Improving Women’s Cardiovascular Health: A Position Statement From the International Council on Women’s Health Issues

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Cardiovascular disease (CVD) is the number one killer of women worldwide, and it remains the primary cause of death and disability in both developed and developing countries. The International Council on Women’s Health Issues is an international nonprofit association dedicated to the goals of promoting the health, health care, and the well-being of women. Based on the outcomes of a facilitated
discussion at its 18th biannual meeting, delegates aim to raise awareness about the potent influence of gender-specific factors on the development, progression, and outcomes of CVD. Key recommendations for decreasing the burden of CVD are also discussed.

Heart disease and other chronic diseases have been described by Ban Ki Moon as a “public health emergency in slow motion” (United Nations Secretary-General, 2009, p. 2439). Among chronic diseases, cardiovascular disease (CVD) remains the primary cause of death and disability in both developed and developing countries (Beaglehole, Reddy, & Leeder, 2007; Lloyd-Jones et al., 2010). Potentially, CVD is the most serious, neglected disease for women in the developing and developed worlds (Schenck-Gustafsson, 2009). By a gendered approach we mean not merely identifying biological differences but also the socially constructed expectations that differentiate the roles and attributes of men and women. Gender-driven factors, relating to the sociocultural roles of women, influence expectations, health-seeking behaviors, access to treatment, and CVD outcomes (Chou et al., 2007; Dressler & Bindon, 1997; Fincher et al., 2004). The ICOWHI is an international nonprofit association dedicated to the goals of promoting health, health care, and well-being of women throughout the world through participation, empowerment, advocacy, education, and research. Our purpose in this article is to raise awareness about the potent influence of gender-specific factors on the development, progression, and outcomes of CVD.

Rapid urbanization and the effects of globalization bring about lifestyle changes that promote heart disease. These risk factors include tobacco use, physical inactivity, lack of sanitation, unbalanced nutrition, and stress related to socioeconomic burdens and economic constraints. While the increase in life expectancy in many developing countries can be seen as positive, associated with it is a sharp rise in people exposed to these risk factors (World Health Organization [WHO], 2010). International experience suggests that while epidemics of CVD strike more affluent sections of society first, as the epidemic matures, socioeconomically disadvantaged groups become increasingly vulnerable, and limits in access to health services, treatment, and public health services further exacerbate this vulnerability. Globalization compounds this rapid change (Reddy, 2004). According to Reddy (2004), “neglect of the epidemics of cardiovascular disease will heap greater injustice on the poorest countries and the poorest of people” (p. 2439).

MILLENNIUM DEVELOPMENT GOALS OF THE UNITED NATIONS

Gender equality and empowerment of women is one of the Millennium Development Goals (MDGs) of the United Nations. This goal clearly
demonstrates the link between the health and well-being of women and the communities in which they live. Adopted in 2000, the eight international development goals represent a commitment of the 189 member states of the United Nations to achieving these goals by 2015. Unfortunately, limited progress has been made in most countries, and almost assuredly this goal will not be met by 2015 (United Nations, 2008). In these goals, the United Nations recognizes that gender equality and the empowerment of women are both pivotal and instrumental in achieving sustainable development through combating poverty, hunger, and disease. A critical shortcoming of the 2000 MDG was the absence of explicitly stated goals and strategies regarding the prevention of CVD in women. This occurred, despite the evidence and knowledge that CVD remains the primary cause of death and disability in women worldwide. It is therefore the goal of the ICOWHI to advocate for the inclusion of chronic diseases on the global agenda in the post-MDG environment.

GENDER-SPECIFIC FACTORS INFLUENCING CVD DEVELOPMENT, PROGRESSION, AND OUTCOMES

Gender-specific factors can influence CVD development, progression, and outcomes. Socially constructed roles can shape the health behaviors of women. Rates of tobacco use in women are increasing worldwide, and the WHO predicts that the prevalence of smoking among women worldwide will be 20% by 2025. The push to limit advertising and the sale of tobacco to adolescents in the United States and other developed countries has prompted manufacturers to market their products more aggressively in developing countries. These international issues will increasingly affect women worldwide in the future.

Women are the primary caregivers in most societies across the world. As caregivers, women preferentially address the needs of family and society before their own. These social norms influence health-seeking behavior. For example, in a study comparing beliefs about health and illness in men and women with diabetes mellitus in Uganda, the men interviewed focused on socioeconomic factors while the women valued well-being, support in daily life, and their household responsibilities (Hjelm & Nambozi, 2008). Caring for others has been shown to be more stressful for women than for men (Colgrove, Kim, & Thompson, 2007; Kim, Baker, & Spillers, 2007; Luttik, Blauwbroek, Dijker, & Jaarsma, 2007). Many of these women engaged in caring for others are also working outside the home. Married women who also work outside the home experience a considerable amount of strain from their multiple roles (Rao, Apte, & Subbakrishna, 2003).

