179.8	239.3

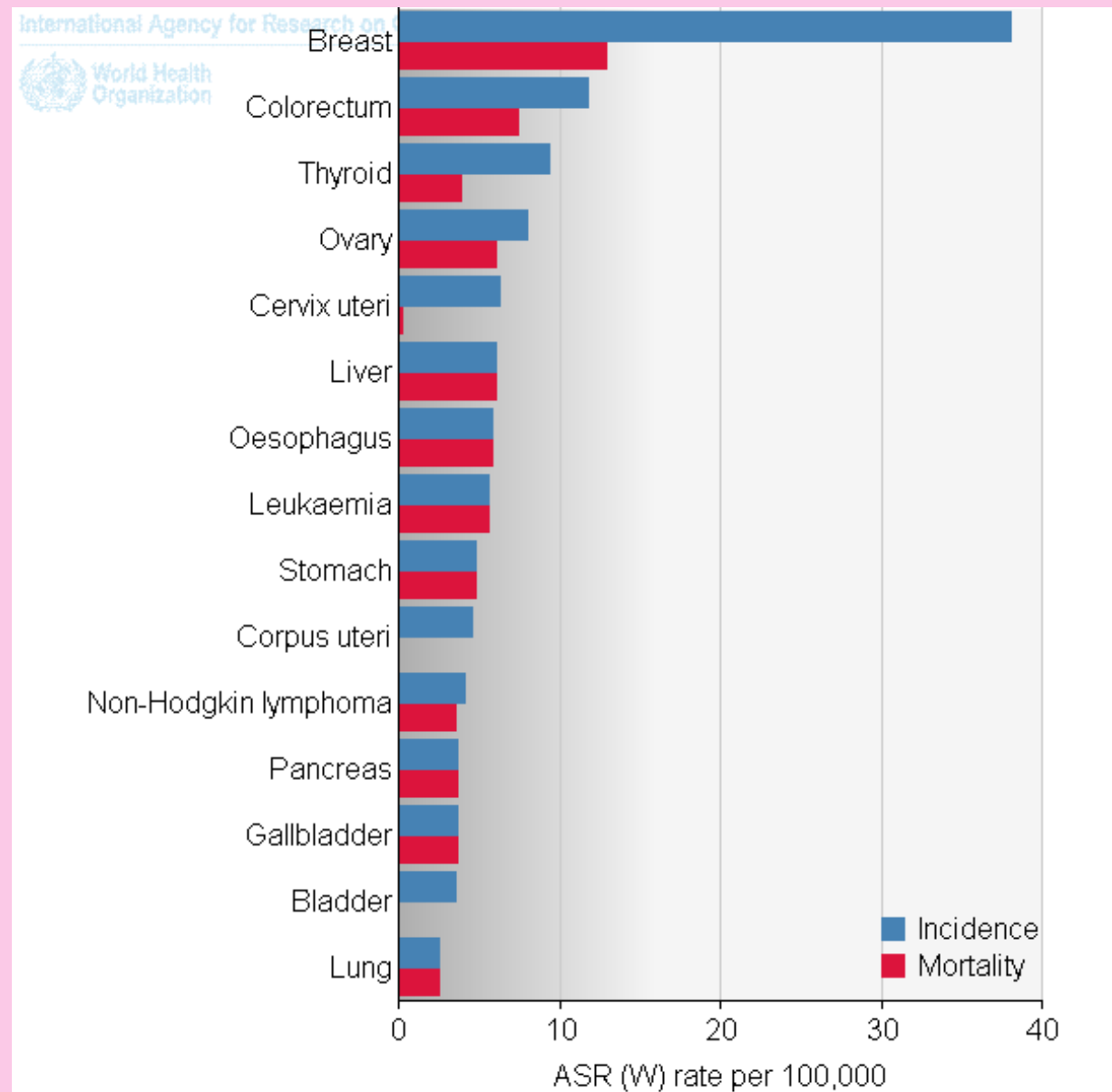
Source: WHO: *Non Communicable diseases (NCD) Country Profiles*

http://www.who.int/nmh/countries/qat_en.pdf

Background

- Breast cancer is the most common cancer in Qatar
- 20% cancer cases receiving treatment in 2007 at Al Amal Hospital in Doha, were breast cancer

Most frequent cancers for women in Qatar in 2008 (IARC, WHO 2008)



