

ORIGINAL INVESTIGATIONS

Knowledge, Attitudes, and Beliefs Regarding Cardiovascular Disease in Women



The Women's Heart Alliance

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ABSTRACT

BACKGROUND Cardiovascular disease (CVD) is the number 1 killer of women in the United States, yet few younger women are aware of this fact. CVD campaigns focus little attention on physicians and their roles in assessing risk.

OBJECTIVES In 2014, the Women's Heart Alliance (WHA) conducted a nationwide survey to determine barriers and opportunities for women and physicians with regard to CVD.

METHODS From September 18 to 26, 2014, a total of 1,011 U.S. women (age 25 to 60 years) were interviewed using the GfK ("Gesellschaft für Konsumforschung" Knowledge Panel). From May 6 to 12, 2014, the e-Rewards Inc. Physician and Healthcare Professional Panel surveyed 200 primary care physicians (PCPs) and 100 cardiologists.

RESULTS Overall, 45% of women were unaware that CVD is the number 1 killer of women; only 11% knew a woman who died from CVD. Overall, 45% of women reported it was common to cancel or postpone a physician appointment until losing weight. CVD was rated as the top concern by only 39% of PCPs, after weight and breast health. Only 22% of PCPs and 42% of cardiologists ($p = 0.0477$) felt extremely well prepared to assess CVD risk in women, while 42% and 40% felt well-prepared ($p = NS$), respectively. Few comprehensively implemented guidelines.

CONCLUSIONS CVD was rated as the top concern less frequently than weight issues by both women and physicians. Social stigma particularly regarding body weight appeared to be a barrier. Physicians reported limited training and use of guideline assessment, whereas most supported a campaign and improved physician education. Campaigns should make CVD "real" to U.S. women, countering stereotypes with facts and validated assessments. Both community women and physicians endorsed investment in women's CVD research and physician education. (J Am Coll Cardiol 2017;70:123–32) © 2017 by the American College of Cardiology Foundation.



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Manuscript received May 1, 2017; accepted May 9, 2017.

**ABBREVIATIONS
AND ACRONYMS****ASCVD** = atherosclerotic
cardiovascular disease**CVD** = cardiovascular disease**KAB** = knowledge, attitudes
and beliefs**PCPs** = primary care physicians**WHA** = Women's Heart
Alliance

Cardiovascular disease (CVD) is the number 1 cause of death in women in the United States, accounting for nearly 400,000 deaths and killing more women than all cancers combined (1). Although mortality from CVD has been declining overall, this decline has lagged behind for women compared with men, and among the youngest women (age younger than 55 years), there has been an increase in death from CVD (2,3).

Too few women are aware of CVD. A national survey commissioned by the American Heart Association in 1997 found that only 1 in 3 women correctly identified heart disease as their leading cause of death (4). Although subsequent surveys have shown that awareness among women has doubled since 1997, it remains substandard and has not improved significantly since 2006, particularly in younger and ethnic minority women, despite campaigns to educate the public and increase support for women's heart disease (5,6).

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Physicians also appear to be less aware. Previous studies have demonstrated that physicians are more likely to assign a lower CVD risk category to female patients compared with risk-matched male patients, as well as underestimate the probability of CVD in women (7). They are also less likely to refer women and ethnic minorities for diagnostic cardiac catheterization (8). In a 2012 online survey, only 21% of women reported that their physicians had ever discussed their risk for heart disease (6). Women often receive suboptimal CVD preventative care (7,9,10).

In November 2014, the Women's Heart Alliance (WHA) launched a national campaign to improve awareness, action, and advocacy for women's cardiovascular health, including knowledge of sex differences in CVD. Two surveys were conducted to determine current knowledge, attitudes, and beliefs (KAB) to advise the campaign regarding barriers and opportunities for the community and physicians. The community survey of younger women sought to inform the campaign regarding the aims of: 1) encouraging and empowering women to speak with their healthcare providers about the importance of heart risk checks; 2) encouraging their physicians to proactively address, and talk to patients and peers about women's heart health; and 3) encouraging more investment in women's heart disease research. The physician survey informed the campaign aims by asking: 1) if physicians would embrace and/or dismiss the call to action; 2) if physicians recognized the value

