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Dietary changes in Finland—success stories and future challenges

Ritva Prättälä

National Public Health Institute (KTL), Mannerheimintie 166, FIN-00300 Helsinki, Finland

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Abstract

The paper describes dietary changes and related nutrition policies and interventions in Finland since the 1960s. Dietary changes are interpreted from the lifestyle perspective, in which food consumption patterns are assumed to be formed by the interplay of individual choices and structural chances, such as socioeconomic and cultural conditions. Finland can demonstrate a success story when it comes to decreased use of dairy fats and increased use of vegetables and fruit. However, the prevalence of overweight has increased. Nutrition policies and interventions together with sociocultural factors have supported the shift towards healthy nutrition. The same factors have promoted overweight, as well.

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Food consumption patterns as a dimension of health lifestyle

During the last 40 years the food consumption patterns in Finland have changed. The lifestyle approach presented by Abel and Cockerham (Abel, Cockerham & Niemann, 2000; Cockerham, 2000) may shed light on the background factors of these developments. From the lifestyle perspective dietary habits can be viewed as health related behaviours. Health related behaviours together with orientations and resources form a health (related) lifestyle. Health lifestyles are “adapted by groups of individuals in response to their social, cultural and economic environment”. Health lifestyles are formed by the interplay between life choices and life chances such as socio-economic and cultural resources. Health lifestyles are, therefore, principally collective not individual phenomena (Abel et al., 2000). Accordingly, food consumption patterns are determined not only by individual choices but by structural chances such as socio-economic position, working and living-conditions. Nutrition policies and interventions are, on the one hand, a product of culture, on the other hand, they shape cultural attitudes towards and knowledge on food.

E-mail address: ritva.prattala@ktl.fi (R. Prättälä).

Dietary changes in Finland

In the early 1960s, the the average Finnish diet was characterised by a high intake of energy and fat (40–45% of total energy) and especially, a high intake of saturated fat (over 20% of total energy). The nutritional situation of the 1960s reflected processes begun after World War II. War-time food rationing came gradually to an end in the 1950s. Thereafter, consumption of butter, milk, sugar and meat products increased while the consumption of cereals and potatoes decreased—obviously as a reaction to war-time food shortage (Kokko & Räsänen, 1997).

In the early 1970s the Finnish diet was still high in saturated fatty acids and sodium and low in vegetables and fruit. During this decade the direction of many food consumption trends changed. Consumption of vegetables, fruit, margarines and low-fat milk products started to increase, that of butter, high-fat milk and salt to decrease. The nutritional consequence of the changes was a decrease in the average intake of energy, fat and sodium. Furthermore, the share of saturated fat of the total energy intake decreased (Pietinen, Lahti-Koski, Vartiainen, & Puska, 2001).

The beneficial dietary changes can be observed, for example, on the basis of health behaviour surveys. According to the survey of Health Behaviour and Health

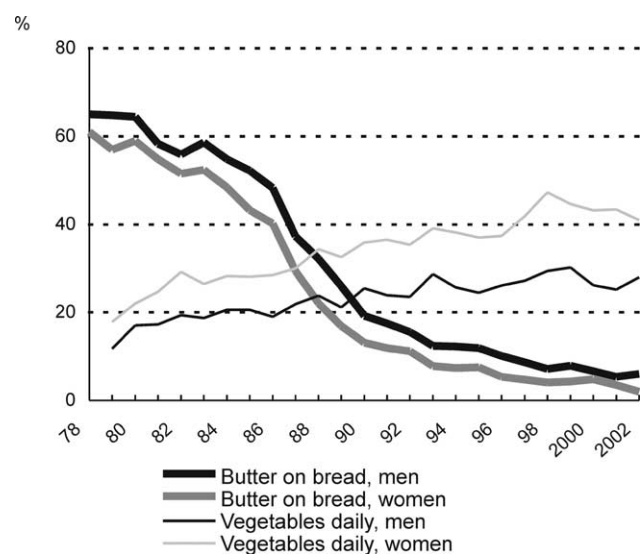


Fig. 1. Proportion of those who eat vegetables daily and who use butter on bread in 1978–2002 (%) (Helakorpi et al., 2002).

