

PEKKA PUSKA

Director General

[SUOMEKSI](#) | [PÅ SVENSKA](#)



Professor Pekka Puska (M.D., Ph.D., M.Soc.Sc.) has served as the Director General of the National Public Health Institute (KTL) since late 2003.

Working under the jurisdiction of the Ministry of Social Affairs and Health, KTL provides public decision makers, other stakeholders and the general public with reliable information on public health.

The institute's eleven departments cover all aspects of public health from safe drinking water and vaccinations to genetics and mental health. KTL is responsible for the control of infectious and for the prevention of chronic diseases in collaboration with the health care system. The institute has an important role in shaping Finnish public health work and health policies.

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Professor Puska's career at KTL began already in 1978 with the position of Director for the Department of Epidemiology and Chronic Disease Prevention. During this time he led the internationally known North Karelia Project, a successful population-based prevention of non-communicable diseases. Prior to his present position he served as the Director for Non-communicable Disease (NCD) Prevention and Health Promotion at the WHO Headquarters in 2001–2003.

Professor Puska currently holds also the position of Vice President of the newly founded International Association of National Public Health Institutes ([IANPHI](#)).

- [Biography](#)
- [CV](#)
- [Publications, presentations and articles](#)
- [Professor Puska welcomes the conclusions of the ASEM6 Summit on strengthening health security](#)

http://www.ktl.fi/portal/english/osiot/ktl/organization/director_general/

Professor Pekka Puska, M.D., M.Pol.Sc., Ph.D.

CURRICULUM VITAE: SUMMARY

Personal

- Born: 18 December 1945, Vaasa Finland

- Place of residence: Helsinki

- Family: Wife (Arja), daughter (b. 1992), son (b. 1993)

Education and academic affiliations

- Master of Political Sciences 1968 (University of Turku)
- Doctor of Medicine 1971 (University of Turku)
- PhD (dissertation, epidemiology/public health) 1974 (University of Kuopio)
- Docent, University of Helsinki 1983– (public health)
- Docent, University of Kuopio 1985– (public health)
- Visiting scholar, University of Stanford 1983

The North Karelia Project

- Principal investigator and Director 1972–1997

Professional background

- 1969 Research assistant, Department of Social Medicine, University of Turku
- 1972–1978 Principal Investigator of the North Karelia Project, University of Kuopio
- 1978–2001 Professor and director of Department of Epidemiology and Health Promotion, National Public Health Institute of Finland
- 1992–2000 Director, Division of Health and Chronic Diseases, National Public Health Institute of Finland
- 1995–2000 Deputy to Director General, National Public Health Institute of Finland
- 2000–2001 Director General, National Public Health Institute of Finland
- 2001–2003 Director, Department of Non-communicable Disease Prevention and Health Promotion, World Health Organization, Geneva
- 2003– Director General, National Public Health Institute of Finland

Positions held in Finland

- President, National Union of Finnish Students (SYL) 1970
- Finnish National University Council: member, vice chairman and chairman 1978–1983
- Member of Board of Academy of Finland 1978–1983
- Member of Finnish National Parliament (and member of its health committee) 1987–1991
- Elector of President of the Republic 1988
- President, Finnish Centre for Health Education 1989–1995
- Chair, North Karelia Project Research Foundation 1985–
- Member, Board of ENSO-GUTZEIT LTD 1991–1994
- Member, City Council of Joensuu 1993–1997
- President, HEALTH NGO (Terveys ry.) 1999–2001
- President, Finnish Heart Association 2004–2006
- Chair, Board of UKK Institute 2005–
- Chair, National Nutrition Council 2005–2008
- Chair, KTL Foundation 2006–
- Member of numerous governmental committees and working groups in the field of public health and research
- Numerous expert functions with many Finnish non-governmental organizations (e.g. Finnish Medical Association)

International positions held

- Member, WHO permanent panel of experts on cardiovascular diseases 1978–2001
- Director, WHO Collaborating Centre on Community Programmes for Chronic Disease Prevention and Health Promotion (KTL) 1985–1999
- Chair, Management Committee of the CINDI programme of WHO/EURO 1994–2001
- Member, Close the Gap Committee in Hungary (World Bank public health project) 1994–97; and Expert Consultative Group (World Bank public health project) 1997–99
- Chair, scientific committee of the World Health Education conference in Helsinki in 1991
- Director, International QUIT AND WIN 1994–2006
- Chair, Organizing committee of the European Conference on Tobacco or Health in Helsinki 1996
- Chair, Steering Committee of the 2nd European and 1st Ibero American Conference on Tobacco or Health, Gran Canary, Spain 1999
- Chair, Organizing Committee of the 12th World Conference on Tobacco or Health 2000-2001
- Chair, International Steering Committee, 12th World Conference on Tobacco or Health 2001–2003
- Member, Governing Council of IARC 2004-
- Vice-President, Int. Ass. of National Public Health Institutes (IANPHI), 2006–