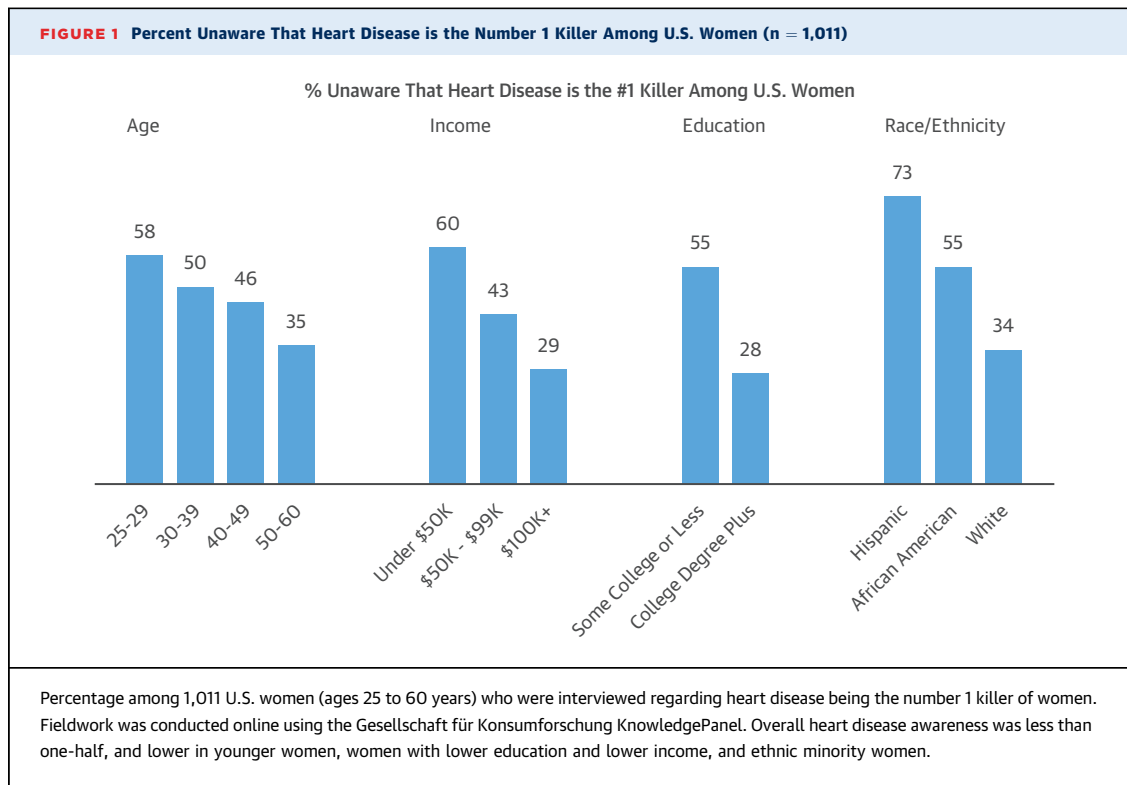
of the community education effort; 3) if physicians felt prepared to take action; and 4) what concerns, if any, physicians had about such an effort.

METHODS

We used the KAB method (11), an established survey approach used for nonmedical (12) and medical areas (13-16), to identify barriers and opportunities to advise awareness, action, and advocacy efforts. Specifically, contrary to the psychological principle of "consistency," which reflects the idea that people are rational and their behavior should be consistent with their KAB, there is abundant evidence that the cognitive and affective components of attitude and beliefs do not always match knowledge and behavior (17). Identification of KAB can inform campaigns regarding barriers and opportunities to awareness, action, and advocacy success.