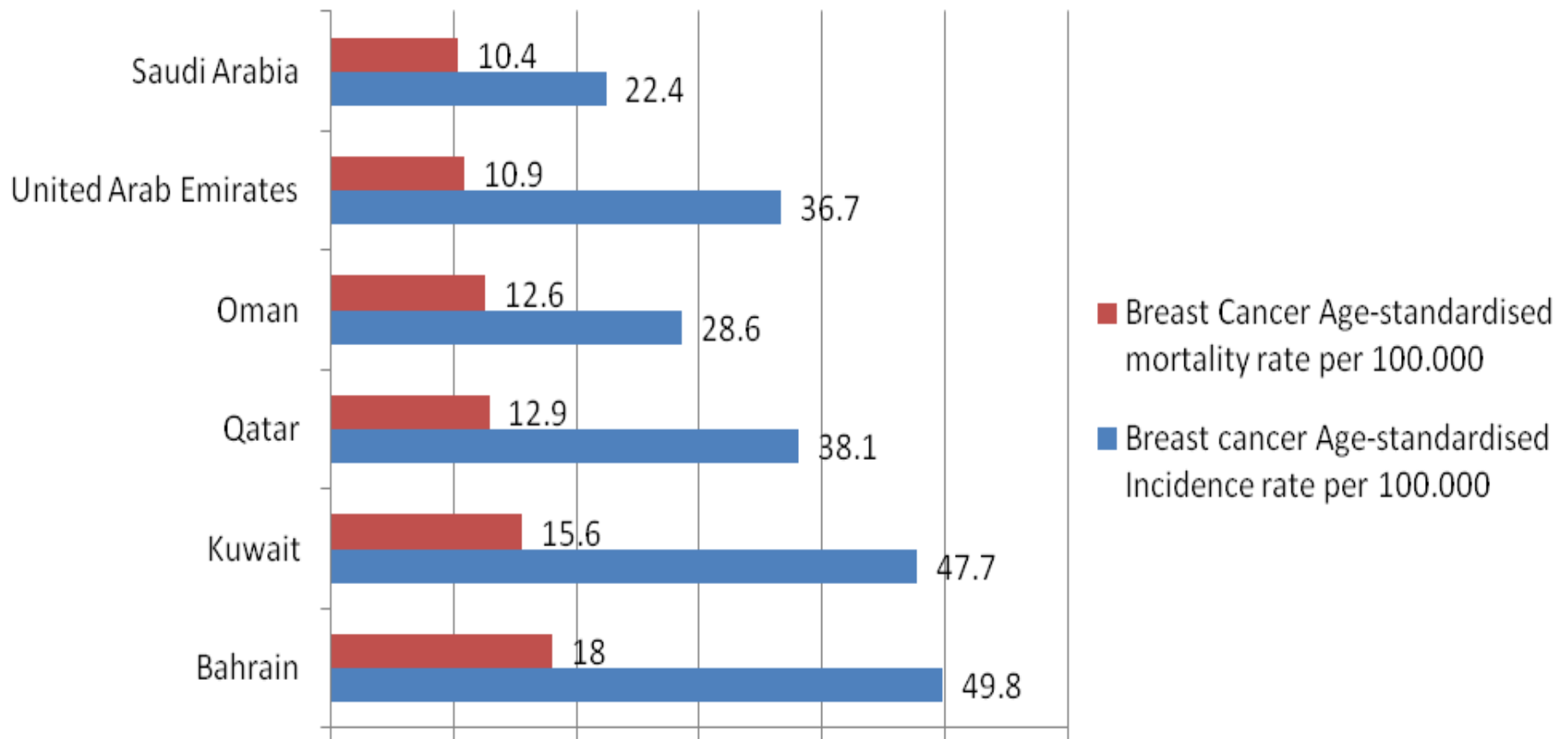


Figure 1. GCC Breast Cancer, Age standardised incidence and mortality rates per 100.000

IARC International Agency for Research Cancer, WHO. World cancer report 2008 and Global cancer statistics.

[\[http://globocan.iarc.fr/factsheet.asp\]](http://globocan.iarc.fr/factsheet.asp)

Background

- A higher proportion of younger women in their thirties and forties are clinically presenting with breast cancer.
- Arabic women are often diagnosed at advanced stages of breast cancer
- Qatar National Cancer Society and Hamad Medical Corporation recommend BSE monthly and yearly CBE for women 35 +, and mammography every two years for women 40-69 unless otherwise advise by physicians. This is now being revised.

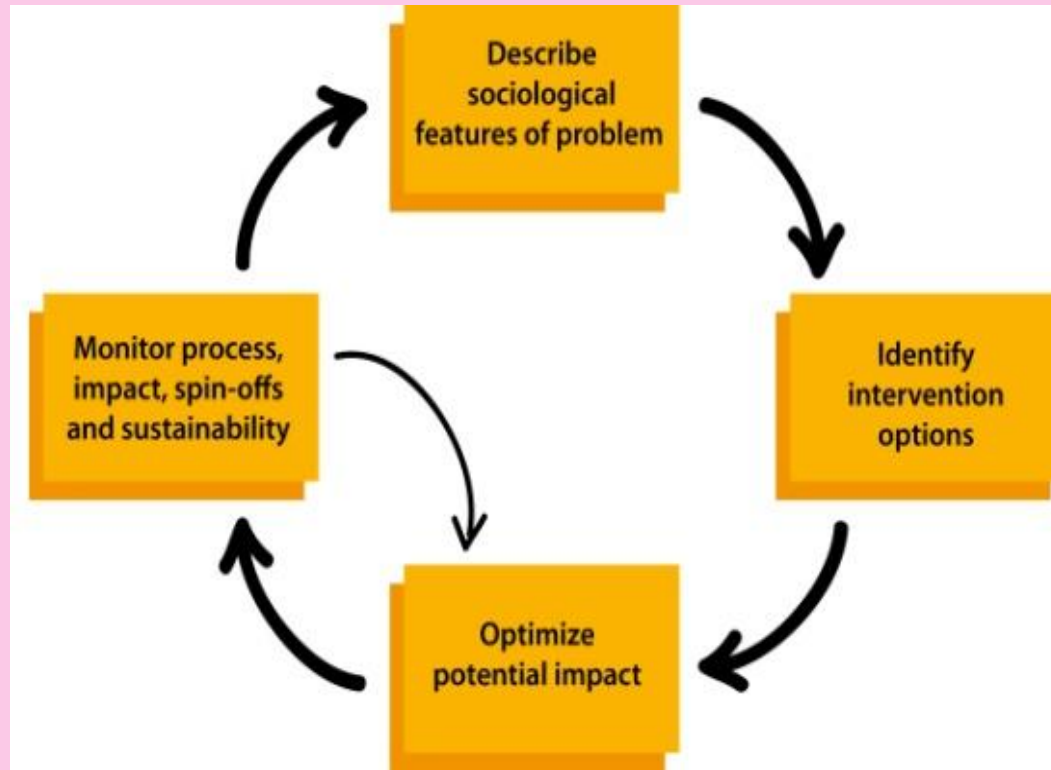
Background

- Among Qatari women, 24% do BSE, 23% have had CBE, and 23% have had a mammography (Bener et al., 2009).
- Low rate of screening suggest that Arab women in Qatar are at risk for lack of early detection and treatment of breast cancer in its early stages.

Research Goal

- To develop, implement, and sustain an intervention program that will raise awareness of breast cancer and increase women's participation in breast cancer screening activities and therefore reducing breast cancer's morbidity and mortality for Arab women living in the State of Qatar

Research Design



Multiple intervention framework

Edwards N, Mill J, Kothari AR. Multiple intervention research programs in community health. *Can J Nurs Res*. 2004 Mar;36(1):40-54.

