

WHO aims to stop the increase of obesity and type 2 diabetes – action is needed in Finland

Key Findings

- Obesity, overweight and diabetes have increased in Finland during the last few decades.
- It appears that the increase in the prevalence of adult obesity has come to a halt in the last few years.
- There is no fully reliable information on changes in the incidence of type 2 diabetes, but judging by the reimbursements granted for medicine expenses and the population's glycated hemoglobin levels, the increasing trend appears to have stopped in the last 10 years.
- WHO aims to stop obesity and diabetes from becoming more prevalent on a global scale.
- Finland should aim to reduce the prevalence of overweight, obesity and diabetes.

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INTRODUCTION

The World Health Organization (WHO) has published its action plan for the prevention and control of noncommunicable diseases for 2013–2020. The action plan includes proposals for health policy and practical action. The objective is for the member states to reach as many as possible of the nine international targets pertaining to the prevention and treatment of noncommunicable diseases by the year 2025. The attainment of the said targets is being monitored through 25 indicators, which represent risk of premature mortality, levels of noncommunicable disease risk and protective factors as well as the potential for and realisation of prevention and treatment. The baseline of the monitoring is year 2010.

The WHO action plan is primarily focused on four important disease groups: cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. Disease prevention focuses on lifestyle factors: smoking, unhealthy diet, lack of physical activity, and harmful use of alcohol.

An evaluation has been conducted in Finland on the current state and previous development of noncommunicable diseases and their risk factors to estimate how realistic the targets set by WHO are for Finland. At the same time, national challenges have been identified along with possibilities for improving the prevention of noncommunicable diseases.

This “Data Brief” publication reports WHO’s obesity and diabetes target (target 7) and its indicators.

DEVELOPMENT OF ADULT OBESITY IN FINLAND

According to the FINRISK 2012 Health Survey, the mean BMI is 26.9 kg/m² for working-age men and 25.9 kg/m² for working-age women (Table 1). Two out of three men (65%) and almost half of the women (46%) are overweight. Every fifth Finn is obese. Approximately 30% of men and women have abdominal obesity. The trend toward obesity among Finns seems to have come to a halt in the last five years.

Table 1. Overweight and obesity in 25–64-year-old men and women in 2007–2012.

	FINRISK 2007	FINRISK 2012	p-value
MEN			
BMI, kg/m ²	26.8	26.9	0.47
≥25, %	64.0	64.5	0.82
≥30, %	18.6	20.3	0.19
Waist, cm	95.8	95.5	0.24
>100 cm, %	31.8	30.7	0.61
WOMEN			
BMI, kg/m ²	26.2	25.9	0.06
≥25, %	49.2	46.3	0.03
≥30, %	19.2	20.0	0.55
Waist, cm	86.2	85.0	<0.05
>90 cm, %	32.0	31.0	0.32

WHO targets for 2010–2025

1. A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes and chronic respiratory diseases.
2. At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.
3. A 10% relative reduction in prevalence of insufficient physical activity.
4. A 30% relative reduction in mean population intake of salt/sodium.
5. A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.
6. A 25% relative reduction in the prevalence of raised blood pressure.
7. Halt the rise in diabetes and obesity.
8. At least 50% of eligible people receive drug therapy and counselling to prevent heart attacks and strokes
9. An 80% availability of the affordable basic technologies and essential medicines required to treat major noncommunicable diseases.

WHO indicators for obesity and diabetes

Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years (defined as fasting plasma glucose concentration ≥ 7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose)

Prevalence of overweight and obesity in adolescents

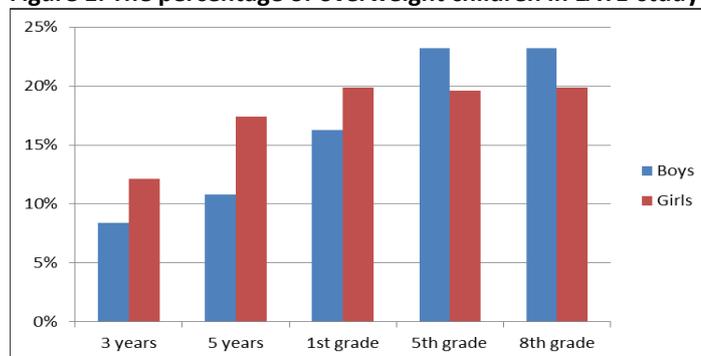
Age-standardized prevalence of overweight and obesity in persons aged 18+ years (defined as body mass index ≥ 25 kg/m² for overweight and body mass index ≥ 30 kg/m² for obesity)

The indicators cannot be created from the Finnish information sources exactly in the same form.

