

## 4.2 Europe

The 56 countries and territories in the IDF Europe Region comprise diverse populations, from Norway in the North, the Russian Federation in the East, Turkmenistan in the South and Iceland in the West. Gross national income varies from more than ID57,000 per capita in Norway, Switzerland and Luxembourg to less than ID10,500 per capita in Armenia, Moldova and Albania<sup>1</sup>.

While the total adult population is predicted to remain steady until 2040, the ageing of the population will place increasing numbers of people at risk of diabetes and, consequently, place a greater cost burden on health systems.

### Prevalence

The number of people with diabetes is estimated to be 59.8 (45.1-85.6<sup>‡</sup>) million (9.1% [6.8-13.0%<sup>‡</sup>] of the population aged 20-79), including 23.5 million undiagnosed cases. While the Europe Region has the second-lowest age-adjusted comparative diabetes prevalence rate of any IDF region (after the Africa Region) there are still many countries with relatively high diabetes prevalence rates.

Turkey has the highest age-adjusted comparative prevalence (12.8% comparative prevalence, 12.5% raw prevalence) and the third-highest number of people with diabetes in the Europe Region (6.3 [5.7-7.5<sup>‡</sup>] million), after Germany (6.5 [5.9-7.5<sup>‡</sup>] million) and the Russian Federation (12.1 [6.2-17.0<sup>‡</sup>] million).

#### At a glance

	2015	2040
Adult population (20-79 years)	660 million	663 million
<b>Diabetes (20-79 years)</b>		
Regional prevalence	9.1% (6.8-13.0% <sup>‡</sup> )	10.7% (8.2-14.9% <sup>‡</sup> )
Age-adjusted comparative prevalence	7.3% (5.5-10.9% <sup>‡</sup> )	7.6% (5.7-11.2% <sup>‡</sup> )
Number of people with diabetes	59.8 million (45.1-85.6 million <sup>‡</sup> )	71.1 million (54.4-98.7 million <sup>‡</sup> )
Number of deaths due to diabetes	627,000	-
<b>Health expenditure due to diabetes (20-79 years)</b>		
Total health expenditure, R=2*, USD	156 billion	174 billion
<b>Impaired glucose tolerance (20-79 years)</b>		
Regional prevalence	4.8% (3.1-11.4% <sup>‡</sup> )	5.5% (3.6-11.9% <sup>‡</sup> )
Age-adjusted comparative prevalence	4.1% (2.6-10.6% <sup>‡</sup> )	4.3% (2.7-10.4% <sup>‡</sup> )
Number of people with impaired glucose tolerance	31.7 million (20.3-75.2 million <sup>‡</sup> )	36.6 million (23.9-79.1 million <sup>‡</sup> )
<b>Type 1 diabetes (0-14 years)</b>		
Number of children with type 1 diabetes	140,000	-
Number of newly diagnosed children each year	21,600	-

\* See Glossary

‡ Uncertainty interval

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A further 31.7 million people, 4.8% of adults aged 20-79, are estimated to be living with impaired glucose tolerance and are at increased risk of developing diabetes. Indeed, by 2040, it is predicted that there will be 71.1 million adults living with diabetes in the Europe Region.

Age is an important risk factor for type 2 diabetes. In the Europe Region, 30.8% of the general population are aged between 50 and 79 years in 2015 and this is expected to increase to 35.6% by 2040. To a large degree, the high prevalence of type 2 diabetes and impaired glucose tolerance are a consequence of the ageing of Europe's population.

Europe has the highest number of children with type 1 diabetes compared with the other IDF regions – approximately 140,000. The region also has one of the highest incidence rates of type 1 diabetes in children, with an estimated 21,600 new cases per year. It is also home to the country with the world's highest incidence of type 1 diabetes in children, Finland, which has 62.3 new cases per 100,000 children each year. The European countries making the largest contribution to the overall numbers in type 1 diabetes in children are the United Kingdom, the Russian Federation and Germany.

## Mortality

Approximately 627,000 people aged 20-79 died from diabetes during 2015 in the Europe Region. About one quarter (26.3%) of these deaths were in people under the age of 60, which partly reflects the age distribution of the population, but also may be related to improved survival rates due to more responsive health systems. There were slightly more deaths due to diabetes in women compared to men (315,000 vs 312,000, respectively).

## Health expenditure

Estimates indicate that diabetes was responsible for 9% of total health expenditure in the Europe Region for 2015, equivalent to USD156 billion (R=2\*) to USD290 billion (R=3\*) (ID169 billion to ID311 billion). This translates to USD2,610 to USD4,854 (ID2,821 to ID5,202) per person with diabetes per year.

Just as there are wide variations in the prevalence of diabetes across the region, the range between countries of average diabetes-related healthcare spending was also large – from USD10,083 (ID8,235) per person with diabetes in Luxembourg to just USD122 (ID296) per person with diabetes in Tajikistan.