- Chair, Organizing Committee of Int. Conf. of Diabetes Prevention 2006–

- Several advisory positions of international scientific conferences and international scientific journals

- Temporary advisor and short term consultant of WHO on numerous occasions

- Numerous expert services with various international organizations, agencies and countries

Honours

- Several honours in Finland (in the field of health promotion and science communication)

- WHO Annual Health Education Award 1990

- International Union for Health Education, European Office, AMIE Award 1991

- Academician, Russian Academy of Natural Sciences 1997

- Honorary Doctor of Science (D.Sc.), University of St. Andrews (Scotland) 1999

- WHO Tobacco Free World Award 1999

- Honorary Member of Hungarian Society of Hygiene 2000

- John P. McGovern Award 2003 (American School Health Ass.)

- The Healthtrac Foundation, Health Education Award 2003

- Y. Jahnsson Foundation, Recognition Award in Medicine 2004

- Nordic Public Health Award 2005

Publications

- Some 500 scientific publications (mainly in English) in the field of public health, epidemiology, disease prevention and health promotion

- 10 books in the field of public health (several of them for the general public)

- Numerous articles on public health

- Produced several health promotion TV-series

- Guided over 20 academic dissertations

Grants

- Numerous grants from Finland (Academy of Finland, foundations etc.) and from abroad (USDA, EU etc.)

Director General



Since late 2003, the Director General of the National Public Health Institute is Pekka Puska (M.D., Ph.D, M.Soc.Sc.), taking this position over from Professor Jussi Huttunen.

Dr. Puska has been working at the National Public Health Institute as research professor and department director since 1997. He also acted as the Director General from October 2000 to February 2001, after which he was called to WHO to lead the health promotion and chronic disease prevention operations.

- [CV](#)

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Pekka Puska Curriculum Vitae

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 - 2000- 2001 Director General, National Public Health Institute of Finland
 - 2001- 2003 Director, Department of Noncommunicable Disease Prevention and Health Promotion, World Health Organization, Geneva
 - 2004 - Director General, National Public Health Institute, Finland
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 - Elector of President of the Republic 1988
 - President, Finnish Centre for Health Education 1989-95
 - Chairman, North Karelia Project Research Foundation 1985-
 - Member, Board of North Karelia Rehabilitation Foundation 1986-
 - Member, Board of ENSO-GUTZEIT LTD 1991-94
 - Member, City Council of Joensuu 1993-97
 - President, HEALTH NGO (Terveys ry.) 1999-2001
 - President, Finnish Heart Association 2004-2006
 - Member, Board of Finnish Cancer Society 2004-2006
 - Member of numerous governmental committees and working groups in the field of public health and research
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Gesund in Europa

Junge Ärzte wie **Pekka Puska** plädierten für ein anderes Vorgehen: "Wir waren junge Radikale. Wir forderten Prävention und nicht Korrigieren im Nachhinein. ...

gesundineuropa.radio.cz/gesund/thema/53064 - 33k

Ein Vierteljahrhundert für die Gesundheit: Vorzeigeprojekt Nord-Karelien

16.4.2006 - Stefan Tschirpke, Helsinki

Wir starten heute im hohen Norden unseres Kontinents, und zwar in Finnland. Dort wurde in den fünfziger und sechziger Jahren ein rascher Anstieg von kardiovaskulären Krankheiten beobachtet. Besonders hohe Sterberaten durch diese Krankheitsgruppe verzeichnete die Provinz Nord-Karelien. Untersuchungsergebnisse zeigten, dass viele Risikofaktoren mit bestimmten Verhaltensweisen der Nordkarelier zusammenhingen, die tief in ihrer Lebensweise verwurzelt waren - Stichwort Ernährung und Tabakkonsum. 1972 wurde deshalb ein umfassendes Präventionsprogramm in Nord-Karelien gestartet, um die Sterblichkeitsrate durch eine Veränderung des Lebensstils abzusenken. Die Ergebnisse nach 25 Jahren Projektarbeit überraschten selbst Experten. Heute werden wichtige Erfahrungen des Projekts in Finnland angewendet und sind auch international gefragt. Stefan Tschirpke berichtet.



