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Targeted Transformation of Diabetes Care in India

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According to the International Diabetes Federation (IDF) about 63 per cent of people with diabetes say that the fear of developing diabetes-related complications affects their well-being. And around 28 per cent of people with diabetes find it hard to remain positive in relation to their condition. Hence the theme for this yearâ??s World Diabetes Day (WDD) 2024-26 observed on November 14, the worldâ??s largest diabetes awareness campaign reaching a global audience of over 1 billion people in over 160 countries, is Diabetes and well-being. Letâ??s look at ways to reduce or reverse diabetes in India.



The Indian Council of Medical Research–India Diabetes (ICMR-INDIAB) study published in 2023 reported that the overall weighted prevalence of diabetes in India was 11·4 per cent, accounting for 101 million people. The study findings also reported an alarming increase in non-communicable diseases (NCDs) such as prediabetes, hypertension, and obesity. Hence, there is a rising need to holistically manage the rising diabetes prevalence by improving awareness, diet, lifestyle, screening, treatment and monitoring practices in India.

Public and Private Campaigns for Improving Awareness

A study of the National Family Health Survey of India (NFHS), 2019–2021 reported that diabetes awareness varied from 14.4 per cent to 54.4 per cent. Not surprisingly, the less educated and poorer sections of the society had lower diabetes awareness. Thus, considering the rising prevalence of the disease, there is a need to improve diabetes awareness in India. Several public and private initiatives are looking to address this concern. However, it is important to ensure that the awareness campaigns have wider outreach.

For instance, mDiabetes, launched in collaboration with the Ministry of Health and Family Welfare, India and the World Health Organization (WHO) aims to provide basic diabetes information to users who dial a missed call to a number. This is likely to ensure a wide outreach as even rural Indian sectors have good mobile connectivity in India. In 2021, the Research Society for the Study of Diabetes in India (RSSDI) launched the Defeat Diabetes Campaign to reach out to over 100 million people in 100 days to ‘test, track and treat’ diabetes. The campaign was successful and managed to screen over 106 million people in over 10,000 locations in India. There is a need to continue such targeted campaigns with well-defined outcomes and timelines.

Private initiatives such as the Novartis Indian Metabolics team launched ‘Prayaas’ and currently this programme collaborates with healthcare professionals (HCPs) across 100 camps for diabetes diagnosis of more than 2,000 people every month. The awareness campaigns have demonstrated promising outcomes, but there is still a rising need for increased collaboration between the public and private sectors. Such initiatives can help create wider awareness outreach, especially across remote regions within the Indian landscape. Multichannel outreach, across physical, print, digital and radio campaigns can amplify the awareness impact for improved diabetes management.

Targeted Diet and Lifestyle Changes

Diet and lifestyle changes are crucial for the holistic management of diabetes, especially in emerging economies like India where rising urbanisation has grown proportionately with sedentary lifestyles and unhealthy diets. Fortunately, technological advances, like connected diabetes care devices have enabled improved diet and lifestyle habits of diabetics. For instance,

Humrahi is an ISO/IEC 27001:2013 certified digital diabetes patient support programme that provides customised counselling, blood sugar test recommendations, medication adherence, and diet and lifestyle changes to improve health outcomes.

Joyhealth, an AI-powered diabetes management tool, can predict the impact of different foods on sugar levels and offers personalised coaching on how to reduce their adverse health impact. Exercise-based apps like 7 Minute Workout curate a personalised 7-minute workout routine for effective diabetes management. Smart and connected continuous glucose monitors (CGMs) and associated apps have been crucial for providing real-time feedback for blood glucose spikes and managing diabetes. Leading medical device companies such as Abbott and Medtronic offer clinically approved CGMs in India, allowing for improved diabetes care. However, the cost of a 14-day CGM sensor can range from Rs 5,000 to Rs 10,000, which may hinder access to rural diabetes care, especially for children with type 1 diabetes. Hence, public healthcare support for improving access to continuous diabetes care can positively impact health outcomes across India.

