## Chronic disease morbidity

Chronic diseases such as cancer, heart attack and stroke, chronic respiratory problems and diabetes are not only the leading causes of death across OECD countries. They also represent a major disability burden amongst the living. Many chronic diseases are preventable, by modifying major risk factors such as smoking, alcohol use, obesity and physical inactivity.

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Almost one third of people aged 15 years and over reported living with two or more chronic conditions, on average across 27 OECD countries (Figure 3.15). In Germany and Finland, this figure rises to almost one in two. Multimorbidity is far more common among older age groups – on average, 58% of adults aged 65 or over reported living with two or more chronic diseases, and this figure rises to 70% or more in Portugal, Poland, Hungary, the Slovak Republic and Germany. This compares with 24% for people aged less than 65 years reporting two or more chronic conditions.

Socioeconomic disparities are also large: on average across OECD countries, 35% of people in the lowest income quintile report two or more chronic conditions, compared with 24% of people in the highest income quintile (Figure 3.16). This income gradient is largest in Hungary, Slovenia and Latvia.

Diabetes is a chronic condition with a particularly large disability burden, causing cardiovascular disease, blindness, kidney failure and lower limb amputation. It occurs when the body is unable to regulate excessive glucose levels in the blood. In 2017, about 98 million adults – or 6.4% of the adult population – were living with diabetes across OECD countries (Figure 3.17). In addition, a further 39 million adults were estimated to have undiagnosed diabetes (International Diabetes Federation, 2017[1]).

Among OECD countries, diabetes prevalence is highest in Mexico, Turkey and the United States, with over 10% of adults living with diabetes (age-standardised data). For partner countries, diabetes prevalence is also high in India and China, at around 10%.

Age-standardised diabetes prevalence rates have stabilised in many OECD countries, especially in western Europe, but have increased markedly in Turkey and most partner countries. Such upward trends are due in part to rising rates of obesity and physical inactivity, and to their interactions with population ageing (NCD Risk Factor Collaboration, 2016[2])

Diabetes is much more common among older people, and slightly more men than women have the condition. Diabetes also disproportionately affects those from disadvantaged socio-economic groups. The economic burden of diabetes is substantial. In OECD countries an estimated USD 572 billion was spent on treating diabetes and preventing complications (International Diabetes Federation, 2017[1]).

## **Definition and comparability**

Data on multiple chronic diseases come from three different sources: Eurostat's European Health Interview Survey (EHIS-2) for European countries; the Medical Panel Expenditures Survey (MEPS) 2016 for the United States; and the Canadian Community Health Survey (CCHS) 2015-16 for Canada. The following chronic diseases and conditions are available in each survey:

- EHIS-2: asthma (1), chronic bronchitis/COPD/ emphysema (2), heart attack and chronic consequences (3), coronary heart disease (4), hypertension (5), stroke and chronic consequences (6), arthrosis, low back disorder (7), neck disorder (8), diabetes (9), allergy (10), cirrhosis of the liver (11), urinary incontinence (12), kidney problems (13) and depression (14).
- MEPS and CCHS: (1) (6), (9) and (14).

As fewer conditions are available for both Canada and the United States, multi-morbidity prevalence is mechanically lower for these countries, and thus not comparable with European data.

Sources and methods used by the International Diabetes Federation (IDF) are outlined in the Diabetes Atlas, 8th edition (International Diabetes Federation, 2017). The IDF produces estimations based on a variety of sources that met several criteria for reliability. The majority were national health surveys and peerreviewed articles. Age-standardised rates were calculated using the world population based on the distribution provided by the WHO. Adult population here covers those aged between 20 and 79 with Type 1 or Type 2 diagnosed diabetes.

### References

- [1] International Diabetes Federation (2017), IDF Diabetes Atlas, 8th edition, International Diabetes Federation, Brussels.
- [2] NCD Risk Factor Collaboration (2016), "Worldwide trends in diabetes since 1980: a pooled analysis of 751 populationbased studies with 4.4 million participants", *Lancet*, Vol. 387, pp. 1513-1530, http://dx.doi.org/10.1016/S0140-6736(16)006 18-8.





1. Results not directly comparable with those for other countries, due to differences in the variable definition (8 chronic conditions considered instead of 14), resulting in a downward bias.

Source: EHIS-2 2014 and other national health surveys.

StatLink and https://doi.org/10.1787/888934015087



#### Figure 3.16. People living with two or more chronic diseases, by income level, 2014

1. Results not directly comparable with those for other countries (see note in Figure 3.15). Source: EHIS-2 2014 and other national health surveys.

StatLink ans https://doi.org/10.1787/888934015106





Source: IDF Diabetes Atlas, 8th Edition, 2017.

StatLink and https://doi.org/10.1787/888934015125



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