From September 18 to 26, 2014, a total of 1,011 U.S. women (ages 25 to 60 years) were interviewed. Fieldwork was conducted online using the "Gesellschaft für Konsumforschung" KnowledgePanel, which is the only representative panel of the American public (11). The KnowledgePanel covers 97% of U.S. households. Respondents were selected using random probability address-based sampling; computers and internet service were provided to respondents who did not have them to ensure fuller representation of the American public. The survey took a mean of 15 min to administer. Final data were weighted by age, region, race/ethnicity, education, and income according to the March 2014 Current Population Survey. The response rate was 43%, and the margin of error was ± 3.4 percentage points at the 95% confidence level (for the total sample) and higher for subgroups. The community survey questions are shown in the [Online Appendix](#). Content validity of the KAB form was assessed from a pool of questions derived from a panel of experts in women's CVD public health, research, and advocacy.

The physician survey data collection occurred from May 6 to 12, 2014 using the e-Rewards Inc. (Research Now) Physician and Healthcare Professional Panel, an online invitation-only database based on American Medical Association data, which has been verified. The study population was 200 primary care physicians (PCPs), including internists ($n = 31$), family physicians ($n = 112$), general practitioners ($n = 10$), obstetrician/gynecologists ($n = 50$), and cardiologists ($n = 100$); all were in practice ≥ 3 years. Overall, $\geq 33\%$ of PCPs' patients, and $\geq 21\%$ of cardiologists' patients were women. The physicians were asked to review information about a campaign to improve women's



heart health and answers questions ([Online Appendix](#)). Physicians were asked specifically about use of guideline-recommended assessments (smoking status, diet and physical activity, family history of premature coronary heart disease, pregnancy history, autoimmune history, physical examination, blood work, and calculation of 10-year CVD risk) (18).

Both surveys were developed in consultation with the WHA to determine KAB on heart disease in women among community women and practicing physicians. Due to the rise in CVD mortality in younger women, the community survey included only women who were younger than 60 years. We used descriptive and frequency distributions, and chi-square statistics. The surveys were consumer-directed, the data were anonymized, and ethical review board approval was not obtained.

RESULTS

HEART DISEASE AWARENESS IN WOMEN. Overall, 45% of women were not aware that heart disease is the number 1 killer of women in the United States. Awareness was lower in women with lower education and lower income, as well as ethnic minorities ([Figure 1](#)). Most (73%) of the women did not know a woman with heart disease, and most (89%) did not

know a woman who died from heart disease. Younger and middle-aged women ages 25 to 49 years were less apt than those who were ages 50 to 60 years to know a woman affected by heart disease (23% and 37%, respectively; $p < 0.0001$). Nearly 71% of women almost never raised the issue of heart health with their physician. These women assumed their doctor would raise the issue if there was a problem. Reasons related to a lack of prioritization were most frequently lack of knowledge ([Table 1](#)). Overall, 38% reported having a moment when they thought there might be something wrong with their heart, and of these, less than one-half told anyone, and only one-third called for medical attention ([Table 1](#)).

PERSONAL CONNECTIONS HELP MAKE HEART DISEASE A PRIORITY IN WOMEN'S LIVES. Women who reported knowing another woman with heart disease were more apt to express concern, and importantly, bring up this issue with their physician. Specifically, 75% of women who knew a woman with heart disease versus 50% who did not were somewhat or very concerned that they might be at risk for heart disease ($p < 0.0001$), whereas 58% and 39%, respectively, ($p < 0.0001$) asked their doctor about heart health during a visit. Most (78%) would discuss

TABLE 1 Community Women Survey Results (n = 1,011)	
Action taken among those reporting something wrong with their heart (38%)	%
Told someone	45
Told a friend	7
Told your spouse or significant other	34
Told a family member	16
Called for medical attention	32
Called 911	5
Called the doctor	27
Took an aspirin	12
Nothing, just wanted to see what would happen to be sure it wasn't something else	32
Reasons why women do not ask about heart health more often	71
I assume my doctor will bring it up if there is an issue	49
I don't think I need to worry about it at my age	23
I'm in good health, so I am not at risk for heart disease	23
I have other more pressing issues to talk about	18
Heart health is not something I think about	14
I do not know what questions to ask	13
I do not know what screenings to ask for	10
There's not enough time during the appointment	7
I do not know the symptoms of heart disease	3
Percent demonstrating heart disease risk factors	
Instructed to lose weight	34
Instructed to exercise more	32
Have a family history of heart disease	31
Have high cholesterol	17
Have high blood pressure	17
Have irregular menstrual periods	15
Instructed to stop smoking	14
Had early menopause	10
Had pregnancy complications	8
Have an autoimmune disease (e.g., Lupus)	6
Had diabetes	6
Told by a doctor that they have or are at risk for heart disease	16
Percent of women who know heart disease/heart attack symptoms	
Chest pain	82
Pain in 1 or both arms	72
Shortness of breath	72
Pain in other parts of the body	60
Palpitations or rapid heartbeat	57
Lightheadedness or dizziness	55
Unusual fatigue or tiredness	52
Burning sensation in the chest	51
Pain in the jaw	44
Cold sweats	41
Nausea or vomiting	41
Anxiety	20

