Finnish experience in the reduction of diet-related NCD’s

Geneva 27 June, 2013
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- Background, history and achievements
- Main approaches in health promotion
- Dietary targets: saturated fat, salt etc.
- Tools to promote healthier diets
- Current and future challenges
The roots of Finnish health promotion and prevention policy

- In the 1960s and 1970s, attention was drawn to the cardiovascular disease mortality that was very high in international comparison.

- The first wide-reaching prevention program: The North Karelia Project
  - Aimed at lowering the high rates of cardiovascular disease prevalence and mortality in Northern Karelia
  - Intermediate targets: smoking, cholesterol and blood pressure levels => healthier nutrition, reduce smoking
  - Involved actors from several sectors: municipal health services, schools, food industry, WHO, media campaigns et cetera
  - Project proved to be successful and contributed to developing a national level prevention policy

For more information, see the book "North Karelia Project: from North Karelia to National Action“ (available online)
Success in reducing mortality from circulatory diseases

Age-standardized death rates by cause of death, 1970-2011

Source: Statistics Finland
Age-standardized death rates by cause of death, 1970-2011

(figure 2)

Source: Statistics Finland
How to promote health?
In Finland we aim to

- Affect the structures of the society; community-based interventions
  - aim for more permanent and wide-reaching results than with campaigns and one-off measures

- Target the whole population/age-group - the measures are not limited only to the risk groups or the head of the distribution
  - Move the whole distribution instead of aiming at the risk groups only

- Nation-wide network of municipal primary care centres and preventive services: health promotion, detecting and caring for NCDs and their risk factors

- Health in all policies: prevention and health promotion - and health in general - should be taken into account in decisions made by different sectors. Intersectoral mechanisms for implementation (horizontal committees, HIA, formal and informal consultations etc.)
HiAP in Finland

**Legal Base**
- Constitution §19 (health promotion),
- Public Health Act (1972) (public health work, .. environments)
- Health Care Act (2011)

**Policies**
- Governmental Policy Programme for Health Promotion 2008-2011
- National Action Plan to reduce health inequalities 2008-2011

**Programme of the Finnish Government 2011-2015**
- promotion of wellbeing and health and reduction of inequality taken into account in all decision-making, and incorporated into the activities of all administrative sectors and ministries
Toolbox to promote health within the Government

- **Information-based guidance** such recommendations, guidelines, action plans, benchmarking, etc.
- **Allocation of resources** including funds for institutions, services, projects (RAY, KASTE, TE)
- **Steering of administrative sector**: performance guidance, project management, sectoral research
- **Cooperation at EU and international level**: legislation, intergovernmental cooperation and funds
- **Intersectoral cooperation**: ”Health in all policies” approach, influencing private sector and NGOs
- **Legislation**: national/EU
Examples on Finnish policies targeting large parts of the population

- Maternal care and child health care free of charge
- Free school lunches with healthy and versatile foods
- Obligatory health education classes (physical education and home economy as well)
- Well-developed occupational health care system (original aim at prevention and health promotion, has come to include primary care services as well)
- Subsidised workplace lunch
- High excise taxes on tobacco and alcohol, since 2011 excise taxes on sweets, icecream (and soft drinks)
Towards better diets and better health
An example of the changes in Finnish food habits since 1970s

Source: Health Behaviour and Health among the Finnish Adult Population, National Institute for Health and Welfare
Back fat (mm) in Finnish landrace pigs 1928-2001
Salt intake in Finland 1977-2007

![Graph showing the decrease in salt intake from 1977 to 2007 for men and women. The graph includes lines for calculated intake and 24-hour urine data.](image-url)
Decline in S-Kol in subjects without lipid lowering medication (n=4761)
CVD mortality reduction in Finland

- Among working-aged population mortality is about 1/10 of its previous level 30 yrs ago
- About 37% of decline is due to reduced blood cholesterol levels
- Diet accounts for 72% of S-Kol decline in men, 62% in women
  - Saturated fat explained 47% reduction in men, 41% in women
  - Transfat explained 13% reduction in men, 14% in women
  - Dietary cholesterol explained 9% reduction in both genders
Government resolution on development guidelines for health-enhancing physical activity and nutrition

- Accepted June 2008, first government level guidelines on nutrition
- Concrete action plan for the years 2008-2011
- Endorses current recommendations of nutrition and physical activity, special focus on health inequalities
- Wide consultation and cooperation within public sector and with different stakeholders (NGO’s, private sector, research institutions)
Maternity and child welfare clinics, school and student health care, and preventive oral care
Decree 380/2011

”…nutrition, physical activity and weight management must be addressed in all health counselling…”

This guidance should be:
- based on client need
- promote willingness to assume personal responsibility for his/her own health
- target the entire family

Instructions and tools have been developed to support proper guidance and good nutrition
Tools for better diet: balanced meals and education to children and young people