Ecological Conceptual Framework

- Individuals and their physical and socio-cultural environment of individuals
- Health care behaviour and the physical environmental variables, intrapersonal, and other social determinants of health
- Health promotion and interventions should occur at multiple social, cultural, and environmental levels

Kleinman's Explanatory Model

- Individuals' explanatory models are derived from their knowledge and values, which are informed by their specific socio-cultural backgrounds
- Providing effective health care requires that providers be able to elicit and recognize clients' beliefs and values with respect to their understandings of illnesses and treatments, and to negotiate these differing perspectives.

Study 1

- Cross-sectional Community -Based Survey of Breast Cancer Screening Practices Amongst Arabic Women Living in the State of Qatar

Study 1: Research Questions

1. What are the participation rates of Arabic women on breast self examination (BSE), clinical breast examination (CBE), and mammogram?
2. To what extent are Arabic women's cultural knowledge and values, knowledge of breast cancer and its screening, socioeconomic status, and social support networks, associated with their breast cancer screening behaviours?

Methodology Study 1

- Sites: Doha, Al Wakrah (S), Al Khor (N)

	Population of women 35 years and over	Sample Size using a margin of error of 3.5%	Sample Size using a margin of error of 5%
Doha	60,937	640	315
South of Qatar (W)	7,909	83	41
North of Qatar (K)	3,394	36	18
Total	72,240	759	374

Study sample size calculation based on Cochran's formula for sample size

- Sample: convenience 1063 (87.5% response rate) Arabic women aged 35+ various healthcare settings, live in Qatar for at least 10 years
- Data collection: structured survey-face to face
- Data analysis: SPSS version 19

Study2

- Exploratory Qualitative study - Contextual Factors Effecting Arabic Women's Breast Cancer Screening Practices

Study 2 research questions

1. How do Arabic women participate in breast cancer screening programs?
2. What is the process by which the decision to engage in regular breast cancer screening is reached?

Study 2 research questions

3. How do contextual factors such as social, cultural, historical, and economic influence Arabic women's breast cancer screening practices?
4. What would be culturally and socially appropriate and effective intervention strategies for increasing Arabic women's participation in breast cancer screening activities?

Methodology Study 2

Sites:
Doha, Al
Wakrah, Al
Khor

Sample:
purposive
50 men,
50
women,
30 health
care
providers

Qualitative
in-depth
interviews

Qualitative
data
analysis

Results of the survey

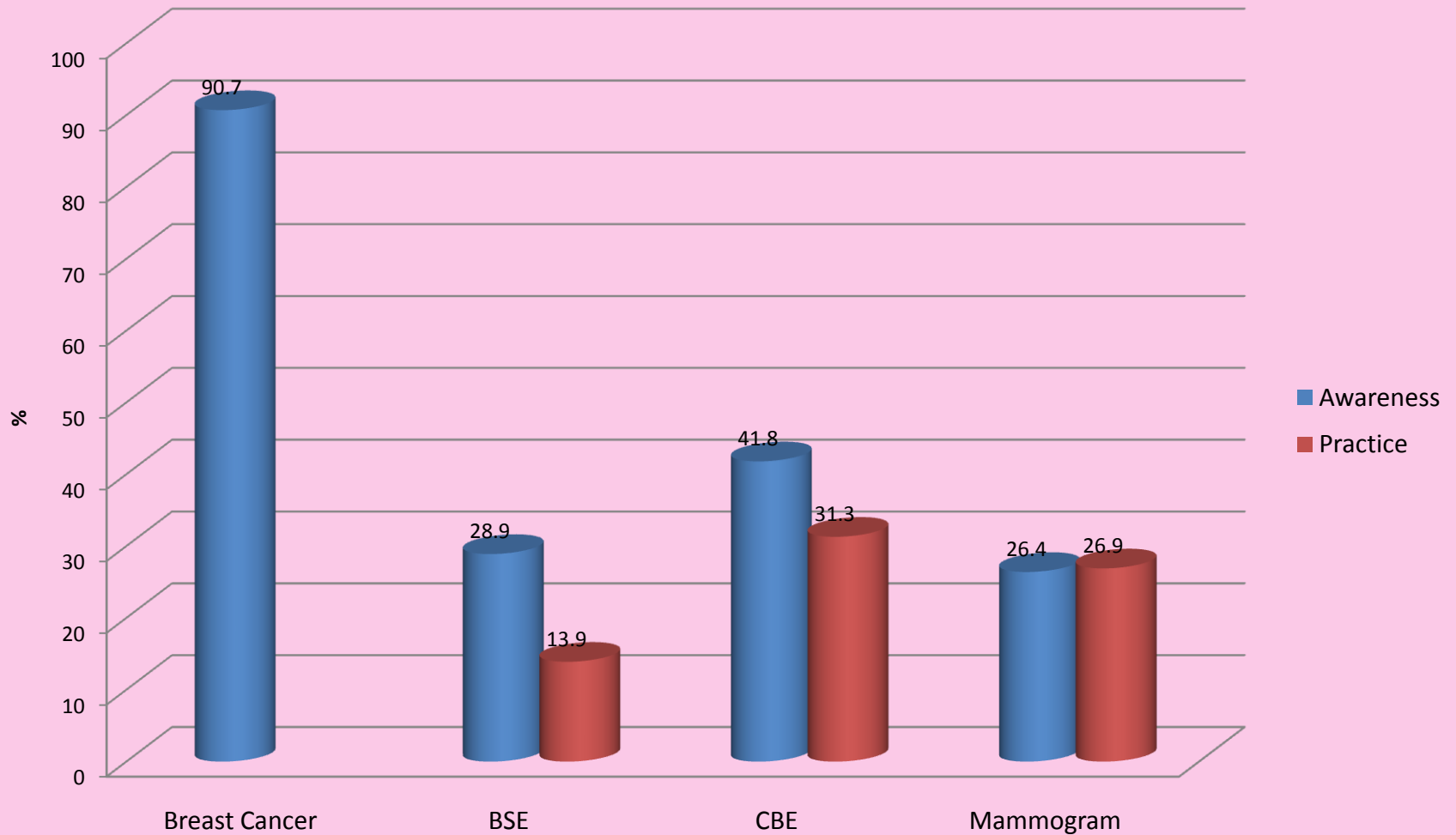
March-July 2011



Table 1. Selected socio-demographic data (N=1,063)

