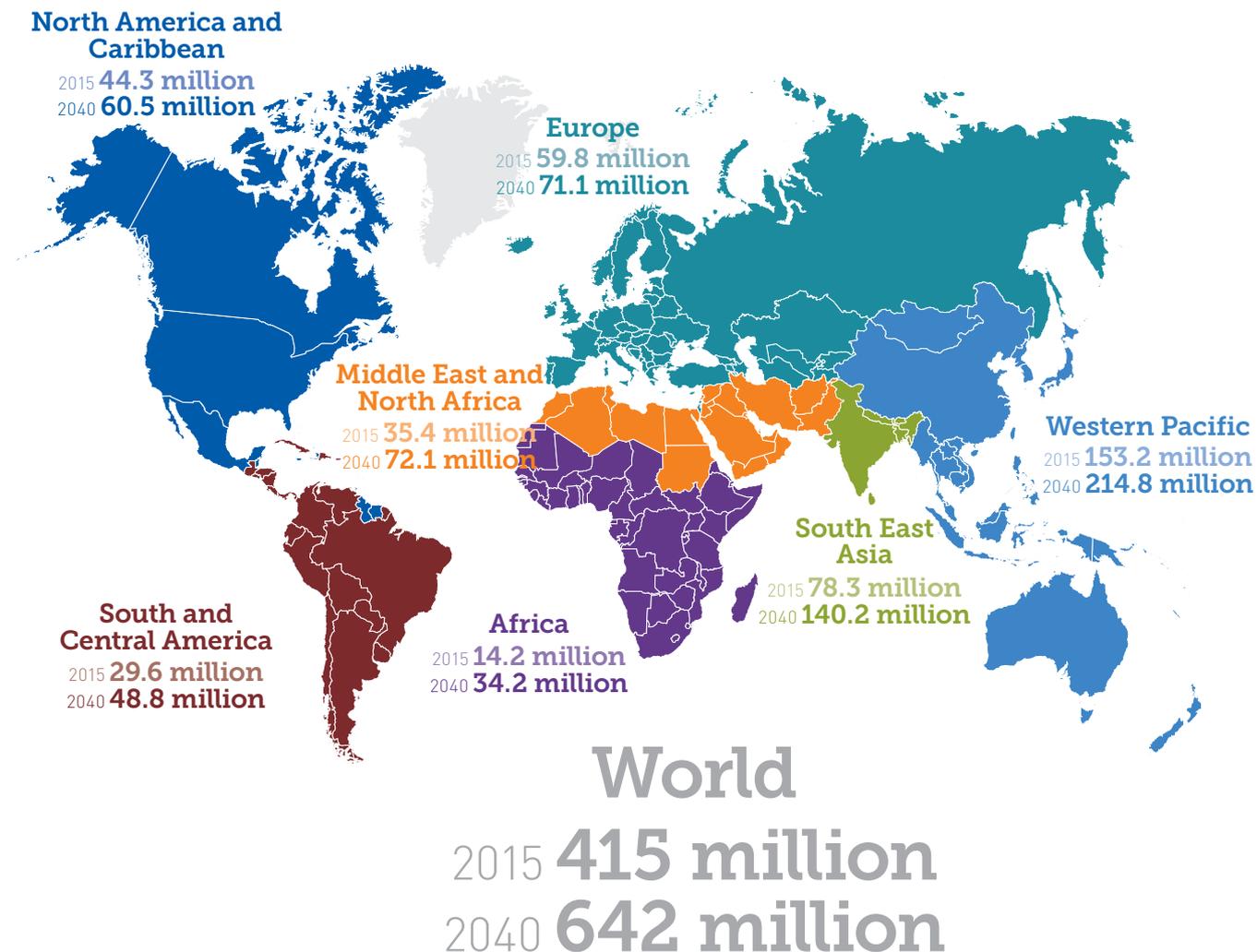
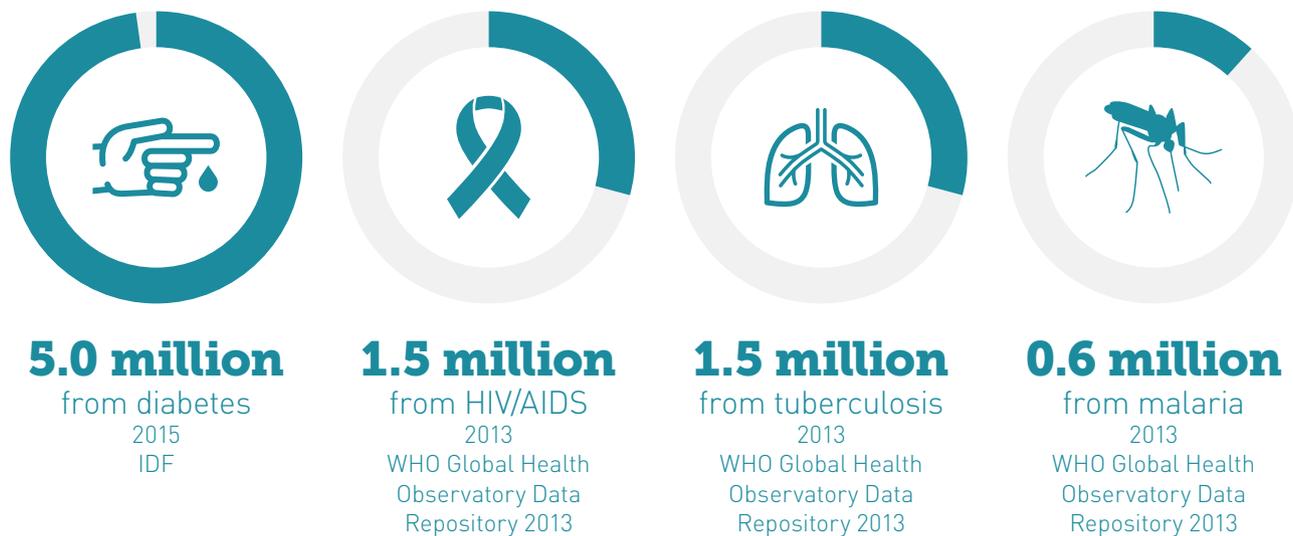