The views and attitudes of health care providers also influence women's willingness to access health care. Mutuality in decision making has been found to influence women's interactions with health care providers.
Together these findings paint a picture of women who are burdened, stressed, and failing to care for themselves.

METHOD

In 2010 as part of the ICOWHI 18th biannual meeting at the University of Pennsylvania, Philadelphia, in the United States, representatives from each of the WHO regions came together to discuss the issues impacting on women’s cardiovascular health and the strategies that need to be addressed and implemented in order to improve women’s cardiovascular health. Sixty representatives collaborated, assuring disciplinary diversity including health professionals, academicians, policy workers, social scientists, and legal practitioners.

Following five presentations of issues according to WHO regions, participants engaged in a facilitated discussion where they were asked to discuss issues specific to their regions and to identify areas for action. Specifically, participants were asked to identify and discuss barriers to improving women’s cardiovascular health and provide recommendations in relation to policy, practice, research, and education.

AREAS FOR ACTION

Cardiovascular health is a complex, multifactorial condition, and the social, economic, cultural, and gender determinants are extensive, numerous, and varied. Discussions confirmed that CVD in women is a major cause of mortality and morbidity worldwide; however, the risk factors are largely preventable through risk factor modification and evidence-based treatments at an individual and societal level. Action to prevent and reduce CVD needs to be multifaceted, multi-institutional and occur at a range of levels including local, regional, and international. To increase awareness and improve outcomes in women’s cardiovascular health; strategies are needed to develop effective and representative policies, clinical practice, research, and educational initiatives.

The discussion led to key overarching themes that should be considered in any action, which include the following: gender equality, empowerment, implementation of strategies, and innovative models to facilitate behavioural changes. Participants advocated for the use of a gendered analysis of issues to include varying determinants, the differential impact, and outcomes of health strategies and policies for women.

Policy

Particular policy challenges arise in addressing the burden of CVD on women. The ICOWHI and other nongovernmental organizations need to
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campaign to raise awareness of women’s health issues and to advocate for shifts in clinical practice to address the great morbidity and mortality of CVD in women worldwide.

Policymakers need to address the limiting effect that gender and social constructs have on women’s health literacy, access to health care, and CVD risk factors. Whilst the risk factors for CVD are universal across gender, there appears to be a differential impact of particular physiological and social variables on women. That is, particular comorbidities, when combined with smoking and family history, may have a more negative influence on women than on men (Roeters van Lennep, Westerveld, Erkelens, & van der Wall, 2002).

Policymakers need to be aware of the risk of excluding women from decision making and need to actively ensure that health policies addressing CVD take a gendered approach. This gendered analysis must occur within the context of the urgent need for broader research into appropriate research methodologies/studies, increased awareness of the CVD burden, and appropriate preventative strategies in developing countries. The ICOWHI calls for ambassadors to advocate for funding that is culturally appropriate and reflective of the multicultural societies in which we live. These ambassadors should be highly visible and engaged, and their role should be to promote women’s self-care, including the identification, management, and monitoring of CVD, and subsequent care of children. With such support for women’s role as caregivers, the burden associate with it will be lessened.

Smoking is a significant risk factor of CVD (Writing Group Members et al., 2008). While the reduction in male smokers has been a public health achievement, the number of women smokers, particularly younger women, has not declined to the same extent (Schenck-Gustafsson, 2009). In relation to smoking, for example, there is a need to raise greater awareness of the negative health effects of women’s exposure to second-hand smoke, which can lead to increasing numbers of women taking up smoking themselves.

In addition, the ICWOHI calls for policy to restrict the capacity of “industry” to promote high-risk behaviors such as smoking, through campaigns aimed at adolescents and at women in developing countries. For policy to be effective, this needs to occur at local, national, and international levels. Examples already have been implemented in many countries in the form of smoking laws and increased taxes on cigarettes. The regulatory environment for such industries in developing countries, however, remains less stringent. In particular, cigarette companies continue to aggressively target women in many developing countries with far-reaching implications for their cardiovascular health. Other regulatory action can include minimizing the level of transaturated fats in food products, increased scrutiny on labeling requirements, and increased regulation of advertising. Overall, legislation is needed not only to regulate the role of industry but also to directly and indirectly promote cultural sensitivity and cultural awareness in health and CVD policy.
Funding and policy direction that encourages women’s entry into and participation in cardiovascular medicine is a fundamental step in addressing the burden of CVD for women. In particular, women need to be actively involved in a broader scope of decision making from prevention, early intervention, and disease management. Policies need to be inclusive and representative, through increased consultation with women as representatives of their gender.