Rückblick. Die 60er Jahre. Nord-Karelien, eine dünn besiedelte Provinz, viel Wald und Landwirtschaft. In dieser Zeit hielt Nord-Karelien einen traurigen Rekord. Die Provinz war international die Region mit den höchsten Sterblichkeitsraten durch Herz-Kreislauf-Erkrankungen.

"In fast jeder Familie gab es Herzinfarkte oder Gehirnlähmungen. Risiken wie hohe Cholesterinspiegel, überhöhter Blutdruck und Tabakkonsum waren verbreitet. Die Lebenserwartung der Männer lag weit unter dem Landesdurchschnitt. Die Bevölkerung war beunruhigt. Es wurde gefordert, etwas zu unternehmen", erinnert sich Professor Pekka Puska, Direktor des nationalen Instituts für Volksgesundheit.

Die erste Reaktion des Gesundheitswesens war, das Krankenhausnetz und die kurativen Leistungen auszubauen. Junge Ärzte wie Pekka Puska plädierten für ein anderes Vorgehen:



"Wir waren junge Radikale. Wir forderten Prävention und nicht Korrigieren im Nachhinein. Die bisherige Lebensweise der Nordkarelier begünstigte eindeutig die Risikofaktoren."

Unter Leitung von Puska wurde 1972 das Nord-Karelien-Projekt gestartet. Das Ziel des Projekts war, durch Änderung des Lebensstils die Sterberate durch Herz-Kreislauf-Erkrankungen zu senken. Begonnen wurde ein bis dahin beispielloses Präventionsprogramm in einer Region mit 180.000 Einwohnern.

"Wir veranstalteten Informationsveranstaltungen. Wir besuchten die Leute auf den Agrarhöfen, gingen in Schulen, referierten in Kirchen. Wir diskutierten mit der Lebensmittelindustrie, um gesündere Nahrungsmittel ins Angebot zu bekommen. Parallel wurde gemessen und evaluiert."

Die Arbeit vor Ort war besonders schwierig. Die Gesundheitsbotschafter wurden in den Dörfern mit gemischten Gefühlen empfangen:



"Einerseits waren die Leute für die Hilfe dankbar. Andererseits klangen unsere Thesen bedrohlich. Die Bauern sollten ihren Fettkonsum drastisch verringern. Aber Fleisch, Butter, Milch und Sahne wurden auf den Höfen produziert. Unser Ratschlag 'Nehmt Margarine statt Butter!' klang wie eine Bedrohung ihres Berufs!"

Doch die beharrliche Überzeugungsarbeit zeigte Wirkung. Im Laufe von 25 Jahren konnten die Hauptrisiken - Bluthochdruck, erhöhter Cholesterinspiegel und Tabakkonsum - in Nord-Karelien deutlich zurückgedrängt werden.

"Die Sterberate der Männer im arbeitsfähigen Alter ging um 82 Prozent zurück, die Sterberate der Bevölkerung um die Hälfte. Die durchschnittliche Lebenserwartung stieg um rund sieben Jahre. Die Gesundheit der Bevölkerung hatte sich verbessert."

Die Erfahrungen des Nord-Karelien-Projekts werden heute in einem landesweiten Bevölkerungsprogramm zur Prävention von Herz-Kreislauf-Erkrankungen angewendet. Der Herzverband leistet wichtige Basisarbeit. Auch hunderte ausländische Expertendelegationen haben die Erfahrungen studiert.

Aim of the course

The aim of the course is to acquaint the participants with the North Karelia Project. Theoretical and practical strategies of community based and national programmes for disease prevention and health promotion will be presented as lectures, site visits and discussion.

Background reading: Puska, Tuomilehto, Nissinen, Vartiainen: The North Karelia Project. 20 Year Results and Experiences. Helsinki University Printing House. Helsinki 1995.

The course will take place at the National Public Health Institute, Department of Epidemiology and Health Promotion, in Helsinki. The address is Mannerheimintie 160, FIN 00300 HELSINKI. The course includes a two-day field visit to the North Karelia province. Please see the lectures and the schedule from the [Programme outline](#)

North Karelia Project

The North Karelia Project was launched in 1972 in response to the local petition to get urgent and effective help to reduce the great burden of exceptionally high coronary heart disease mortality rates in the area. In cooperation with local and national authorities and experts as well as with WHO, the North Karelia Project was formulated and implemented to carry out a comprehensive intervention through the community organizations and the action of the people themselves. The Project has included a comprehensive evaluation, and has acted as major demonstration programme for national and international applications.

