

Changes in health status and health behavior among Finnish adults 1978–1993

by Eero Lahelma¹, Ossi Rahkonen², Mari-Anna Berg³, Satu Helakorpi³, Ritva Prättälä³, Pekka Puska³, Antti Uutela³

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The patterning of trends in self-assessed health, and in the “Holy Four” of health-related behaviors, that is, smoking, drinking, the use of high-fat milk and butter, and physical exercise, was examined in the Finnish general population aged 25–64 years. There were considerable differences in the health status and health behavior by study year, gender, and educational attainment. The longer the education, the better the health and the more favorable the health behavior, except for the use of alcohol. From the late 1970s to the early 1990s smoking increased slightly among women but decreased among men. The use of alcohol increased, whereas the use of butter and high-fat milk decreased dramatically. Physical exercise during leisure time increased, especially among women. Unemployed men and women were more often smokers than employed persons.

Key terms alcohol, education, exercise, fat, milk, smoking.

During the postwar decades the Finnish social structure has undergone rapid and deep changes (eg, compared with our Scandinavian neighboring countries). These changes have included, first, a transformation from an agriculturally dominated social structure to an industrial and postindustrial one. In addition, a parallel development included a massive urbanization wave called “the great migration”.

A second and ongoing transformation started in the early 1990s, and it has affected particularly strongly the labor market. Mass unemployment, unparalleled since the 1930s, has soared to 20% [ie, the second (worst) situation in Europe]. The poor employment situation is expected to continue at least until the end of this decade. As a result of this development, the Finnish welfare state has stagnated, just as Finland had succeeded in accomplishing the Scandinavian welfare model.

The structural developments have greatly affected people's ways of life and their life-styles (1). For example, urbanization and changes in the occupational structure, as well as long-term unemployment, are likely to affect health-related behavior, for example, diet, drinking and smoking. The development of health behavior may, in fact, bring out contrasting patterns between subgroups (2, 3). Such polarization is influenced by, for example, emerging environmental risks and risk behavior on the one hand and simultaneous increasing resources to cope with the risks (eg, due to improved education) on the other. The structural changes and the related development of health behavior have not affected the increasing secular trend of life expectancy among the Finns, but they constitute a potential explanation for the considerably shorter life expectancy among men (4).

1 Department of Public Health, PO Box 41, FIN-00014 University of Helsinki, Finland.

2 Department of Social Policy, FIN-00014 University of Helsinki, Finland.

3 Department of Epidemiology and Health Promotion, National Public Health Institute, FIN-00280 Helsinki, Finland.

Health behavior trends are a subject of focus, as they usually involve important risk factors for major public health problems, such as cardiovascular diseases, cancer and addiction. However, health behavior cannot be understood as a risk factor only, but needs to be perceived in the broader context of way of life and life-style. Thus health behavior is not merely of interest medically but also culturally, psychologically and sociologically (5). Various disciplines and viewpoints are needed for a deeper understanding of the significance and messages carried by people's health behaviors and their changes: How do people value health? To what extent do people judge their behavior from the health angle? What are the factors contributing to successful health education?

To be able to address the aforementioned questions, monitoring of the patterning of individual health behavior and its development among the population and its subgroups is needed. This paper presents basic data on trends in the social patterning of health behavior among the Finnish adult population from the late 1970s until the early 1990s.

Objectives

Studies on health behavior have often been restricted to one single type of behavior only. This paper examines the social patterning of trends in self-assessed health, and in the "Holy Four" (6) health-related behaviors, that is smoking, drinking, the use of high-fat milk and butter, and physical exercise. In addition to overall trends, socioeconomic variation and trends are presented for Finnish men and women from the late 1970s to the early 1990s.

The main questions of the study were (i) what were the trends in health and in the four health-related behaviors during the study period, (ii) what kind of socioeconomic patterning can be found in these trends, and (iii) are the trends in health and health behavior associated with the economic recession and mass unemployment in the 1990s in Finland?

Material and methods

Data source

The data were derived from an on-going study program, Monitoring of the Health Behavior among the Finnish Adult Population, being carried out by the Department of Epidemiology and Health Promotion at the Finnish Na-

tional Public Health Institute (7). Annual surveys have been carried out using postal questionnaires since 1978. A random sample of 15- to 64-year-olds was drawn from the National Population Register. The number of respondents for each year has been about 4000, and the response rate has varied from 66% to 86%. Pooled data from five subperiods were analyzed: 1978–1981, 1982–1984, 1985–1987, 1988–1990, and 1991–1993. Details of the results of the overall trends by gender and age can be found in another report (8).

