

Preventive evidence into practice (PEP) study: costs and effects

Gray J, Parker S, Karnon J, Spooner C, Harris MF



COMPaRE-PHC is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health

PEP: a quality improvement intervention to increase uptake of CVD risk reduction guidelines in primary care



COMPARE-PHC

The PEP intervention

- Training workshop for GPs and practice nurses
 - introduce the 5As for smoking, nutrition, alcohol, physical activity, overweight, blood pressure, cholesterol, diabetes and absolute cardiovascular risk, and kidney disease
 - case studies and role plays using simulated patients
- Three facilitator practice visits for goal setting and review
 and Three follow-up phone calls

- including repeated reflective clinical audit review



Recruitment

- 32 general practices recruited
 - 8 each in NSW, Vic, Qld, and SA
 - Criteria: EMR + practice nurse
 - 27 practices completed study (15 Int. 12 Control)
- Medical record data extracted for patients 45-69 years
 - Patients with chronic disease, cognitive impairment or severe mental illness were excluded
 - 21,848 patients both baseline and follow up data (13,815 intervention and 8,033 control)



Improvements in risk factor recording

- Statistically significant improvements* in recording:
 - smoking status: odds ratio, 2.24 [95% CI 1.17 to 4.29]
 - waist circumference: OR, 2.52 [CI, 1.30 to 4.91]
 - alcohol consumption: OR, 2.19 [CI, 1.04 to 4.64]
 - cardiovascular absolute risk: OR, 1.50 [1.04 to 2.18]

* Adjusting for age group and gender of patients, number of GPs and PNs in the practice and the proportion working in the practice for 10 or more years



Patient outcomes study

- 589 patients surveyed at baseline and 12m*
 - Smoking status, nutritional intake, alcohol intake, weight and height, blood pressure, blood sugar and cholesterol
 - Receipt of preventive care
 - Referrals
 - Readiness to change

* 283 (48%) intervention practice patients; Power calculations based on 1,000 patients



Outcomes study outcomes

- Noticeable but non-statistically significant improvements in:
 - Advice:
 - healthy eating (+10%)
 - Physical activity (+8%)
 - Readiness to change:
 - \circ more fruit & veg (+7%)
 - less dietary fat (+12%)
 - o weight loss (+10%)



Costing study

- Total cost of intervention: \$53,687
- 13,815 eligible intervention practice patients audited:
 \$3.89 per patient in intervention practice
- Downstream costs over 12 months
 - 393 patients consented to access MBS/PBS data*

* Of the 589 outcomes study group (67%); 187 (48%) intervention practice patients



Costing study

	Intervention	Intervention minus	95% Confidence Intervals	
	costs	control		
GP and PN visits	\$282	-\$23.14	-\$115	\$69
AHP visits	\$24	-\$24.90	-\$58	\$8
Relevant medications	\$72	-\$42.38	-\$121	\$37
Cholesterol medications	\$32	-\$30.07	-\$67	\$7
Total costs	\$377	-\$90.43	-\$261	\$80
Total costs (adjusted)		-\$79.05	-\$183	\$25

* Adjusting for age group and gender of patients, number of GPs and PNs in the practice and the proportion working in the practice for 10 or more years



Summary

- Low cost intervention (main inputs: Expert-led workshop, Trained facilitator) with potential downstream savings
- Proven effect on monitoring and recording of risk factors
- Positive trend on advice and readiness to change
- Plausible hypothesis
 - Improved quality of preventive care linked to improved patient outcomes



Does the available evidence support implementation of the PEP intervention?

- Options:
 - 1. Move on, effects are not meaningful
 - 2. Bigger trial required to prove cost & outcome effects
 - 3. Develop detailed guidance to inform PHN tendering for PEP service provision
 - Develop PEP implementation team and market services to PHN (Workshop delivery and facilitator training)



Acknowledgements

The research reported in this presentation is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health. The information and opinions contained in it do not necessarily reflect the views or policy of the Australian Primary Health Care Research Institute or the Australian Government Department of Health.

