

Health Expenditure on Diabetes in the Middle East and North Africa Region in 2017

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BACKGROUND

Diabetes imposes a huge economic burden on healthcare systems. Since its third edition (2006)¹, the International Diabetes Federation (IDF) Diabetes Atlas estimates the healthcare expenditures related to diabetes globally, regionally, and at national level.

AIM

The aim of this study was to estimate the financial burden of diabetes in the Middle East and North Africa region in 2017.

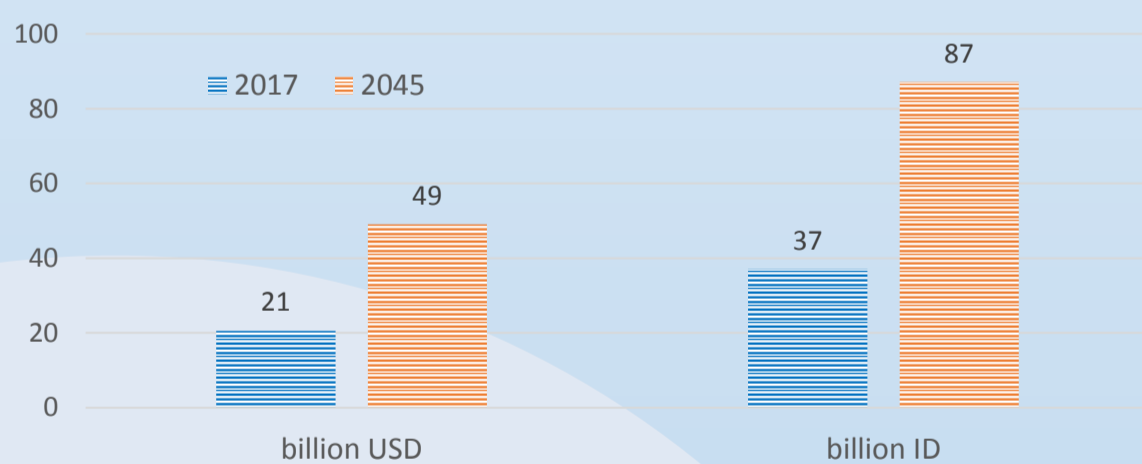
METHODS

Health care expenditures due to diabetes for the region were calculated as a sum of the expenditures from 21 countries and territories, which was estimated using an attributional fraction model, taking into consideration the differences in healthcare provision and resource utilisation between gender and age groups²⁻⁵. Data needed for the model were obtained from: 2015 estimates of population by age and sex from the United Nations World Population Prospects⁶, 2017 diabetes prevalence estimates from the IDF Diabetes Atlas Update⁷, 2015 health expenditure estimates from the World Health Organization⁸, and expenditure ratios between people with and without diabetes from US Kaiser health insurance claims data. WHO's expenditures estimates from 2015 were adjusted to 2017 based on a growth rate⁹, and are expressed in US dollars (USD), and in international dollars (ID). The ID is a hypothetical currency with the same purchasing power parity of USD in the United States of America at a given point in time, and is used to make comparisons both between regions and over time.

RESULTS

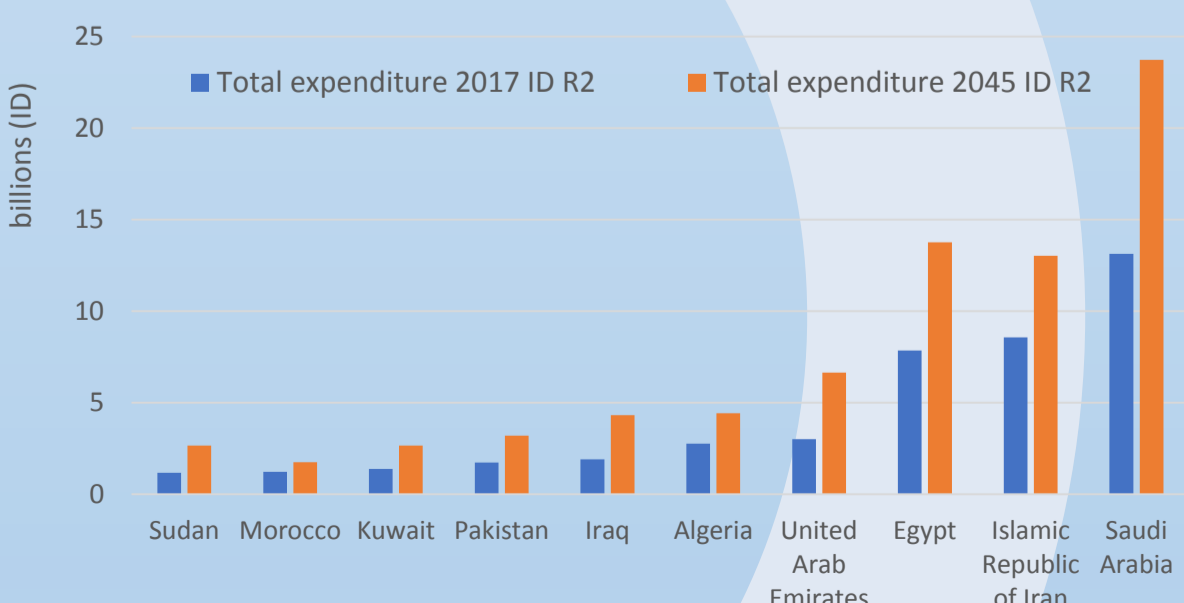
In total the health expenditure on diabetes reached 20.5 billion USD (ID 49 billion) in the MENA region in 2017. By 2045, the total expenditure on diabetes is estimated to reach USD 37.1 billion (ID 87.2 billion) (Figure 1).⁶