CHILD AND ADOLESCENT OBESITY

The percentage of overweight children and adolescents has more than doubled in Finland since the late 1970s. According to the Child Health Monitoring Survey (LATE), more than 10% of children under school age were overweight or obese. Amongst 5th and 8th class pupils in the Finnish school system, 25% of boys and 20% of girls were overweight or obese (Figure 1).

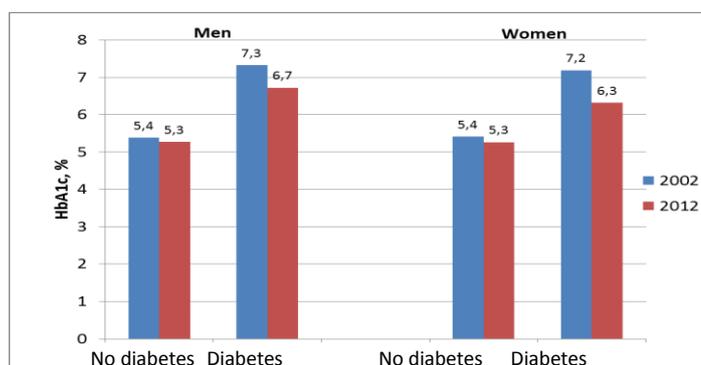
Figure 1. The percentage of overweight children in LATE-study 2008.

**THE PREVALENCE OF DIABETES AND BLOOD SUGAR LEVELS**

The prevalence of diabetes can be analysed on the basis of comprehensive general population survey data and register data. The prevalence of diabetes should be objectively analysed in general population surveys by measuring fasting blood sugar levels or by conducting an OGTT. However, conducting measurements in large general population surveys is extremely challenging and expensive. According to current knowledge, the glycated haemoglobin level (HbA1c) can also be used to analyse the incidence of diabetes.

Amongst Finns without diagnosed diabetes, the average glycated hemoglobin has remained on the same level from 2002 to 2012. The average HbA1c for both men and women was 5.3% in 2012. In the same time, the HbA1c levels of diabetics reduced from 7.3% to 6.7% for men and from 7.2% to 6.3% for women. Based on the HbA1c levels, an indirect conclusion can be made: the prevalence of diabetes had not increased and the level of care offered to diabetics had improved during 2002–2012.

Figure 2. Change in HbA1c 2002–2012 in the FINRISK survey. Men and women aged 25–74, age-standardised mean values.



The number of Finns over 35 entitled to special reimbursement for medicines due to diabetes has doubled in the last 20 years (Figure 3). In 2014, 6.3% of men and 5.1% of women were entitled to special reimbursements for medicines for diabetes. Amongst the +35 age group, the respective percentages were 10.4% of men and 8.0% of women.

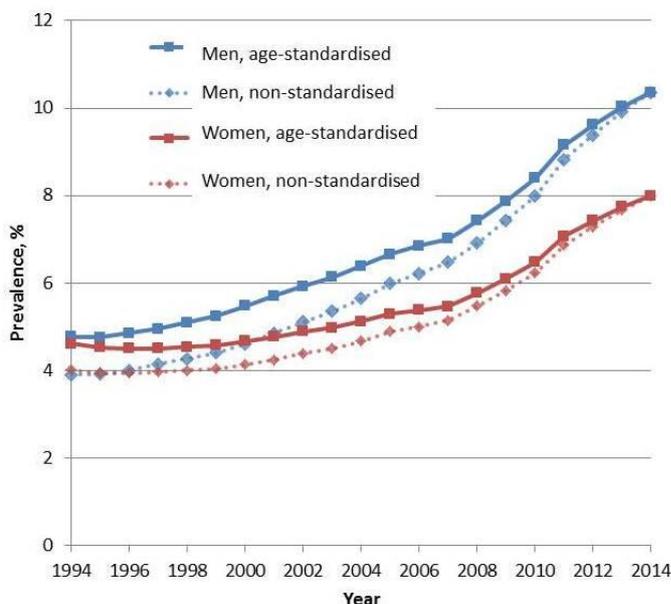
The materials used

The FINRISK survey materials from 2002 to 2012 were used for the purpose of this analysis. Weight, height and waistline have been measured using standardised methods. HbA1c levels have been analysed in a THL-accredited laboratory.

The data pertaining to child and adolescent obesity have been collected from the LATE study.

