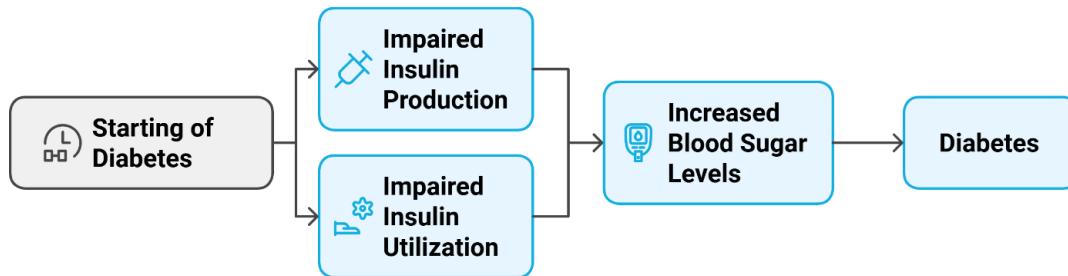


## Understanding Diabetes: Global Impact, Trends, and Views from India

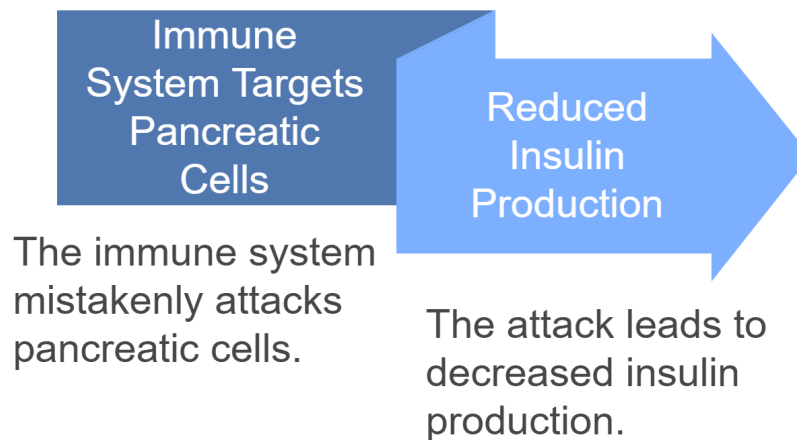
### What is diabetes?

Diabetes is a lifelong condition in which blood sugar levels are above normal due to the body's inability to produce enough insulin or use it correctly.



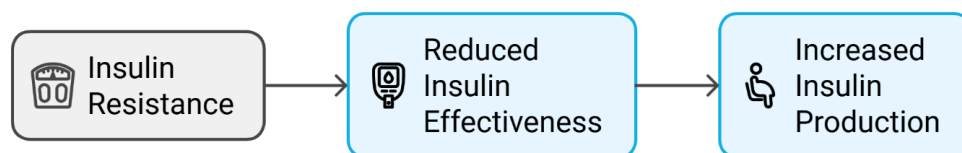
### Types of diabetes

Type 1 diabetes starts when the immune system mistakenly targets the pancreatic cells that produce insulin. This results in the body producing little or no insulin.



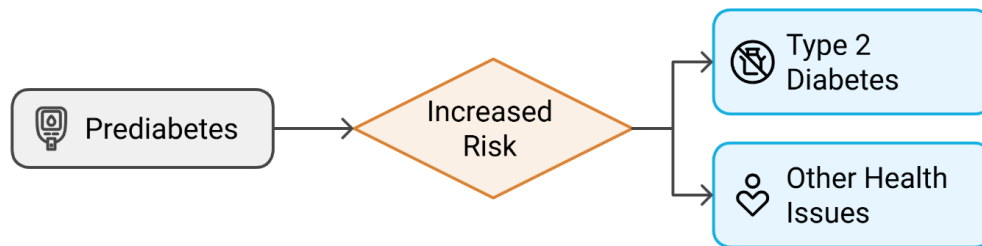
People with type 1 diabetes need daily insulin injections to keep their blood glucose levels within normal ranges. They would not live without insulin.

Type 2 Diabetes rises from the body's cells not responding correctly to insulin, known as insulin resistance. This reduces insulin's use, triggering the body to create more insulin over time.