## Data sources

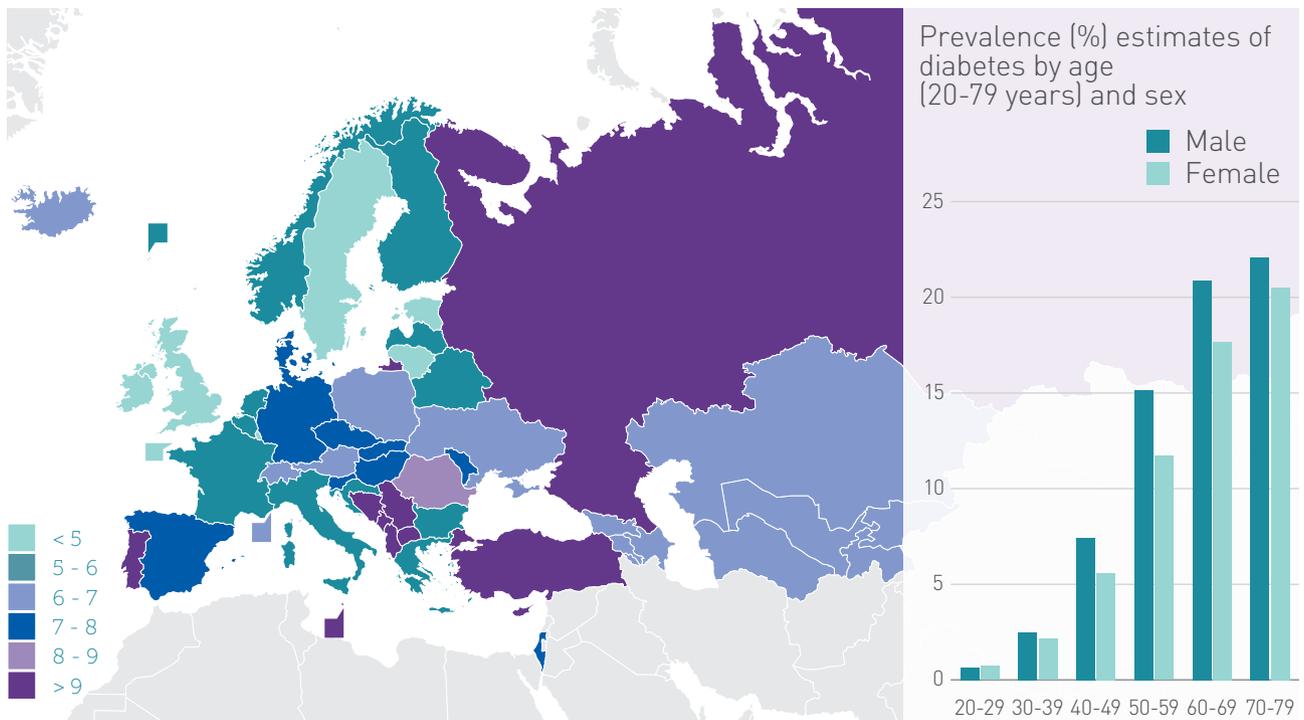
A total of 58 data sources from 33 countries were used to generate adult diabetes estimates for the 56 countries in the region. Estimates for Denmark, Germany, Israel, Portugal, Romania, Spain, Sweden and Turkey were based on studies conducted within the last five years. There was a lack of population-based nationwide data using oral glucose tolerance tests for screening in many countries. Only 14 countries in the region had nationwide studies based on oral glucose tolerance tests, and only Portugal and Turkey had conducted theirs within the last five years. Diabetes prevalence figures for the remaining countries may be underestimates.

Estimates for Denmark were based in part on age-stratified national registry data. The United Kingdom's 2015 National Health Service report of 3.3 million adults diagnosed with diabetes was not age-stratified, and thus was not able to be used in this edition of the *IDF Diabetes Atlas*.

The region had by far the most complete and reliable data for type 1 diabetes in children. A large proportion of countries have registries that are either nationwide or cover several different parts of a country.

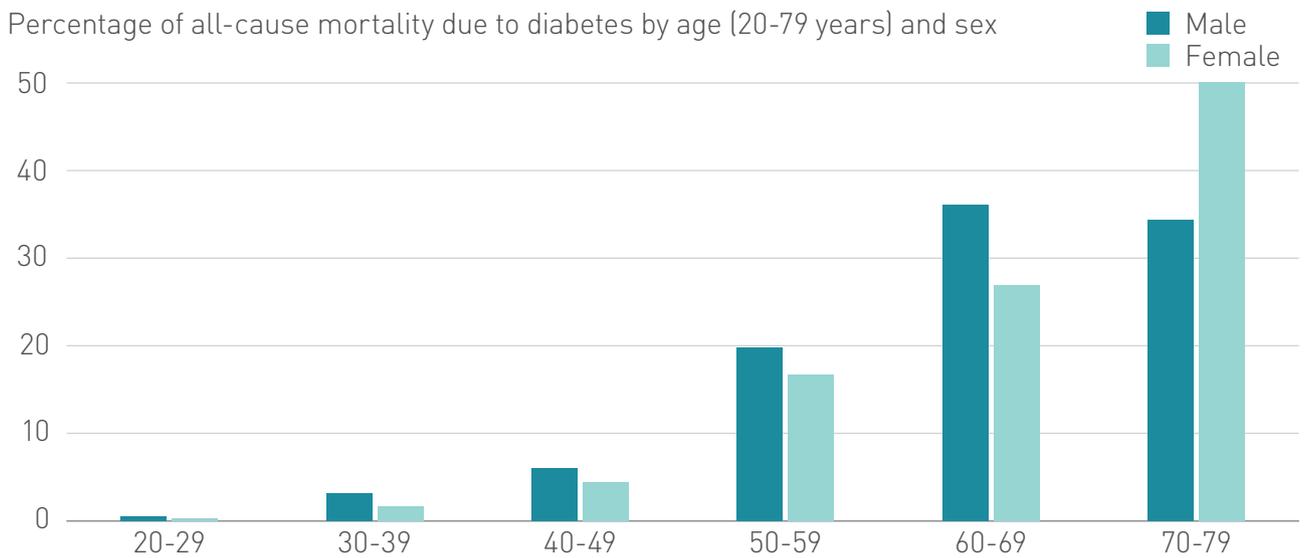


**Map 4.2** Prevalence\* (%) estimates of diabetes (20-79 years), 2015



\* comparative prevalence

**Figure 4.2** Mortality due to diabetes, Europe Region, 2015



Death due to diabetes by age



**627,133 total deaths due to diabetes**  
(314,701 women, 312,432 men)