

## LETTERS—CONCISE RESEARCH REPORTS

## Patient, Physician, and Environmental Predictors of Influenza Vaccination During Primary Care Visits

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at least 50.9% of hesitant patients to be vaccinated.<sup>3</sup> Thus, more emphasis on overcoming patient barriers is primarily required, and utilizing the prevalent fear of MI and stroke may be an important step in that direction.

To the Editor:

The recent study by Changolkar and colleagues<sup>1</sup> reiterates the disappointing uptake of influenza vaccination in the USA: in a sample of 127,021 patient encounters, 33.9% were vaccinated, far below the 70% target of Healthy People 2020. As discussed by the authors, the reasons are complex and both patient, physician, and environmental factors were significant predictors of influenza vaccination during primary care visits.<sup>1</sup> However, these factors are not evenly distributed, as this type of study is not able to demonstrate. Patient factors and vaccine hesitancy are paramount among the varied barriers precluding the achievement of optimal influenza vaccination rates.<sup>2</sup> We have recently decided to try to overcome this notorious hesitancy by utilizing well-established accumulating data on the link between seasonal influenza and subsequent acute myocardial infarction (MI) or ischemic stroke. Studying a small sample of elderly patients ( $n = 100$ ), we found that none of them was aware of the significantly increased influenza-associated risk of “heart attack and paralysis.”<sup>3</sup> This risk is highest in men, patients  $\geq 65$  years, and those with pre-existing atherosclerosis, especially in the first week(s) after influenza, amounting to adjusted-incidence ratio (aIR) 5.17 to 10.11 of myocardial infarction following laboratory-confirmed influenza A or B, respectively, in a recent high-quality study.<sup>4</sup> The risk can be effectively ameliorated by a timely vaccination.<sup>5</sup> A short physician-administered patient education on the subsequent risk of serious vascular events and potential of its prevention by timely vaccination was sufficient to convince

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**Compliance with Ethical Standards:**

**Conflict of Interest:** The author declares that he does not have a conflict of interest.

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