Practice
Cardiovascular disease (CVD) is a global health problem that affects every ethnic group, and as societies undergo urbanization, risk factor levels for CVD increase (Yusuf, Reddy, Ounpuu, & Anand, 2001). Despite its high or increasing prevalence worldwide, CVD is not considered among the major health concerns in every country (Bukhman & Kidder, 2008). Often thought to be a problem of wealthy, industrialized nations, CVD therefore receives little attention in some developing countries. In addition it is often thought to be a man’s disease, from which women have immunity. In Australia, for example, four out of five women are not aware that heart disease is the number one killer of women (National Heart Foundation of Australia, 2010).

The African delegates pointed to the fact that in Africa the focus of women’s health is generally concentrated on maternal health and communicable diseases such as HIV and malaria, rather than on CVD. This is supported by the fact that the MDGs do not recognize CVD or other chronic diseases in the priorities. Reasons for neglect of CVD in these countries may include inadequate financing and resources, shortages of skilled health workers, lack of knowledge and awareness by policymakers and health professionals, lack of understanding of the overall burden of chronic diseases on the economy and workforce productivity, and the general focus of health systems on acute care rather than on a life-course approach (Samb et al., 2010; Yach, Hawkes, Gould, & Hofman, 2004). Despite the lack of clinical or policy emphasis in many low- to middle-income countries, twice as many deaths from CVD now occur in developing countries as in developed countries (WHO, 2005). For this reason, the ICOWHI calls upon the WHO and other nongovernment organizations to play a greater role in emphasizing the prevalence and impact of CVD in developing countries and the impact of gender in altering responses and interventions.

While many of the issues related to access to health care are universal, the level of access available varies greatly between countries. Many Western developed countries still experience extreme differentials between members of their population, where women from minority groups, culturally and linguistically diverse backgrounds, rural areas, and of low socio-economic status are particularly vulnerable to CVD risk factors and poorer outcomes.
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(Gholizadeh, Salamonson, Worrall-Carter, DiGiacomo, & Davidson, 2009; Jha et al., 2003; McFarlane et al., 2010; Shaw et al., 2008). For many women, maternal health issues may be their only point of access into the health care system. Women may also experience cultural barriers to health access; for example, in particular societies it is necessary for a man to give permission to his wife before she can engage in health-related activities (Caperchione, Kolt, & Mummery, 2009).

The cost of health care is a major issue in all societies. The social influences on cardiovascular health have long been recognized, and in particular socioeconomic status has been noted as a possible independent risk factor for CVD (Kaplan & Keil, 1993). Increasingly, some people in developed countries are traveling great distances to other regions or countries in order to receive more cost-effective health care. On the other hand, those in developing countries have very limited access to basic health care service. In addition, universal health care is not available in all countries, and health care is often linked to employment, meaning that those not employed or in informal labor situations such as family caregiving often are denied health care altogether.

Research

As mentioned above, in the past, CVD has been seen as a disease affecting predominantly men. This meant that historically women have been excluded from cardiovascular research programs and clinical trials (Kim & Menon, 2009; McCormick & Bunting, 2002; Roeters van Lennep et al., 2002; Schenck-Gustafsson, 2009; Stramba-Badiale, 2010). While researchers have begun to recognize the impact of gender biases, further work must be done to ensure greater representation of women in cardiovascular research (McCormick & Bunting, 2002). Women not only need to be included in research trials and programs, but disaggregated data of the findings also must be published (Correa-de-Araujo et al., 2006; Legato, 2000; Taggu & Lloyd, 2007). Consideration must be placed on the issue of how to ensure the effective translation of gender-based research into informing evidence-based policies.

Research must examine how gender roles impact on the cardiovascular health of women and explore the capacity to engage in risk factor modification. Measures should also be introduced to ensure research is gender sensitive and appropriate. To enable this, women must not only be the subjects of investigation but also the investigators themselves.

Strategies must be developed that address the social determinants of health experienced by women and the promotion of healthy activities, such as breast feeding. Breast feeding is known to provide immunity to infants, but the benefits of breast feeding on later CVD of that infant is not widely discussed (Schack-Nielsen, Larnkjær, & Michaelsen, 2005). Specific needs of women must be examined within their culture, religion, and societal
values, specifically in the development of lifestyle interventions in nutrition, obesity, tobacco, and exercise that address the specific needs of women. Development of culturally appropriate interventions to prevent CVD can be developed only through community engagement and partnerships.