Variable	N (%)
Age (<i>M</i> =44.9, <i>SD</i> =8.4)	
35-39 years	365 (34.4)
40-49 years	399 (37.6)
50-59 years	220 (20.7)
60+ years	77 (7.2)
Marital status	
Single/never married	83 (7.8%)
Married	839 (78.9%)
Other (separated, divorced, widowed)	141 (13.3%)
Nationality	
Qatari citizens	554 (52.1%)
Non-Qatari Arab residents	509 (47.9%)
Religion	
Muslim	1044 (98.2%)
Christian	19 (1.8%)
Living area	
Urban	943 (88.7%)
Semi-urban	120 (11.3%)
Years in Qatar (<i>M</i> =34.8, <i>SD</i> =14.6)	
10-29 years	332 (31.2)
30-49 years	551 (51.8)
50+ years	180 (16.9)
Has participant ever had breast cancer?	
Yes	43 (4%)
No	1020 (96%)

BCS Awareness and Practice (n=1063)



Selected Factors Associated with BCS Practice

BSE practice was significantly related to	Chi-square	P - value
Age: 40-49 years	$\chi^2(1, N=1061) = 17.57$	0.001
Awareness of BSE	$\chi^2(1, N=1063) = 199.53$	0.001
Awareness of CBE	$\chi^2(1, N=1063) = 628.10$	0.001
Awareness of Mammogram	$\chi^2(1, N=1061) = 38.14$	0.001
Basic knowledge of BCS	$\chi^2(1, N=1063) = 102.53$	0.001
Participant Education level	$\chi^2(1, N=1062) = 31.14$	0.001
Husband Education level	$\chi^2(1, N=896) = 38.65$	0.001

CBE practice was significantly related to	Chi-square	P - value
Age: 40-49 years	$\chi^2(1, N=1061) = 17.57$	0.001
Awareness of BSE	$\chi^2(1, N=1063) = 95.08$	0.001
Awareness of CBE	$\chi^2(1, N=1063) = 91.28$	0.001
Awareness of Mammogram	$\chi^2(1, N=1061) = 11.44$	0.001
Basic knowledge of BCS	$\chi^2(1, N=1063) = 79.63$	0.001
Participant Education level	$\chi^2(1, N=1062) = 16.16$	0.003
Husband Education level	$\chi^2(1, N=896) = 17.15$	0.002

Selected Factors Associated with BCS Practice (continued)

Mammogram practice was significantly related to (40+ years old)	Chi-square	P - value
Awareness of BSE	$\chi^2(1, N=695) = 26.86$	0.001
Awareness of CBE	$\chi^2(1, N=695) = 168.44$	0.001
Awareness of Mammogram	$\chi^2(1, N=695) = 49.84$	0.001
Basic knowledge of BCS	$\chi^2(1, N=695) = 28.94$	0.001
Participant Education level	$\chi^2(1, N=695) = 18.36$	0.001
Husband Education level	$\chi^2(1, N=695) = 15.34$	0.004

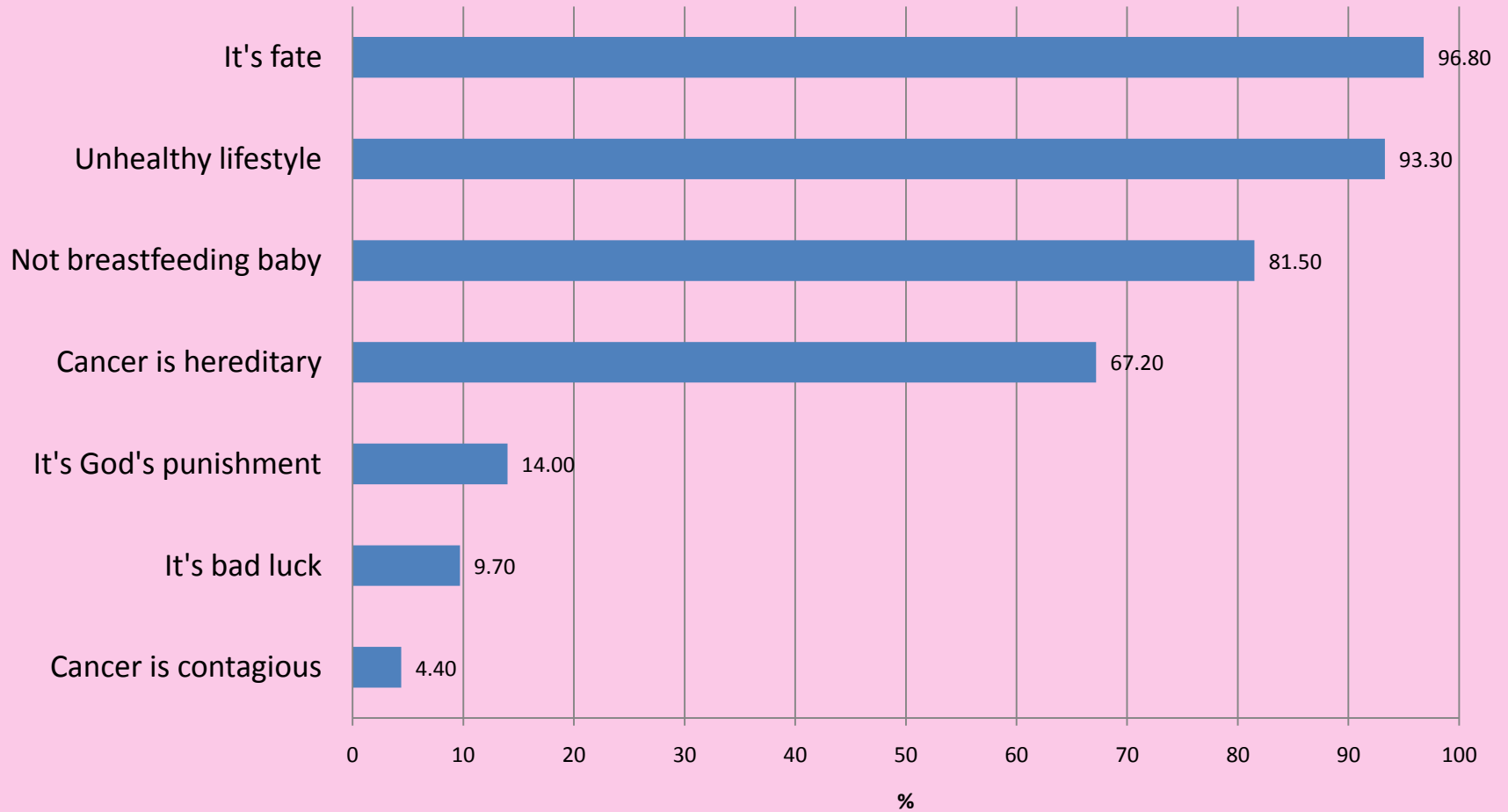
Table 7. Multivariate logistic regression analysis of selected factors associated with practice of breast cancer screening

