

A tailored, multifaceted program in capitation-based family practices improved appropriate use of preventive-care maneuvers

Lemelin J, Hogg W, Baskerville N. Evidence to action: a tailored multifaceted approach to changing family physician practice patterns and improving preventive care. *CMAJ*. 2001 Mar 20;164:757-63.

QUESTION

Can a multifaceted intervention program using nurse facilitators improve preventive care (increased rates of recommended preventive-care maneuvers and decreased rates of nonrecommended maneuvers) in capitation-based family medicine practices?

DESIGN

Randomized {allocation concealed*}†, unblinded,* controlled trial with 18-month follow-up.

SETTING

46 capitation-based health services organizations (HSOs) in family practice settings in Ontario, Canada.

PRACTICES

46 HSOs were allocated, and 45 were analyzed (64% group practices, 53% university affiliated, mean of 3 physicians per practice, and mean age of patients 47 y).

INTERVENTION

23 HSOs were allocated to each intervention. Intervention HSOs were assigned to 1 of 3 nurse facilitators. The nurse made several visits and worked with the practice physicians and staff as a facilitator to adopt a

7-component program to each practice's needs and wishes. The intervention strategies were designed to improve preventive-care performance by using audit and ongoing feedback, consensus building, opinion leaders and networking, academic detailing with educational materials, reminder systems, patient-mediated activities, and patient education materials. The evaluation was based on 8 recommended and 5 inappropriate preventive maneuvers. 1 intervention HSO was lost to follow-up.

MAIN OUTCOME MEASURE

Preventive performance was calculated as the proportion of eligible patients who received recommended maneuvers (up-to-datedness) minus the proportion of patients who received inappropriate preventive maneuvers (inappropriateness).

MAIN RESULTS

At baseline, the groups had similar scores. Preventive performance increased from 32% at baseline to 43% at 18 months in the intervention HSOs and remained unchanged at 32% in the control HSOs (P for difference < 0.001). Up-to-datedness scores for the intervention HSOs increased from 52% to 62% during the intervention. Corresponding

scores for the control HSOs were 55% and 57% (P for difference < 0.01). Inappropriateness scores decreased slightly in the intervention HSOs (from 21% to 19%) and increased in the control HSOs (23% to 26%) (P for difference < 0.05). Preventive performance scores for the intervention HSOs showed successive increases at 9, 15, and 18 months. For individual maneuvers, intervention HSOs completed more influenza vaccinations, counseled more young women about folic acid, and had a decrease in inappropriate proteinuria and blood glucose screening testing (P for difference < 0.05).

CONCLUSION

A nurse facilitator who helped individualize and implement a multifaceted program to improve the appropriate use of preventive-care maneuvers in health service organizations in family practice settings was successful.

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*See Glossary.

†Information provided by author.

COMMENTARY

Changing physician practice is not easy. Passive interventions (e.g., lectures, journals, or mailed guidelines) rarely work. Interventions that use several strategies tailored to individual practice needs, as in the study by Lemelin and colleagues, are more likely to be effective (1). In addition, use of an external facilitator to work with practice personnel in making these changes has been effective in other studies in various primary-care settings.

Only modest changes in prevention rates were noted in the study. However, the progressive increase in preventive performance over time and the differential effects on recommended and inappropriate maneuvers suggest that the improvements signaled real and progressive changes in practice patterns rather than a general increase in awareness of prevention because of the visits of the study nurse. In other studies, such practice changes have persisted for up to 2 years after the facilitator intervention ended (2).

Achieving these modest changes required a large effort. Study nurses made an average of 33 visits of 1 to 2 hours to each practice. However, volunteers from such organizations as the American Cancer Society can be trained in this role (3). Alternatively, because the actual practice

changes are not complicated, a motivated physician could (in theory) make them without an external support person by using such materials as those from the Put Prevention into Practice program of the U.S. Public Health Service (4).

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References

1. Bero LA, Grilli R, Grimshaw JM, et al. Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. The Cochrane Effective Practice and Organization of Care Review Group. *BMJ*. 1998;317:465-8.
2. Dietrich AJ, Sox CH, Tosteson TD, Woodruff CB. Durability of improved physician early detection of cancer after conclusion of intervention support. *Cancer Epidemiol Biomarkers Prev*. 1994;3:335-40.
3. Woodruff CB, Dietrich AJ, Carney PA, et al. Volunteer facilitators assist community practices with enhancing cancer control. *Arch Fam Med*. 1996;5:560-5.
4. <http://www.ahcpr.gov/clinic/ppipix.htm>. Accessed 1 June 2001.