General practitioners can play an important role in disease prevention and health promotion. However, there are a number of barriers including structural disincentives (limited time, remuneration issues, fragmented approaches to policy, lack of health promotion education for GPs, insufficient staff support, lack of reminder/recall systems); practitioner barriers including GP ambivalence about the effectiveness of health promotion activities, and difficulties in evaluating outcomes, and patient barriers.

Possible ways of overcoming these barriers include taking a multidisciplinary approach, technological and structural assistance, engaging practice staff, and linking with other health agencies.

We wondered whether support and guidance from an external facilitator leads to an increase in health promotion of rural patients. We based the activities on the ‘greenbook’, a handbook for GPs promoting preventive activities that emphasises a holistic approach to patient care, wellbeing and health promotion, published by The Royal Australian College of General Practitioners (RACGP).

**Method**

We designed a nonrandomised trial to evaluate an active dissemination and support intervention. Six rural practices were recruited in response to advertising by the local division of general practice. They were paired by practice size and characteristics; three were nonrandomly allocated to ‘active support’ while the others acted as controls.

Active support was provided by a division prevention facilitator for six months; working with staff in each practice at least weekly, visiting at least fortnightly. Support took the form of teaching sessions about health promotion initiatives, assistance with displays, and provision of resources and verbal prompts; but did not include supporting computer based management practices. Control practices provided data only, which was then fed back to them.

Face-to-face interviews were conducted with consenting staff and GPs from each practice about preventive activities in the practice before and after the intervention. They focussed on how the intervention influenced preventive activities and which, if any, factors were important. Practice staff completed a Practice Prevention Inventory. Practice newsletters were analysed. We directly observed patient waiting areas and the literature provided there.

A patient survey was conducted in each practice of 100 consenting patients randomly selected from patient records (50 aged 20–40 years and 50 aged over 65 years). Practices with electronic patient records randomly selected patient names from the database, while practices with only hardcopy patient records used systematic selection. The Patient Practice Prevention Questionnaire was mailed to each patient at the beginning of the study and at six months. The questionnaire asked about risk taking behaviours and current health status.

Fisher’s Exact test was used to measure differences between patients from intervention and control practices for screening (blood pressure, lipids, Pap tests, mammography), immunisation status (tetanus, polio, rubella), sun protection behaviour, smoking status, physical activity and alcohol consumption. Patients also provided information regarding current nonprescription med-
ications and family history of common diseases. We undertook thematic analysis of the interview transcripts. Ethical approval was granted by both Ethics Committees of La Trobe University Bendigo and the RACGP.

**Results**

There was a 342 (57%) patient response rate. There were no statistically significant differences in either preventive or health promotion behaviour of patients between the intervention and control groups at baseline or at follow up (Table 1). However, at interview, practice staff described staff from the division of general practice as accessible, supportive, and fulfilling an important role in education. They liked acknowledgment of their role in prevention and promotion and were extremely positive about it.

Two intervention practices implemented changes: generation of practice wide reminder lists of patients to be telephoned individually, review and update of materials in the waiting room, and specific activities linked to national health promotion campaigns such as Epilepsy Awareness and Diabetes.

Legal and privacy issues limited practice staff from being more involved in health promotion activities, particularly patient reminders. Several events occurred that might have been relevant: two intervention GPs became seriously ill during the study, there were personnel changes in the division prevention facilitators, and a range of new health promotion initiatives to improve the management of diabetes, mental health, asthma and cervical screening became available through Medicare from December 2001.

**Discussion**

We found an increase in preventive activity in the intervention practices that did not translate into measurable changes at the patient level (confirming previous research) and may show the difficulties in evaluating the outcomes of health promotion activities in the general practice setting. Contamination (in which control and intervention practices compared activities so that some intervention effect leaked to control practices) may have occurred. Perhaps the six month intervention was too short to produce an effect. Perhaps the patient questionnaire acted as an intervention in itself (the ‘Hawthorn effect’). The low response rate may have introduced a bias. The nonrandomised study design may have caused a selection bias.

External support seems to be an appropriate way to increase general practice health promotion. Divisions of general practice could have a role in this; practice nurses might have a potential role. More rigorous research is required to investigate to what extent external support increases patients’ uptake of health promotion.

The current Medicare funding arrangements provide an obstacle to enabling practice nurses to practice independently as health promotion workers, even though this might overcome the privacy issue we found.

**Acknowledgments**

Thanks to Sue De Lacy and Helen Musk from

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**Table 1. Comparison of patient follow up data from control and intervention practices (n=339)**

<table>
<thead>
<tr>
<th></th>
<th>Intervention practices</th>
<th>Control practices</th>
<th>p value for Fisher’s Exact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Screening</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood pressure</td>
<td>In past 2 years (6/12 diabetics)</td>
<td>110 (65)</td>
<td>116 (68)</td>
</tr>
<tr>
<td>Lipids</td>
<td>In past 5 years if &gt;45 years</td>
<td>82 (49)</td>
<td>89 (52)</td>
</tr>
<tr>
<td>Pap tests (women only)</td>
<td>In past 3 years if 18–70 years</td>
<td>15 (49)</td>
<td>25 (58)</td>
</tr>
<tr>
<td>Mammography (women)</td>
<td>In past 2 years if 50–70 years</td>
<td>21 (21)</td>
<td>28 (26)</td>
</tr>
<tr>
<td><strong>Immunisation status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus</td>
<td>Whether immunisation</td>
<td>63 (38)</td>
<td>62 (37)</td>
</tr>
<tr>
<td>Polio</td>
<td>regimen is complete</td>
<td>60 (36)</td>
<td>56 (33)</td>
</tr>
<tr>
<td>Rubella</td>
<td>Date of last booster</td>
<td>115 (69)</td>
<td>111 (66)</td>
</tr>
<tr>
<td><strong>Behavioural risk factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun protection</td>
<td>Use of ‘SunSmart’ advice</td>
<td>51 (68)</td>
<td>94 (75)</td>
</tr>
<tr>
<td>Smoking status</td>
<td>Self report current smoker</td>
<td>12 (16)</td>
<td>12 (9)</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Activity most days/30 minutes</td>
<td>42 (53)</td>
<td>68 (55)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>Harmful levels (6 per day/most days)</td>
<td>23 (14)</td>
<td>27 (16)</td>
</tr>
</tbody>
</table>

*NS = not significant
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References


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