PREVENTION

CV risk assessment and education in community pharmacies work!

“Because of the great prevalence of risk factors [for cardiovascular disease] and their close links with certain lifestyles, the most cost-effective and sustainable approach for prevention is the population approach, targeting whole communities and societies for change.” These comments from Pekka Puska, of the National Institute of Health and Welfare in Finland, and immediate past president of the World Heart Federation, come in the wake of a study demonstrating the effectiveness of a community-pharmacy-based prevention program. According to Dr Puska, this particular program had “surprisingly good results in hard outcomes”.

The Cardiovascular Health Awareness Program (CHAP) study assessed the feasibility and effectiveness of volunteer-run cardiovascular risk assessments (including blood-pressure measurement and collection of self-reported data) and education sessions in community-based pharmacies. Volunteers were trained by local nurses and a pharmacist was also present at the weekly 3 h CHAP sessions. The program was run for 10 weeks and participants were provided with their risk profile, risk-specific educational material, and information about community resources to enable self-management. “Our intent was to design and rigorously evaluate a community-based program that was effective while, at the same time, low-cost, scalable, sustainable, and implementable in any

community,” explains CHAP investigator Janusz Kaczorowski. Although anyone was welcome to take part in the CHAP sessions, local residents aged ≥ 65 years were actively encouraged to do so by family physicians, community pharmacists, and local media in each interventional area.

An independent expert randomly assigned 39 communities with populations of 10,000–60,000 in Ontario, Canada, to receive the CHAP ($n = 20$) or no intervention ($n = 19$). Of the 145 pharmacies in the communities assigned to receive the CHAP, 129 (89%) took part in the program. In total, 577 volunteers assessed and educated 13,379 residents aged ≥ 65 years in at least one of the weekly sessions.

On the basis of local hospital admissions in the years before and after the 10-week program, the investigators determined that the CHAP was associated with a 9% relative reduction in the mean annual rate of hospital admissions of residents aged ≥ 65 years whose primary discharge diagnosis was listed as acute myocardial infarction, congestive heart failure, or stroke (the primary outcome measure of the study). When divided into individual end points, the investigators demonstrated 13% and 10% relative reductions in hospital admissions for acute myocardial infarction and congestive heart failure, respectively, in the communities that received CHAP; no significant CHAP-associated reduction in hospital admissions for stroke was observed.

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“If nationally applied, such a change [in hospital admissions] would mean a very big public health improvement and savings in health-care costs,” highlights Dr Puska. Indeed, Kaczorowski and colleagues are currently completing analysis of the program’s cost-effectiveness.

According to Professor Kaczorowski, the CHAP investigators current work also “focuses on how CHAP can be implemented and sustained locally in a scaled-down version, as a year-round program available to every member of the community, and how risk data can be incorporated directly into Electronic Medical Records or Patient Controlled Health Records.”

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Original article Kaczorowski, J. *et al.* Improved cardiovascular health at population level: 39 community cluster randomised trial of Cardiovascular Health Awareness Program (CHAP). *BMJ* 342, d442 (2011)