among Finnish Adult Population (AVTK-survey), 65% of Finnish men used butter on bread in 1978, in 2002 only 6%. The proportion of men using vegetables daily increased from 16 to 28%, that of low fat milk from 3 to 38% (Fig. 1) (Helakorpi, Patja, Prättälä, Aro & Uutela, 2002). The AVTK-survey shows, as well, that Finns have become more physically active at leisure time (Fig. 2). Unfortunately, the prevalence of obesity has increased as well (Fig. 3). The increasing prevalence of obesity is obviously associated with a decrease in overall physical activity. The drop in overall physical activity can be concluded on the basis of the trend of physical activity when travelling to and from work (Fig. 2). Obesity is considered the major nutritional problem

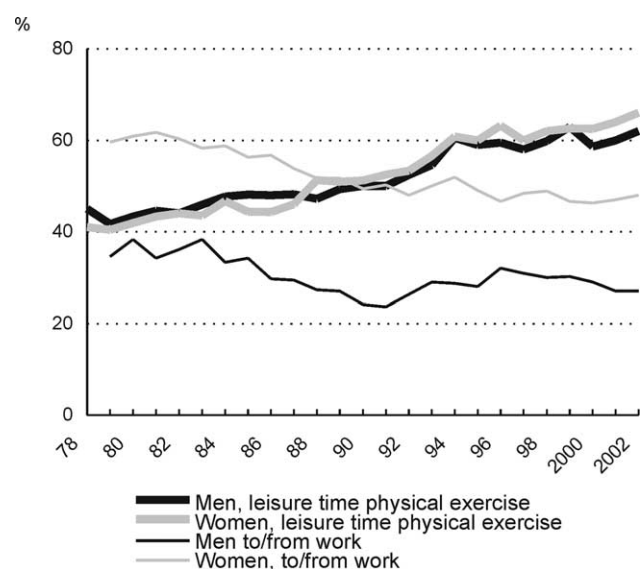


Fig. 2. Proportion of those who have leisure time physical exercise at least 30 min at least twice a week and those who spend for at least 15 min per day walking or to cycling in commutation (%) (Helakorpi et al., 2002).

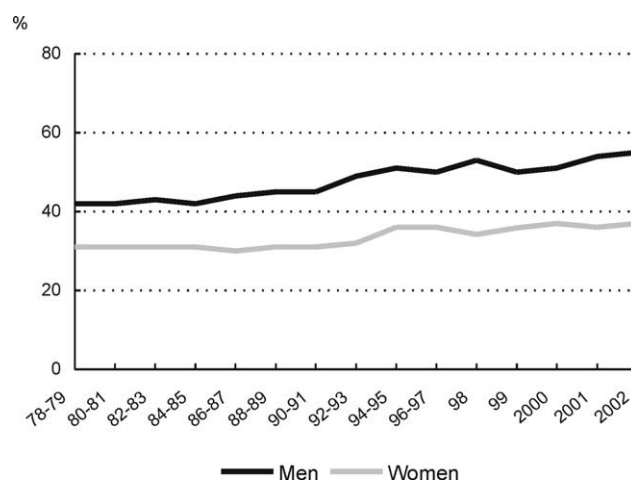


Fig. 3. Proportion of men and women with overweight (BMI > 25 kg/m²) in 1978–2002 (%) (Helakorpi et al., 2002).

in Finland (Finnish National Nutrition Surveillance System, 1999; Lahti-Koski, Pietinen, Männistö & Vartiainen, 2000).

Nutrition policies in Finland

Finland has a long tradition of nutrition policies. The first Finnish nutrition committee was set up as early as 1936, but its recommendations were not put into action because of World War II (Kokko & Räsänen, 1997). In 1954 the Ministry of Agriculture and Forestry appointed a new committee, the National Nutrition Council. The members of the Council have since then represented various interest groups from agriculture, food industry, health care, education, research and consumer organisations. The Ministries of Agriculture and Forestry and Social Affairs and Health have both been involved in the activities of the Council (Finnish National Nutrition Surveillance System, 1999). The intersectoral and interministerial collaboration in the Council is a typical example of traditional Finnish policy-making, creating consensus and resolving conflicts. But the intersectoral nutrition policies have also been criticized for implementing only safe projects and not focusing on controversial topics such as pricing policies (Roos, Lean & Anderson, 2002).

The National Nutrition Council appointed in 1954 could not agree on national recommendations but Finnish nutrition and health experts were actively involved in developing Nordic dietary recommendations. The Nordic recommendations were published in 1968. They were widely distributed but not officially accepted in Finland (Kokko & Räsänen, 1997).

