Developments in prevention of obesity and other non-communicable diseases in Poland through nutrition and physical activity

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National Food and Nutrition Institute, Warsaw, Poland
Obesity, nutrition, physical activity, health of the Poles

The diagnosis of nutritional status, physical activity and nutritional risk factors of obesity and noncommunicable diseases in Poland (1960-2005)
<table>
<thead>
<tr>
<th>Age</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>W</td>
</tr>
<tr>
<td>19-29</td>
<td>27.6</td>
<td>11.3</td>
</tr>
<tr>
<td>30-39</td>
<td>44.4</td>
<td>22.8</td>
</tr>
<tr>
<td>40-49</td>
<td>42.9</td>
<td>35.8</td>
</tr>
<tr>
<td>50-59</td>
<td>47.1</td>
<td>35.6</td>
</tr>
<tr>
<td>60+</td>
<td>46.1</td>
<td>35.5</td>
</tr>
<tr>
<td>Total</td>
<td>41.1</td>
<td>28.7</td>
</tr>
</tbody>
</table>

### Overweight and obesity rate (%) among boys (B) and girls (G) aged 1-18 in Poland

<table>
<thead>
<tr>
<th>Age</th>
<th>Overweight</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Obesity</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>G</td>
<td>B</td>
<td>G</td>
<td>B</td>
<td>G</td>
<td>B</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>12.3</td>
<td>9.1</td>
<td>7.7</td>
<td>11.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>10.3</td>
<td>2.4</td>
<td>11.5</td>
<td>8.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-9</td>
<td>9.3</td>
<td>5.9</td>
<td>5.2</td>
<td>3.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-12</td>
<td>8.7</td>
<td>10.6</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-15</td>
<td>4.4</td>
<td>5.9</td>
<td>3.5</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-18</td>
<td>6.2</td>
<td>9.1</td>
<td>2.3</td>
<td>3.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td><strong>8.0</strong></td>
<td><strong>7.2</strong></td>
<td><strong>4.6</strong></td>
<td><strong>4.6</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overweight and obesity rate among men in the selected European countries

Comparative analysis of food and nutrition policies in WHO European Member States, WHO 2003 (Europe)
Overweight and obesity rate among women in the selected European countries

Trends in the rate of overweight and obesity in Poland in the population aged 15 and over

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>2004</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>47.8</td>
<td>52.1</td>
<td>61.4</td>
</tr>
<tr>
<td>Women</td>
<td>38.9</td>
<td>39.1</td>
<td>44.6</td>
</tr>
</tbody>
</table>

Source: based on the results of the country-wide, representative health surveys carried out by the Central Statistical Office in 1996 and 2004 (BMI indexes, particularly for women are underestimated due to self-reporting)
### Selected nutritional risk factors in the Polish population

<table>
<thead>
<tr>
<th></th>
<th>Daily intakes</th>
<th>WHO recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy value of the diet</strong></td>
<td>121.3-147.5% of Polish RDA</td>
<td>↑</td>
</tr>
<tr>
<td>(especially in the population of men)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy from fat</strong></td>
<td>34.9%</td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15-30%</td>
</tr>
<tr>
<td><strong>Energy from saturated fatty acids</strong></td>
<td></td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>12.1%</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td><strong>Energy from polyunsaturated fatty acids</strong></td>
<td>5.4%</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6-10%</td>
</tr>
</tbody>
</table>

Source: L. Szponar et al., Household Food Consumption and Anthropometric Survey, Warsaw, 2003
### Selected nutritional risk factors in the Polish population

<table>
<thead>
<tr>
<th></th>
<th>Daily intakes</th>
<th>WHO recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cholesterol</strong></td>
<td>395 mg</td>
<td>&lt; 300 mg</td>
</tr>
<tr>
<td><strong>Saccharose (% of energy)</strong></td>
<td>13.5%</td>
<td>&lt; 10% (free sugars)</td>
</tr>
<tr>
<td><strong>Dietary fibre</strong></td>
<td>23 g</td>
<td>&gt; 25 g</td>
</tr>
<tr>
<td><strong>Sodium (NaCl)</strong></td>
<td>4.2 g (&lt; 10 g NaCl)</td>
<td>&lt; 2 g (&lt; 5 g NaCl)</td>
</tr>
</tbody>
</table>