Health status

Self-assessed health is measured by asking the respondents to describe their health as "good", "fairly good", "intermediate", "poor" or "very poor". This paper analyses the data for those who assessed their current health status as below average (ie, "poor" or "very poor").

Health behavior

The following four indicators of health behavior were included: (i) daily smoking, (ii) more than 8 drinks (alcohol units) per week (ie, glasses of wine, bottles of beer, portions of spirits), (iii) exercising at least twice a week during leisure time, (iv) unhealthy dietary habits if the respondent reported both the use of butter on bread and the use of high-fat milk.

Socioeconomic status and employment status

The level of education was used as the indicator of socioeconomic status; it was measured by the following question: "How many years altogether have you gone to school or studied full-time in your life?" The years of education were categorized into the following three groups: (i) basic (0–9 years of education), (ii) secondary (10–12 years of education), and (iii) higher (≥ 13 years of education).

Current employment status was asked about in the questionnaire and categorized as (i) unemployed, (ii) under threat of unemployment, (iii) employed, and (iv) pensioned (prematurely).

Age

The age range in this study was limited to 25–64 years; the following age groups were used: 25–34 years, 35–44 years, 45–54 years, and 55–64 years. For studying the social patterning of health and health behavior, age standardization was achieved with an indirect method with 10-year age groups; combined material for men and women was used as the standard population.

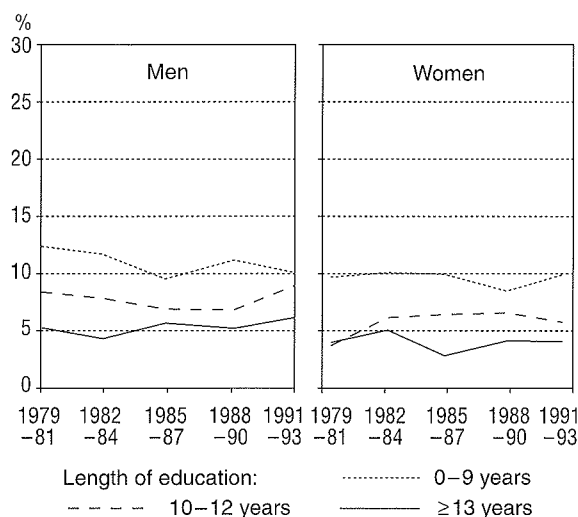


Figure 1. Percentage of men and women aged 25 to 64 years reporting their health status as "poor" or "very poor", by education—age-adjusted figures 1979–1993.

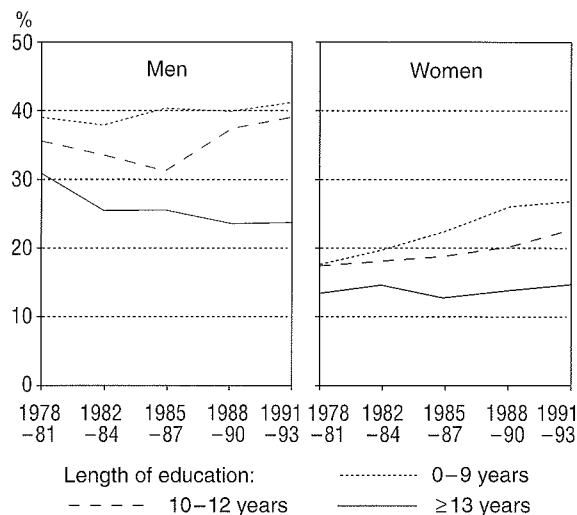


Figure 2. Percentage of men and women aged 25 to 64 years reporting that they smoked daily, by education—age-adjusted figures 1978–1993.

Trends and patterning of health and health behavior, 1978–1993

Health status

The men assessed their current health as being slightly poorer than did the women in the study period. The proportion of those who assessed their health as poor or very poor decreased particularly in the oldest age group. As can be expected, the higher the age the poorer the health. This expectation held true for both the men and the women.

The differences in health by educational level were great, and consistent, for both the men and the women (figure 1). Among the men, however, the educational differences decreased; health deteriorated in the two higher educational groups and improved in the lowest educational group. Among the women, the health differences remained roughly at the same level over the study period. This finding is in accordance with the results of other studies on the patterning of health development in Finland (9).