Recent Tech Advances

In 2023, the Ministry of Health and Family Welfare, India, launched a roadmap to scale primary healthcare services for people with hypertension and diabetes. Under this initiative, the Indian government plans to screen and provide standard care to 75 million people with diabetes or hypertension by 2025.

Technological advances in diabetes management have enabled the development of smart glucometers, CGMs, connected insulin pumps and closed-loop insulin delivery systems or artificial pancreas. Clinically approved CGMs such as FreeStyle Libre Pro, advanced insulin pumps such as Tandem T:Slim X2, Omnipod and Medtronic Minimed 640G are currently available in India. Even closed loop insulin delivery systems such as MiniMed 780G and MiniMed 770G are available for diabetes management in India. However, they are not easily accessible to the larger population due to high pricing, which can range from Rs 3 to 5 lakh for an automated closed-loop insulin pump.

While insulin is a mainstay for treating type 1 diabetes, it is now also being used for the treatment of people with type 2 diabetes. Insulin treatment most often needs to be self-administered through daily injections. There are several connected insulin pens available in India that enable convenient administration and tracking via mobile apps. Novo Nordisk’s Insulin Icodec, a once-weekly dose, may be approved in India shortly enabling much needed respite from daily insulin injections. Weekly dosing may also improve patient adherence and diabetes care for diabetics on insulin therapy. While oral (Oral-Recosulin) and inhalable (Afrezza) are also available in India they are not as effective as injectable insulin formulations for diabetes management.

The Indian landscape has witnessed new drug approvals for management of obesity and diabetes. Drugs such as Cadila Pharmaceuticals’ Jankey M and Glemark’s SITAZIT M were launched in 2022. The blockbuster injectable drugs, GLP-1 agonists, for diabetes and obesity treatment, have also been launched in India. Novo’s tirzepatide formulations, Zepbound and Mounjaro, function as dual GIP/GLP-1 agonists and are approved for obesity and diabetes treatment respectively. Novo's oral semaglutide, Rybelsus, is also garnering rising popularity in India and has reported rising sales growth since 2023. However, there is growing concern regarding the overuse, off-label use or misuse of GLP-1 agonists as they are often associated with severe gastrointestinal side effects. Indian doctors are urging the government to regulate GLP-1 use amidst the surging demand for this class of drugs.

Outlook

Diabetes care must be a holistic combination of awareness, diet, lifestyle, continuous tracking and timely interventions. India has the second largest population of diabetics in the world and without periodic tracking, diabetes will lead to renal and cardiovascular mortalities. There is a rising need for initiatives and interventions to reduce or reverse the impact of non-communicable diseases such as obesity, hypertension, and diabetes.

The IMPACT India initiative helps address this need. This programme was launched in 2018 and uses a new approach for optimising diabetes care in India. The initiative intends to impact HCPs, diabetes and the Indian society by using the India Diabetes Care Index (iDCI) tool. The iDCI is a quarterly aggregate index of glycated haemoglobin, fasting plasma glucose (FPG), and postprandial plasma glucose (PPG) which is evaluated regularly, and the insights are related to HCPs to optimise diabetes care through timely diet, lifestyle and medical interventions. The initiative is also promoted on social media awareness through periodic iDCI reports.

The goal of the IMPACT India programme is to reduce glycated haemoglobin in Indian diabetics by one per cent within 1000 days. Private sector initiatives, like the Fortis C-DOC (Centre for Diabetes, Obesity and Cholesterol) Foundation and Apollo's Diabetes Management Program will also help improve awareness and timely diabetes care. The rising integration of technology to enable connected and remote care will greatly improve the outlook for diabetes management in India. The public and private initiatives, coupled with rapid technology advancements will drastically help reduce the rising diabetes prevalence in the Indian subcontinent.

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