

## BACKGROUND

- Diabetes is among the leading causes of death in the IDF Europe Region (EUR), imposing high human, social and economic costs.
- Robust estimates of its prevalence are required for effective allocation of resources.

## AIM

- To estimate diabetes prevalence, mortality and health care expenditure in the IDF Europe Region (EUR) for the years 2017 and 2045.

## METHODS

- A total of 63 population-based, high-quality data sources from 35 countries were used to generate age- and sex-specific diabetes estimates for the 57 countries and territories in the IDF Europe Region (EUR).
- Countries without good quality data sources were extrapolated based on data from countries with similar geography, economics and ethnicity.
- Mortality was calculated from relative risks attributable to diabetes and total numbers of deaths.
- Healthcare expenditure was based on an attributable fraction model including ratios of expenditures (people with diabetes vs. without diabetes).
- The details of the methodology were described in IDF Diabetes Atlas 8th Ed. (1) and in the paper of Cho et al. (2)

## RESULTS

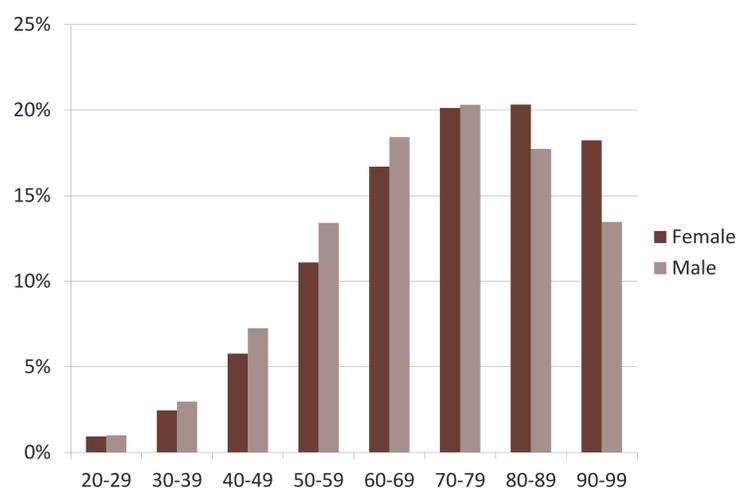
- Overall, 9% of the population aged 18-99, were living with diabetes in the IDF Europe region in 2017 (Table 1). This represents **1 in 11 adults** living with diabetes.

Table 1. Summary of the data on diabetes prevalence and projections in the IDF EUR region

IDF EUR region	2017 (95% CI)	2045 (95% CI)
<b>Diabetes (18-99 years)</b>		
Regional prevalence	9% (7-13%)	11% (8.5-14.6%)
Age-adjusted comparative prevalence	6.7% (5.3-10.4%)	6.7% (5.4-9.7%)
Number of people with diabetes	66 million (53-94 million)	81 million (64-109 million)
Number of deaths due to diabetes (20-99 years)	693,351 (526,997-945,289)	-

- Diabetes prevalence in 2017 was higher among males in the age groups until 79 years and was higher in women in the age group above 80 years (Figure 1).
- Higher number of deaths were attributed to diabetes among women. Almost a third of the deaths occurred among below 60 years olds (Figure 2).

Figure 1: Diabetes prevalence in the IDF Europe region by age and gender, 2017



- The total healthcare expenditure related to diabetes was **USD 207 billion**, representing 25% of the expenditure worldwide.
- The IDF Europe region has the second highest total health expenditure on diabetes (Figure 3).

Figure 2: Mortality due to diabetes by age and sex in the IDF Europe region, 2017

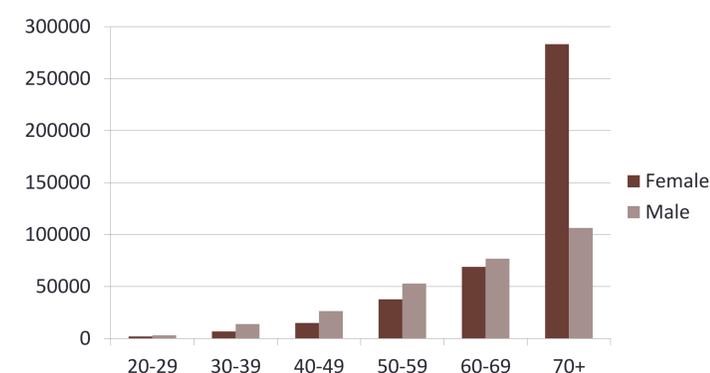
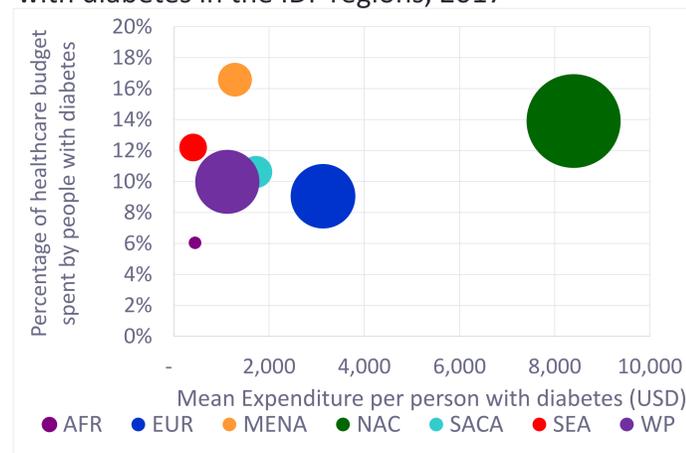


Figure 3: Percentage of health care spent in people with diabetes in the IDF regions, 2017



\*The size of the bubbles represents the amount of health care expenditure

## CONCLUSIONS

- Diabetes exerts a heavy burden in European region.
- The 2017 estimates on total health care expenditures on diabetes confirm the large economic impact caused by diabetes on health systems.
- Effective management programs should focus on diabetes prevention, in order to avoid harmful and costly consequences in the coming decades.

### References:

- IDF Atlas, 8th Ed. Brussels, Belgium: International Diabetes Federation, 2017.
- Cho, N. H., Shaw, J. E., Karuranga, S., et al. (2018). IDF Diabetes Atlas: Global estimates of diabetes prevalence for 2017 and projections for 2045. *Diabetes Res Clin Pract*, 138, 271-281.

**Acknowledgments** : IDF Diabetes Atlas Committee

### Abbreviations of IDF regions:

AFR: Africa  
EUR: Europe  
MENA : Middle East and North Africa  
NAC : North America and Caribbean  
SACA: South and Central America  
SEA: South East Asia  
WP: Western Pacific

**Conflict of Interest:** Receipt of grants or research support: IDF Diabetes Atlas has received support from Lilly Diabetes, MSD and Novo Nordisk

