



The Research File

Information for professionals from the Canadian Fitness and Lifestyle Research Institute

Doing it Right ... in North Karelia

Community-based health promotion has seen many renditions in efforts to reduce risk factors for disease and improve population health. The North Karelia Project started it all. Nothing else since has matched its level of success.

Situated in the eastern part of Finland, North Karelia is a largely rural area with a population of 180,000. It consistently ranks lowest in socioeconomic status among the country's 11 provinces.

The Project was launched in 1972 in response to exceptionally high cardiovascular disease (CVD) mortality rates, especially from coronary heart disease (CHD). Since 1977, efforts have been carried out nationwide, building on the experience from North Karelia.

Astonishing Results

Changes over time are significant—to say the least! Here are some highlights:

- The decline in *CVD* mortality in men from 1972 to 1995 was 68% in North Karelia and 61% nationwide.
- For *CHD* mortality in men, the decline during the period was 73% in North Karelia and 65% throughout the country.
- *Lung cancer* mortality in men declined 71% in North Karelia and 57% overall.
- For women, there has also been a great reduction in *CVD* and *all-cause* mortality, but only a small reduction in *cancer* mortality.

More than 5,000 premature deaths have been prevented in North Karelia and 60,000 for Finland as a whole. Life expectancy at birth has increased from 66.4 years for men and 74.6 years for women in 1971 to 72.8 and 80.2 years respectively in 1995.

How Did They Do It?

The Project and the broader national effort focused on reducing levels of the main risk factors—smoking, elevated serum (LDL) cholesterol, and elevated blood pressure—and on promoting secondary prevention. The emphasis was on general lifestyle changes, particularly dietary habits and smoking.

From the beginning, a behavioural/social model of community intervention was used. “This two-pronged emphasis,” notes Pekka Puska in the Project’s summary report, “aims to spread and expand knowledge, to persuade, to teach practical skills, and to provide the necessary social and environmental support for the performance and maintenance of these health skills in the population.”

Initiatives were grouped into four areas: media, health service, community organization, and environmental and policy.

From Dairies to Berries

Some very special—and effective—approaches were used. These included ...

- **TV time.** No 15-second PSAs here! Major TV series over the years (ranging from seven to 15 shows, each 30–45 minutes) received high ratings. The Key to Health series, for example, portrayed real-life experiences of North Karelians as they stopped smoking or changed eating habits. This format relied on exemplification (showing viewers what others are doing) rather than prescription (telling them what to do) to motivate and educate.

- **MARTTA power.** This housewives’ organization helped influence cooking and dietary habits, especially in rural areas.

- **Lay leaders.** Opinion leaders in local villages were sought out and invited to become project assistants. Following training, lay leaders modeled good behaviours and promoted the same in others—one-on-one, through formal meetings, and even via persuasion of grocery storekeepers to make cholesterol-lowering foods more available.

- **Tax shifting.** Increased tax on cigarettes was a natural. A more delicate task was dealing with government subsidies for butter and milk production and reducing the high taxes on imported vegetable oils. Taxes were shifted and business followed suit, with the development of a domestic vegetable oil and rapeseed oil industry being one result.

- **Economic renewal.** The shift away from butter and fatty dairy products in the diet was not an easy one in North Karelia, an area devoted largely to dairy farming in the early 1970s. But the climate already supported productive berry farming operations and, over time, many dairy farmers shifted to berry production. The result? A move toward low-fat dairy products, more fruits and vegetables, and less smoking.

Three decades on, North Karelia remains a model for health promotion specialists around the world, striving to improve the health habits of broad populations. Sound science, innovative programming, and effective evaluation are hallmarks of their success.

More Info ...

Vartiainen, E. et al. (2000). Cardiovascular risk factor changes in Finland, 1972–1997. *International Journal of Epidemiology*, 29, 49–56.

Puska, P. et al. (1998). Changes in premature deaths in Finland: successful long-term prevention of cardiovascular diseases. *Bulletin of the World Health Organization*, 76 (4), 419–425.

Puska, P. et al. (1995). *The North Karelia Project: 20 Year Results and Experiences*. Helsinki, Finland: The National Public Health Institute.

Learning from North Karelia

Community intervention programs should include:

- a clear analysis/understanding of the community;
- close collaboration with various community organizations;
- full participation of the local people themselves;
- support of formal community decision makers and informal opinion leaders;
- well-planned media/messages combined with broad-ranging community activities.