Smoking

Daily smoking decreased among the men from 36% to 33% and increased among the women from 16% to 19% from 1978–1981 up to the early 1990s. Gender differences diminished over time. Age differences were

marked; smoking was the most prevalent among the youngest age groups and the least prevalent in the oldest age group. Daily smoking decreased the most clearly in the oldest age group. The age differences for daily smoking among the younger age groups diminished over the study period. The differences between the men and the women were greatest in the oldest age group and smallest in the two youngest age groups.

The higher the educational level, the lower the prevalence of daily smoking (figure 2), for both genders. Among the men, the prevalence of daily smoking increased both in the basic educational group (from 39% to 41%) and in the secondary educational group (from 36% to 39%), but decreased in the higher educational group (from 31% to 24%). Among the women, daily smoking increased in each educational group, but the increase was fastest among those with only a basic education. The educational differences in smoking widened for both the men and the women over the whole study period.

Drinking

The use of alcoholic beverages increased both among the men and the women from the early 1980s to the early 1990s. The men, however, consumed much more alcohol than the women. Over the study period, the prevalence of those who drank at least 8 units (drinks) weekly increased from 30% to 40% among the men and

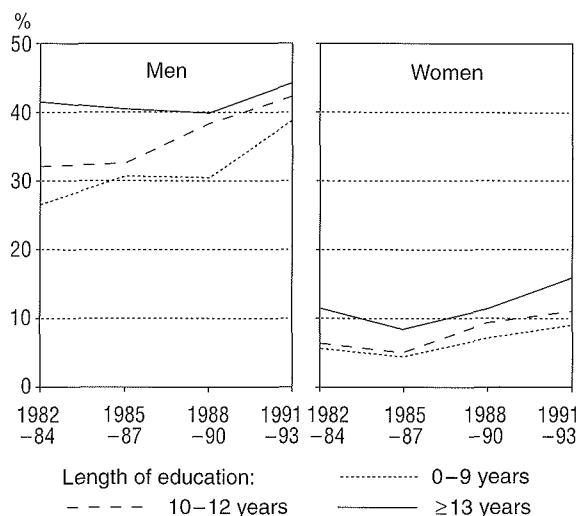


Figure 3. Percentage of men and women aged 25 to 64 years reporting that they drink at least eight alcohol units a week, by education—age-adjusted figures 1982–1993.

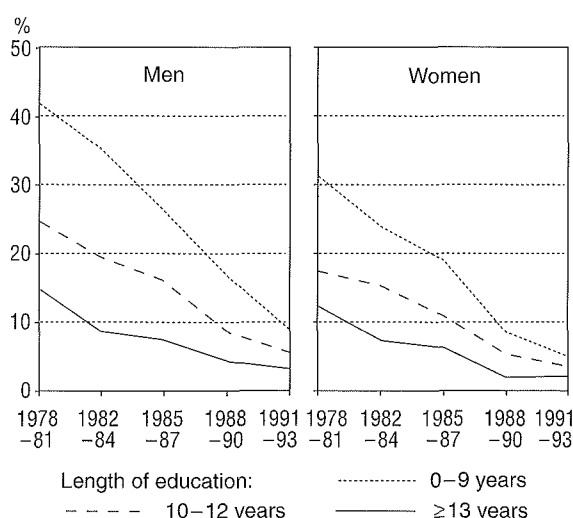


Figure 4. Percentage of men and women aged 25 to 64 years reporting that they consume whole milk and butter, by education—age-adjusted figures 1978–1993.

from 6% to 12% among the women. The age differences in drinking were large and in accordance with those for smoking, being the least prevalent in the oldest age group, 55- to 65-year-olds, and the most prevalent in the youngest age group, the 25- to 45-year-olds. The age differences between the younger age groups diminished over the study period in a manner similar to that for daily smoking.

In contrast to smoking, the prevalence of drinking was higher, the higher the educational level (figure 3), for both genders. Drinking increased in each educational group. For the men educational differences in drinking decreased to some extent over time, but they showed stability for the women.

Use of high-fat milk and butter

A dramatic decrease in the use of milk fat took place among both genders and in all the age groups over the study period. For example, in 1978–1981 half of the 55- to 64-year-old men, that is, the heavy fat users, used high-fat milk and butter; in 1991–1993 the proportion was only 12%. This pattern was similar but less dramatic for the men and women in the other age groups. Particularly the women showed less change, as they used considerably less milk fat compared with the men already in the beginning of the study period.

From the risk behavior viewpoint, the use of milk fat by educational level varied as it did for smoking: the higher the level of education, the less milk fat used (figure 4). The use of high-fat milk and butter also showed a

striking decrease at all educational levels. Simultaneously, differences between the educational groups had strongly diminished among both genders. However, the educational differences had not yet fully disappeared. Among the men the differences between the educational groups were larger, and their decline more obvious than among the women. In their milk and butter consumption, the men at the basic educational level followed the women at the higher educational level with a time lag of about 10 years.