Over the years the scope of the Project has been enlarged to include boarder objectives of integrated prevention of major non-communicable diseases and health promotion, as well as prevention of risk related lifestyles in childhood and youth. After its initial five years the Project has actively contributed to the national CVD prevention.

The 25 years results and experiences of the North Karelia Project show that a determined and well-conceived intervention can have a major impact on health-related lifestyles and on population risk factor levels and that such a development, indeed, leads to reduced disease rates and improved health of the population. By 1995 the annual mortality rate of coronary heart disease in North Karelia in the working age population had fallen approximately 75%, compared with the rate before the Project.

The Co-ordinating Centre of the North Karelia Project has been situated in Helsinki at the National Public Health Institute, Department of Epidemiology and Health Promotion, which is centrally involved in the CINDI programme (integrated prevention of noncommunicable diseases and promotion of health) of World Health Organization.

The North Karelia Project and Finland have strongly contributed to WHO's European CINDI programme and more recently to WHO's Global Forum on NCD Prevention and Control.

The theoretical base and experience from the North Karelia Project and the need for sustained continuation led planning and launching of the new provincial prevention and health promotion center: the North Karelia Center for Public Health in year 2000.

The fee includes programme materials, refreshments and working lunches. The fee is payable after participation confirmation to the North Karelian Public Health Association

address: Siltakatu 10, FIN - 80100 Joensuu; Okobank, Helsinki, Finland,
account: IBAN FI24 577005-40121115
Swift OKOYFIHH
OKOBANK HELSINKI

The organizers can, in case of special reasons, waive the fee. Such a request must be submitted in connection with the application. The participants cover the cost for their own accommodation and travels to Joensuu. For travel to Joensuu both train and flight possibilities are available (as indicated in the [programme](#)).

Hotel reservations for Joensuu can be made directly by the organizers, if so wished. The participants should make their own hotel reservations for Helsinki and travel reservations to and from Joensuu to suit their personal needs. Assistance in hotel and travel reservations can be provided.

A certificate will be given to the participants who completed the programme.

For inquiries of the programme, please contact:

Dr. Tiina Laatikainen (tel. +358-9-4744 8936) or

Ms. Elina Hirvikallio (tel. 358-9-4744 8628)
 E-mail: nkproject.cindi@ktl.fi
 Fax: +358-9-4744 8338

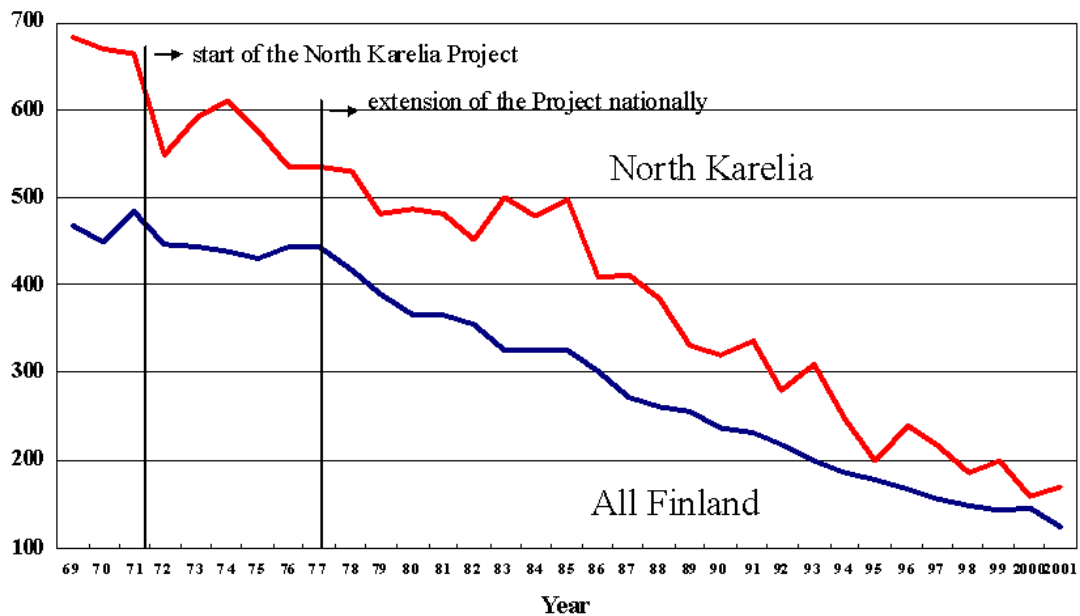
	Rate in 1970	Change in 1970-1995
All causes	1 509	-49 %
All cardiovascular	855	-68 %
Coronary heart disease	672	-73 %
All cancers	271	-44 %
Lung cancer	147	-71 %