The role of nutrition policy in disease prevention became more significant in the 1970s when the general interest in nutrition and awareness of the impact of poor diet on health grew remarkably. In 1978 the National Nutrition Council made a proposal for Finland's food and nutrition policy. The

proposal included national dietary guidelines (Finnish National Nutrition Surveillance System, 1999; Kokko & Räsänen, 1997). Later the National Nutrition Council has revised its dietary guidelines three times, in 1981, 1987 and 1998 (National Nutrition Council, 1998; Ravitsemustoimikunta, 1981; Valtion ravitsemusneuvottelukunta, 1987). The editing of dietary guidelines was followed by suggestions for implementation (Valtion ravitsemusneuvottelukunta, 1989) concerning production and marketing of food, legislation, monitoring, pricing, catering, nutrition education and research (National Nutrition Council of Finland, 1992). The national dietary recommendations also formed the starting point for guidelines for different target groups (Finnish National Nutrition Surveillance System, 1999).

Typical for the Finnish nutrition policy is the development of catering services. Finnish children have received a free meal at elementary schools since the 1940s. The same benefit gradually reached also primary and secondary school pupils. University students have received subsidised meals since 1979 (Prättälä, 2000). Meals eaten outside home are common in Finland: in 1998 the Finnish catering services served about 679 million meals, which equals 2.6 meals per week for every Finn. The majority of these meals were served at schools (22%). In 1998, the share of cafeterias was 17%, that of restaurants and hotels 14%. Old people's homes, children's homes, hospitals and staff canteens accounted for about 10% each (Finnish National Nutrition Surveillance System, 1999). The central role of catering services has been recognised by Finnish food and nutrition policy planners who developed special dietary guidelines for school, hospital and workplace kitchens, etc.

The contents of dietary recommendations have basically remained similar over the years. The goal has been to reduce the consumption of fat, especially saturated fat, sugar and salt and to increase the use of vegetables, fruit, cereal products and potatoes (National Nutrition Council, 1998). In the 1960s and early 1970s the National Nutrition Councils failed to reach agreement on recommendations concerning saturated fat. Conflicts between the public health and agricultural sectors manifested in the Councils inability to give practical guidelines on the use of margarines and vegetable oils vs. butter (Murcott & Prättälä, 1993).

Other food-related policies

The Finnish agricultural policy has not been nutrition-orientated. However, recent political changes have been favorable for nutrition. Measures to reduce dairy production have been designed and, since 1990, milk subsidies have been paid on the basis of protein rather than fat content. Furthermore, a new type of rape plant high in monounsaturated fat was bred (National Nutrition Council of Finland, 1992). Finnish research showed that rape seed oil was effective in lowering cholesterol. The fact that a

domestic heart healthy fat-alternative was given greatly promoted the sales (Puska, 2000). Earlier, the agricultural lobby had unanimously supported the Finnish butter against imported vegetable fat.

Already in the 1970s the Finnish food industry was interested in nutritional policies. Along with the increasing health awareness the food industry recognised the demand for foods recommended by health and nutrition experts. The availability of low-fat dairy products, breads high in fiber but low in salt, various bread spreads based on vegetable oils, etc. greatly improved.

The Finnish price, subsidy and tax policies related to food do not reflect nutritional policy. The lack of nutritional goal-setting has been especially evident in regard to dairy foods. Earlier, the state's support kept down the prices of high fat dairy products. Since 1995 Finland's membership in the European Union has improved the competitiveness of plant oils and margarines: the price of margarine has dropped from 70 to 60% of that of butter.

The North Karelia project—a successful intervention

Within the framework of the Finnish nutrition policy there were many health promotion campaigns, the North Karelia project is the most famous one. The project was started in 1972 as a response to a petition by the representatives of the local population. Cardiovascular diseases were especially prevalent in North Karelia. The initial objective was to reduce cardiovascular mortality. Later the goal broadened to reduction of the chronic disease mortality and promotion of health. Intermediate objectives of the project were to reduce the level of risk factors, with a special emphasis on smoking and dietary habits (Puska, Tuomilehto, Nissinen, & Vartiainen, 1995).

