



# DIABETES FACT SHEET

Fact sheet, April 2016

## The challenge

Diabetes causes suffering and hardship for approximately 60 million people in the WHO European Region who live with the disease; it also strains the Region's economies and health systems. Diabetes can lead to cardiovascular disease (CVD), blindness, kidney failure, loss of limbs and loss of life. The prevalence of diabetes is increasing among people of all ages in the European Region, already affecting 10–12% of the population in certain Member States. The growing diabetes epidemic is strongly associated with increasing trends in overweight and obesity, unhealthy diets, physical inactivity and socioeconomic disadvantage.

## What is diabetes?

Diabetes is a chronic, largely preventable disease that occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. This leads to a higher concentration of glucose in the blood (hyperglycaemia).

There are three types of diabetes:

- Type 1 diabetes is characterized by lack of insulin production. According to current knowledge, type 1 diabetes cannot be prevented. The symptoms include excessive excretion of urine (polyuria), thirst (polydipsia), constant hunger, weight loss, vision changes and fatigue. These symptoms may occur suddenly, and the disease may present as an acute condition.
- Type 2 diabetes is caused by the body's ineffective use of insulin. It accounts for 90% of cases of diabetes around the world and is largely preventable. The symptoms may be similar to those of type 1 diabetes but are often less marked. As a result, the disease may be diagnosed several years after onset, once complications have already arisen. Type 2 diabetes was until recently seen as a disease of middle-aged and elderly people, but its frequency has escalated in all age groups and it is now increasingly seen in adolescence and childhood.
- Gestational diabetes is hyperglycaemia that is first recognized during pregnancy. The symptoms of gestational diabetes are similar to those of type 2 diabetes. Gestational diabetes is most often diagnosed during prenatal screening rather than from reported symptoms. It is generally temporary, but women with gestational diabetes may develop type 2 diabetes later in life.

## Risk factors

Studies of the diabetes epidemic suggest that non-modifiable risk factors – such as ageing of the population and longer survival – explain only about 20% of the increase in prevalence. The rise is due primarily to a heightened prevalence of modifiable risk factors, including overweight and obesity, unhealthy diet and physical inactivity and socioeconomic disadvantage. A high body mass index (BMI) was estimated to be responsible for 17% of all deaths from diabetes in 2012.

## FACTS AND KEY FIGURES

### The diabetes burden in Europe

- 64 million people live with diabetes in the European Region, comprising 33 million women and 31 million men aged 18 years and over.
- In countries in the European Region, the proportion of adults with diabetes ranges from 5.2% to 13.3% of the population for men and from 3.3% to 14.2% of the population for women.
- The prevalence of diabetes in the European Region increased by 2% between 1980 and 2014, from 5.3% of the population (aged 18 and over) to 7.3%.
- Diabetes claims tens of thousands of lives in the European Region each year, but this potentially fatal disease is largely preventable. Changes in lifestyle have been shown to effectively prevent or delay the onset of type 2 diabetes.
- Estimates from the International Diabetes Federation indicate that diabetes was responsible for 9% of total health expenditure in Europe in 2015, equivalent to US\$ 156 billion.

### More information:

[www.euro.who.int/diabetes](http://www.euro.who.int/diabetes)



In the European Region, the prevalence of overweight among adults aged 18 years and over is nearly 63% for men and 55% for women. The prevalence of both physical inactivity and overweight or obesity is highest in high-income countries.

## Prevention

The only sure way to control the diabetes epidemic is to stop people from getting diabetes.

Many of the health risks associated with increasing body weight and, thus, increased risk for diabetes first occur in children and young people. Simple lifestyle changes have been shown to be effective in preventing or delaying the onset of type 2 diabetes.

### To help prevent type 2 diabetes and its complications, people of all ages should:

- achieve and maintain a healthy body weight;
- be physically active – at least 30 minutes of regular, moderate-intensity activity on most days, with more activity required for weight control;
- eat a healthy diet of 3–5 servings of fruit and vegetables a day, and reduce sugar and saturated fat intake; and
- avoid tobacco use – smoking increases the risk for CVD. Adults with diabetes have rates of CVD 2–3 times higher than those of adults without diabetes.

The public and private sectors also have important roles to play, by developing and implementing policies and programmes to increase knowledge about the prevalence and consequences of diabetes, encourage and provide opportunities for more physical activity and improve the availability and accessibility of healthy foods, while making it more difficult or less appealing to consume unhealthy foods. Specifically, regulating the marketing of foods high in fat, sugar and salt can reduce consumption. Likewise, increasing the price of unhealthy foods or applying trade measures to reduce their availability can discourage their consumption and encourage consumption of healthier options.

## Diagnosis and treatment

Type 2 diabetes can be diagnosed at an early stage by relatively inexpensive blood testing. However, the International Diabetes Federation estimates that 40% of people aged 20–79 in Europe (or 23.5 million people) have undiagnosed diabetes, due to lack of awareness or understanding of initial symptoms or, sometimes, gaps in the health system. The longer a person lives with undiagnosed, untreated diabetes, the worse her or his health outcome is likely to be.

Diabetes is treated by lowering the levels of blood glucose and known risk factors for damaged blood vessels, which increase the risk for CVD. People with type 1 diabetes require insulin; people with type 2 diabetes can be treated with oral medication but may also require insulin. As diabetes is a major cause of blindness, kidney failure, lower limb amputation and several other long-term consequences, other measures include regular screening for retinopathy and early signs of kidney disease, foot care and control of blood pressure and cholesterol level. Treatment should be supported by the four lifestyle measures outlined above.

Self-monitoring of blood glucose is recommended for people receiving insulin as part of their diabetes treatment, and such people should draw up a plan of action with their health provider for adjusting their insulin dosage, food intake and physical activity according to the results of self-monitoring. However, anecdotal evidence suggests that self-monitoring is not available to a vast majority of people on insulin treatment, often due to cost.

## WHO response

Given that the four major noncommunicable diseases (NCDs) in the European Region (diabetes, CVD, cancer and chronic respiratory disease) share common modifiable risk factors, WHO recognizes that policy approaches to any one of these diseases must be integrated into population approaches to prevent NCDs as a group.

The aim of population-based prevention is not only to reduce risk factors for diabetes and NCDs but also to shape the broader environment in which people live, eat, study, work and play so that healthy choices are accessible and easy to make. No single policy or intervention can achieve such change; rather, a “whole-of-government” approach is needed, with a life-course perspective for preventing type 2 diabetes.

**In its work to accelerate and encourage the adoption of effective measures for the surveillance, prevention and control of diabetes and its complications, WHO:**

- sets norms and standards,
- monitors the health situation,
- stimulates and supports research,
- provides evidence-based policy options,
- forms partnerships when joint action is needed and
- builds awareness about the global epidemic of diabetes.