*Source: L. Szponar et al., Household Food Consumption and Anthropometric Survey, Warsaw, 2003*
<table>
<thead>
<tr>
<th>Selected nutritional risk factors in the Polish population</th>
<th>Daily intakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>High consumption of animal fats</td>
<td>average 34 g</td>
</tr>
<tr>
<td>Low consumption of vegetables</td>
<td>average 280 g</td>
</tr>
<tr>
<td>Low consumption of fish</td>
<td>average 17 g</td>
</tr>
</tbody>
</table>

Source: L. Szponar et al., Household Food Consumption and Anthropometric Survey, Warsaw, 2003
## PASSIVE WAY OF SPENDING FREE TIME

*(activities which do not require physical effort and exercise, e.g. watching TV, computer, reading, activities performed in the sitting position)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-13</td>
<td>65%</td>
</tr>
<tr>
<td>(according to Charzewski, 1997)</td>
<td></td>
</tr>
<tr>
<td>11-15</td>
<td>68%</td>
</tr>
<tr>
<td>(according to Charzewska et al., 2003)</td>
<td></td>
</tr>
<tr>
<td>25-64</td>
<td>73%</td>
</tr>
<tr>
<td>(according to Drygas, 1996-1999)</td>
<td></td>
</tr>
<tr>
<td>15 (&gt;1 h/day)</td>
<td>98%</td>
</tr>
<tr>
<td>(according to GUS, 2006)</td>
<td></td>
</tr>
</tbody>
</table>
ACTIVITIES
What has been done?

Polish Dietary Reference Intakes (new)
NATIONAL FOOD & NUTRITION INSTITUTE
recommends
Miroslaw Jarosz
Longina Klosiewicz-Latoszek

Obesity
Prevention and treatment

ADVICE
OF DOCTORS
AND DIETICIANS

What has been done?
What has been done?

NATIONAL PROGRAMME
FOR THE PREVENTION OF OVERWEIGHT, OBESITY
AND NON-COMMUNICABLE DISEASES
THROUGH
DIET AND IMPROVED PHYSICAL ACTIVITY*
2007–2016

Editor
Professor Miroslaw Jarosz

National Food and Nutrition Institute
Warsaw 2006

*Prepared in the range of the task Study on global strategy on diet, physical activity and health.
Poland’s Preparation for realization of Green Paper’s recommendation (chaired by the task: Professor
Miroslaw Jarosz) realized in the National Programme for Combating Cancer Primary
Prevention of Cancer.
General dietary education of the society – reduction mainly through a proper diet and physical activity, of frequency and occurrence of overweight and obesity

Reduction of morbidity and mortality caused by avoidable chronic diseases in Poland

Reduction of expenditures related to the treatment of chronic non-communicable disease, especially obesity and related complications, as well diminishing effects of disability and premature mortality.
What has been done?

POL HEALTH

ACTIVITIES
conferences
workshops
open-days (for public)
publications
for dietitians, local governments, food producers, directors of schools, teachers
Improvement of the diet and physical activity in schools

Recommendations for nutrition of children and adolescents

School lunches — recommendations and proposed menus

What has been done?
Win the battle against obesity

What to eat to be fit and healthy
Recomendations of healthy eating

Nutrition and physical activity in the prevention of noncommunicable diseases

Beware of overweight and obesity.
Do not forget about daily physical activity
Diagnosing disorders of nutritional status
What has been done?

Practical dietetic handbook
The principles of proper nutrition of patients in hospitals

Zasady prawidłowego żywienia chorych w szpitalach

REDAKTOR NAUKOWY
PROF. DR HAB. N. MED. MIROSŁAW JAROSZ

Szpital ma obowiązek zapewnienia choremu właściwej opieki żywieniowej
Rezolucja Rady Europy, 2003 r.
The Diet and Physical Activity Charter for School Children and Adolescents developed by the Ombudsman, National Food and Nutrition Institute and Child Health Institute
What has been done?

