Prevalence of myocardial infarction in the USA has decreased over a 10–15 year period in midlife men but increased in women, with a greater decrease in cardiovascular risk in men compared to women

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Coronary heart disease (CHD) is the leading cause of death in the world.1 Towfighi and colleagues evaluate sex-specific trends in the prevalence of myocardial infarction (MI) and its associated risk factors using serial cross sectional data from the US National Health and Nutrition Examination Surveys from two separate periods (1988–1994 and 1999–2004). They conclude that the sex gap in MI prevalence narrowed during recent years as a result of a decreasing rate among men and increasing rate among women. During the same period, the modifiable cardiovascular risk improved in men (smoking rates declined; systolic blood pressure and high-density lipoprotein levels improved) more than it did in women (only high-density lipoprotein levels improved). Although these results did not reach statistical significance – which the authors attribute to the small sample size – the authors suggest that the trend is real because it is similar to the trends seen in stroke, a pathophysiologically similar disease.

The authors acknowledge four potential limitations: (1) self-report of physician-diagnosed MI can lead to misclassification (other conditions may be confused with MI), mortality bias (a large proportion die of the incident MI and do not live to report it) and sex differences in identification of MIs (sensitivity is higher in men than in women); (2) the cross sectional study design cannot reliably determine causality or temporality; (3) there is a perceived increased cardiac risk in younger men as they have higher Framingham scores on the basis of their sex; and (4) the sample size was relatively small. A better approach would be to prospectively evaluate the relationship between cardiovascular risk factors, such as C reactive protein, and cardiac events by following adults over time for the occurrence of hard cardiovascular outcomes using validated methods such as diagnosing MI using cardiac enzymes.

Nevertheless, this paper provides important information on likely trends in cardiovascular risk using US national data. Although heart disease is the leading cause of death in both men and women, there remains a misconception that cardiovascular disease is a man’s affliction. Many studies have shown that women do not receive the same intensity of treatment [eg, cardiology referrals, angiography] as men.1,2 This disparity may be attributable to the misconception that heart disease mainly affects men because the onset of disease is delayed in women. Also, although men and women have the same cardiac risk factors, more women present with atypical symptoms3,4 and seem to have a different pathophysiology than men.5

In midlife, the prevalence of CHD in men continues to be higher than in women of similar age. In this paper, Towfighi and colleagues report that this gap is narrowing, owing in part to an increasing rate in women and a decreasing rate in men. Their study highlights several critical needs: (1) to elucidate the causes of this increased prevalence in women and to develop effective treatment strategies through detailed sex-specific research; (2) to educate the public to dispel the myth that CHD is predominantly a male disease; and (3) to activate physicians to be wary of gender biases, manage cardiovascular risk factors aggressively and treat symptoms appropriately to reduce the number of cardiovascular events in women. Addressing these needs will begin to reverse this unsettling trend.

Competing interests None.

References