Year	Men			Women		
	Smoking	S-Cholesterol mmol/l	Blood pressure mmHg	Smoking	S-Cholesterol mmol/l	Blood pressure mmHg
1972	52	6.9	149/92	10	6.8	153/92
1977	44	6.5	143/89	10	6.4	141/86
1982	36	6.3	145/87	15	6.1	141/85
1987	36	6.3	144/88	16	6.0	139/83
1992	32	5.9	142/85	17	5.6	135/80
1997	31	5.7	140/88	16	5.6	133/80

FIGURE 1.

Coronary heart disease mortality in all Finland and in the province of North Karelia 1969-2002 (men, aged 35-64)

CHD mortality in all Finland and in North Karelia 35-64 year old men



http://www.ktl.fi/portal/english/osiot/research_people_programs/epidemiology_and_health_promotion/projects/cindi/north_karelia_project/

Finland, Canada named among world's most-fit nations

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January 15, 2005

Finland and **Canada** – The Northern European country of **Finland** was named among the world's most healthy, according to an investigation by the London-based newspaper, *The Guardian*. According to health experts, Finland joins **Canada** as having the distinction of being home to the lowest percentage of "**couch potato**" citizens among developed nations.

Pekka Puska, Director of Finland's National Institute of Public Health claimed that in the 1970s, the country held the world record for [heart disease](#). "Finnish men used to say that [vegetables](#) were for [rabbits](#) and not for men," he said, "and the staple foods were bread and butter, fatty meat and full-fat milk!"

When the Finnish government found out the figures in the 1970s, it began a [campaign](#) to make a healthier nation. The number of males dying of heart problems has, over the past 35 years, decreased by 65 percent, and lung cancer deaths have also dropped dramatically.

Other nations are now considering using similar tactics as the Finnish government to make their own countries more healthy, but some say it is yet another example of a "nanny state."

Reference

- "[Fat to fit: how Finland did it](#)". [The Guardian](#), January 15, 2005

Fat to fit: how Finland did it

Thirty years ago, Finland was one of the world's unhealthiest nations. Diet was poor, people were inactive and heart disease was at record levels. Now it's one of the fittest countries on earth. Ian Sample discovers the secrets of their success

Saturday January 15, 2005

[The Guardian](#)

Winter has come early to Tampere and a freezing mist of particles is slowly settling upon the inch or so of snow already underfoot. Despite being told to expect temperatures of -13C, I'm ill-prepared, a fact immediate to all who watch me stomp by, arms clapping about my body in protest.

If Tuomo and Leo are sympathetic, they don't show it. Both in their 60s, the two men are perfectly kitted out for such extremes and are making final preparations before heading off for maybe 20km of cross-country skiing around the city's park. The course loops and dips between frosted trees and, from the start, there are dozens of brightly coloured figures out there plodding through the snow during their lunchtimes.

[Article continues](#) ▾

There is nothing particular about Tampere that brings the skiers here or, for that matter, the cyclists, pedestrians and nordic walkers who pick their way along the paths and pavements, skiers robbed of their skis. Apart from a preponderance of red brick and factories that earned it the guidebook moniker, "the Manchester of Finland", Tampere is typical, the country's third largest city, wedged between two lakes and a two-hour train ride north of Helsinki.

If Tampere is typical for Finland, Finland is anything but typical of the world. According to sports and health experts, it is one of only two countries to have halted the downward spiral towards terminal couch potatoism, or sedentary inactivity to use the official parlance. Only Canada, though New Zealand may be a contender, can claim to have done as much to get people off their sofas and exercising.

Tuomo and Leo are ready for the off and cast an eye down the gentle slope and across the rest of the course. In the distance, a group of six or more figures is struggling up a lengthy incline but they eventually reach the top before plodding around as one and skiing back down like a human rollercoaster. "It's a good feeling. It keeps me in shape so I can do the things I want to do," says Tuomo, adding there is no point coming to the park to do less than 10km. "We come here with our wives," adds Leo. "It's one of the few things we can do together. What else would we do with them?"