Position Paper on undertaking initiatives aimed at reducing salt consumption in Poland
September 2008
The Salt Reduction Programme 2009-2011 has been developed.

Part of the National Programme for the Prevention of Overweight, Obesity, and Non-communicable Diseases through Diet and Improved Physical Activity 2007-2011 (POL-HEALTH).

it is implemented by the National Food and Nutrition Institute from the resources at the disposal of the Minister of Health.
The salt content in some food products in Poland

- Rennet cheeses (the yellow) and the spread cheeses are characterized by the highest salt content: it varies from about 1.5 g/100g to more than 4.7 g/100g of product.
- Cold meats are the next, with an average salt content in the range of 2g/100g to 3g/100g of product,
- Smoked fish containing mostly around 3g/100g of product.
- In the group of bakery products salt content varies in the range of less than 0.9 g/100g to 1.8 g/100g, which is particularly worrying because of the widespread consumption of these products in Poland.
Cereals, in which the NaCl content varied in a wide range of less than 0.05 g/100 g (e.g., oatmeal, wheat bran, puffed) to about 3 g/100 g (rye flakes, wheat flakes, flavored and non-flavored corn flakes).

Similarly, in processed vegetables and fruit - the range from 0.08 g/100g in the case of tomato paste to 6g/100g in pickled tinned green olives.

There is a high salt content in snacks and fast foods. Chips contain on average about 2g salt/100g, and fast food products - 2g of salt per serving of the product (ranging from 1.17g to 2.62g).
Products with reduced salt content:

- potato chips - salt content has been reduced by 29%,
- salad dressings - 2%,
- powdered foods and food concentrates - 7-26%,
- seasonings (salt seasoning) - 40%,
- whole-meal bread with reduced salt content - 50%,
- corn puffs - 6-59%,
- corn flakes - 30%
Sól

jej nadmiar szkodzi
i może spowodować
nadmierne
tętnicze
uder mózgu
zawal serca
osteooporozę
raka żołądka

Polak spożywa dziennie 2-3 razy więcej soli (12-15 gramów)
nie przewidują zalecenia Światowej Organizacji Zdrowia.
The proposal of the second edition of POL-HEALTH Programme 2012-2016

Public education on the proper nutrition and physical activity, with particular emphasis on children and youth and women during pregnancy.

Revision of dietary standards for the Polish population and the development of dietary guidelines for different population groups (children and adolescents, nursing women and elderly).

Monitoring of diet and nutritional status and the identification of risk factors for obesity, the assessment of the level of physical activity, nutrition knowledge levels and the presence of inequalities in health - two-fold: in 2012-2013 and in 2015-2016

Monitoring the health quality of food (including the amendment of the tables of food composition and nutritional value and dissemination of the recommendations of the European Commission and WHO on the reformulation of products to reduce their content of sugar, fat and salt.

The implementation of dietary guidance for healthy people and patients in primary and secondary care.

National schools of health for people with obesity 011-12-06
appointed on 12 November 2007, by the regulation of the Minister of Health

The tasks of the Council include:

Action for prevention of overweight and obesity in Poland with particular emphasis on the recommendations of the European Commission's White Paper on health issues related to nutrition, overweight and obesity.
Council for Diet, Physical Activity and Health

The Council consists of 25 members, representatives of:
- government,
- research institutes,
- scientific societies,
- universities,
- consumer organizations,
- the food industry,
- Media.
In the field of improvement of physical activity

- Increase in the number of sports facilities
**What has been done?**

Mandatory **weekly time of physical education at schools (in minutes)** in Poland (2005)

<table>
<thead>
<tr>
<th>Age of pupils</th>
<th>Minutes per week</th>
<th>% of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-15</td>
<td>180 (4 x 45)</td>
<td>100</td>
</tr>
</tbody>
</table>

The objective of the programme presented by the Prime Minister of the Republic of Poland in his inauguration speech of 23 November 2007, and prepared by the Minister of Sport and Tourism, is to build general-access, free of charge to sports fields with locker rooms and sanitary facilities, in all Polish municipalities.

The idea of the Programme is to make modern sports infrastructure available to children and youngsters to allow them to take up regular sports training (built at least 2012 Orlik facilities by the year 2012).