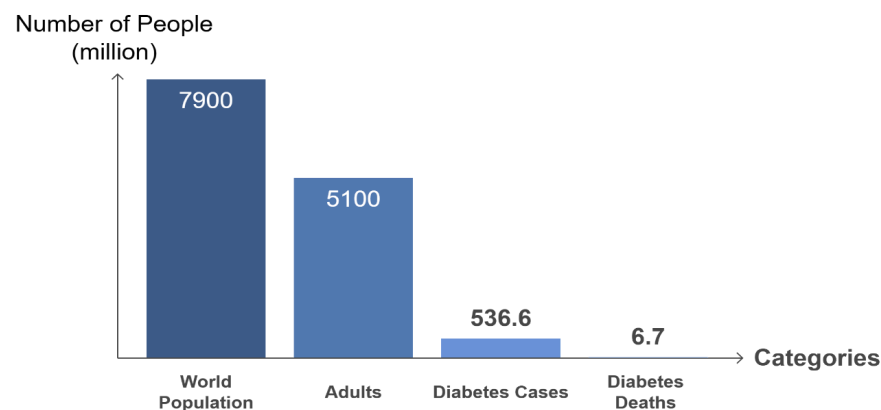
It is the most common type of diabetes, responsible for more than ninety percent of the cases worldwide.

Prediabetes refers to higher-than-normal blood sugar levels, but not high enough to be diabetes. It raises the chance of getting type 2 diabetes and other health problems.



## IDF DIABETES ATLAS 10TH EDITION- 2021

Diabetes affects an estimated five hundred thirty-seven million adults aged twenty to Seventy-nine worldwide. The world's population is 7.9 billion, which includes 5.1 billion adults.

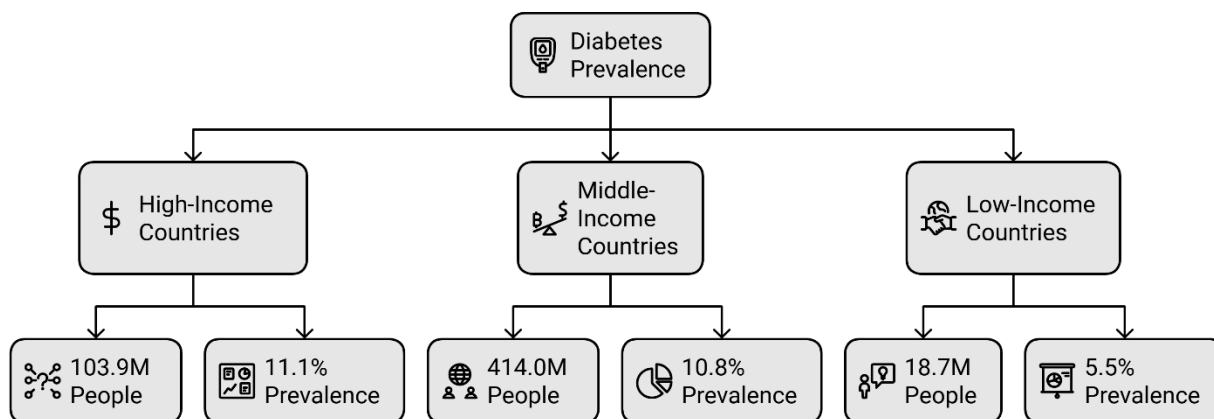


**Global Diabetes Statistics**

Aged twenty to Seventy-nine. While the number of individuals with diabetes is Five hundred thirty-seven million, with a prevalence of 10.5%, and the number of deaths from diabetes is 6.7 million.

## SOCIOECONOMIC STATUS OF COUNTRIES

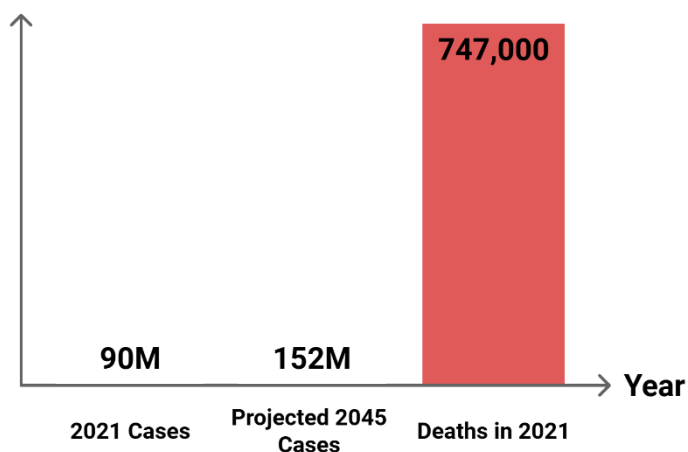
World	Number of people with diabetes (millions)	Diabetes prevalence (%)
High-income countries	103.9M	11.1%
Middle-income countries	414.0M	10.8%
Low-income countries	18.7M	5.5%



