

# Hypertension and Cardiovascular Disease in Women

John E. Hall, Joey P. Granger, Jane F. Reckelhoff, Kathryn Sandberg

Despite the efforts of many healthcare professionals, voluntary health organizations, and policy makers, many women as well as many healthcare professionals are still unaware that cardiovascular disease is the leading cause of death among women. Surveys by the American Heart Association (AHA) indicate that <50% of women realize that cardiovascular disease is the leading cause of death in women, and only 13% of women indicated that cardiovascular disease was their own greatest personal health threat.<sup>1</sup> In 2004, the AHA launched the “Go Red for Women” movement to increase public awareness of this problem, and in the same year, the first evidence-based guidelines for prevention of cardiovascular disease in women were published.<sup>2</sup>

This year, as part of the AHA “Go Red for Women” movement, the editors of *Hypertension* placed a special call for papers related to hypertension and cardiovascular disease in women. Our goals were to help convey the importance of prevention and treatment of hypertension and cardiovascular disease in women, to emphasize that hypertension is a critical cardiovascular risk factor in women, and to publish the newest and best research related to hypertension in women.

Extensive data indicate that the risk of death from ischemic heart disease and stroke increases progressively and linearly with increasing blood pressure in women as well as men.<sup>3</sup> There appears to be a sexual dimorphism in blood pressure so that women have lower systolic blood pressures than men during early adulthood, whereas the opposite is true after the sixth decade of life when the prevalence of hypertension in women exceeds that of men.<sup>4</sup> Although the effectiveness of blood pressure lowering in reducing cardiovascular risk has been demonstrated with a range of drug therapies in several major clinical trials,<sup>5</sup> only about 60% of hypertensive women are treated. Among those treated, only about a third are controlled at blood pressures <140/80 mm Hg, a value that still conveys considerable cardiovascular risk compared to a blood pressure of 120/80 mm Hg. Thus, inadequate control of high blood pressure continues to be the most important, and

potentially treatable, cause of cardiovascular disease and stroke in women.

Given the clinical importance of hypertension in women, we were pleased that our call for papers resulted in more than 230 manuscripts submitted to *Hypertension*, addressing basic mechanisms of sex differences in blood pressure regulation, postmenopausal hypertension, preeclampsia and pregnancy-induced hypertension, maternal health, and fetal programming, as well as prevention of and clinical treatment of hypertension and related cardiovascular diseases in women. We were also pleased that basic, clinical, and population scientists responded to this call and submitted many excellent manuscripts describing their latest research. Unfortunately, page limitations prevented us from accepting many fine papers for publication in this special issue of *Hypertension*.

We hope that this issue of *Hypertension* is helpful to clinicians and researchers and that it helps to increase the awareness of healthcare professionals and the public to the greatest threat to the health of women—hypertension and cardiovascular disease.

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