



CURRENT POLICIES IN INDIA FOR DIABETIC CARE

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Article Received on 31/07/2024

Article Revised on 20/08/2024

Article Accepted on 09/09/2024

ABSTRACT

Diabetes is increasingly becoming a major chronic illness burden globally, particularly in emerging nations like India. As a result, healthcare priorities must change and advanced data on the epidemiology and consequences of diabetes must be used to help plan and prioritize health initiatives. The write-up also discusses current policies and programs in India for diabetes care, including the CARRS diabetes care delivery model, the Diabetes Tele Management System, and doctor training programs. While these initiatives aim to improve care, their effectiveness is not extensively evaluated. The conclusion emphasizes the need for increased awareness, improved diagnosis and access to care, medication affordability, enhanced healthcare professional training, and effective policy implementation to address the challenges in diabetic care in India.

KEYWORDS: Diabetes, Policies, India, Management, Healthcare.

INTRODUCTION

Chronic hyperglycemia and abnormalities in the metabolism of carbohydrates, fats and proteins due to deficiencies in insulin secretion, action or both characterize diabetes mellitus, a syndrome with several etiologies (silky et al, 2024). According to the ICMR (2018), this disease is frequently linked to long-term consequences that affect the heart, blood vessels, kidneys, eyes, and hands. Type-2 diabetes is the most frequent form of the disease in both industrialized and developing nations, although it is present worldwide. The past few decades have seen a steady rise in the prevalence of diabetes. Approximately 500 million individuals worldwide are estimated by the International Diabetes Federation (IDF) to have diabetes, and this number is projected to rise by an additional 30% by the year 2045. In addition to its many micro- and macrovascular consequences, diabetes is a common cause of illness, a lower standard of living, and early death. It is projected that diabetes accounts for around 10% of the world's all-cause mortality in the 20–99 age group (Cho et al., 2018). Reports from India over the past few years have indicated a noticeable increase in the prevalence of prediabetes and diabetes. The IDF estimates that 8.9% of adults in India have diabetes, accounting for 77 million of the country's predicted 77 million diabetes cases in 2019. According to the IDF (2019), 1 in 6 adults worldwide suffer from diabetes, making India the nation with the second-highest number of diabetics worldwide.

DIABETES IN INDIA

In India, the causes of diabetes are complex and include both hereditary and environmental factors, such as obesity linked to improving living standards, consistent urban migration, and alterations in lifestyle. Nevertheless, despite the high prevalence of diabetes in India, there aren't many multi-centric or countrywide researches on the disease's prevalence and complications (Silky et al, 2024). According to Kaveeshwar and Cornwall (2014), the studies that have been conducted are also susceptible to potential error because of the heterogeneity of the Indian population with regard to culture, ethnicity, and socioeconomic conditions. This means that extrapolating regional results may result in inaccurate estimates for the entire country. According to preliminary findings from a sizable community study carried out by the Indian Council of Medical Research (ICMR, 2020) Northern Indian states (Chandigarh, 0.12 million, Jharkhand, 0.96 million) have a lower percentage of the population affected than Maharashtra, 9.2 million, and Tamil Nadu, 4.8 million (Anjana et al, 2011). According to Kaveeshwar and Cornwall's (2014) National Urban Survey, a survey that was conducted throughout India's metropolitan areas revealed a similar trend: 11.7% in Kolkata (Eastern India), 6.1% in Kashmir Valley (Northern India), 11.6% in New Delhi (Northern India), and 9.3% in West India (Mumbai) compared to 13.5% in Chennai (South India), 16.6% in Hyderabad (South India), and 12.4% in Bangalore (South India).

The inadequate quality of the healthcare sector in India is widely acknowledged. The country requires approximately 74,150 health centers/million population to meet public health needs, but the current number falls significantly short of this requirement. Additionally, many states in India lack proper testing laboratories, and

more than half of the existing laboratories are insufficiently staffed or equipped. As a result, there is an urgent need for the development of well-organized infrastructure and the enhancement of existing medical and other facilities to ensure better quality of care and improved outcomes (MHFW, 2023).

The policies existing in India for diabetes care are listed below with their details

No.	Policy/Program	Outcome	Outcome	Criticism
1.	Cardiovascular Risk Reduction in South Asia (CARRS) diabetes care delivery model	The Cardiovascular Risk Reduction in South Asia (CARRS) diabetes care delivery model, developed collaboratively by the All India Institute of Medical Sciences (AIIMS), New Delhi, the Centre for Chronic Disease Control (CCDC) in New Delhi, the Public Health Foundation of India (PHFI), and Emory University in Atlanta, was designed as a quality improvement strategy	CARRS model was compared to usual care in a setting where diabetes control was poor. The study included 1146 individuals with diabetes (575 in the intervention group and 571 in the usual care group) over a period of 28 months. The findings showed that 18.2% of participants in the intervention group achieved a hemoglobin A1c (HbA1c) level below 7.0% and blood pressure (BP) below 130/80 mmHg, compared to the usual care group (Ali <i>et al.</i> , 2016). This study highlighted the significance of implementing low-cost strategies within the CARRS model to help individuals with poorly controlled diabetes achieve their care goals and improve their quality of life	No update on the continuation or success of the program, especially in the post-COVID era, where cases of long-term COVID-related diabetes cases have gone up many folds.
2.	Diabetes Tele Management System	The Diabetes Tele Management System® (DTMS®), initially developed and implemented at Jothydev's Diabetes Research Centre in 1997, has proven to be highly beneficial in various aspects of diabetes management. This system allows for frequent adjustments of medication dosages, significantly reducing the need for hospital visits. It provides cost-effective treatment options and offers guidance on diet and lifestyle modifications to help patients achieve personalized treatment goals. The DTMS® has demonstrated its effectiveness in improving diabetes management and enhancing patient outcomes (Kesavadev <i>et al.</i> , 2012)	A retrospective study was conducted to assess the cost-effectiveness of the telemedicine program, DTMS®, in patients with type 2 diabetes mellitus (T2DM) over a 6-month period. The study demonstrated that the use of telemedicine for diabetes management is both cost-effective and staff. Additionally, DTMS® was found to be effective in preventing both microvascular and macrovascular complications in 93.5% of the subjects with type 2 diabetes (Kesavadev <i>et al.</i> , 2018). These studies highlight the potential advantages of incorporating affordable technologies like telemedicine, particularly for treating individuals from lower socioeconomic backgrounds	The program is limited to only a single-center private setup in India and has never been extended/ adopted by other facilities under the government or private healthcare sector
3.	Training doctors for better care in diabetes	The Public Health Foundation of India has formed partnerships with the governments of West Bengal and Madhya Pradesh	All public healthcare sector doctors are provided with an opportunity to undergo training for improved diabetic care as per American Diabetic	No data on the output of the skill appraisal is reported. There is no data on either the formative or summative assessment

