

### Quick facts

- Globally, an estimated 346 million people have diabetes. Three out of four people with diabetes live in low- and middle-income countries.
- In the South-East Asia (SEA) Region, nearly 71 million were estimated to be living with diabetes in 2010 and an equal number had impaired glucose tolerance.
- Nearly 3.4 million people globally and 1 million in SEA Region die from consequences of high blood sugar every year.
- Diabetes exacerbates major infectious diseases such as tuberculosis (TB), malaria and HIV/AIDS. People with diabetes are three times more likely to develop TB when infected and approximately 15% of TB globally is thought to be due to diabetes.

### What is diabetes?

Diabetes is a chronic condition that occurs when blood glucose levels remain above normal limits. This happens if the pancreas does not produce enough insulin (a hormone that regulates blood sugar) or when the body cannot effectively use the insulin it produces. Type 1 diabetes is due to deficient insulin production while Type 2 diabetes results from the body's ineffective use of insulin. Over 90% of individuals with diabetes around the world have Type 2 diabetes. Gestational diabetes is the type of diabetes that is first recognized during pregnancy.

### What are the causes/risk factors for diabetes?

- The causes of Type 1 diabetes, while not known, may be diverse such as autoimmune, genetic or environmental.
- Risk factors for Type 2 diabetes are overweight/obesity, family history of diabetes, tobacco use, excess alcohol intake, prior history of gestational diabetes, impaired glucose tolerance and physical inactivity.

### What are the symptoms of diabetes?

- Type 1 diabetes: Symptoms include frequent urination (polyuria), excessive thirst (polydipsia), constant hunger, weight loss, very dry skin, vision changes and fatigue.
- Type 2 diabetes: 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. Impaired glucose tolerance and impaired fasting glycaemia are intermediate conditions and risk categories for future development of diabetes.



### What are the complications of diabetes?

Raised blood sugar due to uncontrolled diabetes leads to serious damage to many of the body's systems over time. Diabetes increases the risk of heart disease and stroke. Diabetic retinopathy is an important cause of blindness, and occurs as a result of long-term accumulated damage to small blood vessels in the retina. Diabetic neuropathy in the feet increases the chance of foot ulcers and eventual limb amputation. Diabetes is among the leading causes of kidney failure. The overall risk of dying among people with diabetes is at least double the risk of their peers without diabetes.

*1 million die every year in SEA Region from consequences of high blood sugar. If uncontrolled, the diabetes burden will double by 2030 in the Region.*

## How is diabetes diagnosed?

Early diagnosis can be accomplished through blood testing, such as fasting or random blood glucose test, oral glucose tolerance test, or glycated haemoglobin (HbA1c) test.

## What is the treatment for diabetes?

Diabetes treatment involves lowering blood glucose and overall reduction in risk factors for diabetic complications, such as control of blood pressure and blood lipids. This requires lifelong care and management. Quitting tobacco use is important to avoid complications. Healthy eating, physical activity and monitoring blood glucose levels is required. In addition oral medication or insulin, or both are needed to control blood glucose levels.

*Diabetes is affecting younger age groups in low- and middle-income countries and thus impacting productive years of life.*

## What can be done to prevent and control diabetes?

The cause of Type 1 diabetes is not known and is not preventable with current knowledge. Simple lifestyle measures are effective in preventing or delaying the onset of Type 2 diabetes.

### What individuals can do?

- Achieve and maintain a healthy body weight.
- Be physically active – at least 30 minutes of regular, moderate-intensity activity on most days. More activity is required for weight control.
- Eat a healthy diet of three to five servings of fruit and vegetables a day and reduce sugar and saturated fats intake.
- Quit tobacco use.
- Avoid harmful use of alcohol.
- Test blood glucose and glycated hemoglobin levels regularly.

### What communities and civil societies can do?

- Create and maintain safe neighbourhoods for physical activity and improve access to parks and playgrounds.
- Create awareness about diabetes, its complications and prevention.
- Identify and support high profile champions of change and community leaders who will speak strongly for the needs and rights of people with diabetes.
- Advocate for physical activity and healthy diets in educational institutions and workplaces.

### What the private sector can do?

- Ensure that healthy and nutritious choices are available and affordable to all consumers.
- Voluntarily reduce sugar, salt and fat content of processed foods.
- Avoid marketing unhealthy food, particularly to children.
- Ensure the availability of healthy food choices and support regular physical activity practice in the workplace.

### What governments can do?

- Recognize that diabetes is an important public health and development problem.
- Create public awareness about diet and physical activity through mass media and other means.
- Promote healthy policies and create an environment for walking, bicycling, sports and other physical activities.
- Develop and enforce policies to restrict marketing of unhealthy food products, especially to children.
- Provide access to insulin and other essential medicines for diabetes.
- Ensure easy access to essential health-care services for early diagnosis and management of diabetes and its complications.