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# IMPROVING ACCESSIBILITY TO PREVENTIVE CARE IN PRIMARY SETTINGS: CHALLENGES AND STRATEGIES FOR MANAGING DIABETES IN UNDERSERVED COMMUNITIES

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## ABSTRACT

*The paper examines the problems and solutions for ensuring proper diabetes prevention in populations that cannot be reached easily. Diabetes care is imperative and a progressive public health issue that mainly affects the low-income, rural, and ethnic minorities who lack health insurance and face challenges in healthcare facilities. Such barriers include socioeconomic, geographical, cultural, and language barriers and system/health care barriers. In order to commemorate the paper, a discussion of previous research regarding the incidence of diabetes, medical amenities, and modern methods of control is conducted. Those services have also presented data from other research on the common challenges and assessment of the current attempts towards enhancing care for victims, with the use of community-based interventions, telepracticing medicine, and health-promoting interventions. The paper outlines such interventions as policy change, health-system redesign, and culturally appropriate public health interventions to help minimize inequalities in health and diabetes complication outcomes among underserved groups. The study highlights the need for a specific and effective approach and yields ideas for future studies to improve prevention successfully.*

***Keywords**: Diabetes Prevention, Underserved Communities, Healthcare Accessibility, Health Inequalities, Community-Based Interventions, Culturally Appropriate Care*

## INTRODUCTION

### 1.1 Background

Diabetes is a chronic metabolic disease with hyperglycemia, which results from insufficient insulin production (Type 1 diabetes) or ineffective utilization of insulin by the body (Type 2 diabetes). It is well-known that the scope of diabetes in the global population increases year by year currently, more than 460 million people worldwide have diabetes, and this figure will rise to over 700 million people in 2045 (ElSayed et al., 2023). It is even worse in LMICs, where many people living with diabetes do not know they have the disease and, as such, do not receive treatment for rising complications, including cardiovascular diseases, kidney failure, and neuropathy. As a multimedia piece, this article stresses the need to approach diabetes prevention as an important primary care dimension to reduce the risks and rates contributing to increased healthcare costs.

Proper preventive care for diabetes is a crucial factor in the management and slowing down the progress of the disease. Screening and timely lifestyle modifications have been established to greatly postpone or preempt the development of Type 2 diabetes (Haque et al., 2020). While strongly emphasizing preventive care, Patient-

Centered Medical Home often meets the challenges preventing underserved populations from being accessed. These barriers are unfamiliarity, absence of health facilities, restricted access to health care practitioners, and financial stress. Accordingly, these populations experience higher than average rates of diabetes and its complications and require research on how to enhance diabetes preventive services in the primary care domain. Population with less access, including people from rural areas, low-income regions, and some ethnicities, are more affected by diabetes due to poor healthcare services. A lack of healthcare facilities usually characterizes these communities, and most of the population may face physical and financial challenges when seeking healthcare facilities. For instance, it is not easy for rural people to access specialist doctors dedicated specialized clinics, or even hospitals in their areas and low-income people may struggle to afford preventive services even when they work in areas where they are provided (Gizaw et al., 2022). Moreover, the problem of vocabulary variations between the provider and the patient, as well as the variations in cultural backgrounds, can lead to more obstacles to communicating essential and helpful information for patients and can widen existing gaps within the healthcare system (Karachaliou et al., 2020).

### 1.2 Research Question

Specifically, the article seeks to answer the following research question:

- ✓ What are the key challenges in providing effective preventive care for diabetes in underserved communities, and what strategies can improve accessibility and management in primary care settings?

## 2. Literature Review

### 2.1 Prevalence of Diabetes in Underserved Communities

Diabetes is a universal issue currently, millions of people suffer from diabetes mellitus, including the first, second, and third types, with special reference to LMICs. Diabetes has become particularly common among people in developing countries and the population with a low-income level, as well as poor education in health care and low levels of health literacy. ElSayed et al. (2023) reported that the bulk of the recreational burden is felt in LMICs owing to a lack of adequate infrastructure to address the conditions that cause the ailment in the first place and inadequate means to treat the patients. These populations are more likely to develop other related illnesses such as cardiovascular diseases, kidney failure, and neuropathy, hence, high morbidity/mortality.