		to provide training in diabetes care for public sector doctors. These collaborative models should be promoted and supported, especially in areas where resources are limited. By enhancing the knowledge and skills of healthcare professionals in managing diabetes, these initiatives aim to improve the quality of care provided to patients in resource-constrained regions (PHFI, 2018)	Care standards	of this particular program
4.	Prevention, control, and screening for common non-communicable diseases (NCDs)	Under the initiative, persons more than 30 years of age are targeted for their screening. Screening of these common NCDs, including diabetes, is an integral part of service delivery under Ayushman Bharat – Health and Wellness Centres. Under Free Drugs Service Initiative of NHM, financial support is provided to States/UTs for the provision of free essential medicines, including insulin, for poor and needy people. Furthermore, quality generic medicines, including insulin, are made available at affordable prices to all under ‘Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in collaboration with the State Governments (MHFW, 2023)	Subsidized or free treatments and drug delivery, such as insulin, are being provided	No data on outreach activity. There is no substantial evidence to back the success of the program. The inability of people to buy medication and avail services due to poverty is supportive of the evidence of the failure of this initiative (Oberoi and Kansra, 2020)
5.	Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (PMJAY)	Diabetic in hospital care has been a part of this program since 2014 (MHFW, 2023)	The program claims to reach 10.74 crore families for care (which included diabetes, among others)	No evidence to support the claim by the government. No data specifically on at-risk and current diabetic patients being treated under this program is available.

Need for improvement overall lies with

1. Update formative and summative assessment of the program outcomes.
2. Public–private partnership.
3. The role of insurance providers, which is completely missing in policies.
4. No minimum set standards are provided to improve the quality of care.

Hospital administration activities can be linked to public health in the control of diabetes mellitus in India in the following ways.

1. Collaboration with public health agencies: Hospital administrators can collaborate with public health agencies at the local, regional, and national levels to develop and implement comprehensive diabetes control programs. This collaboration can involve sharing data, coordinating efforts and aligning strategies to address the diabetes burden in the community.
2. Prevention and early detection: Hospital administrators can work closely with public health agencies to implement preventive measures and early detection programs for diabetes. This can include organizing community awareness campaigns, conducting health screenings, and promoting healthy lifestyle

practices such as regular exercise, healthy eating and weight management.

3. Health promotion and education: Hospital administrators can actively participate in public health initiatives aimed at promoting health education and raising awareness about diabetes. This can involve organizing health camps, workshops and seminars to educate the public about diabetes prevention, risk factors, symptoms and the importance of regular check-ups.

4. Data sharing and surveillance: Hospital administrators can collaborate with public health agencies to share data on diabetes prevalence, incidence and trends. This data can be used for surveillance, monitoring and evaluating the effectiveness of diabetes control programs. Sharing data can also help identify high-risk populations and guide targeted interventions.

5. Policy advocacy: Hospital administrators can engage in policy advocacy efforts to influence public health policies related to diabetes control. They can work with policymakers and public health agencies to develop and implement policies that promote diabetes prevention, screening and access to quality care. This can include advocating for the inclusion of diabetes related services in public health programs and insurance coverage.

6. Capacity building: Hospital administrators can contribute to public health capacity building by supporting training programs for healthcare professionals and public health workers. This can enhance their knowledge and skills in diabetes prevention, diagnosis, treatment and management, leading to improved public health outcomes.

7. Research and innovation: Hospital administrators can foster research collaborations between hospitals, public health agencies and academic institutions to generate evidence-based practices and innovative approaches for diabetes control. This research can inform public health policies and interventions, leading to more effective strategies for diabetes prevention and management.

By linking hospital administration activities to public health efforts, a comprehensive and integrated approach can be established to tackle the diabetes epidemic in India. This collaboration can strengthen the healthcare system, promote prevention, ensure early detection and improve the overall control and management of diabetes at the population level.

CONCLUSION

Current policies in India aim to improve diabetes care, but there are challenges in implementation and limited data on their effectiveness. Overall, addressing the challenges in diabetes care in India requires a multifaceted approach involving increased awareness, improved diagnosis and access to care, medication affordability, enhanced healthcare professional knowledge and training, and effective implementation of policies and programs.

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