Figure 1: Total Healthcare Expenditure on Diabetes in the MENA region, for 2017 and 2045, in billion USD and billion ID



The largest expenditures were observed in Saudi Arabia with ID 13.1 billion, Iran ID 8.6 billion and Egypt ID 7.9 billion (Figure 2 & 3). The smallest expenditure was found in Armenia with 0,09 billion. The highest mean expenditure per person with diabetes were in Qatar, and Saudi Arabia with ID 6,602 and ID 5,186 (Figure 3).

Figure 2: Top ten Countries of total Healthcare Expenditure on Diabetes on the MENA Region 2017 and 2045



Conflict of interest:

Receipt of grants or research support: IDF has received support from Lilly Diabetes, Merck, and Novo Nordisk.

Figure 3: Economic Burden of Diabetes in the MENA Region, 2017

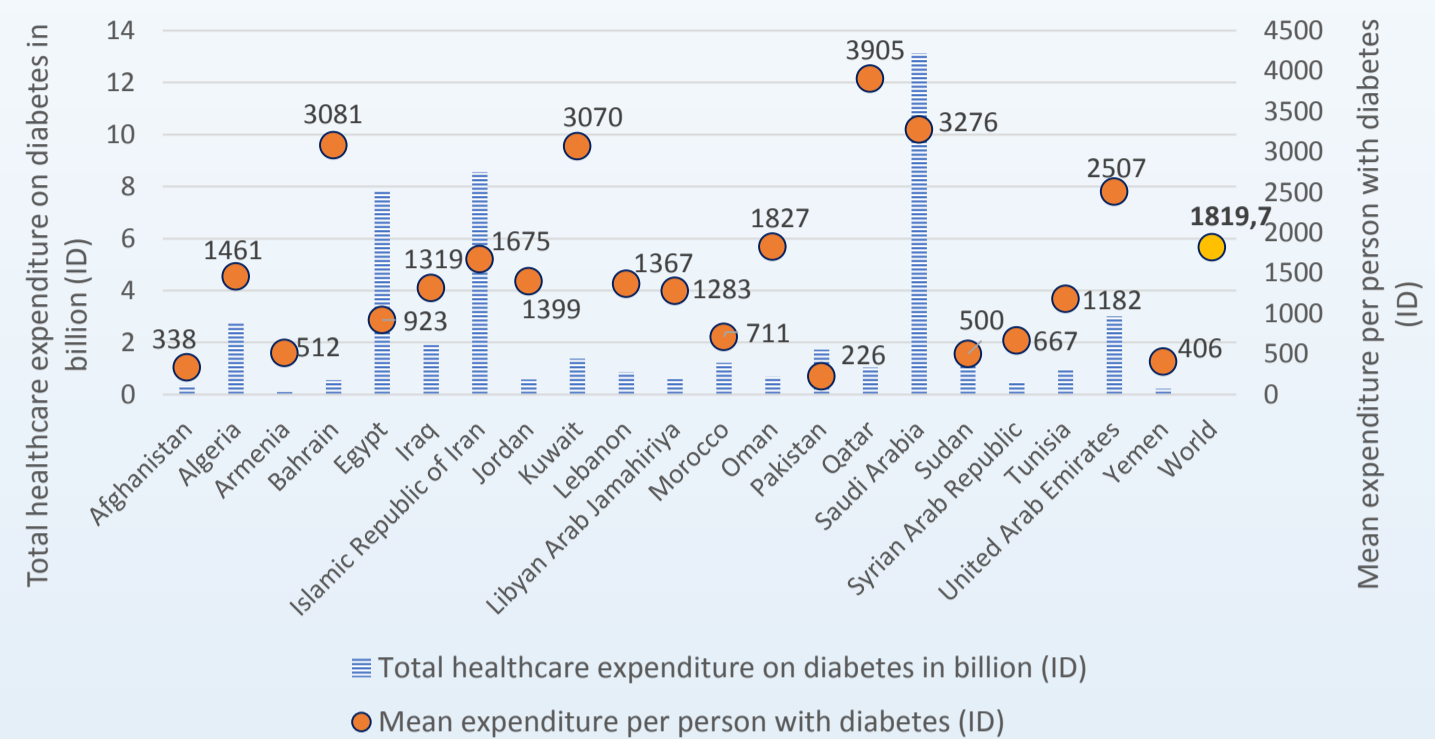
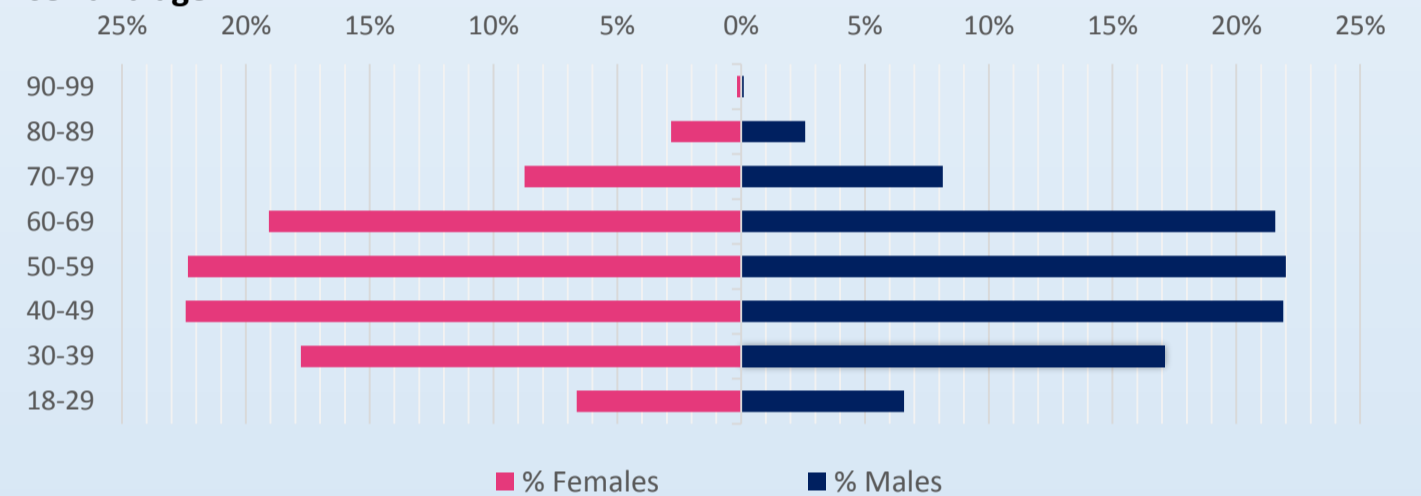


