Diabetes Prevalence of North America and Caribbean Region in 2017 and 2045

Yadi Huang[1], Suvi Karuranga[1], Edward J Boyko[2], Andreia F. Moura[1], Belma Malanda[1]

[1] International Diabetes Federation (IDF), Brussels , Belgium; [2]University of Washington , United States

International Diabetes Federation

BACKGROUND

- The International Diabetes Federation (IDF) **North America and Caribbean Region (NAC)** consist of the **USA, Mexico and Canada,** as well as 25 **Caribbean countries and territories.**
- Diabetes is a serious and increasing global epidemic.
- Accurate estimates are essential for more efficient allocation of resources.

AIM

- To provide estimates on people (18-99 years) living with diabetes in the IDF NAC Region.

METHODS

- Population-based high-quality data sources containing diabetes prevalence were used to estimate age and gender specific diabetes prevalence for each country in 2017.
- Extrapolations were calculated for countries without good quality data based on similar geography, economics and ethnicity.
- The UN population projections for 2045 were used to project diabetes prevalence in 2045 for each country.
- Estimates for diabetes in adults were taken from 24 data sources in the IDF NAC region, representing 14 out of 28 countries.
- The details of the methodology were described in IDF Diabetes Atlas 8th Ed. (1) and in the paper of Cho et al. (2).

RESULTS

- With **10,8%** diabetes prevalence (Table 1), NAC region is among the 2 IDF regions with the highest age-adjusted prevalence .
- Diabetes prevalence in 2017 is higher among males in all age groups (Figure 1).

Figure 1: Diabetes prevalence in the IDF NAC region by age and gender, 2017
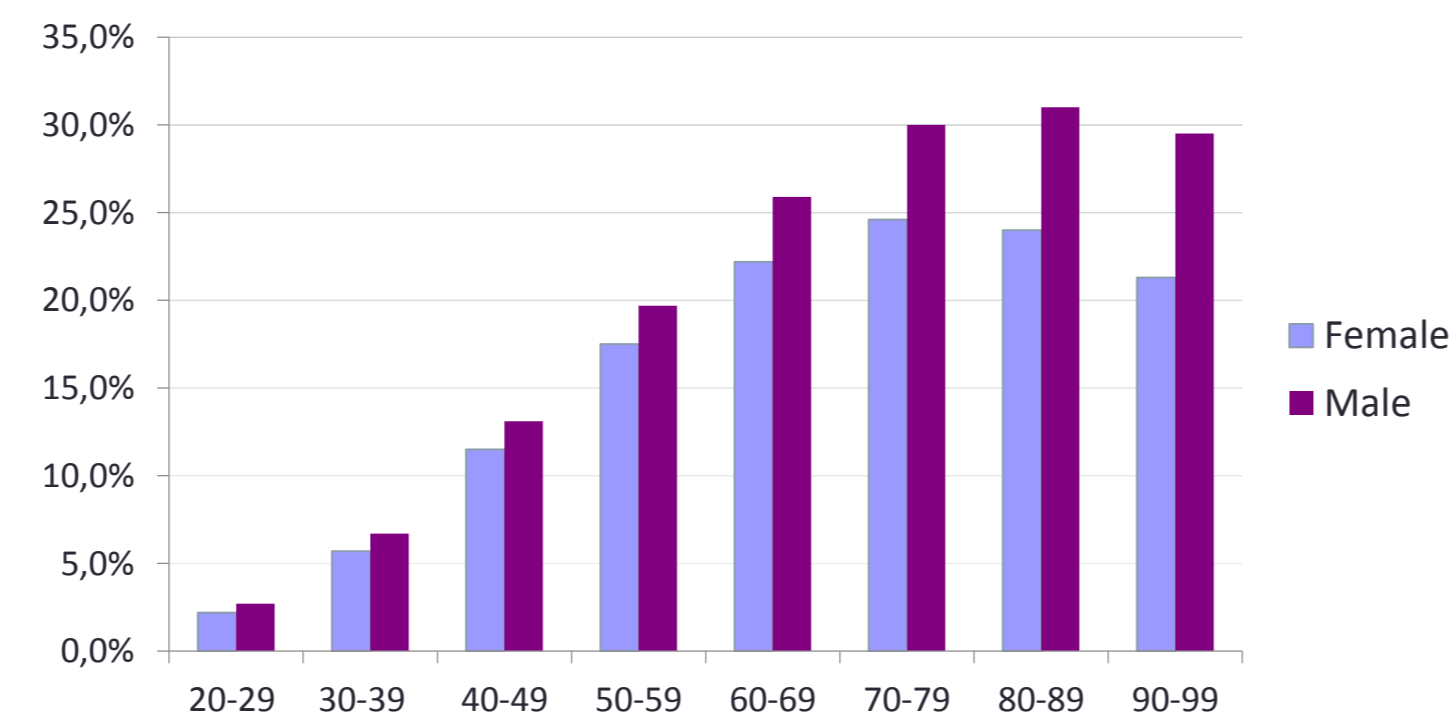
- The number of people with diabetes is projected to increase **46% by 2045** and to reach **73 million** (Table 1).