Diabetes is also widely spread in rural areas because there are no barriers in terms of prevention and education. According to Tan et al. (2021) systematic review, migrant and refugee populations often residing in rural and remote areas are at higher risk of non-communicable diseases (NCDs), including diabetes. They are disadvantaged by having low social capital, worse health status, and lower health-promoting practices than individuals with high social capital. Such challenges also result in poor health and sustain the continual, though vicious cycle for those in the targeted groups. This highlights the need for performing diagnostic and interventions with these populations.

### 2.2 Barriers to Preventive Care

Unlike treatment, various clinical and non-clinical barriers delay the underserved population from accessing preventive care as a means of diabetes management. These barriers can be categorized into four main types such as Socioeconomic barriers, Geographic barriers, cultural barriers, and Healthcare system barriers.

#### 2.2.1 Socioeconomic Barriers

Socioeconomic causes are the main contributing factors to preventable health crises. Poverty is a main factor because those living in poor areas cannot even afford primary medical care, not to mention preventive care. For their part, Karachaliou et al. (2020) show that due to the lack of funds, people opt for care delays or care avoidance, which only worsens chronic diseases such as diabetes. Moreover, Davidson et al. (2021) published a study revealing that the insured population with low income or no health insurance would not receive financial support from preventive services, including screening, counseling, and lifestyle change interventions.

A lack of health insurance or inadequate insurance policies puts patients in underserved communities at considerable self-financed expense, and thus, preventive care is out of reach for such patients.

**2.2.2 Geographic Barriers**

Geographic Geographical barriers also play a crucial role in the lack of access to the required medical services for people in need in remote regions. People who live in the countryside and other inaccessible areas have scarce access to facilities and human resources in the health sector. Gizaw et al. (2022) state that rural residents suffer the most because few have access to basic health centers, hospitals, or professional healthcare providers. The patient might have to cover long distances to be presented to a qualified healthcare professional providing the first basic healthcare service. Moreover, there are problems experienced by healthcare providers in rural regions, such as workload, shortage, and lack of specialty training. Consequently, they are unable to offer optimum diabetes care.

**2.2.3 Cultural and Language Barriers**

Barriers to primary prevention of diabetic management in ethnic minority populations include language and/or cultural disparities. Many individuals can find themselves receiving inefficient treatment from their doctors due to an avoidable lack of trust between them. According to Bhaskar et al. (2020), ethnic minorities experience difficulties in gaining accommodating care, which may result in reluctance to get care as well as poor compliance. Another strand of this problem relates to language barriers, whereby medical instructions, dietary advice, or preventive measures are hard for non-English speakers to understand. In addition, the values of certain culture types may be at odds with the preventive behavior that is being recommended, including a change of diet and various lifestyle adjustments that may deter people from fully benefiting from preventive health care programs.

**2.2.4 Healthcare System Barriers**

The healthcare system itself may become one of the main barriers to the prevention of diabetes in underserved populations. Insufficiency of healthcare staff, including physicians, nurses, and other technical staff, especially in rural or low-income settings, leads to long delays, a short supply of specialists, and irrational usage of health resources. Whitman et al., 2022 have stated that the growth of small healthcare organizations means they do not have adequate resources and human capital to deliver high-quality preventive care services promptly. The problem arises when the patients seek treatment when their illnesses have advanced, requiring complex and expensive interventions respectively. In addition, most healthcare systems in LMICs fail to reach out adequately to populations so that people are reminded of available services or a preventive campaign.

**2.3 Current Approaches to Preventive Care**

Various approaches have been adopted universally to increase preventive care centers within areas with low health care coverage and care coverage. In many LMICs, community health workers (CHWs) have traditionally been utilized to deliver health services to the ardent inaccessible regions. These workers, who are often recruited from the community, invest themselves in the job of educating those in the communities about diabetes, getting them tested, and following up with timely interventions. It has been seen that CHWs can play a substantial role by increasing diabetes literacy and managing the obstacles linked with care, especially in the facility-deficit regions (Bekele et al., 2020).