Education

The WHO indicated that increased advocacy and health education on CVD risk factors via broadcast and print media has previously proven to be a very cost-effective tool (WHO, 2005). Education is the cornerstone of CVD prevention and reduction; however, information alone does not equate to behavioral change. It is important to understand that not all education methods will work for all populations, and that education is most effective when tailored to the particular group to which it is aimed. Gender and culturally specific factors need to be taken into consideration. Cultural understanding can be the key to successful education. For example, targeting key family members who have influence upon other family members can be used as a way of relaying information. Educating men on CVD, with a focus on the benefits for them, can be an effective method in male-dominated societies where men may control women’s access to health care. This could be used as a strategy to inform both men and women in developing countries on the risks of inhaling smoke as a result of burning wood for fires used for cooking, an act that disproportionately affects women (Fullerton, Bruce, & Gordon, 2008).

Early intervention is most likely to have the greatest effect on an individual’s health, and, therefore, healthy lifestyle information should be introduced into the public education system in order to inform young people of the risks of CVD. Barriers to women’s cardiovascular risk knowledge also must be explored and addressed (Liewer, Mains, Lykens, & René, 2008). This is of particular importance within the context of urbanization. The growth of urban areas has resulted in disorganized urban planning and is placing the most vulnerable populations at risk of a number of health concerns, including CVD (Patel & Burke, 2009). Urbanization increases the number of women in poverty and decreases their access to healthy food, health care, and physical movement. In order to effectively decrease the burden of CVDs the public must be educated on these risk factors and find ways to overcome such barriers.

Health literacy is an important aspect of health education that greatly influences the effect of the advocated efforts. Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services, 2001). Maintaining and improving one’s health is largely dependent on the comprehension and understanding of information provided by health professionals. For this
reason, complex medical terminology is a barrier to health education. It is therefore necessary for health information to be written in plain language so that it is accessible to the broadest possible population. Information may also need to be adapted in a way that is culturally specific or sensitive in order to convey the messages successfully. While access to appropriate health care is a key factor in combating CVD, health literacy is fundamental in disease prevention as well as treatment.

Women present with CVD differently than men and often experience different symptoms. Women have a tendency to misinterpret or misunderstand the symptoms related to heart failure (Arslanian-Engoren, 2007; Banks & Malone, 2005; Lockyer, 2004). This misinterpretation can lead to delays in seeking help (Schoenberg, Peters, & Drew, 2003). The ICOWHI therefore calls for strategies to promote symptom recognition for women and health-seeking behaviors. It is important for women to understand the unique symptoms they may experience and to be able to recognize the early symptoms of CVD when they occur.

Health professionals also need to be adequately trained and educated about CVD in women. It is now well known that there are biological, social, and cultural difference between men and women (White & Lockyer, 2001). There is therefore a need for the inclusion of gender in educational programs.

KEY RECOMMENDATIONS

- To effectively address women’s cardiovascular health, a gendered life course approach must be taken.
- As the MDGs come to an end, cardiovascular and chronic diseases must be given a greater priority within the post-2015 agenda of global women’s health.
- Decisionmakers need to be appropriately informed about the relationship between women and CVD. In order to make informed and effective policy, they must be provided with up-to-date and reliable information.
- A change in practice needs to occur, particularly in developing countries to appropriately address and recognize the effect of CVD on mortality and disability within women. In developed countries, enhanced access to services needs to occur particularly for those from lower socioeconomic backgrounds.
- Women must be increasingly educated on the burden of CVD and the associated risk factors. Women experience unique symptoms; therefore women must become familiar with such symptoms and recognize that they will present differently to men.
- Women must be represented more within cardiovascular research, and a gender-based approach must be taken. This means not just examining biological differences but also the socially constructed expectations that
differentiate the roles and attributes of men and women. Where research examines men and women, disaggregated data must be supplied.

- Women also must play an increasingly active role as investigators in cardiovascular and chronic care research.

**CONCLUSION**

The impact of CVD in women globally has now been well established. This is a serious threat to women globally; therefore, high priority attention must be placed on these issues. With the rise of a large middle class in countries such as Brazil, India, and China, the impact on health is only going to increase. Therefore, employing strategies to meet the health needs of the growing number of women is critical to decrease the burden of CVD.

The outcome of the facilitated discussion solidified the determination of participants to address the issue of CVD in women. Women and CVD is everyone’s business, and a comprehensive multilevel, life-course approach is needed to address this issue. What was once seen as a rich, old man’s disease has now been proven to affect women in both developed and developing countries. The ICOWHI hopes to work with its members to see that the issue of women and heart disease is given the right place on the global health agenda.

**REFERENCES**