Variables	Category	OR	95% CI	P value
Appropriate practice of BSE				
BSE awareness	Yes	6.40	3.97 – 10.33	< 0.001
CBE awareness	Yes	2.78	1.63 – 4.73	< 0.001
Doctor talked to participant about breast cancer	Yes	2.08	1.05 – 4.14	0.037
Participant received information about breast cancer from a newspaper/magazine	Yes	2.10	1.05 – 4.18	0.035
Appropriate practice of CBE				
CBE awareness	Yes	185.56	81.50 – 422.50	< 0.001
Doctor talked to participant about breast cancer	Yes	3.52	1.63 – 7.61	0.001
Participant received information about breast cancer from a nurse	Yes	2.72	1.29 – 5.75	0.009
Participant received information about mammography from a doctor	Yes	1.74	1.02 – 2.95	0.041
Participant received information about mammography from television/radio	Yes	2.03	1.03 – 3.99	0.041
Appropriate practice of mammogram				
CBE awareness	Yes	6.51	3.65 – 11.63	< 0.001
Doctor talked to participant about breast cancer	Yes	3.15	1.35 – 7.40	0.008
Participant received information on mammogram from a doctor	Yes	10.10	5.85 – 17.44	< 0.001
Participant received information on mammogram from a pamphlet	Yes	2.26	1.08 – 4.70	0.030

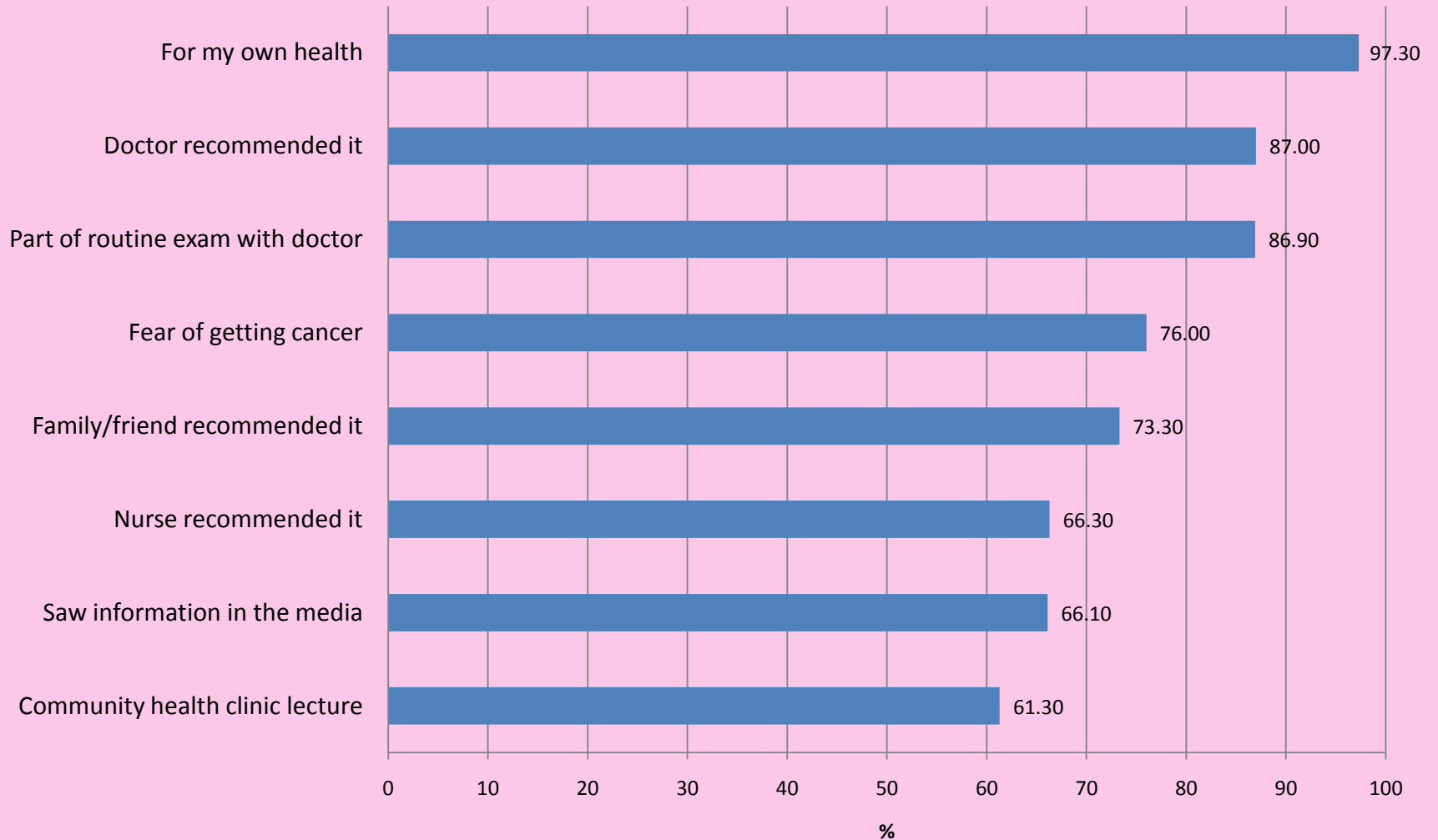
Participant Attitudes and Beliefs (n=1063)