Telemedicine has also been presented as a solution to the problem related to differences in geographical locations. Technology, consultations, education, and support can be provided remotely, making the journey to a healthcare provider long and cumbersome. In their article published in 2020, Vodovotz and his colleagues established that within the broader category of telemedicine, solutions designed for diabetes care yielded the most significant positive impact on patients' engagement and adherence to the recommended treatment regimen, in regional settings. However, since telemedicine's effectiveness depends on the internet, it is not reliably available in many parts of the world, especially those with limited access to healthcare services.

Second, social capital, which is the sum of actual or potential resources available in a society through personal relations, institutional arrangements, and norms of reciprocity, has also been considered important in enhancing health. As Tan et al. (2021) pointed out, capital can help the efficacy of preventive procedures by increasing the density of social support, adopting community programs, and increasing confidence in caregivers.

### 2.4 Effectiveness of Current Strategies

Although the above strategies have been advocated for, they also have limitations. CHWs have proved effective in reaching out with essential messages and interventions. However, many are inadequately trained, overworked, and deployed in structures poorly connected to the formal health sector (Bekele et al., 2020). Further, telemedicine has benefits, but individual access is not always possible because of improper infrastructure and digital paucity in some rural areas. According to Brian and Weintraub (2020), telehealth intervention in low-resource settings depends on technological tools and the patient's ability to use technology. The inclusion of social capital into diabetes prevention also gave similar outcomes. Even though PSNs have been effective in enhancing participation and medication compliance among some populations, social capital cannot be readily summoned in many cases, especially if there is weak community or individual confidence in the healthcare systems or if the population is divided into subgroups (Tan et al., 2021). Moreover, strategies requiring deliberate individual behavior change, including changes to diets and increased exercising, have had suboptimal results without the need for systemic modifications, such as changes in poverty, housing, and education (Davidson et al., 2021).

## 3. Methodology

The study used both quantitative and qualitative approaches to leverage data to establish better approaches for increasing the accessibility of preventive care for diabetic patients in low-income areas. This approach enables a richer study since it uses statistical data to complement self-stories to describe the challenges that these communities face and assess the assessment of existing and proposed interventions.

### 3.1 Research Design

The proposed study design was selected due to the advantages of both qualitative and quantitative research approaches. Surveys were used to gather quantitative data to determine the impact of diabetes, possible challenges to effective prevention, and the success of current preventive strategies. The qualitative aspect involved structured interviews with patients and other stakeholders, providers, and community organizations to capture a deep, robust understanding of the barriers to and reasons for the lack of preventive care. Due to this dual approach, it was possible to gather a wide range of information concerning the problem of diabetes care in the districts where such services remain scarce, and it is fundamental to use both quantitative and qualitative data concerning the problem.

### 3.2 Study Population

The target population comprised the underprivileged people living in rural locations and the poor urban neighborhoods since patients with diabetes are more concentrated in these areas. Specifically, the study targeted two regions one a village in a developing country where the population has comparatively low access to healthcare services and a poor neighborhood in a developed country where people's poverty has tremendous effects on their access to healthcare services. These communities were targeted because they are at higher risk for diabetes and have barriers to preventative care, such as low income, no insurance, and lack of healthcare infrastructure. The population characteristics consisted of adult subjects between 30 and 65 years old, considered the most vulnerable to developing Type 2 diabetes mellitus. The participants were also diverse in ethnicity, with a focus on ethnically diverse participants, especially those from lower socioeconomic backgrounds due to issues of language and culture.

### 3.3 Data Collection

Both questionnaires and interviews were administered for data collection. A self-administered questionnaire was developed and was administered to one hundred and forty-nine clients with diagnosed diabetes mellitus, sixty-one at-risk individuals, and thirty relatives of diagnosed diabetic patients without a diagnosis. The questions focused on healthcare availability, familiarity with preventive measures, and the social and economic health determinants. Self-completed questionnaires were completed either verbally or electronically where the participant was comfortably reachable. The results dissected the experiences into statistical estimations of diabetes mellitus incidence, the difficulties associated with treatment reception, and the perceived efficacy of existing preventive strategies.