- Children in daycare must be provided with sufficient nutrition (Act on Children’s daycare 26/1973)
- Pupils must be provided with properly organised and balance meal free of charge every school day (Basic education Act 628/1998 & etc.)
- Compulsory health education (2001 onwards), physical education and nutrition & cooking skills to all pupils since basic education reform
- Student meals have to be healthy and fulfill nutritional recommendations (Decree on principles of supporting meals at universities 564/2003)
Gradually setting tighter limits for "highly salted" warning labels

<table>
<thead>
<tr>
<th></th>
<th>Current (1.6.2009)</th>
<th>Previous</th>
<th>Before 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread</td>
<td>1,2</td>
<td>1,3</td>
<td>...</td>
</tr>
<tr>
<td>Breakfast cereals</td>
<td>1,6</td>
<td>1,7</td>
<td>...</td>
</tr>
<tr>
<td>Sausages</td>
<td>1,7</td>
<td>1,8</td>
<td>2,2</td>
</tr>
</tbody>
</table>
Better choice - heart symbol: awareness (dotted line) and use (solid line)

- less fat, SFA, salt, sugar
- more fiber

Source: National Institute for Health and Welfare
### Criteria for EU School Milk Subsidies in Finland, upper limits for fat and salt since August 2009

<table>
<thead>
<tr>
<th>Description</th>
<th>Fat %</th>
<th>Salt (NaCl) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (non-flavoured and not sweetened)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fermented milk products with max. 7% added sugar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cheese (processed and fresh, flavoured and non-flavoured)</td>
<td>24</td>
<td>1,3</td>
</tr>
<tr>
<td>--- from August 2011</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

1 Flavoured and sweetened milks are not entitled to subsidies
2 Grana Padano and Parmigiano Reggio not entitled to subsidies

Tools for better diet: limit subsidies to healthy foods only
Guidelines to develop and monitor mass catering services

Main outcomes:
1. Nutritional quality criteria to be used in procurement of catering services
2. Measures to increase use of high quality services (collaboration, pricing etc.)
3. Monitoring of nutritional quality and the use/users of catering services
Criteria for Nutritional Quality (CNQ)

- Based largely on work done by Finnish Heart Association (Meals with heart symbol)
- Recommendation: should be used as absolute criteria in procurement of catering services
- includes:
  - supply of compulsory meal components
  - CNQ for all meal components
  - consumer advice and guidance to healthy choices
  - rotation of menus
  - number of meals that has to meet CNQ
  - guidelines about adherence to criteria
# Nutritional quality criteria for main meals, upper limits for fat, SAFA and salt per 100g

<table>
<thead>
<tr>
<th>Dish type</th>
<th>Fat, g</th>
<th>SAFA, g</th>
<th>Salt (NaCl), g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soups and porridges(^1)</td>
<td>3(5)</td>
<td>1(1,5)</td>
<td>0,5</td>
</tr>
<tr>
<td>Casseroles, risottos, pasta dishes, sallads(^2), pizza</td>
<td>5 (7)</td>
<td>2 (2)</td>
<td>0,6</td>
</tr>
<tr>
<td>Steaks, rolls, pancakes, chicken</td>
<td>8 (12)</td>
<td>3 (3,5)</td>
<td>0,8</td>
</tr>
<tr>
<td>Dish with sauce; e.g. minced meat sauce</td>
<td>9 (11)</td>
<td>3,5 (3,5)</td>
<td>0,8</td>
</tr>
</tbody>
</table>

Values in parentheses are for meals with fish.

\(^1\) Cereal in porridges has to contain at least 6g dietary fibre per 100 g.

\(^2\) Sallads have to contain at least 150g vegetables.

MINISTRY OF SOCIAL AFFAIRS AND HEALTH
## Nutritional quality criteria for side dishes: upper limits for fat, SAFA, salt and fiber per 100g

<table>
<thead>
<tr>
<th>Side dish</th>
<th>Fat, g</th>
<th>SAFA, g</th>
<th>Salt (NaCl), g</th>
<th>Dietary fibre (dry wt.), g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasta</td>
<td>max. 2</td>
<td>0,7</td>
<td>max. 0,3</td>
<td>min. 6</td>
</tr>
<tr>
<td>Rice, barley, rye mixtures etc.</td>
<td>max. 2</td>
<td>0,7</td>
<td>max. 0,3</td>
<td>min. 6</td>
</tr>
<tr>
<td>Boiled potatoes</td>
<td>No added fat</td>
<td></td>
<td>No added salt</td>
<td></td>
</tr>
<tr>
<td>Other potato dishes such as mashed potatoes, oven potatoes etc.</td>
<td>max. 2</td>
<td>0,7</td>
<td>max. 0,3</td>
<td></td>
</tr>
</tbody>
</table>
## Nutritional quality criteria for other components of meals, upper limits for fat, hard fat, salt and fiber

