Why Did North Karelia—Finland Work?

Is it Transferrable?

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ABSTRACT

Successful prevention of cardiovascular diseases in the North Karelia Project and Finland has drawn international attention, particularly as cardiovascular diseases and more generally noncommunicable diseases have become the leading cause of premature mortality in the world. The questions have often been asked about what were the main reasons for success and whether or not the experience could be transferred elsewhere. The main lesson is that the possibilities and potential of cardiovascular prevention are great. The principles of population-based prevention are universal and are expressed in the strategies of World Health Organization. But, the practical implementation of the preventive work must be tailored to local cultural, social, and administrative (political) situations. This paper discusses many elements of the work in North Karelia and Finland that were likely important for success.

The North Karelia Project was started in 1972 in response to the huge public health problem of extremely high cardiovascular mortality in Finland, and especially in Eastern Finland. The Province of North Karelia was the original target area for the prevention, as a pilot program for Finland. After the original 5-year period, the Project was continued as a national demonstration, but at the same time the experience was actively transferred to a national level through both many organized measures and unorganized diffusion of the innovations. After 25 years, the Project was formally ended, but national preventive activities continue.

The work and results of the North Karelia Project and the related national action have been summarized in a monograph in 2009 [1]. The results, the experiences, and its offspring studies have also been described in the special issue of Global Heart [2]. The results show marked positive population changes in target risk factors and related lifestyles, and associated with these, positive changes in cardiovascular rates during the original period, especially in North Karelia and later on in all of Finland. These can be explained to a great extent by the changes in the target risk factors [3,4]. From between 1969 and 1971 to 2011, the age-adjusted coronary heart disease mortality among the 35- to 64-year-old male population declined in North Karelia by 84% and in all of Finland by 82%. The early rather large gap between North Karelia and all of Finland became very small by 1995, and practically disappeared in the 2000s.

With the longstanding experiences and documented big changes in cardiovascular rates and in overall public health, the North Karelia/Finland experience has been a much cited reference in international discussions on cardiovascular disease (CVD) and noncommunicable disease (NCD) prevention and on CVD/NCD programs. In these discussions, the often asked questions have been: what were the main reasons for success, and could the experience be transferred to other countries?

Concerning the latter question, the main answer is that the Finland experience gives strong support to the general possibility and potential of CVD prevention and to the main strategies of population-based prevention. In the last few years, these strategies have been reproduced using a very similar design in numerous international and national strategy documents [5]. Especially important is the World Health Organization (WHO) Global Action Plan on Prevention and Control of Non-communicable Diseases for 2013 to 2020 [6]. Over the years, the North Karelia Project/Finland experience has contributed greatly to the work of WHO in the area.

The first question refers to the much more difficult and complicated issue: how can these principles and strategies be successfully implemented in different countries, that is, how do we overcome the implementation gap? It is quite clear that every country has to find its own way in its specific cultural, social, administrative and political situation. Direct replication of the Finnish work is not practical. However, it is certainly of interest to discuss which elements of the North Karelia Project and the work in Finland have been especially valuable. With comprehensive activities and policies over the years, it is not possible to give clear scientific answers. However, this question has been discussed in the latest summary work of the North Karelia Project, and is reflected in this paper [1].

WHY WAS NORTH KARELIA SUCCESSFUL?

Appropriate theory base

A fundamental reason for the success of the North Karelia Project was a correct and appropriate public health

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understanding of the problem. A phrase often used in the work was: "Nothing is as practical as a good theory." The theory concerns primarily finding the main causal risk factors and then targeting those that are most prevalent in the population. In the North Karelia Project, the epidemiological considerations about the risk factors and the role of life-styles led to the adoption of a community-based approach, which shifted the risk factor profile of the population and targeted the whole community with its social and physical structures. In doing this, several behavioral and social frameworks were also used [7], including steps for behavior change, communication, innovation diffusion, and community organization. After moving to the national level, these same theoretical bases of policy issues were also dominant and relevant.

Flexible intervention

While the intervention in North Karelia had a strong theoretical base and framework, the actual intervention was flexible, responding to practical situations and naturally occurring possibilities in the community. The Project worked in close collaboration with the local population, was visible, and interacted with many different organizations. The aim was not only to communicate the Project's message, but also to listen to the views and issues in the community.

Intensive intervention

The results depended not only on correct theories, but also on their practical application. It is not enough to do the "right thing," one must also "do enough of it." The dose of the intervention is also important. Over the years, the Project initiated and organized many practical activities among the population. Although the budget of the Project was never considered to be huge, it was able to mobilize many activities that did, indeed, reach many people, often in their everyday lives. During the first 5 years, some 20,000 patients with hypertension were registered in North Karelia and followed-up with treatment and counseling for risk reduction [8]. Numerous specific campaigns did reach a large number of people.

Working with the people

From the very beginning of the Project, it was felt to be important to work closely with the community and among the people. A commonly used phrase within the Project was to work with "boots deep in the mud." The ownership of the Project by the people was considered to be crucial. The original petition to reduce CVD mortality was much emphasized. The activities were presented as a response to the petition: "The Project message is the best scientific way to respond to your wish: reduction of the cardiovascular burden, but the changes can only be done by people yourselves." The role of the Project was to make such changes as easy as possible. Concerning the ownership, a common phrase used was "I am in the Project." Even the name, the North Karelia Project, indicates the ownership by the province. In the organization of the work, numerous local people were involved.

Community organization

In the early 1970s, community-based prevention was a new and innovative approach to prevent CVDs. The basic idea was, from the very beginning, to change the community; individual behaviors tend to follow the general life-style patterns of the community. In close interaction with the community, the Project took every opportunity to discuss with various organizations how they could contribute to the practical objectives of the Project. This concerned official service structures (health, social, education, and so on), nongovernmental organizations of different kinds, the private sector, local political bodies, and the media. Two principles were important in these persuasive contacts. First, much of the influence was on the basis of personal, often opportunistic, contacts and trust. Second, the aim was to find "win-win" situations, so that collaboration would benefit both the Project and the partner. Media publicity provided public pressure, recognition, or financial incentives to the partners.

Work with health services

The intervention in North Karelia was broad, and all possible areas of life were considered. At the same time, it was realized that health services must be supportive and form a backbone to the local activities. Within local health centers, public health nurses and physicians were in especially key positions. The Project established close contacts through training seminars, written materials and guidelines, monitoring, and personal contacts.

Official authority

Much of the Project work was based on voluntary collaboration, persuasion, training, communication, and so on. But, at the same time, the Project was linked with official administrative structures and health authorities. The point was that this work was not only a voluntary activity, but also an important part of daily professional work. In this way, the Project wore "2 hats": an official and unofficial one. The activities were also linked as much as possible with national official guidelines and programs, and thus took advantage of national policies and guidelines.

Limited targets—outcome orientation

A reason for success was clearly the decision about the critical and limited targets. "Less is more" is a phrase that was often used. All interventions were oriented toward the reduction of the population's levels of the target risk factors: blood cholesterol, blood pressure, and smoking. Because the population's cholesterol and blood pressure levels were understood as dependent upon certain dietary habits (high intakes of saturated fat, very little