Estimated number of people with diabetes worldwide and per region in 2015 and 2040 (20-79 years)



Adults who died from diabetes, HIV/AIDS, tuberculosis, and malaria



# Diabetes around the world

## The human cost

Diabetes and its complications are major causes of death in most countries.

Type 2 diabetes is the most prevalent form of diabetes and has increased alongside cultural and societal changes. In high-income countries up to 91% of adults with the disease have type 2 diabetes<sup>1-4</sup>. It is estimated by IDF that 193 million people with diabetes are undiagnosed

and are therefore more at risk of developing complications.

Furthermore, one in 15 adults is estimated to have impaired glucose tolerance, and one in seven births is affected by gestational diabetes. Both of these conditions are associated with an increased risk of developing type 2 diabetes in later life.

## The prevalence of diabetes

2015



**One in 11 adults** has diabetes

2040



**One in 10 adults** will have diabetes

## Diabetes by gender

Number of **men** with diabetes



**2015** 215.2 million  
**2040** 328.4 million

Number of **women** with diabetes



**2015** 199.5 million  
**2040** 313.3 million

## Diabetes in urban and rural environments

Diabetes in **urban** areas



**2015** 269.7 million  
**2040** 477.9 million

Diabetes in **rural** areas



**2015** 145.1 million  
**2040** 163.9 million

**One** in **two** adults with  
diabetes is **undiagnosed**

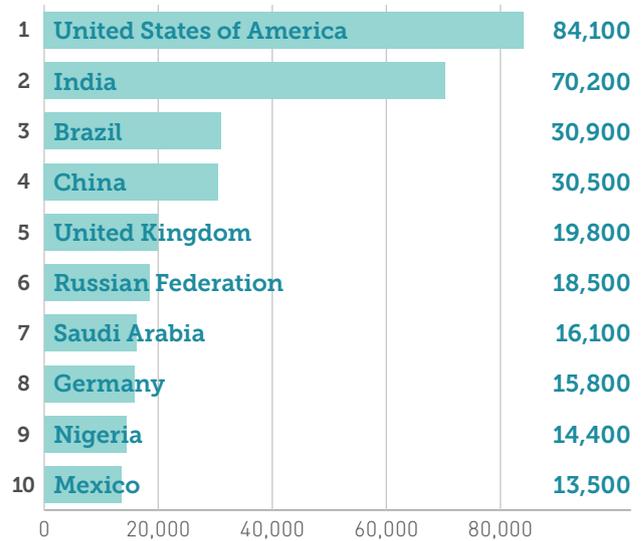
## Diabetes in children

Whilst type 1 diabetes is less common, it is still increasing by around 3% every year, particularly among children. Around 86,000 children develop type 1 diabetes each year and when insulin is not available, the life expectancy for a child with type 1 diabetes is very short. The IDF Life For A Child programme supplies insulin to 17,000 children in 46 countries.

