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

- 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 old (Figure 2).

![Figure 1: Diabetes prevalence in the IDF Europe region by age and gender, 2017](image1)

**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](image2)

![Figure 3: Percentage of health care spent in people with diabetes in the IDF regions, 2017](image3)

*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:

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

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IDF Atlas website: http://www.diabetesatlas.org/