

## Letters

### TO THE EDITOR

## Heart Failure Burden in Asia



### The Full Picture

We read with great interest the state-of-the-art review by Feng et al.<sup>1</sup> The authors estimated 31.89 million prevalent heart failure (HF) cases in Asia and examined regional and country-level estimates based on 2019 Global Burden of Disease (GBD) study. However, the investigators included 5 of 21 GBD regions (East Asia, South Asia, Southeast Asia, Central Asia, and high-income regions of Asia Pacific), particularly those referring to Asia in their name, but not including the geographic Western Asia region and most of its nations, which numerically constitute one-third of Asian nations. Although we do recognize that there are various ways to aggregate countries and regions according to different geographic definitions, we would like to mention that the overall estimate of the Asian continent described by Feng et al.<sup>1</sup> was not limited to these 5 regions but included all Asian countries. Second, the 21 GBD regions are classified based on geographic proximity and epidemiologic similarities, with Western Asian countries primarily falling under the North Africa and Middle East GBD region. Here, we extend the analysis of Feng et al.<sup>1</sup> by including estimates of all Asian countries as per the United Nations Statistical Division, aligning with previous GBD analyses in Asia published in *JACC: Asia* and *The Lancet Regional Health-Southeast Asia*.<sup>2,3</sup> Our analysis identified China (1,032.8; 95% uncertainty interval: 846.6-1,277.5), Kuwait (995.4; 95% uncertainty interval: 772.5-1,279.6), and Jordan (951.9; 95% uncertainty interval: 739.8-1,225.1) as the top 3 Asian countries with the highest age-

standardized rates (per 100,000) of HF prevalence in 2019 (Figure 1A). Over the years 1990 to 2019, 24 countries or territories had an over-time increase in HF prevalence age-standardized rates, with 3 Western Asian countries recording the highest increase over time, including Oman, Saudi Arabia, and Syrian Arab Republic, whereas these rates decreased the most in Singapore, Israel, and Turkey (Figure 1B).<sup>4</sup> We hope this analysis provides a more comprehensive epidemiologic picture of HF in Asia.

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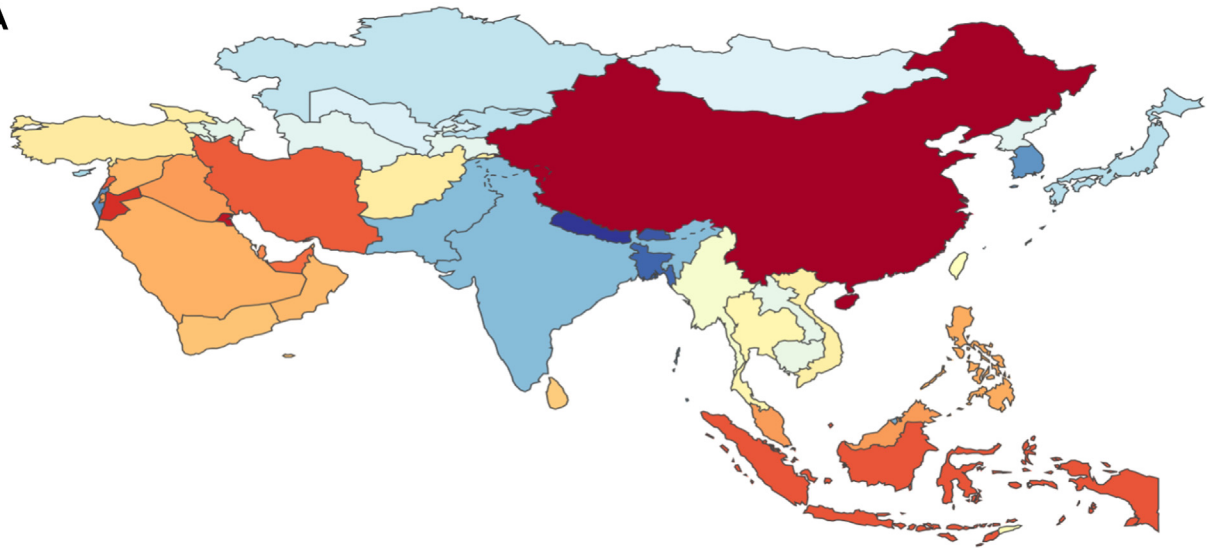
The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

### REFERENCES

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**FIGURE 1 Burden of HF in Asia<sup>4</sup>**

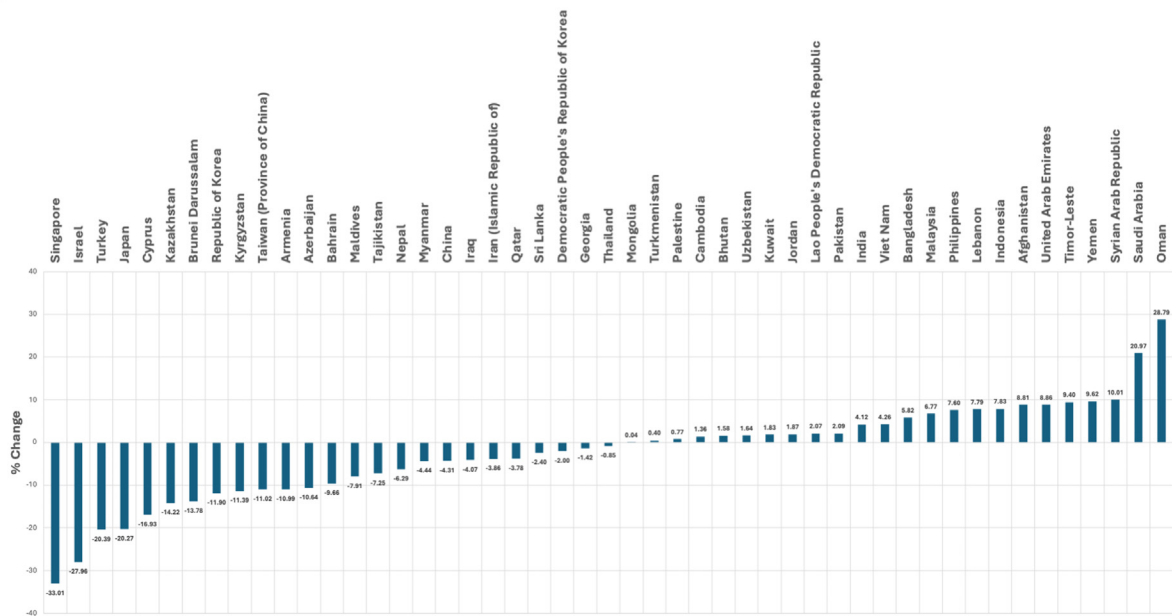
**A**



Per 100,000 Persons



**B**



(A) Age-standardized rates of HF prevalence in 2019. (B) The 1990 to 2019 changes in ASRs of HF prevalence. The Global Burden of Disease Study produces estimates for China and Taiwan (province of China) separately. HF = heart failure.