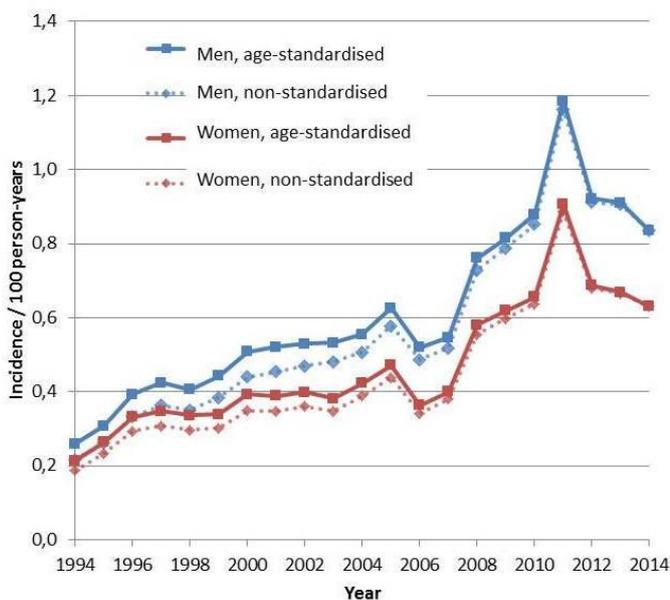
The special reimbursement information is based on the statistics of the Social Insurance Institution of Finland. <http://www.kela.fi/kelasto>

Figure 3. The prevalence of special reimbursements for diabetes medicines granted by the Social Insurance Institution of Finland from 1994 to 2014 amongst men and women aged 35 and plus.



There was a particular rise in the total number of new reimbursement rights made between 2006 and 2011. The number of decisions applicable to the 35+ age sector increased at the time from approximately 12,500 in 2006 to almost 32,000 in 2011. The increase in decisions has been influenced by the start of drug treatment directly from diagnosis, in accordance with the Current Care Guideline issued in 2007 and the related change in the right to special reimbursement, as well as the unusually active screening for diabetes realised at the end of the previous decade. After this, the number of decisions to grant special reimbursement has dropped to below 25,000/year.

Figure 4. The incidence of new special reimbursements for diabetes medicines per 100 persons granted by the Social Insurance Institution of Finland from 1994 to 2014, amongst men and women of 35 and plus.



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DISCUSSION

Even though the health of Finns has improved and life expectancy has significantly increased since the 1970s, obesity and diabetes have also become more commonplace. In addition to type 2 diabetes, obesity is a risk factor for many chronic diseases, such as cardiovascular diseases, many forms of cancer, asthma, depression and diseases of the musculoskeletal system.

The majority of the adult population is currently overweight or obese. In the last ten years, the increase in obesity has halted. Abdominal obesity has even slightly decreased. The increase of obesity in children and adolescents is worrying.

In fighting obesity, prevention is key because the treatment of existing obesity is difficult, results are scarce, and they are often only temporary. Preventive measures should specifically target children and adolescents, because overweight children often turn into obese adults. A healthy diet and meal frequency, portion sizes proportional to the amount of energy spent, motivation to exercise, and creating an environment promoting exercise are the cornerstones of obesity prevention.

The monitoring of the obesity trend in children and adolescents and early interventions should be emphasised. Child health clinics and school health care are already conducting the necessary measurements, but systematic and comprehensive data collection is not possible due to the use of several varying data systems. Children's growth curves and overweight/obesity screening rules have recently been revised in Finland. However, adding them to the electronic patient records has been slow. Tackling child obesity is still regarded as challenging. Clinical pathways for childhood obesity have not been created for all areas, and there is a delay in directing obese children to receive treatment.

As obesity is becoming more commonplace, type 2 diabetes has also become a national disease. Judging by HbA1c levels, however, the average blood sugar level of the population has not risen during the last decade. This observation is in line with the halt in the increase of overweight and obesity.

The number of diabetics receiving drug treatment is still increasing. The prevalence of drug treatment and the quantity of special reimbursements are affected both by the number of diabetics in the population, the comprehensiveness of screening and diagnostics, treatment recommendations, and indications for special reimbursements. The improved prognosis for diabetes also increases the number of diabetics receiving drug treatment; more and more people live longer with diabetes. At the start of the millennium, the national Development Programme for the Prevention and Care of Diabetes (DEHKO) invested in the screening and early detection of diabetes. This may in part explain the great increase in identified diabetics at the beginning of the millennium.

Because the special reimbursement-based estimates on the prevalence of diabetes and on the changes in the prevalence are affected by treatment practices, caution should be taken in the interpretation of the results. Furthermore, the register data only includes persons already diagnosed with the disease. Diabetes may, however, remain symptomless for a long time. Therefore, a large number of people on the population level meet the criteria of diabetes even though they have not been diagnosed with it. This is why the data based on the special reimbursements underestimates the scale of the problem. At the moment, our health monitoring system cannot create up-to-date data on the number of diabetics, taking into account the diabetics who are yet to be identified.

As is the case with many chronic diseases, socioeconomic differences are also clear in the prevalence of overweight and diabetes. Both are most common among men and women having less education. The differences start to develop at an early stage and can already be detected at school age.

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