heart disease with a friend thought to be in danger of having or developing heart disease.

HEART HEALTH ASSESSMENTS ARE NOT ALWAYS PART OF ROUTINE HEALTH SCREENINGS OF WOMEN. Most women reported having a routine physical or wellness examination in the past year, yet only 40% reported having a heart health assessment,

and less than one-half recalled key heart health assessments by their doctors (Table 1). Women who reported having their heart checked by a physician in the last year compared with those who did not were twice as likely (34% and 17%; $p < 0.0001$) to discuss the topic with friends and family “often” or “sometimes.” Among those who had their hearts checked, 76% reported their doctor discussed the results with them, and among these women, notably 96% reported they understood the results.

HEART DISEASE IS STIGMATIZED FOR WOMEN.

Overall, 63% admitted to putting off going to the physician at least sometimes; 45% of women cancelled or postponed a physician appointment until losing a few pounds. Although 74% reported having ≥ 1 heart disease risk factors, only 16% were told they were at risk by their physicians (Table 1). Among the women, 83% believed that being overweight was a risk factor for heart disease, and 34% reported they were instructed to lose weight. Most (76%) said they rarely or never discussed heart health with family and friends; 1 in 4 (26%) agreed that heart disease was embarrassing—“people just assume you are not eating right or exercising.” Overall, 57% said they knew they should be doing more to keep their heart healthy, but it could be overwhelming at times. Among the 37% that were instructed to improve their heart health, the top reasons cited for making only some or none of the physician-recommended changes included difficulties with getting time for regular exercise (41%) and with losing weight (40%). Women reported being more apt to put off going to the physician than doing their taxes (63% and 27%). Indeed, 44% of women ages 25 to 29 years agreed that heart disease was so frightening, they would rather not think about it (vs. 33% of women ages 25 to 60 years; $p = 0.0135$).

KNOWLEDGE GAPS FOR WOMEN. Few women understood the linkages between heart disease and diabetes (43%), autoimmune disease (19%), pregnancy complications (21%), early menopause (10%), and irregular periods (5%). Most were unaware that jaw pain, cold sweats, nausea, or anxiety could be symptoms of heart disease and/or heart attack (Table 1). Overall, 76% were unaware that heart disease research was primarily conducted on men, and 41% were unaware that a woman's heart could be different than a man's, however, 86% understood that it is possible that men and women have different symptoms of heart disease. Yet, most of the women (62%) felt that the medical tests that exist must or probably should be designed for a woman. At the same time, 82% agreed that the medical community

needs to do more to inform women of the threat of heart disease. Seventy-five percent agreed that women’s heart disease needs more attention in medical training and school.

HEART DISEASE IS NOT A TOP PRIORITY FOR PHYSICIANS. The physician survey demographics are listed in **Table 2**. Fewer than one-half (39%) of PCPs rated CVD in women a 5, and 37% rated it a 4 on an extreme concern scale, placing CVD after weight issues (48% and 40%) and breast health (48% and 28%), respectively (**Figure 2**). When CVD was mentioned, PCPs discussed it during a physical or if something prompted the conversation (e.g., presence of a risk factor or patient mentions it); only 7% reported discussing it every visit, and only 35% reported such a discussion during each new patient visit. PCPs and cardiologists reported they might not have discussed CVD because the patient had more immediate health issues (57% and 29%, respectively; $p < 0.0001$) or the patient did not fully report symptoms (46% and 34%, respectively; $p = 0.0477$), which indicated that prevention before symptoms was not a priority in women.