Apart from cross-sectional surveys, formal interviews with key stakeholders in the health system, including healthcare providers and community authorities, assess the barriers to delivering preventive health care. These interviews offered phenomenology insights on the need for support services, the culture of diabetes staff and workers, and the appropriateness and impact of health informatics interventions within a community-based diabetes care system. Sample interviews were also conducted with people who are directly involved with healthcare facilities to learn their ideas on existing obstacles to healthcare access and possible ways to overcome them.

In addition to the main data collected through surveys and interviews, information databases and documents on diabetes epidemiology and treatment in the examined regions were also considered. These secondary data sources also offered further information on the overall prevalence of the problem. Further, they apportioned the occurrence of diabetes and the access to preventative measures over a timeline.

### 3.4 Data Analysis

The quantitative survey was then analysed using statistical tools to ensure that the analysis confirmed different trends and correlations. Lastly, descriptive statistics were used to provide a profile of the sample population inferential statistics were used to establish the possibility of a relationship between such factors as income, education levels, and use of preventive care measures. These findings were then reconciled with other existing health surveys to check their accuracy.

The interview data collected from the participants were qualitative hence, the, a thematic analysis approach was applied to the views/responses given by the participants. The audiotapes of interviews were then transcribed, and the information elicited was analyzed by coding the identified themes, which incorporated views and beliefs of and about barriers and facilitators of care, ways of enhancing access to specific types of interventions, and the efficiency of current approaches. This made it possible to investigate the individual and organizational factors affecting diabetes management in the target population group.

### 3.5 Ethical Considerations

Because the study subjects were vulnerable populations, some ethical concerns had to be considered throughout the study. Permission to use participants was sought, and the participants were told the rationale for the study, its voluntarism, and their right to privacy. Particular consideration was given to the sensitivity of the participants and health issues, and it was made clear that the process of interviews was anonymous and the health information was kept private. Moreover, it contributed to ethical practices while engaging the identified communities since the research claimed that the rights of vulnerable persons must be respected, and the researchers should not take advantage of their client's position. While undertaking the study, sound ethical consideration was taken by seeking permission from the Institutional Review Board to research to avoid violating the research ethics for using people in the research.

## 4. Results

This study provides insights for approaching the identified barriers to preventive access care for diabetes in underserved populations and the assessment of existing approaches' efficacy. The findings are organized into key theme categories of the barriers, approaches implemented thus far, community requirements, and

benchmarking. These results help get a better picture of what these populations go through and where improvements can be made.

### 4.1 Key Findings

This paper uses survey data gathered from respondents, primary interviews of client families, and information from secondary health reports to identify several emerging trends concerning the barriers to preventive care, existing preventive measures, and the general health status of vulnerable populations.

**Types of Barriers:**

The greatest challenges to delivering preventive care to minority populations with diabetes revealed the prejudice by socioeconomic status, geographical distribution, language, and organization of health systems. They have been raised frequently by service users, providers, and community organizations. The main disturbing concerns include issues to do with poverty, lack of health insurance, and high deductibles. The challenges of geographic barriers include the lack of health facilities and transport within rural areas. Cultural and language barriers also killed many because this ethnic minority cannot understand the medical instructions given to them or even cannot effectively communicate with carers. Moreover, systematic challenges emerged, which included a lack of healthcare practitioners, long waits to access care, and poor efforts to access hard-to-reach populations.

**Existing Strategies and Gaps:**

Some identified strategies were diabetes prevention and management among the underserved population. Among these were community health fairs, traveling clinics, and health promotion that focused on creating awareness of diabetes and encouraging positive lifestyle change. However, the findings indicate that these strategies were more effective in some regions than in other regions. Occasionally, with fewer results observed in rural places, mobile clinics and outreach work have demonstrated modest success in reaching out to scattered people. Yet, these initiatives can rarely be sustained throughout the country and are almost always constrained by the lack of funding. Thus, in low-income urban settings, awareness has been created through media and other public health interventions, but issues of availability, cost, and clients' understanding and perception of what constitutes health care have remained a chimera.

Although these strategies have proved useful to a certain degree, their major deficits lie in their failure to meet the needs of the affected vulnerable groups. The status of minority populations, for example, in caring for Cultural and Ethnic differences, was seen as lacking due to failure to prescribe specific intervention methods for every culture's ethics. In addition, whereas some community health workers are engaged in promoting diabetes care, there is a gap where regular training for the skilled community health workers is not well enhanced, hence hampering their delivery of these services. Lastly, the economical services delivery of healthcare in Australia per its peoples' needs remains disjointed due to no proper link between different services, especially those that cater to patients having diabetes.

