

## Correspondence

### Re: Interventions to Improving Osteoporosis Screening: An Iowa Research Network (IRENE) Study

*To the Editor:* In a busy clinical practice with complicated patients, it can be difficult remembering to perform all the recommended preventative care interventions.<sup>1</sup> Previous studies have demonstrated how the use of prompts improves physician performance of preventative care measures.<sup>2</sup> The IRENE study uses a simple “sticky note” on patients’ charts, with or without patient education, in an effort to improve rates of bone mineral density (BMD) testing for osteoporosis screening.<sup>3</sup> The study concludes that the addition of their intervention improved osteoporosis screening within family medicine practices as compared with no intervention in the usual care physician practices. This conclusion may be overestimated given that the baseline characteristics of the intervention and usual care practices were so different.

The usual care physician practice had (1) lower rates of previous BMD screening, (2) fewer numbers of previous annual visits for patient participants, and (3) lower patient educational levels. It would be interesting to investigate other demographic and socioeconomic characteristics of the usual care practice and how those characteristics may have impacted rates of osteoporosis screening in that population. Previous studies of screening for other disease entities, namely cervical cancer<sup>4</sup> and colon cancer,<sup>5</sup> have suggested an association between lower socioeconomic indicators (income, education level) and lower screening rates. It may follow that the socioeconomic characteristics of the usual care practice served as significant confounding variables in this study.

In randomized controlled trials, it is important that the intervention and control groups are as similar as possible. In this study, the dissimilarities between the baseline characteristics of the physician practices were significant enough that the validity of the results must be called into question.

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doi: 10.3122/jabfm.2010.01.090200

The above letter was referred to the authors of the article in question, who offer the following reply.

### Response: Re: Interventions to Improving Osteoporosis Screening: an Iowa Research Network (IRENE) Study

*To the Editor:* Dr. Cox<sup>1</sup> was concerned that confounding factors might have invalidated this study.<sup>2</sup> Certainly it is probable that at baseline, before any intervention, some clinics will be more likely than others to refer patients for bone density testing. To some extent we took that into account by adjusting for patient educational achievement, baseline rates of testing at each clinic, and other factors. Statistical testing also takes into account non-measured intrinsic patient and clinic factors which contribute to variation among the clinics. Because there were only 5 clinics in the study, there was a high bar for finding differences among the intervention groups beyond what might be due to intrinsic factors. Our results suggested that clinic variation was influenced by the combined intervention of chart reminder to physician plus mailed education to patients. The large improvement in the clinics receiving this combined intervention was striking compared with no change for the control clinic. Because the clinics that received the combined intervention were doing well at baseline, it might be anticipated that they would have improved little without the intervention or even declined.

This is a small study, and we cannot state definitely that the interventions tested were helpful. However, we tried to interpret the data fairly using available statistical methods.

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