PHYSICIANS DO NOT FEEL WELL PREPARED. Only 22% of PCPs and 42% of cardiologists ($p = 0.0477$) felt extremely well prepared to assess CVD risk in women, while 42% and 40% felt well-prepared ($p = NS$), respectively. Forty-nine percent of PCPs and 59% of cardiologists ($p = 0.1030$) reported that their medical training prepared them to assess female patients’ CVD risk (**Table 3**). Both PCPs and cardiologists overwhelmingly agreed with the statement, “Women can present with different signs and symptoms of heart disease than men” (90% and 91% agreed, respectively; $p = NS$), but only 49% of PCPs and 52% of cardiologists ($p = NS$) agreed that women’s and men’s hearts are physiologically different.

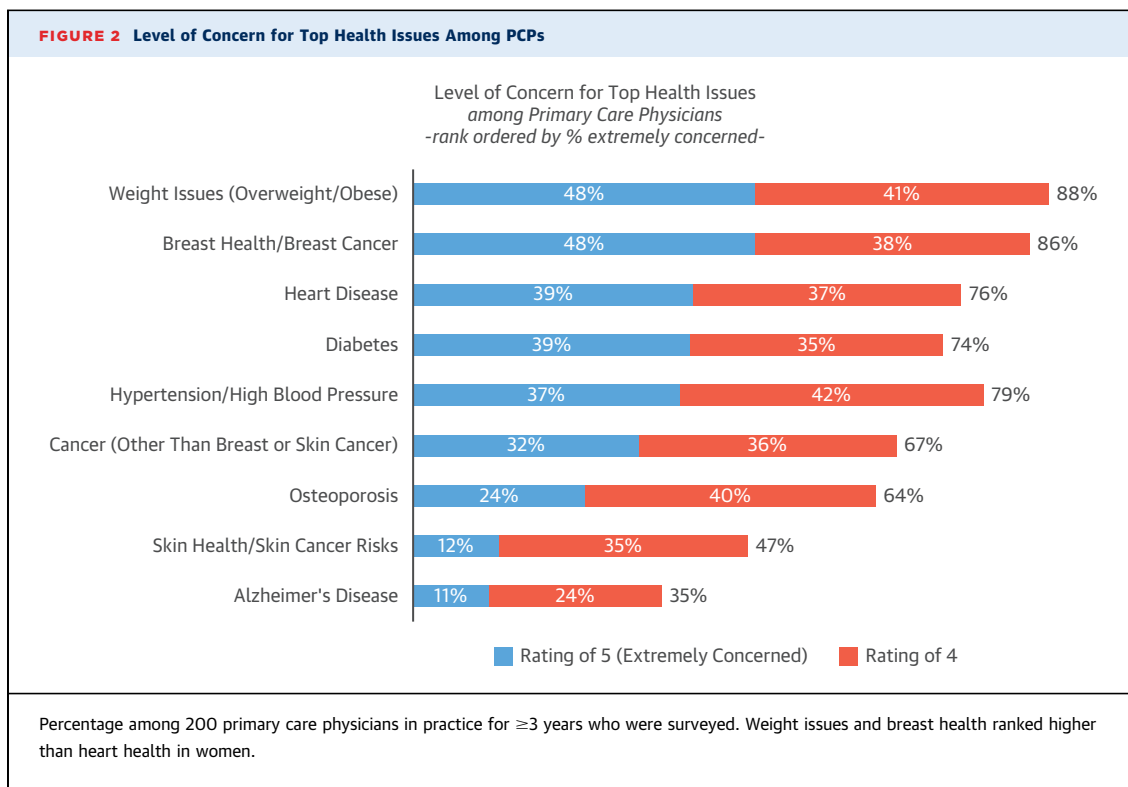
LOW USE OF RISK ASSESSMENT. Only 16% of PCPs and 22% of cardiologists ($p = NS$) indicated that they implemented all 8 of the American Heart Association guidelines for CVD risk assessment, specifically: 1) discussed personal and family medical history (e.g., history of hypertension, diabetes, high cholesterol, established heart disease, or previous stroke) and pregnancy complications that further increase heart disease risk (e.g., hypertension, gestational diabetes, pre-eclampsia or eclampsia); 2) asked about any heart disease symptoms (e.g., shortness of breath, chest pain, fatigue, and so on); 3) asked about smoking, diet, and physical activity habits; 4) screened for depression among women with heart disease; 5) conducted a physical examination that included blood pressure, body mass index,