## DIABETES IN SOUTH-EAST ASIA – 2021

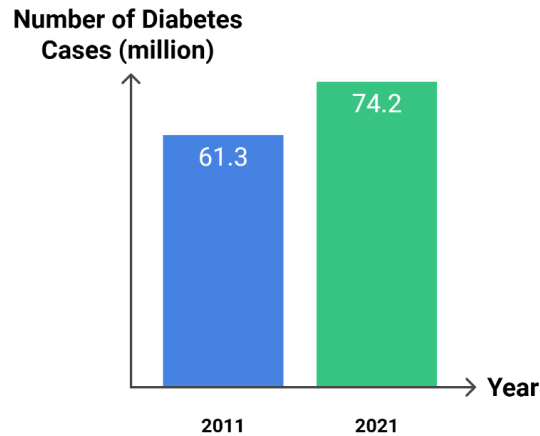
One in eleven adults in South-East Asia suffers from diabetes, with over ninety million cases identified. This number is expected to grow by sixty-nine percent, reaching one hundred fifty-two million by the year 2045. In 2021 alone, diabetes was responsible for seven hundred forty-seven thousand deaths in the region.

**Number of Cases/Deaths**



## Diabetes Prevalence and Impact in South East Asia

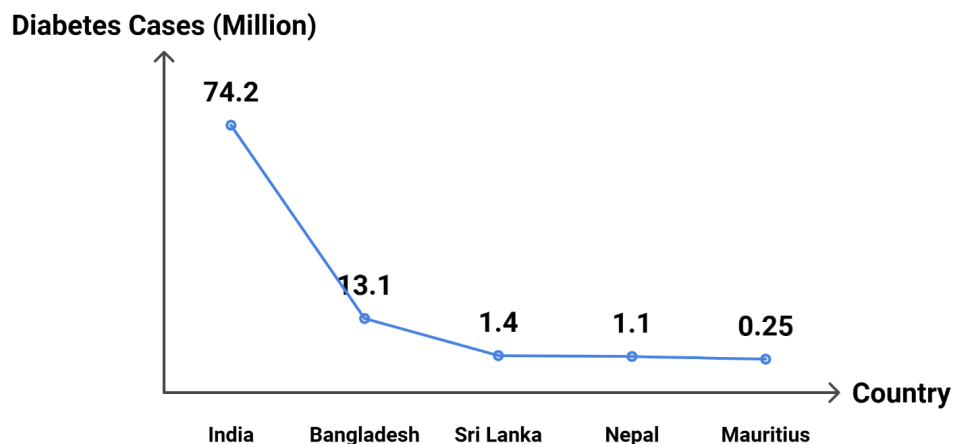
India is responsible for one in every seven adults with diabetes worldwide. The number of diabetes cases in India increased from sixty-one point three million in 2011 to seventy-four point two million in 2021.



Diabetes Cases in India (2011 vs 2021)

### Top 5 countries for the number of people with diabetes (20–79 years)

Country	In 2021 (in Million)
India	74.2M
Bangladesh	13.1M
Sri Lanka	1.4M
Nepal	1.1M
Mauritius	0.25M



### DIABETES IN INDIA

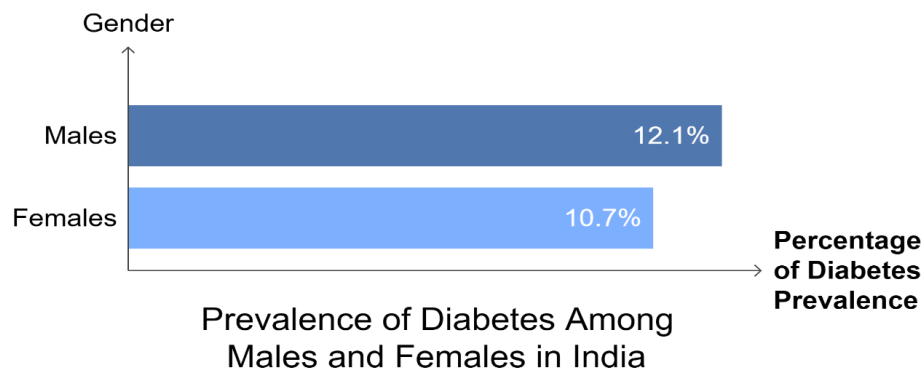
According to the Indian Council of Medical Research-India Diabetes (ICMR-INDIAB-17) study, one hundred thirteen thousand forty-three people from all Thirty-one states and union territories, both urban and rural, participated and A total of Five thousand nine hundred seventy-nine individuals excluded from the study between 2008 and 2020, and the results are offered in 2023.