The practical intervention activities were integrated into the existing service structure and social organisation. Practical skills were taught, social support for change provided and environmental modification arranged. The main activities included media campaigns, health service activities, especially within primary health care, community organization activities as well as environmental and policy activities. These were often introduced via community activities, such as supermarket campaigns, advising food manufacturers and caterers (Puska et al., 1995). The systematic work in North Karelia resulted in reduction of risk factor levels, decreases in serum cholesterol, intake of saturated fat and smoking. Cardiovascular mortality decreased in North Karelia faster than in other areas of Finland (Pietinen et al., 2001; Puska, 2000).

After good results in North Karelia, the project started to contribute to the national development. For example, the comprehensive evaluation system designed for the North Karelia county was developed to a national monitoring system for chronic disease prevention and health promotion (Helakorpi et al., 2002). Many national health education and

promotion campaigns were started with support of national and local non-governmental organisations (Puska, 2000). The considerable publicity of the North Karelia project increased awareness of healthy diet and paved the way for national policy decisions and legislative changes.

Social and economic changes and everyday life

Many social and economic changes since World War II have influenced everyday life of Finns and contributed to dietary changes and the development of nutrition policies and interventions. In the 1950s and 1960s Finland was economically much behind the other Scandinavian countries. The majority of the Finns lived in the countryside, and half of the population earned living by forestry and agriculture. Dairy farming was the most important field of agriculture. The strong emphasis of dairy production has its origins in social problems caused by World War II. In the war Finland lost a large Southeastern area, and its Finnish population had to be evacuated. The migrants were inhabited all over the country with the help of governmental measures that encouraged subsistence farming. Therefore, most of the migrants became small farmers. For small farms dairy production was the most suitable field of agriculture.

Since the 1960s the social and economic development in Finland has been one of the fastest in Europe. In terms of welfare Finland has caught the other Scandinavian countries. The scale of changes can be exemplified with statistics (Karisto, 1985; Statistics Finland, 2003a,b).

- The average educational level has increased rapidly. Today more than 80% of adult Finns born after 1960 have at least an educational qualification of upper secondary school; among Finns born some 20 years earlier the corresponding figure varies between 45 and 25%.
- About half of Finnish women were employed in the 1960s, by 1990 practically all working age women are employed.
- In the early 1960s about 800,000 Finns worked in forestry and agriculture, in 2000 there are only 140,000. During the same time period the number of Finns working in trade, services, transport and communication increased from 600,000 to 1,500,000.

The diminishing role of forestry and agriculture in the Finnish economy lead to rapid urbanisation of the country. Finns have moved from Eastern and Northern parts of the country to the Southern cities. Today the great majority of the population lives in urban areas. The development of Finland from a poor agricultural society into a modern welfare state has influenced everyday life of all citizens. In the 1960s manual labor was common. Correspondingly, both men and women had relatively high needs of dietary energy for their everyday activities, be it at home, in the

fields or forests. Meals were prepared from self-produced foods. Ordinary families did not have a car and public transport was less developed. Today Finnish men and women drive to work and on their way back home buy convenience foods from supermarkets. Fresh vegetables and fruit are available at every season. Work in offices and shops are seldom physically demanding. Information on healthy diet is easily available and the high educational level improves chances to understand dietary recommendations.

The combined effect of socioeconomic, political and population changes created conditions where messages of nutrition and public health experts could be accepted. The favourable changes in the consumption of soft margarines and vegetable oils vs. butter and high fat milk are an example of the combined effect. Finns could reduce the use of butter and high fat milk because:

- foods to be avoided—like butter and high-fat milk—had alternatives, namely margarine, vegetable oil and skim milk
- choosing the recommended alternatives did not increase the costs for the consumer, the relative prices of margarine compared to those of butter declined
- the healthier alternatives were served by mass catering—margarine and low fat milk became available in schools, hospitals, work place canteens, etc.
- numerous health promotion campaigns, dietary recommendations and nutrition policy plans emphasized the role of saturated fat for the development of cardiovascular health
- people were aware of dietary recommendations and accepted them.

Conclusion

Finland can demonstrate a success story of dietary changes. However, obesity has become a major problem, mainly because of a significant decrease overall physical activity. The trend of increasing physical activity in leisure time did not compensate for the decline of ‘natural’ physical activity by manual work. In an environment filled with cars, lifts, escalators and high technology, maintenance of everyday physical activity requires special efforts. The same social, cultural and political forces that have promoted the beneficial dietary changes have promoted obesity. One can conclude from the lifestyle perspective that Finns have better chances to choose all kinds of foods but their chances to maintain ideal body weight are worse.

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