Finland's success story is all the more impressive for where it has pulled itself up from. "In the 1970s, we held the world record for heart disease," says Pekka Puska, director of the National Institute of Public Health in Helsinki. The dubious honour was the inevitable consequence of a Finnish culture that embraced just about every risk factor for heart disease there is. "The idea then was that a good life was a sedentary life. Everybody was smoking and eating a lot of fat. Finnish men used to say vegetables were for rabbits, not real men, so people simply did not eat vegetables. The staples were butter on bread, full-fat milk and fatty meat," he says.

Present-day Finland is a very different place. Topping the league of death shocked the government into a full-blown campaign to dramatically improve peoples' health. And it seems to have worked. The number of men dying from cardiovascular heart disease has dropped by at least 65%, with deaths from lung cancer being slashed by a similar margin. Physical activity has risen and now, Finnish men can expect to live seven years longer and women six years longer than before measures were brought in. Having come so far, Finland now finds itself in the spotlight from health officials across the world who are desperate to find out what it was the Finns got so right.

The story begins in the sparsely populated frontier region of North Karelia in eastern Finland. The only part of the entire province to remain Finnish after the Soviet occupation in the Second World War, North Karelia was the least healthy region of a desperately sick country. In 1972, it became the focus of what was to become the country's path to recovery.

"The biggest innovation was massive community-based intervention. We tried to change entire communities," says Puska. Instead of a mass campaign telling people what not to do, officials blitzed the population with positive incentives. Villages held "quit and win" competitions for smokers, where those who didn't spark up for a month won prizes. Entire towns were set against each other in cholesterol-cutting showdowns. "We would go in, measure everyone's cholesterol, then go back two months later," says Puska. The towns that cut cholesterol the most would win a collective prize. "We didn't tell people how to cut cholesterol, they knew that. It wasn't education they needed, it was motivation. They needed to do it for themselves."

Local competitions were combined with sweeping nationwide changes in legislation. All forms of tobacco advertising were banned outright. Farmers were all but forced to produce low-fat milk or grow a new variety of oilseed rape bred just for the region that would make domestic vegetable oil widely available for the first time. Previously, farmers had been paid for meat and dairy on the basis of the product's fat content. The changes recognised the flaw and linked payment instead to how much protein the produce contained.

Often, moves were attacked for being unpatriotic. Finland was a dairy-rich country and marginalising dairy farmers was viewed with disdain by many. But there were ways around the protests. When officials said the population must start eating fruit, protests poured in that fruit would have to be imported. To placate the farmers, the scheme was revised to encourage the growing of berries that thrive in a Baltic climate. Now Finland has a healthy industry producing all manner of berries, from redcurrants to blackberries.

In time, the Finnish authorities succeeded in forcing down salt intake, a crucial move for cutting blood pressure, and blood cholesterol has fallen along with fat intake and smoking. In 1972, more than half the middle-aged men of North Karelia smoked. Now around 30% do and the country boasts one of the lowest smoking rates in the world, despite having not yet fully imposed its stringent anti-smoking laws.

The early push in North Karelia was largely successful in weaning the population away from its staple diet of fat and fags, but there remained the problem of inactivity. As the measures trialled in North Karelia were duplicated across the country, a new effort to get people moving was kick-started. After diet and smoking, physical activity is arguably the most important contributor to health, with inactive people more likely to suffer from heart disease and various cancers, and have higher risks of developing diabetes and hypertension.

What is striking about the Finnish scheme to get people more physically active is the depth and breadth of its reach and the duration for which it has been sustained. It also hit the right tack from the off, first by selling enjoyable activities to people that happened to require physical activity, and second ensuring exercise was the cheap and easy choice to make.

From the start, the Finnish plans benefited by shifting money away from Helsinki to local authorities and making them responsible for exercise promotion. Obvious outcomes were cheap, clean swimming pools, ball parks, and well-maintained snow parks such as the one in Tampere. But less obvious were what medics might refer to as "unusual interventions".

"There were towns where the pubs were full of middle-aged men who seemed to do little other than drink," says Ilkka Vuori, a fitness expert at Tampere University and ex-director of the UKK Institute Centre for Health

Promotion in Tampere. "They were a difficult group to reach, so teams went to the pubs, spoke to them and negotiated what they might be interested in doing as exercise. "Nearly 2, 000 men in one region were either lent bikes and taken on tours, tempted into a swimming pool, or had a shot at ball games or cross-country skiing. "It was about getting ideas that would work at that kind of local level, "says Vuori. "Success relied upon it. "