Beliefs or Attitudes	Categories	n (%)
Health Status	Poor – Fair	252 (23.8)
	Good – Excellent	809 (76.2)
Is there anything you can do to prevent cancer?	Yes	455 (42.8)
	No/Don't know	608 (57.2)
Would you want to know if you were diagnosed with cancer?	Yes	921 (86.6)
	No/Don't know	142 (13.4)
Are you planning to have a CBE in next 12 mo?	Yes	525 (49.4)
	No/Don't know	538 (50.6)
Are you planning a mammogram in next 12 mo? (40+ years old, n=695)	Yes	333 (47.8)
	No/Don't know	363 (52.2)

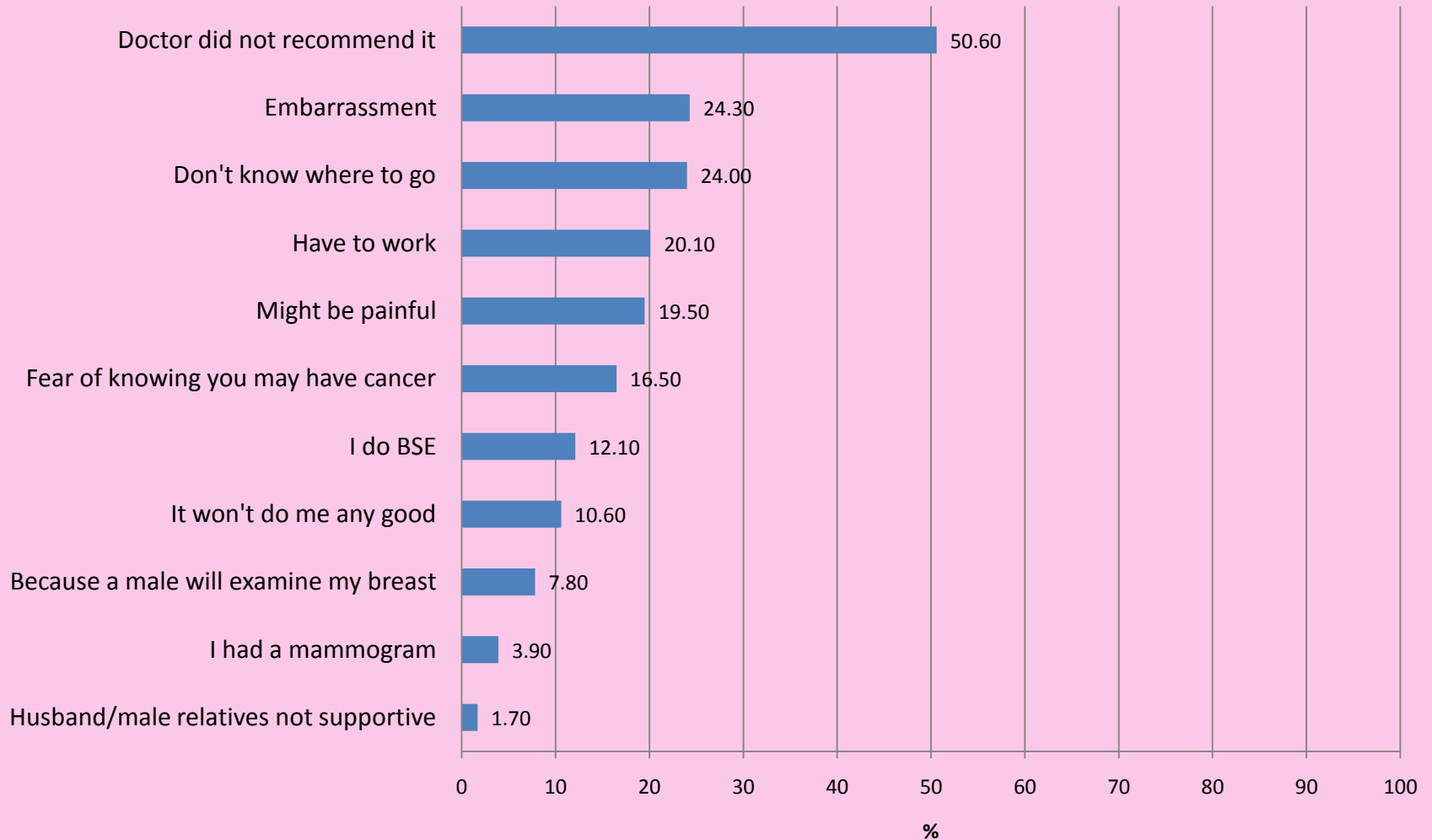
Reasons people get cancer (n=1063)



