

## Letter to the Editor—Journal of Cardiovascular Translational Research

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To the Editor:

This issue's focus on women and cardiovascular medicine is timely and critically important. Recently published studies have underscored, yet again, that cardiovascular disease research must more effectively and aggressively target women if it is to produce results that lead to improved prevention and early detection, accurate diagnosis, and proper treatment for women.

Specifically, one study found that women have been underrepresented in NIH-supported cardiovascular randomized controlled trials conducted in the past 10 years, despite a 1993 federal law requiring clinical trials to include a significant proportion of women [1]. Possible reasons for this failure are varied, ranging from a lack of information about the availability of clinical trials by women patients and their healthcare providers to study designs that exclude women heart patients due to their medical conditions, medications, or history. Pragmatic concerns by women patients about how participation in a clinical trial will affect their health insurance coverage and the logistical difficulties of transportation and childcare also have an adverse effect on participation rates [2]. The impact of failing to overcome these barriers and significantly increasing the number of women in clinical trials has contributed to a substantial deficit of gender-based knowledge about everything from the "typical" heart attack symptoms in women to the risks and benefits of commonly used diagnostic tests and therapies [3]. Exacerbating this problem are the serious lapses in the U.S.

Food and Drug Administration's enforcement of its own rule requiring new drug applicants to submit data by sex, age group, and race. Far too many applicants fail to comply, resulting in sorely inconclusive evidence of gender-specific disease indicators and inadequate guidelines for the clinical treatment of women [4].

Another new study reveals how this knowledge deficit contributes to persistent disparities in the care women heart patients receive as compared to men. The study shows that women experiencing a major cardiac event are 50% more likely than men to be delayed by emergency medical services (EMS) from reaching the hospital and receiving crucial treatment [5].

The study authors suggest that these treatment delays may be due to women's cardiac symptoms differing from men's and that both women patients and EMS personnel do not recognize the health event as cardiac-related. Another study, published in 2009, showed that women with acute coronary syndrome were less likely than men to undergo cardiac catheterization and other therapies, receive beta-blockers, statins, and other medications, or be discharged with evidence-based cardiac therapies [6]. The reasons for these disparities in care are not insurmountable. Conducting research that accurately reflects the epidemiology of the disease in women, improving healthcare provider education, and engaging more informed and empowered women patients could translate into improved care outcomes, reduced hospital stays, and lives saved.

As the nation's only patient-centered advocacy organization for women with heart disease, WomenHeart is committed to meeting these challenges in order to ensure that all women live longer, healthier lives. Community education, patient support, and advocacy are integral to our organization's efforts. We depend heavily on a corps of 400 *WomenHeart Champion* volunteers, all heart disease

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survivors trained in a unique collaborative program with Mayo Clinic to lead community-based, public education forums and discussions about cardiovascular health, lead local support groups across the country, and moderate online support programs to help women living with heart disease connect with and support each other. Together with our outreach efforts and active website, [www.womenheart.org](http://www.womenheart.org), we are working to inform all women about heart disease, empower them to reduce their risks, emphasize the importance of research by sharing latest findings, and urge more women to participate in clinical trials.

WomenHeart is also a chief advocate for increased research and prevention funding and policies that will better address the needs of women with heart disease. The cornerstone of our advocacy efforts is the HEART (Heart disease Education, Analysis, Research, and Treatment) for Women Act, reintroduced February 2009 in the 111th Congress. This legislation takes a multi-pronged approach to improve the prevention, diagnosis, and treatment of heart disease and stroke by authorizing grants to educate health-care professionals about the prevalence and unique aspects of cardiovascular disease in women, requiring that federally reported healthcare data be stratified by gender, race, and ethnicity, and by improving and expanding screening for low-income women at risk for heart disease and stroke. This legislation provides common sense solutions that will help improve the care—and possibly save the lives—of millions of women.

The death rate for heart disease in men has declined by 17.5% over the last 25 years, while the rate for women declined by only 1.5% [7]. The heart disease rate for women ages 35 to 44 actually rose from 1997 to 2002 [7]. Here, the evidence is clear—we are losing ground in the fight against women’s heart disease. The action steps we must take, however, are equally clear and WomenHeart is eager to partner with the translational research community to achieve them.

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