The closest thing to a British equivalent was tried out two years ago. Dubbed "Fat men in pubs " by Len Almond, the founding director of the National Centre for Physical Activity and Health at Loughborough University, the scheme was less ambitious than its Finnish counterpart - merely designed to find out what kinds of exercise middle-aged drinking men might consider. "We got them together and promised them beer the whole time they talked. They were very frank. Every one of them thought exercise was fine. Fine for everyone else that is, "says Almond. "There was absolutely no chance of even getting them to use their cars less and walk more. "

In Finland, the persistent renewal and creation of schemes has ensured that fitness remains in the public consciousness and that any gains in fitness do not slide away once the ball is back in the shed or the skis hung up for the season. Recently, "Young Finland " was set up to get even the most unsporting kids into sport. "What we saw happening was that the weakest, the least skilled and the most overweight were the ones dropping out of sports early and they are precisely the ones who need it most, "says Vuori. To tackle the problem, the scheme sought to dampen the competitive nature of sports. Goals went uncounted, victories uncelebrated and winning teams unpromoted. Though it may take some of the dread out of games afternoon for some, it's a strategy that hasn't been met with universal support. "Some people doubt how far we can take that, but it functions on some scale at least, "says Vuori.

Over the past 10 years or so, hundreds of local schemes have been set up across Finland, drawing previously inactive people into cycling, Nordic walking, cross-country skiing and ball games, all of which were either free or substantially subsidised to ensure no one was excluded.

But while one branch of the effort focused on getting people to exercise in their leisure time, another sought ways of weaving more exercise into people's daily routines - a kind of exercise by stealth. In a time when people often give the excuse of not having enough time to exercise, it was seen as the only way of reaching some groups. Commuting became an obvious target, and campaigns were set up to encourage people to walk and cycle more. The public health messages being sent out were backed up by action on the ground with hundreds of kilometres of new walking and cycle paths laid down to form networks into towns and cities, and money was provided to keep them well maintained and lit at night.

Persuading people to walk and cycle more can be a delicate decision in a country such as Finland where, for more than a few months of the year, temperatures can plunge enough to make the ground icy. "It's a tremendous problem for older people, because they won't go out if they're going to find it too slippery, "says Vuori. But it's a problem that is being dealt with. A revision to state legislation meant that in many places, the houses lining a street now take responsibility for keeping the pavements in front of their homes safe and clear of snow and ice. It doesn't sound like a law many would adhere to, but Vuori says it is taken very seriously. "If they don't do it, they're fined, and if someone falls, they can sue, " he says. "It seems like quite a small thing, but these kinds of measures make a big difference. "

To cut the chances of people coming a cropper all for the sake of a brisk walk, the government encouraged shoe companies to come up with non-slip soles. As if that weren't enough to hope for, in many cities elderly people can claim free sets of spikes to clamp to their shoes. "The hope is it stops them falling so much because they can easily break their hips, "says Vuori.

The latest practical measure being brought in is the Movement Prescription Project. Based on an idea cooked up in New Zealand, it encourages GPs to prescribe physical activity to their patients along the same lines as medication. Preliminary outcomes suggest that on the advice of a GP, the elderly especially benefited, becoming five to six times more active.

Observers of the Finnish success story are now working on how they can bring such drastic improvements to their own countries. Privately, some claim that Finland had it easier than many because its citizens are happy to live in a nanny state. Vuori believes nanny state is too strong a term, but concedes that Finland had advantages other countries might not. "There may be a greater proportion of people in Britain who believe it is not for the state to say what we can drink and eat, or whether we can smoke. In Finland, regardless of your political views, we are quite obedient, we are trustful of the state and the media. But people are also well-educated, they hear the messages we put out and they know they are sensible, "says Vuori.

Among exercise experts in Britain, there is a widespread acknowledgment that, regardless of how the Finnish people view their officials, what was done there worked beyond what many could hope for. "They were in it for the long term, they sustained promotion to make physical activity important and keep it important. They capitalised on their strength, which was a love of outdoor sports, and gave out grants for local-level projects. That's what happened there and frankly, it hasn't happened anywhere else, " says Fiona Bull, co-director of the National Centre for Physical Activity and Health.