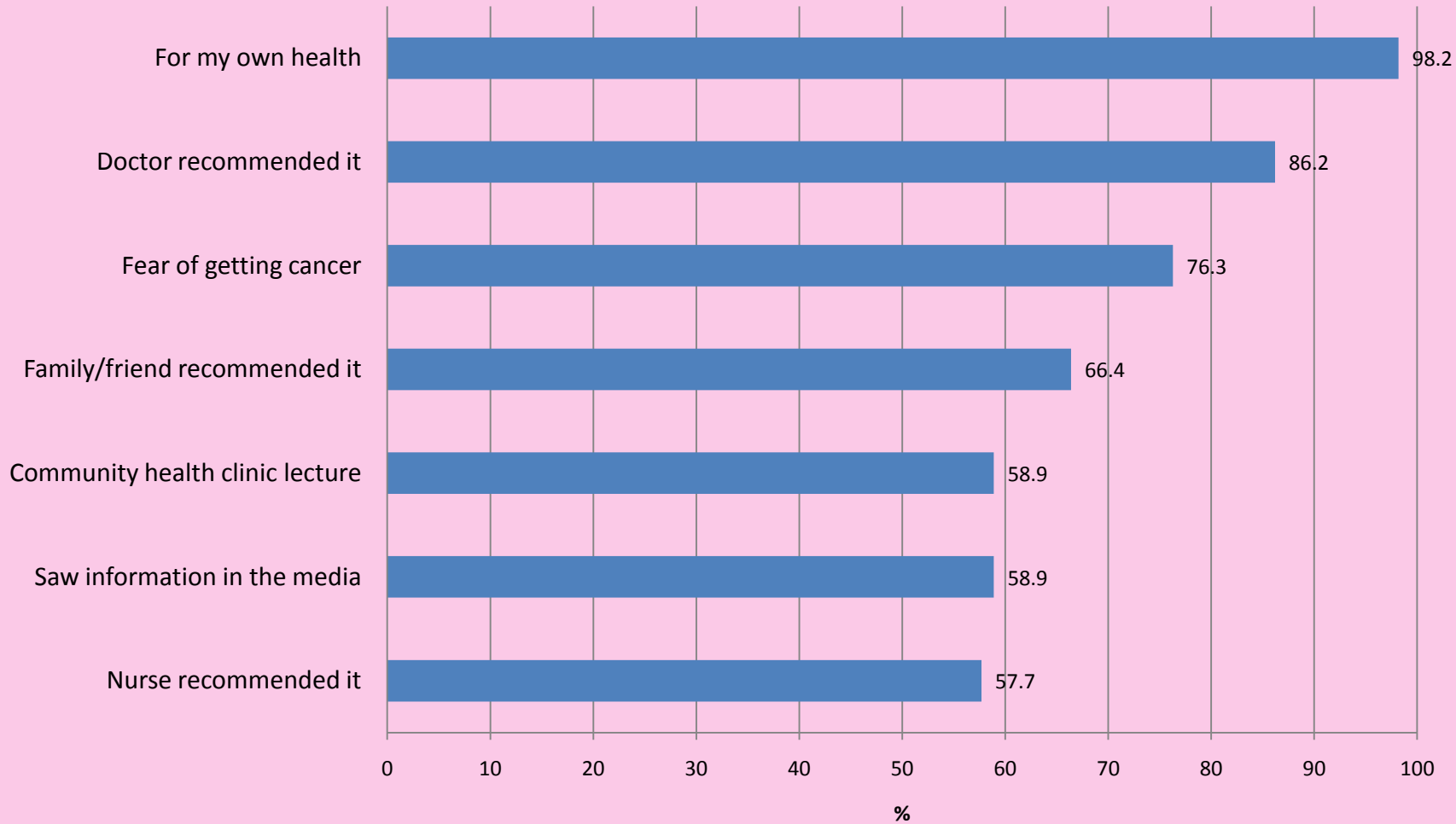
Reasons participants are planning CBE (n=525)



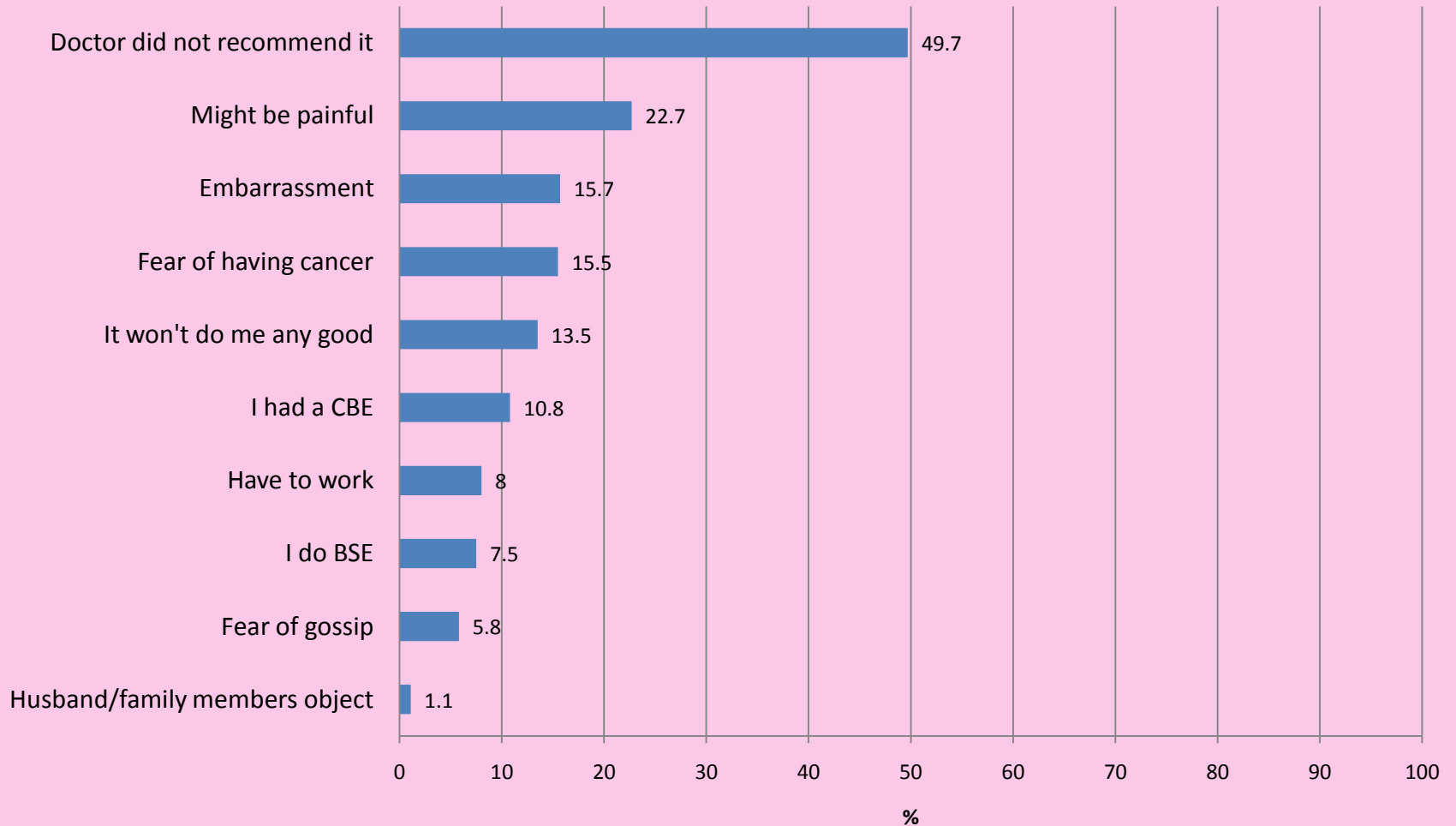
Reason participants who are NOT planning CBE (n=538)