Figure 4: Percentage of Health Expenditure on Diabetes in the MENA Region in 2017 by sex and age

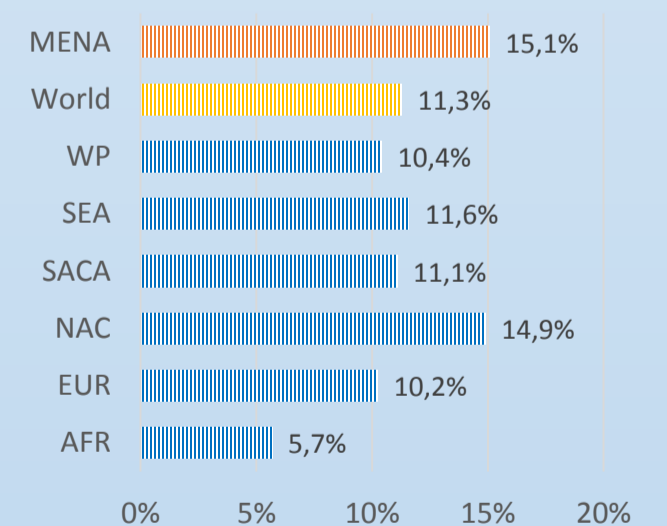


People aged 40-49 and 50-59 years were the groups which spent the highest on healthcare in the region, with 22% of the total. However, those aged 60-69 years and 30-39 years have also a high healthcare expenditure, reaching around 20% and 17%. Among nearly all age groups the healthcare expenditures were slightly higher for women compared to men, except for those aged 60-69, where the expenditure was 19.1% for women and 21.6% for men.

DISCUSSION

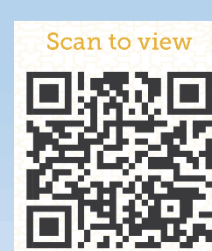
The 2015 estimates on the total health expenditures on diabetes confirm the large economic impact caused by diabetes on health systems. Diabetes was responsible for 15% of the total amount spent on healthcare in the MENA region (Figure 5). Efforts on optimizing diabetes primary and secondary prevention must be conducted through cost-saving interventions on individual and population level in order to reduce this cost for societies.

Figure 5: Percentage on money spent on diabetes from total expenditure on healthcare



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International Diabetes Federation