In 2015 the number of  
**children**  
 with type 1 diabetes  
 exceeded **half a**  
**million** for  
 the first time

## Children with diabetes

Top 10 countries for number of children with type 1 diabetes (0-14 years)

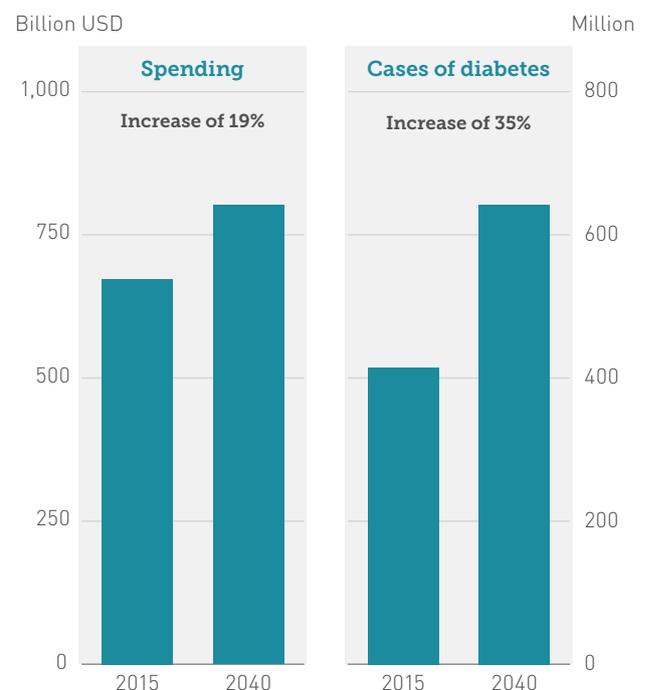


Number of children with type 1 diabetes worldwide 542,000

## The financial cost

In addition to placing a large financial burden on individuals and their families due to the cost of insulin and other essential medicines, diabetes also has a substantial economic impact on countries and national health systems. This is because of an increased use of health services, loss of productivity and the long-term support needed to overcome diabetes related complications, such as kidney failure, blindness or cardiac problems. The majority of countries spend between 5% and 20% of their total health expenditure on diabetes. With such a high cost, the disease is a significant challenge for healthcare systems and an obstacle to sustainable economic development.

## Global health spending to treat diabetes



# A regional perspective

Most regions have seen a continuous increase in diabetes. The heavily populated Western Pacific Region has 153 million adults with diabetes; substantially more than any other region. It is however, the North America and Caribbean Region which has the highest prevalence per capita with one out of eight adults with the disease.

Europe has the highest number of children with type 1 diabetes; approximately 140,000, and faces an increase of around 21,600 new cases per year.

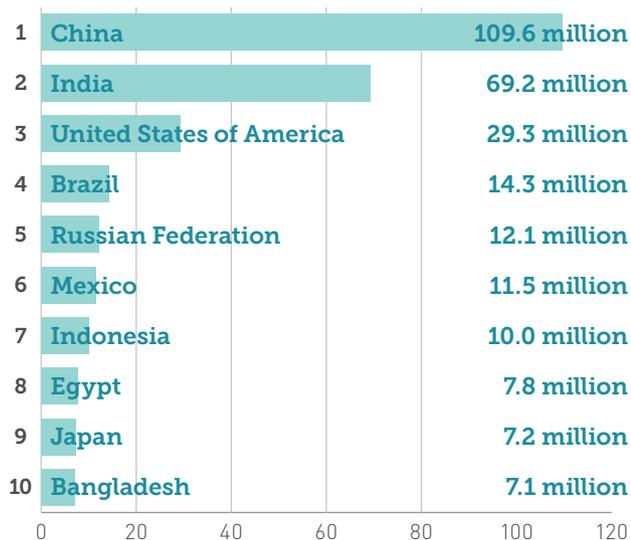
In the South-East Asia Region, 24.2% of all live births are affected by high blood glucose during pregnancy. In the Middle East and North Africa Region, two out of five adults with diabetes are undiagnosed. In the South and Central America Region, the number of people with diabetes will increase by 65% by 2040.

