Diabetes is a chronic disease, characterised by high levels of glucose in the blood. It occurs either because the pancreas stops producing the hormone insulin (Type-1 diabetes), or through a reduced ability to produce insulin (Type-2 diabetes). People with diabetes are at a greater risk of developing cardiovascular diseases such as heart attack and stroke. They also have elevated risks for sight loss, foot and leg amputation due to damage to nerves and blood vessels, and renal failure requiring dialysis or transplantation.

Over 85 million people living in OECD countries are estimated to have had diabetes in 2011. This represents 6.9% of people aged 20-79 years (Figure 1.10.1). In Mexico, more than 15% of adults have diabetes. By contrast, less than 5% of adults suffer from diabetes in Belgium, Iceland, Luxembourg, Norway and Sweden (IDF, 2011).

Diabetes is slightly more common among men than women and prevalence increases substantially with age. A Spanish study showed that around 1% of those aged less than 45 were diagnosed with diabetes, whereas among those aged 76 and over, the prevalence rate was over 20% (Soriguer et al., 2012). The study also showed that around 50% of patients in the sample did not know that they had diabetes, confirming findings from other countries that a substantial proportion of the population have undiagnosed diabetes (e.g. Gardete-Correia et al., 2011). The International Diabetes Federation estimates that around 31 million people in OECD countries have undiagnosed diabetes.

Diabetes disproportionately affects those in lower socio-economic groups and people from certain cultural backgrounds. Guize et al. (2008) found that elderly people living in lower socio-economic conditions were two to three times more likely to have diabetes than wealthier segments of the population. In Australia, Indigenous people have been found to be three times more likely than other Australians to report having diabetes (AIHW, 2011).

For many people, the onset of Type-2 diabetes can be prevented (or delayed) through regular physical exercise and maintaining a healthy weight. But in most countries, the prevalence of obesity and physical inactivity continues to increase (see Indicator 2.7 “Overweight and obesity among adults”). Alongside the rise in risk factors, diabetes has been increasing rapidly in every part of the world. Based on current trends, the number of people with diabetes in OECD countries is projected to reach almost 108 million by 2030 (IDF, 2011).

On average across OECD countries, over 17 new cases of Type-1 diabetes were identified per 100 000 children aged under 15 in 2011 (Figure 1.10.2). The incidence rate is particularly high in Nordic countries (Finland, Sweden and Norway), with over 25 new cases detected every year per 100 000 children. In Mexico and Korea, the rate is less than five new cases per 100 000 children aged under 15. While Type-1 diabetes currently accounts for only 10-15% of all diabetes cases, there is evidence that incidence rates are rising strongly in some countries. Between 2005 and 2020, new cases of Type-1 diabetes for those under age 5 are expected to double and the prevalence of cases in those younger than 15 years is expected to increase by 70% in Europe (Patterson et al., 2009). There is no clear consensus on why incidence is rising so fast, but a changing environment, infant and maternal diets are all plausible explanations (Myers and Zimmet, 2008).

Both Type-1 and Type-2 diabetes inflict enormous health burdens on the community. In 2011, there were almost 660 000 diabetes-related deaths in OECD countries, and the 2010 Global Burden of Disease study showed that diabetes was the ninth leading cause of death in the world (IDF, 2011; Lozano et al., 2012). Diabetes-related health expenditure was estimated to be USD 176 billion in the United States alone, and USD 390 billion across OECD countries in 2011 (ADA, 2013; IDF, 2011). These burdens underline the need for preventive actions and effective management of diabetes and its complications (also see Indicator 5.1 “Avoidable hospital admissions”).

**Definition and comparability**

The sources and methods used by the International Diabetes Federation for publishing national prevalence and incidence estimates of diabetes are outlined in their Diabetes Atlas, 5th edition (IDF, 2011). Country data were derived from studies published between 1980 and April 2011, and were only included if they met several criteria for reliability. Prevalence rates were adjusted to the age-standardised rates using the world population, based on the distribution provided by the World Health Organization. See Guariguata et al. (2011) for more details on the methodology used.
1.10. Diabetes prevalence and incidence

1.10.1. Prevalence estimates of diabetes, adults aged 20-79 years, 2011

Note: The data cover both Type-1 and Type-2 diabetes. Data are age-standardised to the World Standard Population.

1.10.2. Incidence estimates of Type-1 diabetes, children aged 0-14 years, 2011

2. NON-MEDICAL DETERMINANTS OF HEALTH

2.1. Smoking and alcohol consumption among children
2.2. Overweight and obesity among children
2.3. Fruit and vegetable consumption among children
2.4. Physical activity among children
2.5. Tobacco consumption among adults
2.6. Alcohol consumption among adults
2.7. Overweight and obesity among adults
2.8. Fruit and vegetable consumption among adults

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.