Preventing Diabetes: Why Prediabetes Needs Timely Action

News reference: 2026 Kerala trial; national estimates have separate reference years

Published: 28 November 2026

Mains: GS-II, public health and primary care



Original symbolic illustration: pcsmantra.com

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Why in the News

Diabetes prevention in India is about more than medicines. A community trial published in 2026 in Kerala found that sustained lifestyle support could improve the chance of returning to normal glucose levels in a selected high-risk group. Its results need to be read alongside India's diabetes burden and the capacity of primary care.

India's Burden: How to Read Different Estimates

The ICMR-INDIAB study published in 2023 estimated approximately **101 million adults with diabetes** and **136 million with prediabetes** in India for 2021, among those aged 20 years or older. These are estimates from that study, not a new count in November 2026. The Madras Diabetes Research Foundation (MDRF), Chennai, nationally coordinated the study, supported by ICMR and the Department of Health Research. It should not be described as a joint study with an 'Indian Diabetes Association'.

The 11th edition of the IDF Diabetes Atlas estimates approximately **89.8 million adults aged 20–79** with diabetes in India in 2024, an **age-standardised prevalence of 10.5%**, with around **43% undiagnosed**. It projects approximately **156.7 million** by 2050. Different age ranges, methods and reference years mean that IDF and INDIAB estimates cannot simply be added or their difference treated as a decline in disease. A projection is not a certain future count either.

What Is Prediabetes?

Prediabetes means glucose levels above normal but below the diagnostic range for diabetes. It often causes no clear symptoms. Commonly used ADA-based thresholds are:

Test	Prediabetes range
HbA1c	5.7–6.4%
Fasting plasma glucose	100–125 mg/dL
Two-hour plasma glucose after a 75 g OGTT	140–199 mg/dL

Guidelines can differ, particularly on fasting glucose thresholds. A health professional should interpret results and make a diagnosis. Do not diagnose yourself or start or stop medicine from a single number.

Practical Foundations of Prevention

Physical activity: At least around 150 minutes of moderate activity a week is a common goal. Resistance exercise, breaking up prolonged sitting and adequate sleep can also help. Plans vary with age, illness and physical ability. RSSDI stands for Research Society for the Study of Diabetes in India.

Weight: Lifestyle programmes for people at risk who are overweight use goals such as losing approximately 5–7% of body weight. This is not the same instruction for everyone and does not guarantee a result.

Food: More vegetables, whole grains, pulses, legumes and nuts, with fewer refined carbohydrates, added sugars and ultra-processed foods, can support lasting change. Sustainable habits matter more than a strict short-term 'diet'.

What Do the Kerala Studies Show?

A 12-month randomised trial published in 2026 involved **women aged 30–60 with isolated impaired fasting glucose (i-IFG)**. Prediabetes remission occurred in **45.9%** of the lifestyle-support group compared with **6.3%** in standard care. Remission means returning to the normal glucose range at assessment, not a permanent cure or zero future risk. These findings cannot automatically be

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applied to men, all ages or every form of prediabetes.

A nine-year follow-up of the separate Kerala Diabetes Prevention Program found a modest reduction in overall diabetes incidence; the main overall comparison was not statistically significant. These are not the same programme. Together, they show why continuity of support, participant selection and follow-up matter.

The Care Gap and Primary Health Services

An ICMR-INDIAB analysis published in 2022 found good glycaemic control in approximately **36.3%** of participants with self-reported diabetes. Only **7.7%** met all three glucose, blood-pressure and LDL-cholesterol targets. These describe that study population, not every patient today.

Ayushman Arogya Mandirs, workplaces, health education in schools and community platforms can contribute to prevention. Risk-based screening must connect people to advice, care and repeat follow-up. A one-day screening camp alone is not enough.

Importance, Challenges and the Way Forward

Diabetes can raise the risk of kidney, eye, heart, nerve and foot complications. Early onset affects household spending and working-age productivity. Prediabetes creates an opportunity for prevention, but identifying it does not mean that diabetes is inevitable.

Challenges include an often symptom-free condition, uneven access to tests, affordable nutritious food and safe exercise spaces, work and sleep pressures, and gaps in continuing support. Primary care should combine risk identification, family and community support, trained health workers and regular follow-up.

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Mains Practice Question

Question 1. "Both primary health care and community participation are necessary for diabetes prevention in India." Discuss. (250 words, 15 marks)

▼ **Answer outline**

Introduction: Briefly establish the diabetes and prediabetes burden, dating the INDIAB estimate.

Body: Connect risk identification, testing and health education to affordable primary care. Explain lifestyle support and the role of families and workplaces. Use the selected population in the Kerala trial and the mixed long-term follow-up findings to show appropriate caution. Discuss the gap between screening, treatment and control, rural access and social conditions.

Conclusion: Emphasise sustained support and measurable follow-up rather than one-off campaigns.

Frequently Asked Questions (FAQ)

What does HbA1c indicate?

It reflects average blood glucose over approximately the previous two to three months. Some health conditions can affect the result, so clinical interpretation matters.

What is an OGTT?

An oral glucose tolerance test measures blood glucose before and after a standardised glucose load. The two-hour threshold given here refers to a 75 g OGTT.

Does prediabetes mean diabetes is inevitable?

No. Risk is higher, but some people return to the normal glucose range. Continuing support and follow-up remain important.

Sources

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