TABLE 2 Physician Survey Demographics (N = 300)

	PCPs (n = 200)	Cardiologists (n = 100)
Practice setting		
Hospital	8.0	38.0
Health clinic or urgent care	23.0	2.0
Private practice	68.0	58.0
Other	2.0	2.0
Insurance used (by mean % of patients)		
Patient pay/full fee-for-service	14.4	10.0
Private employee/group or individual policy	41.7	32.1
Medicare	21.2	58.7
Medicaid	11.7	10.6
Other state programs	1.3	1.5
Tricare	2.0	2.1
Other insurance	4.5	4.2
Discount/co-pay card	0.6	0.4
None	2.6	0.5
Sex		
Male	65.0	85.0
Female	35.0	15.0
Region		
Northeast	20.0	38.0
Midwest	22.0	21.0
South	32.0	21.0
West	26.0	20.0
Practice setting		
Urban area	28.0	47.0
Suburban area	50.0	53.0
Small town	11.0	—
Rural area	11.0	—
Age, yrs		
25-34	2.0	9.0
35-44	29.0	33.0
45-54	28.0	28.0
55-64	36.0	22.0
65-74	5.0	5.0
75+	1.0	3.0
Race		
White or Caucasian	68.0	52.0
Black or African American	3.0	—
American Indian or Alaska Native	1.0	1.0
Asian	19.0	28.0
Native Hawaiian or Other Pacific Islander	1.0	1.0
Some other race	2.0	1.0
Prefer not to answer	10.0	19.0
Hispanic or Latino	3.0	2.0
Not Hispanic or Latino	90.0	54.0
Prefer not to answer	7.0	14.0

Values are %.
 PCP = primary care physician.

and waist circumference; 6) measured cholesterol, triglycerides, and sugar levels; 7) calculated 10-year and lifetime heart disease risk; and 8) talked with women about what each of these mean for their heart health (18). One-in-four PCPs (23%) and 1-in-5 cardiologists (20%) implemented <5 of the guidelines



($p = NS$). Although most PCPs and cardiologists were aware of the Atherosclerotic Cardiovascular Disease (ASCVD) Risk Assessment Calculator, use was only approximately one-half in both groups (Table 3). More

TABLE 3 Physicians Do Not Feel Well Prepared

	Primary Care Physicians, %	Cardiologists, %
Preparedness to assess female patients' risks		
Extremely well prepared	22	42
Very well prepared	42	40
Somewhat well prepared	31	17
Not too well prepared	4	1
Not at all prepared	1	—
Medical school preparation to assess female patients' risks		
Extremely well	13	28
Very well	36	31
Somewhat well	36	22
Not too well	13	15
Not at all	2	2
Not sure	—	2
Physician awareness of the ASCVD Risk Calculator		
Yes, I am currently using it	44	53
Used it previously, but not currently using it	24	30
Have never used it	31	15
Not sure	1	2

ASCVD = atherosclerotic cardiovascular disease.

physicians who used email, Facebook, or Twitter heard of the ASCVD Risk Assessment Calculator than those who were less digitally engaged (Table 4).

PHYSICIANS WELCOME CAMPAIGN. In response to campaign descriptions, most PCPs (87%) and cardiologists (82%) ($p = NS$) were favorable toward a national action campaign. Most physicians (59% of PCPs and 61% of cardiologists; $p = NS$) believed that the message “get #heartchecked” would be very or extremely helpful. Insignificantly more PCPs than cardiologists noted that women’s CVD health did not get enough attention in medical resources such as continuing medical education (43% and 34%, respectively; $p = 0.1346$) or medical journals (36% and 28%, respectively; $p = 0.1669$), whereas similar proportions said insufficient resources were devoted to the issue (e.g., medical research [41% and 38%, respectively], government institutions [38% and 36%, respectively], and patient information [36% and 38%, respectively]; all $p = NS$). Most indicated the campaign would increase awareness and provide needed community education, and approximately one-third posited it would improve prevention. Some negatives were expressed, including 11% who expressed concern about cost, 6% who worried about creating fear, and 6% who were concerned the campaign might lead to inappropriate testing.

