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**Improving Osteoporosis Screening Among At-Risk Women Results
from a Randomized Cluster Trial**

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Background: Routine osteoporosis screening for women 65+ years is recommended. We present results from a clustered, randomized trial evaluating the use of patient mailed reminders, alone and in combination with physician prompts, to improve osteoporosis screening and treatment.

Methods: Primary care clinics (n=15) were randomized to usual care, mailed reminders alone, or mailed reminders with physician prompts. Study patients were females aged 65-89 years. Using automated clinical and pharmacy data, information was collected on bone mineral density testing, pharmacy dispensings, and other patient characteristics. Unadjusted/adjusted differences in testing and treatment were assessed using generalized estimating equation approaches.

Results: Unadjusted screening rates were 10.8% in usual care, 24.1% in mailed reminder, and 32.3% in mailed reminder with prompt. Adjusted results indicated that mailed reminders improved testing rates compared to usual care, and that the addition of prompts further improved testing. However, the magnitude varied by age. For example, among women 75 years of age, those who received mailed reminders alone were 2.08 (95% CI 1.51-2.77) times more likely to be tested than women who received usual care, and those who received mailed reminders with prompts were 3.46 (95% CI 2.66-4.48) times more likely to be tested than women who received usual care. On the other hand, among women 85 years of age, those who received mailed reminders alone were 2.89 (95% CI 1.93-4.31) times more likely to be tested than women who received usual care, and those who received mailed reminders with prompts were 5.70 (95% CI 3.89-8.33) times more likely than those who received usual care to be tested. Unadjusted treatment rates were 2.3% in usual care, 4.9% in mailed reminders, and 5.2% in mailed reminders with prompt. Adjusted and unadjusted results found no difference in treatment rates between those receiving mailed reminders alone or in combination with physician prompts, but women in either of these arms were significantly more likely to be treated compared to those in usual care.

Conclusions: The use of mailed reminders, either alone or with physician prompts, can significantly improve osteoporosis screening and treatment rates among insured primary care patients—particularly those of advanced age.