It is particularly challenging to estimate the total number of people with diabetes in the Africa Region, as more than three quarters of countries

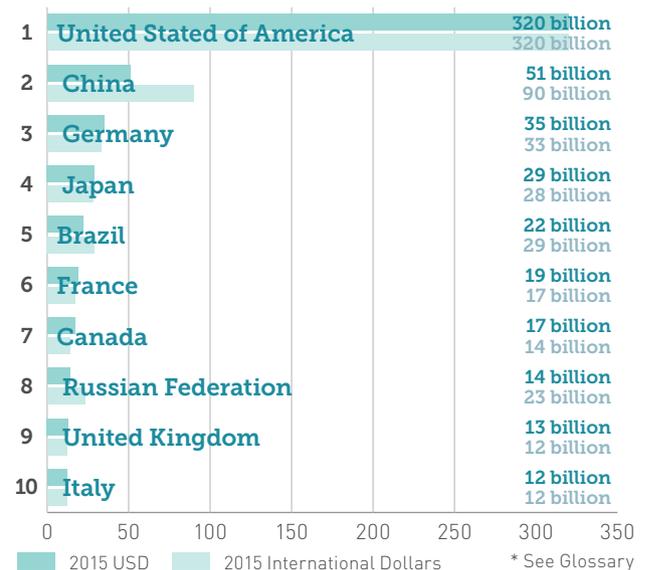
lack nationwide data, the highest of any IDF region. Thus, the regional estimate is produced by using the data from the 12 countries that had data to estimate the number of people with diabetes in the other 37 countries without data. In the sixth edition, the choice of which country to use for extrapolation was primarily based on similarities in World Bank income levels. In this seventh edition, countries for extrapolation were chosen on the basis of similar ethnicity, language, geography and World Bank income levels. In 2015, it is estimated that between 9.5 million and 29.3 million people live with diabetes in the Africa Region. Of these, three quarters are estimated to be undiagnosed, the highest of any IDF region.

**For the first time, intervals have been produced to quantify the uncertainty around diabetes prevalence estimates. The uncertainty interval around the global estimate of adults with diabetes was estimated to range from 7.2% to 11.4% [339-536 million].**

## Top ten countries/territories for number of adults with diabetes



## Top ten countries/territories for diabetes-related health expenditure (R=2\*)





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# Halting the rise in diabetes

Greater education is needed to improve the diagnosis and management of all types of diabetes and to embed lifestyle changes that will slow the rise in type 2 diabetes. While educational programmes can help improve the management of people with diabetes, public health education is needed at the population level to encourage behaviour change to prevent type 2 diabetes.

Early diagnosis can prevent or delay the long-term health complications of people who are undiagnosed with type 2 diabetes. Progress has been made in introducing screening programmes, and diabetes risk scores have now been tested in 32 countries around the world.

## IDF's call for action

IDF's mission is to promote diabetes care, prevention and a cure worldwide and it takes a leading role in influencing policy, increasing public awareness and encouraging improvements in health.

Notably in 2015, the United Nations Member States adopted the Sustainable Development Goals which included targets on non-communicable diseases. The previous Millennium Development Goals had omitted

diabetes and other non-communicable diseases which presented an obstacle to establishing resources and political focus to tackle diabetes.

During the 2015 G7 Summit, IDF launched a call to action for all G7 nations to develop and implement cost-effective policies to improve the health outcomes for people with diabetes and to prevent new cases.

In 2015, IDF published its Framework for Action on Sugar, which recognises the important role that excess sugar consumption has in increasing the risk of type 2 diabetes, and presents a series of policy initiatives aimed at reducing consumption of sugar and increasing production and availability of more healthy foods.

As part of IDF's work with The European Connected Health Alliance to create a global network of Diabetes Aware Cities, IDF piloted the Diabetes Prevention Score in 2015. This will enable cities globally to assess how their urban environments can be improved to support prevention of type 2 diabetes in communities.

By continuing to increase awareness of diabetes and promote care and prevention, IDF hopes that today's estimates for 2040 will be purely hypothetical.

United Nations Sustainable Development Goal:  
By 2030, **reduce premature mortality** from non-communicable diseases **by one third**



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What is  
diabetes?

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