Physical exercise

Physical exercise during leisure time at least twice a week became more prevalent from 1978 to 1993. In the early 1990s about one-half of the men and somewhat more of the women exercised during their leisure time. The age differences were small but consistent, the 55- to 64-year-olds exercising more than the younger people, who displayed only negligible age differences. The development followed the general pattern of increasing exercise in all age groups among both men and the women.

For exercise, no educational differences worth mentioning could be observed among the women over the study period (figure 5). Among the men, on the contrary, educational differences were clear-cut and consistent, the men with a higher education exercising the most and those with basic education exercising the least. These differences showed a tendency to increase over the study period.

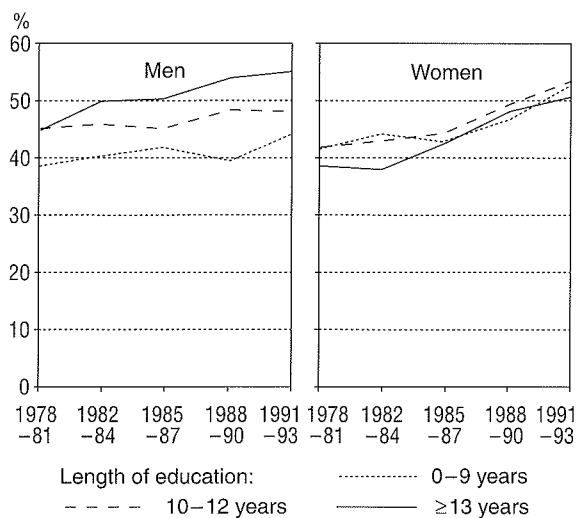


Figure 5. Percentage of men and women aged 25 to 64 years exercising at least twice a week, by education—age-adjusted figures 1978–1993.

Health behavior and unemployment

Data on the associations between health behavior and unemployment were available only from the 1993 and 1994 surveys (7) (ie, trends cannot be examined). Data on the differences between exercise and employment status were not available.

The unemployed men and women were more often smokers than their employed counterparts (figure 6). No clear relation could be found between drinking and employment status.

Concluding remarks

No clear overall pattern could be found in the health status and the four types of health behavior over the study period or between the men and women. The health status among both the men and the women slightly improved (8, 9). Smoking slightly decreased for the men, but increased for the women. Drinking increased for both genders. Milk fat use has dramatically decreased for both the men and the women. It should, however, be borne in mind that the fat indicators used have become less valid due to people's changing food habits (10–12). Exercising increased among both genders over the study period.

Among the men and the women the educational differences in health status remained clear. A particularly wide and persistent educational gap was found for milk

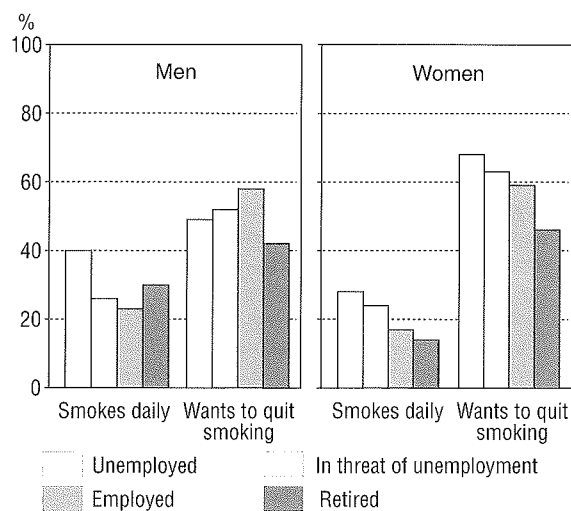


Figure 6. Employment status and smoking among Finnish women and men in 1994 and 1995—unadjusted figures.

fat use. Smoking also showed rather large educational differences, and the gap widened for the women somewhat more than for the men. In contrast, the educational gap in drinking became narrower for both genders, among the women the gap continuing to be wider than among the men. For leisure time exercise the educational gap was small, among the women almost nonexistent. The unemployed, in the 1990s, tended to smoke more than their employed counterparts.

The positive and negative changes in health behaviors can be summarized as follows: (i) positive overall change and diminishing differences in use of high fat milk and butter. (ii) negative overall change but diminishing differences in alcohol use, and (iii) positive overall change but increasing or stable differences in smoking and exercise.

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