Other countries have adapted the Finnish strategy to their own cultures in an attempt to emulate their success. In Brazil, communities have been promoting activities based around dancing. The challenge in Britain is identifying the activity that people love to do. "The problem is we're from an era where we've been locked into the idea of doing specific activities at set places and at certain times," says Bull. "It's hard to describe a sporting scenario that appeals to the mass population. People think, 'Gyms are full of sweaty men and skinny women ... Swim-ming pools are manky ... I could cycle, , but some cycle paths are awful ...' We need to tap into making activity accessible, fun and sociable. "

Len Almond says the government should bring together disparate interest groups, including the Countryside Agency, that promotes walking, and Sustrans, that encourages cycling, to develop a nationwide, but locally focused strategy to encourage more physical activity. Next year, rural communities may get to hear of "green movement", a scheme designed to encourage gardening and conservation work as a form of exercise. "When you can get people to realise that a whole variety of things are forms of exercise, we might be able to get them to do more of it," says Almond.

Though Finland is widely held up as an example of how to get it right, it is by no means a land of utopian fitness where managers high five their employees on the morning jog and no one zones out in front of the TV for hours on end munching pizza. With the big improvements taken care of, Finland is now facing new challenges. A huge influx of cars in the 1980s means fewer people now walk or cycle to work. An upturn in obesity is nothing compared to that Britain is experiencing, but significant nonetheless. And data from the army - national service is compulsory - show that fitness on entry, , as measured by a running exercise, has dropped steadily since the 1970s.

Mikael Fogelholm, director of the UKK Institute in Tampere, says that surveys show some 40% of men and 35% of women in Finland are still not active enough. "It's good that 60% are doing well, but we could still do much better. Total physical inactivity is a big risk for health," he says. What is adequate depends on what you are doing. Fogelholm recommends active exercise - essentially sport or gym work every other day - amounting to two to three hours a week, , or daily "lifestyle activity", including walking to work or to the shops, gardening or vigorous cleaning for three to four hours a week.

"People always talk about not having enough time. I think that's rubbish. If life is so busy you really can't squeeze in a brisk walk, your life is a mess," says Fogelholm. "If people took the amount of time they spent watching TV on one day and made it their whole week's exercise, we'd have no problem. "

With the publication last November of the government's public health white paper, Britain is now, albeit some decades after Finland, poised to make a concerted effort to improve physical fitness. The problem for everyone concerned is that improvements in transport, the rise of sedentary jobs, and developments in technology all conspire to make life less active. Persuading us to use our bodies more when we don't need to is strongly against the flow of change.

"The challenge we have is how do we get to the point where the question is why aren't you doing exercise rather than the opposite," says Almond.

How the rest of the world is getting fit

The only way to get a nation of couch potatoes fit is to kick-start projects to attack the problem from different angles, says Tim Armstrong at the World Health Organisation. At a government level, that means involving not just the health and sports departments, but town planners and those running the transport networks too. "It's no good just telling people to be physically active," he says. .

In the Colombian capital of Bogotá, profits from a publicly owned electricity company were used to clean up the streets and build new cycleways. "Masses of people came out to use them and it actually made the place much safer too," says Armstrong. .

In Sweden, various schemes to get people cycling have been started up. In Helsingborg, locals received free pocket-sized maps of cycle routes, while in Gothenburg, a grander scheme set teams of up to 40 people from local companies the target of cycling 30 times in five months, with each trip being more than 2km. Each team member received a free waterproof poncho and those teams that succeeded went through to a prize draw. The prize? A cruise to Newcastle.

The Netherlands and Belgium have set up pro-cycling schemes for the elderly after studies showed that not only were they the most likely to be knocked off in the road, but that they often gave up cycling because the traffic was too dense. Participants were sent on an assertive cycling course which gave tips on how to set off on a bike, how to stop suddenly and how to cycle one-handed.

The bike push has also geared up in the UK where the group Sustrans has been educating school children about the benefits of cycling after a National Travel Survey showed that more than a third of primary school children and more than a fifth of secondary school children were driven to school. Survey results suggest cycling went up by more than 50% in some schools where the scheme was piloted.

Many countries have focused on promoting walking. In Udine, Italy, parent-teacher groups have got together to research the safest routes to walk to school. In Israel, a much larger push to get people walking was set up with the recruitment throughout the country of volunteers over 60 years old who liked walking. The volunteers then led walking groups around local neighbourhoods. To make sure they were noticed - 40% of pedestrians hit on Israeli roads are elderly - each walker was issued with a hat and reflectors.

Meanwhile, in the Finnish town of Jyväskylä, local authorities were concerned that the elderly were staying in, especially during winter, because it was dark and the pavements were slippery. To make it easier for them to exercise, they persuaded the bus companies to stop by day centres and old peoples' homes and then at the local swimming pool. With the swimming pool paying for the bus fares, pensioners were brought in from 17 suburban regions, mostly for aqua-aerobics.