TABLE 4 More Physicians Who Use Email, Facebook, or Twitter Have Heard of the ASCVD Risk Assessment Calculator Than Those Who Are Less Digitally Engaged

	User	Nonuser
Yes, I am currently using it	54	43
Used it previously but not currently using it	23	30
Have never used it	21	26
Not sure	1	1

Values are %.

DISCUSSION

AWARENESS. The results of our 2014 WHA community and physician KAB surveys confirmed that CVD in community women still fails to register as the top-tier concern among younger community women or physicians. Almost one-half of the surveyed women were not aware that CVD is the number 1 killer of women in the United States, and few women could name a woman who was diagnosed with or had died from CVD. PCPs prioritized weight issues and breast health ahead of CVD.

A minority of the surveyed physicians reported carrying out even 5 of the recommended 8 American Heart Association risk assessments in their female patients. These results extended previous research that showed that although women’s CVD risk awareness increased between 1997 and 2003, awareness has now stalled, with no major progress in almost 10 years (4,6). Little progress has been made in the last decade in increasing physician awareness or use of evidence-based guidelines to care for their female patients. Specifically, compared with a previous physician survey in 2004, lower proportions of PCPs were currently aware of CVD prevention guidelines, although cardiologist awareness was similar (7). Similar surveys regarding men have not been published.

ACTION. Lack of personalization and social stigma appeared to be barriers to women not discussing heart health. Women reported infrequent heart disease risk assessment by their physicians, and the most frequent advice was to lose weight. The latter finding is consistent with a previous publication from the VIRGO (Variation in Recovery: Role of Gender on Outcomes of Young AMI Patients) study, in which younger women with diabetes mellitus were more likely to be told to lose weight and less likely to be treated with guideline statin therapy compared with similarly aged and more overweight men before an acute myocardial infarction (10). We described previously that women are more objectified than men in society, which contributes to

the implicit bias and belief inconsistent with evidence among both women and physicians that body weight is a CVD risk factor and weight management is an effective CVD risk reduction strategy (9). Many women also reported being embarrassed to talk to family and friends about heart health; thus, the recommended risk factors were likely infrequently discussed. Most physicians did not feel well-prepared to assess women’s risk of CVD, and many reported suboptimal medical training in this area. Together, these results suggest a need to de-stigmatize CVD for women and to counteract stereotypes with increased objective risk factor evaluation education to improve treatment by physicians.

Almost one-half of the women reported the barrier that it was common to delay seeing their physician until they had lost weight, to present their best self. However, our results demonstrated the action opportunity that women who reported having their heart checked by a physician in the last year were twice as likely to discuss the topic with friends and family. This suggested that physician and patient conversations about heart health are key to CVD awareness and action in the community. Our results further indicated that in addition to improving existing physician education and practice, methods of increasing physicians’ frequency of guideline CVD risk assessment and dissemination of heart health information should be pursued. Our survey identified the opportunity of digital and social media physician education to address the knowledge gaps, and inconsistencies between knowledge and beliefs in physician practice, with an emphasis via social digital media training.

ADVOCACY. Notably, most physicians in the WHA survey were supportive of a national action campaign and an increase in physician education about CVD for women. Previous work demonstrated that use of guidelines for acute coronary syndrome substantially reduced CVD mortality in women (19), which suggested that such algorithms could overcome implicit bias. Further work is needed to understand the pros and cons of general and sex-specific CVD guideline implementation.