Reasons participants are planning mammogram (40+ years, n=333)



Reasons participants are NOT planning mammogram (40+ years, n=362)



Recommendations

- Public educational campaigns
- Breast health education both female and male
- Multidisciplinary team approach (physician, nurses, health educators, other HCPs)
- Encouragement of female and male physicians
- Establishment of the National BCS program
- Staff strained and informed of National BCS guideline

Recommendations

- Increase accessibility to BCS information and screening clinics
- Mobile BCS / mammogram clinic to provide closer to home services
- Increase roles of media
- Train- the- trainer program
- Arabic women are motivated to engage in breast cancer screening activities. They are very responsible for their own health.

Limitations

- Due to convenience sampling, the current study has limited ability to generalize survey results and potential bias. To avoid bias to some extent, randomly-selected times were chosen for the face-to-face interviews, and attempts were made to approach all potential respondents in an interview location.
- Data were collected from self-reports, and may be subject to inaccuracy or social-desirability response bias.

Dissemination

Peer reviewed publications

- Donnelly, T.T; Al-Khater, A.; Al-Kuwari, M.; Singh, R.; Bujassoum Al-Bader, S.; Malik, M.; Al-Meer, N.; Chaudhry, S; Dorri, R. (2012). Breast Cancer Screening amongst Arabic Women living in the State of Qatar: Awareness, Knowledge, and Participation in Screening Activities. *Avicenna*.
<http://www.qscience.com/doi/abs/10.5339/avi.2012.2>
- Donnelly, T. T; Al-Khater, A.; Al-Kuwari, M.; Al-Meer, N.; Bujassoum Al-Bader, S.; Malik, M.; Singh, R.; Christie, F. (2011). Study exploring breast cancer screening practices amongst Arabic women living in the State of Qatar. *Avicenna*.
<http://www.qscience.com/toc/avi//2011>

In progress

- Factors Related to Awareness, Knowledge, and Participation in Breast Cancer Screening among Qatari Women.
- Do beliefs and values influence Breast cancer screening practices of Arabic Women in Qatar



QNRF

Established in 2006 to fund original, competitively selected research

Objectives:

- Build human capacity
- Create a research culture in Qatar
- Conserve vital national assets
- Foster improvement in the areas of health, environment, and security
- Expand the participation of women in the workplace
- Raise Qatar's international profile in research



4 Programs:

1. National Priorities Research Program (NPRP)
2. Undergraduate Research Experience Program (UREP)
3. Young Scientists Research Experience (YSREP)
4. Secondary School Research Experience Program (SSREP)



National Priorities Research Program (NPRP)

- Lunched in 2007
- NPRP is QNRF's flagship funding program
- More than 50 Qatari submitting institutions
- Involves 239 collaborative institutions from 39 countries in the world
- Awarded 411 projects for the values of 346 million USD
- Internationally peer reviewed



National Priorities Research Program (NPRP)

Objectives:

- Support projects relevant to Qatar national goals
- Encourage multi-institution and multidiscipline collaboration
- Support the natural sciences, engineering and technology, medical and health sciences, agricultural sciences, social sciences and humanities
- Give special status to extra-meritorious proposals



National Priorities Research Program (NPRP)

Policy

- One NPRP cycle per year
- Grants between 20,000 to 350,000 per year up to 3 years
- Researchers working abroad can apply, but they must collaborate with a Qatar submitting institution
- Approximately half of all submissions are in collaboration with international organizations
- Give special support to extra-meritorious proposals that require more fund. The NPRP-Exceptional Proposal program offers a maximum of 5 millions USD with project duration of up to 5 years.



National Priorities Research Program (NPRP)

Eligibility of Lead Principal Investigators (LPIs)

- must hold a research oriented doctorate or any of the approved listed terminal degree .
- should have at least five peer reviewed publications .
- must have a good track record in research and particularly good research skills and experience in the field of the proposed project.
- should be affiliated with a well-recognized academic institute, research institute, research oriented company, or research organization from the public or private sector.



National Priorities Research Program (NPRP)

Funding Eligibility

- Grants will range from US\$20,000 up to a maximum of US\$350,000 per proposal, per year.
- QNRF reserves the right to reduce the total budget requested by the LPI, based on the recommendations of the PRs.
- Funds will then be made available to the successful LPI's submitting institution inside the State of Qatar for awarded proposals
- The total annual budget (direct and indirect) must be expended at least sixty-five percent (65%) of the total annual award inside Qatar.
- Proposals which were submitted but were not funded in a previous NPRP cycle may only be resubmitted one time in the subsequent cycle.



QNRF

- QNRF website:
<http://www.qnrf.org/>
- NPRP website:
http://www.qnrf.org/funding_programs/nprp/
- Download Center website:
http://www.qnrf.org/funding_programs/nprp/download_center/

Questions?

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Thank you

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