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

| IDF NAC region	2017	2045
Diabetes (18-99 years)		
Age-adjusted comparative prevalence	10.8%	10.8%
Number of people with diabetes	50 million	73 million
Undiagnosed cases	37.6%	-
Health expenditure due to diabetes, USD	440 billion	508 billion

RESULTS

- The United States is the country with the highest number of people living with diabetes in IDF NAC region. (Table 2).

Table 2. Top 5 countries for the number of people with diabetes

Country	Number of people with diabetes
United States of America	33,517.033
Mexico	12,477.291
Canada	2,950.176
Haiti	372,541
Jamaica	224,939

- In relation to health expenditure, **USD 440 billion** were spent on treating diabetes in the NAC region, more than in all other regions combined (Figure 2).

Figure 2: Percentage of health care spent by people with diabetes in the IDF regions, 2017

- AFR
- EUR
- MENA
- NAC
- SACA
- SEA
- WP
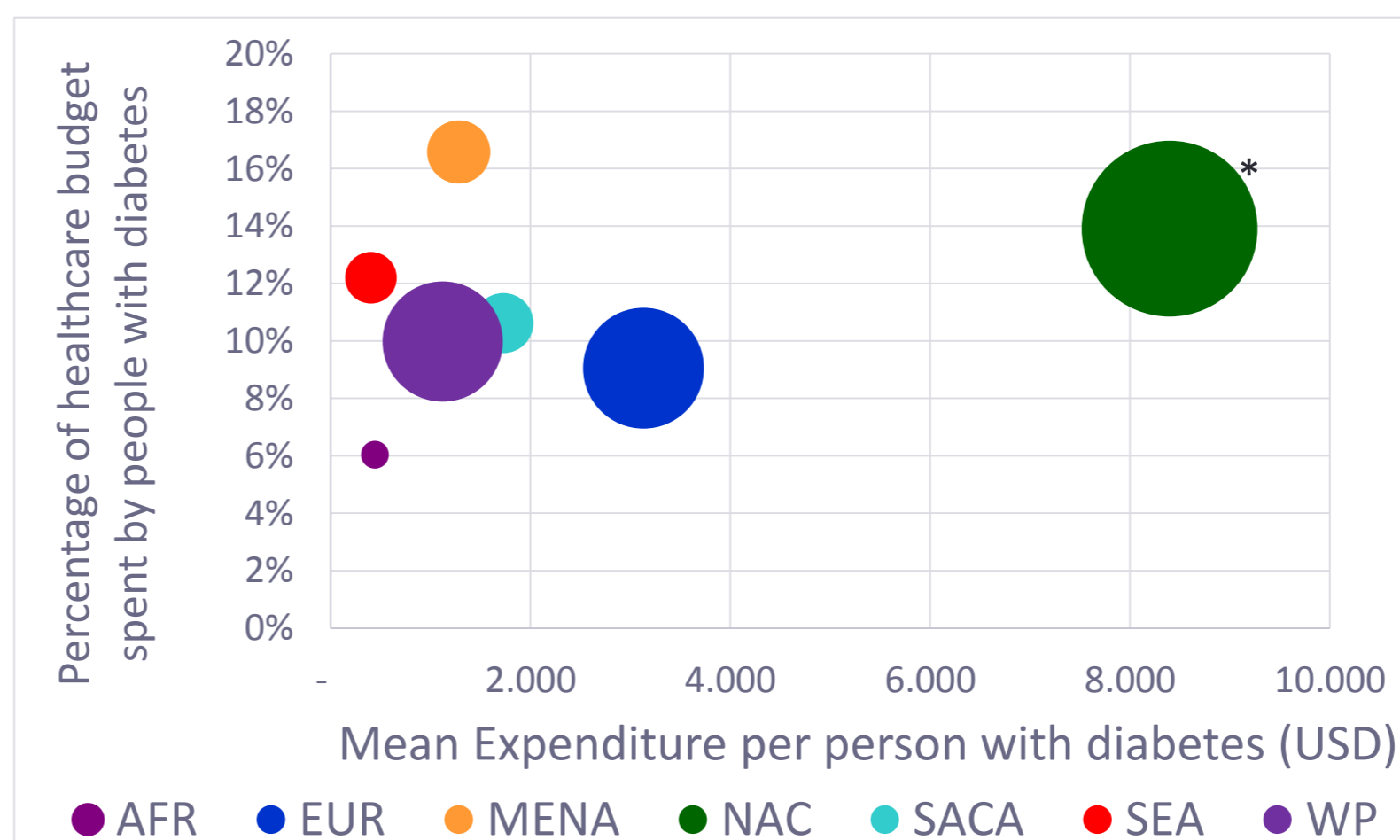
*The size of the bubbles represents the amount of health care expenditure

CONCLUSIONS

- Diabetes exerts a heavy burden in this region.
- The 2017 estimates on total health care expenditures on diabetes confirm the large economic impact caused by diabetes on health systems.
- Efforts on optimizing diabetes primary and secondary prevention must be conducted in order to reduce the human and economic costs of diabetes for society.

References:
1.IDF Atlas, 8th Ed. Brussels, Belgium: International Diabetes Federation, 2017.
2.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 research and clinical practice*, *138*, 271-281.

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

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