Most women endorsed that medical tests should be designed for a woman, that the medical community needs to do more to inform women of the threat of heart disease, and that women’s heart disease needs more attention in medical training and school. Conversely, although most of the physicians acknowledged that women can present with different signs and symptoms of CVD than men, only one-half expressed the knowledge that women’s and men’s hearts are physiologically different. This inconsistency of KAB

CENTRAL ILLUSTRATION Knowledge, Attitudes and Beliefs Regarding Cardiovascular Disease in Women: The Women's Heart Alliance

#1 Cardiovascular disease (CVD) is the top cause of death in women in the U.S.
CVD kills more women than all cancers combined

400,000
women died from CVD
in 2016 (U.S.A.)

And yet ...



Only 45% of women know CVD is #1 killer



26% of women find CVD embarrassing, assuming risk is solely linked to weight



Only 40% of routine care includes a heart risk check



Only 39% of primary care physicians (PCPs) make CVD a top priority



Only 22% of cardiologists feel well prepared to assess CVD risk

A need to raise awareness of risk and symptoms of heart disease

A need to de-stigmatize the disease risk by countering stereotypes with facts

A need to invest in women's CVD research and physician education/training

Bairey Merz, C.N. *et al.* *J Am Coll Cardiol.* 2017;70(2):123-32.

Knowledge, attitude and belief barriers for community woman and physicians from surveys conducted by the Women's Heart Alliance resulting in opportunities for community women and physician campaigns to improve women's heart health. CVD = cardiovascular disease; PCP = primary care physician.

among physicians represents an education opportunity. In 2015, the National Institutes of Health budget for "Women's Health" specific to women's CVD in the National Heart, Lung, and Blood Institute was \$412,841,323, which was less than one-half the \$1,125,069,950 budget spent on women's cancer in the National Cancer Institute (20). Sex and gender in medical education are not specifically addressed, with multiple groups calling for change (21-25).

STUDY LIMITATIONS. The community survey was relatively small in comparison to the U.S. population of women 60 years of age and younger; however, the previous validity and representativeness, as well as

the margin of sampling error and weighting to correct for differential nonresponse and undercoverage conducted by "Gesellschaft für Konsumforschung" was a strength, and likely an improvement over previous surveys. The sample size of 200 PCPs and 100 cardiologists was also relatively small, although our survey methodology used validated measures to be nationally representative. It is possible that larger surveys might have produced different results. The WHA will continue to work with the co-author organizations to further this initiative, using similarly nationally representative surveys and professional organizations reflective of the larger population of U.S. PCPs and cardiologists.

CONCLUSIONS

CVD in women awareness remains largely inadequate in both women and among physicians. Weight and breast health rank higher than CVD in women by PCPs, which is consistent with a disconnect between KAB with appropriate awareness, action and advocacy. Social stigma particularly regarding body weight is a barrier to women not discussing heart health to take action to reduce risk. Physicians report limited knowledge and training in assessing CVD risk in women. Furthermore, physicians report low action regarding use of guidelines risk assessment in women. Most of the women endorsed the advocacy of medical tests designed for women, greater discussion of the threat of heart disease, and more physician attention in medical training, whereas physicians supported the advocacy of a national action campaign and improved physician education. The implications of our results support that campaigns should work to make CVD “real” to American women and destigmatize the disease risk by promoting the use of CVD risk assessment to counter stereotypes with facts and validated assessments. Further investment in CVD research for women and physician education are needed and endorsed by community women and physicians (**Central Illustration**).

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PERSPECTIVES

COMPETENCY IN SYSTEMS-BASED PRACTICE: Awareness of CVD among younger women, PCPs, and cardiologists is limited; CVD is not a top concern, ranked after weight issues and breast health. Although a majority of cardiologists and PCPs are aware of risk assessment recommendations, relatively few comprehensively use guidelines.

COMPETENCY IN INTERPERSONAL AND COMMUNICATION SKILLS: Social stigmas associated with body weight contribute to hesitation by many women to visit healthcare providers or discuss heart health.

TRANSLATIONAL OUTLOOK: Further investment in research and education on CVD in women coupled with implementation of guideline-recommended risk assessments could reduce morbidity and mortality.

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KEY WORDS cardiovascular disease, prevention, women

APPENDIX For supplemental surveys, please see the online version of this article.