<table>
<thead>
<tr>
<th></th>
<th>Fat, g/100g</th>
<th>Hard fat, % of total fat</th>
<th>Salt (NaCl), g/100g</th>
<th>Dietary fiber, g/100g</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bread</strong></td>
<td>-</td>
<td></td>
<td>soft: max. 0,7</td>
<td>min. 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hard: max. 1,2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fat for bread</strong></td>
<td>-</td>
<td>max. 33 %</td>
<td>max. 1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Milk or sour milk</strong></td>
<td>max. 0,5%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td>- no added fat</td>
<td>-</td>
<td>-no added salt</td>
<td>-</td>
</tr>
<tr>
<td>- fresh</td>
<td>max.2 vegetable fat</td>
<td>-</td>
<td>-no added salt</td>
<td>-</td>
</tr>
<tr>
<td>- cooked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salad dressing</strong></td>
<td>max. 20 %</td>
<td></td>
<td>max. 1</td>
<td></td>
</tr>
</tbody>
</table>
Current and future challenges
NCDs still cause most of the health care costs in Finland

Distribution of direct health care costs by disease group in 1995

<table>
<thead>
<tr>
<th>Disease group</th>
<th>Men 1,000 euros</th>
<th>Women 1,000 euros</th>
<th>Total 1,000 euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infective and parasitic diseases</td>
<td>37 562</td>
<td>37 828</td>
<td>75 390</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>144 982</td>
<td>189 320</td>
<td>334 302</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
<td>73 926</td>
<td>104 180</td>
<td>178 106</td>
</tr>
<tr>
<td>Diseases of the blood and blood-forming organs</td>
<td>19 558</td>
<td>19 908</td>
<td>39 466</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>305 822</td>
<td>386 252</td>
<td>692 074</td>
</tr>
<tr>
<td>Diseases of the nervous system and sense organs</td>
<td>203 763</td>
<td>242 447</td>
<td>446 211</td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>425 870</td>
<td>492 484</td>
<td>918 353</td>
</tr>
<tr>
<td>Diseases of the respiratory system</td>
<td>275 596</td>
<td>313 466</td>
<td>589 062</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>157 736</td>
<td>143 709</td>
<td>301 446</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>108 683</td>
<td>156 702</td>
<td>265 384</td>
</tr>
<tr>
<td>Complications of pregnancy, childbirth and puerperium</td>
<td>17</td>
<td>178 186</td>
<td>178 204</td>
</tr>
<tr>
<td>Diseases of the skin and subcutaneous tissue</td>
<td>54 294</td>
<td>66 713</td>
<td>121 007</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system</td>
<td>224 481</td>
<td>358 487</td>
<td>582 968</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>14 774</td>
<td>14 994</td>
<td>29 767</td>
</tr>
<tr>
<td>Causes of perinatal diseases and mortality</td>
<td>12 132</td>
<td>9 258</td>
<td>21 389</td>
</tr>
<tr>
<td>Injuries and poisonings</td>
<td>168 890</td>
<td>147 995</td>
<td>316 885</td>
</tr>
<tr>
<td>Others (symptoms, cat V, missing)</td>
<td>120 286</td>
<td>192 480</td>
<td>312 767</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2 348 373</strong></td>
<td><strong>3 054 410</strong></td>
<td><strong>5 402 782</strong></td>
</tr>
</tbody>
</table>

Source: Kiiskinen, Teperi, Aromaa, Häkkinen (2005)
Total energy does not include the energy derived from fiber.

Changes in 2007-2012:

p < 0.001 (Carbohydrates, fat and protein)
Daily intake of fat and fatty acids (E%) in working age women

*Total energy does not include the energy derived from fiber.

Changes in 2007-2012:
p < 0.001 (Carbohydrates, fat and protein)
Intake of salt in working age men and women

Changes in 2007-2012:
Men p=0.006
Women p<0.001
Changing products, changing behaviour: type fat on bread

Users

Men

Year

2002

2007

2012

N=4458

N=3698

N=3028

% 50

45

40

35

30

25

20

15

10

5

0

Users

Women

Year

2002

2007

2012

N=5069

N=4205

N=3373

% 50

45

40

35

30

25

20

15

10

5

0

N=4458

N=3698

N=3028

- Margarine max. 40% fat
- Blended spread, butter-vegetable oil mixtures
- Margarine 60-80% fat
- Plant sterol/stanol margarine
- Don't use
- Butter
Some current and future challenges

- CVD still high, population ageing, obesity etc.
- Global trade and marketing very strong >> global solutions and action needed
- Interdependence of dietary habits and technological solutions (SFA-trans)
- Evidence-base often limited (analysis of different policy options, structural measures etc.)
- Long term commitment and vision needed, governments change every 4 yrs
- Public acceptance? Political costs?
- Health literacy among public, policy-makers, media and civil servants in all sectors needs improvement
- Intersectoral structures, processes and mechanisms