Diabetes affects ten thousand one hundred fifty-one out of one lakh seven thousand one hundred nineteen people in India. Its prevalence is greatest in urban areas compared to rural areas.

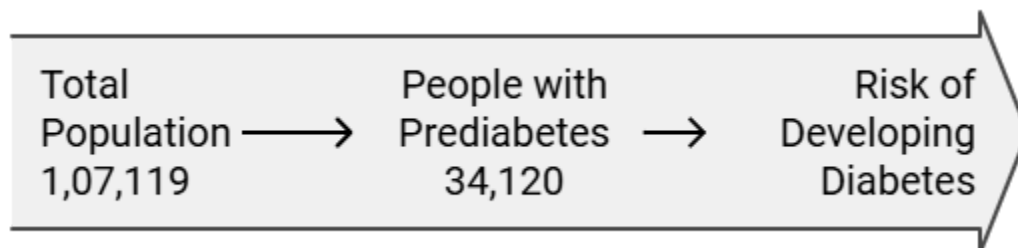
In India, four thousand two hundred seventy-two out of thirty-one thousand five hundred sixty people staying in urban areas have diabetes, equal to Sixteen point four out of every one hundred people. In rural areas, five thousand eight hundred seventy-nine out of seventy-five thousand five hundred fifty-nine people have diabetes, which equals to Eight point nine out of every one hundred people.



Diabetes affects Four thousand nine hundred seventy-eight out of forty-nine thousand seven hundred six males in India, which means Twelve point one out of one hundred males have diabetes. While five thousand one hundred seventy-three out of fifty-seven thousand four hundred thirteen females have diabetes, which means Ten point seven out of one hundred females have diabetes, which is less compared to males living in India.



However, thirty-four thousand one hundred twenty out of one hundred seven thousand one hundred nineteen people have prediabetes condition which indicates thirty-two point eight out of one hundred people have a risk of developing diabetes.



The prevalence of diabetes varied by state, from 4.8% (One hundred fifty-four out of three thousand four hundred twenty-one people in Uttar Pradesh) to Twenty-six-point four percent (eight hundred eighty-six of three thousand seven hundred forty-four people in Goa), and prediabetes prevalence ranged from 6.8% (Two hundred thirty-six of four thousand fifty-three adults) thirty-one-point three percent (one thousand two hundred forty of three thousand nine hundred twenty-five people).

Diabetes is most common in the southern and northern parts of India, with metropolitan centers having a high prevalence throughout. The center and northeastern areas have a lower prevalence.

The prevalence of prediabetes is highest in India's central and northern areas, and lower in Punjab, Jharkhand, and some parts of the northeast.

Diabetes to prediabetes ratios is  $\leq 1:2$  in Arunachal Pradesh, Bihar, Madhya Pradesh, Meghalaya, Chhattisgarh, Rajasthan, Sikkim, and Uttar Pradesh.

The ratio is  $\geq 1:1$  in Chandigarh, Goa, Delhi, Kerala, Mizoram, Puducherry, Punjab, and Tamil Nadu.

## **CONCLUSION**

Diabetes is a major global health issue affecting millions of individuals, with type 2 diabetes being the most common type. Its occurrence is affected by urbanization, lifestyle changes, and genetic tendency. The rising occurrence of prediabetes highlights the urgent need for preventative strategies to lower the risk of progression to diabetes and its complications.

Diabetes has a very high occurrence in India, with large urban-rural and geographical differences. The growing occurrence highlights the need for targeted public health efforts, including as education, early identification, and lifestyle changes, to effectively fight this epidemic. Cooperative efforts at the worldwide, national, and regional levels are required to address this long-term condition and its severe impact on health and society.

## **REFERENCE**

[IDF Diabetes Atlas 2021 - 10th edition](#)

[Metabolic non-communicable disease health report of India: the ICMR-INDIAB national cross-sectional study \(ICMR-INDIAB-17\)](#)