Promotion of healthy lifestyle is one of the most important objectives and should be pursued with determination. Development of sports infrastructure will be very important in this context.
About 2,200 "Orlik 2012" sports fields have been built so far throughout Poland.

The total number of children and youth using Orlik facilities in 2009 and 2010 was more than 9 million 186 thousand. There is also growing interest in Orlik facilities among adults. In all, more than 2 million 278 thousand adults participated in various types of activities at Orlik facilities over the two-year period.

In 2009 and 2010, more than 46 thousand sports events and competitions (mostly in team sports) were held at Orlik facilities. Football was the most popular discipline. Various community events were also organized, such as family fairs, picnics and recreational games. On average, 4 and 3 events were held at each facility each month in 2009 and in 2010, respectively.
The "Keep Fit" Programme is co-organized by the Chief Sanitary Inspectorate, and the Polish Federation of Food Industry - Association of Employers in the implementation of the WHO strategy on diet, physical activity and health.

The purpose of the "Keep Fit!" is education for sustainable development of healthy habits among school children by promoting the principles of active lifestyle and balanced diet, based on individual responsibility and free choice of individuals. The program helps develop student interest and broaden their knowledge of the world. Is implemented by the project, so that goes beyond the core curriculum and school curricula. Projects should serve to promote physical activity, teach proper, that is a varied and balanced diet of children and adolescents, with particular emphasis on individual responsibility for health and the principle of free choice.
The programme has already covered about 7 000 primary and secondary schools in the entire Poland, that is 3 million pupils.
The Swiss - Polish Cooperation Programme

Preventing overweight and obesity as well as chronic diseases by education on nutrition and physical activity of the society 2011-2016
Task 1. **Nutritional health promotion, with particular emphasis on prevention of overweight and obesity among pregnant women and nursing mothers.**

Nutritional health promotion will cover 28000 pregnant women throughout the country with particular consideration of areas of geographical concentration.

An impact of educational activities will be evaluated by nutritional status assessment of women and infants with the use of anthropometric data.

**Partners:**
- The Children’s Memorial Health Institute
- National Food and Nutrition Institute – (educational materials)
2. Education and implementation of the principles of nutrition in preschools, primary, lower secondary and secondary schools, and the assessment of the impact of education on nutrition, nutritional status and level of knowledge among children and adolescents.

The Project will cover:
- children at different levels of education, from a preschool to the end of a secondary school, (4 to 18 years of age);
- teachers of science and physical education;
- parents of pupils and preschoolers.

It will be introduced to 1600 outlets across the country.

Schools and preschools will be able to obtain the status of the Nutrition/Physical Active -Friendly Schools, after meeting some criteria.

Partners:
National Food and Nutrition Institute
The Józef Piłsudski University of Physical Education in Warsaw
Task 3. **Implementing the principles of rational lifestyle among people with overweight and obesity in the health care system in Poland**

These are activities aimed at motivating people to adhere to the principles of nutrition and physical activity; the activities are directed to overweight and obese adults. Intervention programs throughout the country will be carried out in that task. Approximately 1600 people with overweight and obesity will be covered by a 12-week program (the care of physician, dietician, physiotherapist and psychologist). Furthermore in 128 outpatient clinics dietary consultation centers will be set up.

**Partners:**
National Food and Nutrition Institute
The Polish Dietetics Society
Task 4: Dissemination of knowledge about the composition and nutritional value of food, nutrition and health claims and food labeling to influence the formation of rational choices of food products

The broad access to information campaign addressed to the whole society, including older people and food producers, regarding the nutritional value of food products and their impact on health and the ability to read the information on food labels in order to properly compose the diet.

The education campaign will be implemented by providing educational materials, including the website and through practical classes conducted in supermarkets throughout the country.

Partners:
National Food and Nutrition Institute
The Polish Dietetics Society

2011-12-06
Task 5: Media campaign
In Poland, the activities are undertaken at various levels.

The various programs and activities are complementary. What is needed is an urgent examination of nutrition and nutritional status of population and public knowledge on the role of nutrition and physical activity regularly conducted every few years.

Lifestyle changes take time and successive, coordinated action.
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