

Diabetes in India: Perspectives on awareness and care

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ABSTRACT

Background and aims: Diabetes is a major killing recognized as a silent epidemic globally problem. India has the highest number of diabetes cases in the world causing huge morbidity and economic losses to the country. There were 66.8 million adults suffering from with diabetes in India in 2014, which is expected to rise by 63% to 109 million by 2035. Diabetes led to at least USD 612 billion in health expenditure worldwide in 2014 (11% of total spending on adults). Indian diabetic population is expected to reach 70 million by 2025. The aim of this study was to explore the perspectives on diabetes awareness and care in India.

Method: This paper is based on secondary literature review and authors experience some studies on disease and diabetes in India.

Results: There are three levels of awareness and care: Primary, Secondary and Tertiary. Once, an optimum level of awareness across the three levels is achieved, it would be translated into optimum level of care.

Conclusions: Diabetes is a major challenge for India's health care system. An optimal mix of awareness levels is required at primary, secondary and tertiary levels in India for a Whole Society Approaching to Diabetes care.

Keywords: Diabetes, Whole of Society Approach, Health Impact Assessment.

Brief communication

INTRODUCTION

Diabetes mellitus is one of the greatest challenges to health, productivity and human development in the 21st century. In 2014, a total of 387 million were suffering from diabetes worldwide, with 4.9 million annual deaths.¹ This estimated to rise to 592 million by 2035. India is undergoing both demographic and epidemiological transitions. Urbanization, rising income and technological improvement resulted in many unhealthy lifestyle modifications such as

consumption of fast foods and processed foods along with decreasing physical activity, which are important as risk factors for non-communicable diseases (NCD). As per International Diabetes Federation estimates, there were 66.8 million adults living with diabetes in India in 2014, which is expected to rise by 63% to 109 million by 2035. Diabetes led to at least USD 612 billion in health expenditure worldwide in 2014 (11% of total spending on adults).²

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India has the highest number of diabetic cases in the world, which is projected to be 70 million by 2025.³ However, it is estimated that only 50% of diabetes cases is detected and hence there is an equal number of undiagnosed diabetics. The understanding of the magnitude of diabetes and success of diabetes care is dependent on information, awareness and appropriate action. The aim of this study is was to explore perspectives on diabetes awareness, care and the interplay between them in addressing the diabetes challenge in India.

METHOD

This paper presents perspectives on the association between diabetes awareness and care in the Indian society. Secondary, literature on programs and strategies for diabetes awareness and care in India were reviewed. I have analyzed the secondary literature and discussed my experiences of working and interacting with stakeholders involved in diabetes control in India in this paper.

RESULTS

Levels of awareness: There are three levels of awareness in diabetes: primary, secondary and tertiary. Primary awareness means awareness at the community level of the population about the disease, its mode of prevention and treatment. This is associated with the socio-economic, educational and cultural characteristics of the population. Primary awareness also includes awareness among the diabetes healthcare providers. This is dependent upon the state of Continuing Medical Education programmers, healthcare workforce education/training programmers, etc.

Secondary awareness is the domain of program managers and implementers (the 'action people'). This includes skills of monitoring and evaluation of diabetes control program.

Tertiary awareness is the requirement of academicians and decision makers. The gap between the researchers (data collectors), decision makers and action people (programme implementors) needs to be bridged. This is critical for timely and efficient use of research for evidence-based policymaking leading to actionable program and strategies. There are certain implementable potentials for preventing diabetes where irrefutable evidence exists. For example, it has been proven that undernourishment in pregnancy would lead to diabetes in these children when they grow old. However, tackling pregnancy-related under nutrition is not implemented as an explicit strategy for diabetes prevention in India although this would be a very cost-effective strategy for prevention of diabetes in the next generation. There are other gray areas where research itself is poor, for e.g. economic burden of diabetes to healthcare system and households in India.

Levels of care: The need for tertiary care in diabetes implies a failure from the public health perspective. Secondary care is dependent upon the extent of lab, clinical and drug research. Also, effective screening and surveillance is required for early diagnosis and treatment. Additionally, ensuring dignity of individuals affected with diabetes is very important but often neglected element in diabetes care.

DISCUSSION

Primary and primordial care is the most cost-effective approach as it prevents the disease from occurring by preventing development of risk factors. Notably, the development of primary care is heavily dependent on tertiary awareness and robustness of decisions made through evidence. This includes creation of an environment conducive to healthy lifestyles and diet practices. A 'Whole of Society'

(WoS) approach is required, which requires policy convergence at the level of decision-making. The various steps in policy convergence include information sharing, cooperation, coordination and integration. A 'Whole of Government' (WoG) approach is essential for WoS effect. Decisions in sectors outside health, such as food-processing industry, need to be viewed in light of their impact on health. Health Impact Assessments (HIA) needs to be an essential tool for policymaking in diabetes in order to bring about a change in the diabetes situation in India.

CONCLUSION

Figure 1 shows the relationship between the level of awareness and diabetes care. The 'awareness pyramid' has a wider base of primary awareness as it is to for a wider audience- the general population, and has basic information about diabetes as its content. Tertiary awareness is for a smaller audience of researchers, policy makers but involves more processed data and information on diabetes, which are necessary for policymaking and planning. Once, an optimum level of awareness across the three levels is achieved, it would be translated into optimum level of care as depicted by the inverted 'care pyramid'. There would be wider emphasis and implementation of primary and secondary level of prevention and care resulting in fewer cases requiring tertiary care for diabetes. The challenge to achieve this optimum mix is unfolding but with the right intent, decisions and action, the future will hold a lot of promise to address diabetes.

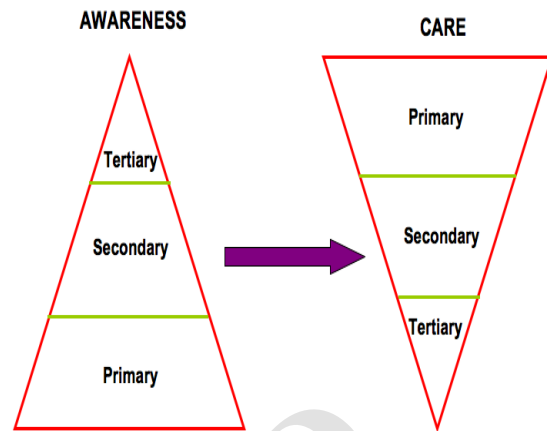


Figure 1: Awareness care relationship

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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