Conclusion This study reveals nearly 30% of the population are under exposure with multiple risk factors with rising risk gradient from rural to urban regions, presence of occult and overt altered vascular biology indicating influence of environmental factors. The data emphasizes the need for such studies in different regions across the country to evolve strategic plan at population level for early identification and intervention to thwart untimely vascular death.

Gender disparities in cardiovascular care access and delivery in India: Insights from the American College of Cardiology's PINNACLE India Quality Improvement Program (PIQIP)

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Background: Limited data are available to assess whether access to and quality of cardiovascular disease (CVD) care are comparable among men and women in India. We analyzed data from the American College of Cardiology's PINNACLE (Practice Innovation and Clinical Excellence) India Quality Improvement Program (PIQIP) to evaluate gender disparities in CVD care delivery.

Methods and results: Between 2011 and 2015, we collected data on performance measures for patients with coronary artery disease (CAD) ($n = 14{,}010$), heart failure (HF) ($n = 11{,}965$) and atrial fibrillation (AF) ($n = 496$) in PIQIP, among 17 participating practices.

The total number of women was 5,301 (20.0% of the cohort). The number of patient encounters were significantly low for women compared to men (2.59 vs. 2.82, $p = <0.001$). Women were significantly younger (48.9 years vs. 51.5 years, $p = <0.001$), but had a higher co-morbidity burden compared to men – hypertension (62.0% vs. 45.6%, $p = <0.001$), diabetes (39.4% vs. 35%, $p = <0.001$), and hyperlipidemia (3.7% vs. 3.1%, $p = 0.19$). On the contrary, the medication prescription rates were strikingly lower in women with CAD compared to men – aspirin (38% vs. 50.4%, $p = <0.001$), aspirin or thienopyridine combination (46.9% vs. 57.2%, $p = <0.001$), and beta-blockers (36.8% vs. 47.8%, $p = <0.001$). Similarly, among women with ejection fraction <40%, the use of guideline-directed medical therapy was significantly lower compared to men for beta-blockers (30.8% vs. 37.0%, $p = <0.001$), angiotensin-converting enzyme inhibitors (ACE-i) or angiotensin receptor blockers (ARBs) (29.3% vs. 34.9%, $p = <0.001$), and beta-blockers/ACE-i or ARBs (24.6% vs. 31.0%, $p = <0.001$). Among patients with AH and CHADS2 score ≥2, more women were on oral anticoagulation (19.6% vs. 14.6%, $p = 0.34$), although this was not significantly different between men and women, and the overall number of patients with AH was low.

Conclusions: Although documentation of guideline-directed medical therapy was low for both genders, significant gender disparities exist in CVD care access and delivery in India, with a strikingly low percentage of women receiving guideline-directed CVD medical therapy compared to men, despite a significantly higher co-morbidity burden. These findings should provide impetus to identify potential causes for, and seek solutions to narrow these disparities.

Large increase in prevalence of CAD among women over 2 decades

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Background: With the increase of cardiovascular risk factors in India the prevalence of coronary heart disease is also expected to rise. A cross sectional study in 2010–2012 assessed the prevalence of coronary heart disease in Kaniyambadi, a rural block and urban Vellore, Tamil Nadu and compared the current prevalence with the prevalence of coronary heart disease in the same areas in 1991–1994.

Two cross sectional surveys were carried out to determine the prevalence of coronary heart disease in a rural block in Vellore district and in Vellore town in 1991–1994 and 2010–2012. The numbers of participants were 7342 in 1991–1994 and 4845 in 2010–2012, aged 30–60 years. Coronary heart disease was defined as previously diagnosed, symptoms detected using Rose angina questionnaire or ischemic changes on electrocardiography (ST, T and Q wave changes, read by trained cardiologists).

The age adjusted prevalence in rural women nearly tripled and urban women doubled, with only a slight increase among males, between 1991–1994 and 2010–2012 in both urban and rural Vellore, south India.

The large increase in prevalence rates of coronary heart disease among women, suggests the need for further confirmatory studies and interventions for prevention, especially targeting women who are generally considered to be at a lower risk for coronary heart disease.

CHA2DS2-VASc-HSF score – New predictor of severity of coronary artery disease in 2172 patients

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Introduction: Coronary artery disease (CAD) is the leading cause of morbidity and mortality in the present world. Risk factor assessment, prevention and treatment of CAD is an important aspect of present day research. CHADS2 and CHA2DS2-VASc scores have been previously used for assessing prognostic risk of thromboembolism in non valvular atrial fibrillation patients. They include similar risk factors for the development of CAD and may provide crucial information regarding the severity of coronary artery lesions. To increase the likelihood of determining CAD severity, the CHA2DS2-VASc-HS and CHA2DS2-VASc-HSF score comprising