### 4.2 Challenges Identified

Several important issues were identified and presented in the course of research, which require immediate attention to enhance access to preventive care for diabetes in the identified populations. The primary challenges identified include:

**Socioeconomic Inequality:**

On a more specific level, the research established that the issue of expensive healthcare mainly drives the existence of care bottlenecks. Many people in underserved groups are uninsured or underinsured, which means that they cannot manage to attend preventative exams or purchase medicine. These bottlenecks arise because, though services may be obtainable, the costs incurred impact patients' time to seek services.

**Geographic Isolation:**
For the community-dwelling in rural or remote regions, physical accessibility has very little risk of limiting their access to healthcare services. There is virtually no healthcare structure and few means of transportation that enable patients to seek diabetes-related care. Many times, they have to walk long distances. This is a big disincentive, especially for elderly patients or those patients with one or more of the following diabetes and other chronic illnesses.

**Cultural and Linguistic Barriers:**
African American, Asian, and Hispanic people and people of any minority who do not speak the dominant language of the area that they reside in, have many barriers to the provision of health care. Patients with various diseases may fail to understand instructions from healthcare professionals or vice versa, which affects the success rate of any preventive strategy. Moreover, people's cultural perceptions of what constitutes healthy behavior can influence their compliance to engage or not in specific preventive measures such as action of changing their diet or practicing regular checkups.

**Healthcare System Limitations:**
Patients were concerned about the lack of sufficient healthcare workers, especially in remote areas, and long waiting times for appointments. At times, PHC centers are manned by inadequate personnel and are often inadequately equipped to offer proper treatment. Such complications can easily cause a break in medical care, which is a big no-no when it comes to chronic conditions such as diabetes.

### 4.3 Current Strategies and Gaps
It should be noted that, at the current stage, several approaches exist to meeting the needs of vulnerable populations. These strategies have been discussed in this article and implemented, as shown in Table 1 below, with an indication of their merits and demerits.

| Strategy | Strengths | Weaknesses/Gaps |
|---|---|---|
| **Community Health Programs** | Improve awareness, provide basic care, and empower local communities | Lack of tailored interventions for specific cultural groups |
| **Mobile Health Clinics** | Reach remote populations, provide direct services | Limited scope and sustainability, underfunded |
| **Public Health Campaigns** | Raise awareness about diabetes and prevention methods | Do not effectively address socioeconomic barriers |
| **Health Education Workshops** | Improve health literacy, offer support networks | Limited availability, lack of follow-up |

Miller found the second largest gap was the lack of programs for culturally competent education awareness campaigns. To date, general health education is available, but it is not culturally tailored or does not incorporate cultural needs. Moreover, the MH clinics that deliver care to rural consumers are underfunded, operate for few hours, and provide few services.

### 4.4 Comparative Analysis
On comparing the results of this study with any other study carried out in any other part of the world, it appears heartening that the problems faced by SCs in managing diabetes are not confined to one specific geographic location or country. For example, increased poverty, inadequate healthcare facilities, and relative geographic location within Sub-Saharan Africa rural areas are concerns highlighted by other publications as well (Bekele et al., 2020). Likewise, in the urban LIEs in developed countries, including the United States, there are challenges to access care through high charges, insurance problems, and shortages of healthcare providers (Davidson et al., 2021). These similarities imply that, potentially, the identification of the barriers to accessing preventive diabetes care is similar in other regions in some way but different in terms of context.

### 4.5 Subgroup Differences

It also revealed that the subgroups significantly differed in the barriers and strategies. For instance, culturally and linguistically diverse consumers and immigrants mentioned cultural and language restraints, and consumers with lower incomes in affluent and non-urban areas cited cost restraints. Moreover, the rural population was reported to experience challenges in accessing healthcare services because of the rural nature of the location. These differences emphasize the importance of developing better focusing interventions that will include the development of targeted intervention programs that may refer to the needs of different sub-populations of vulnerable groups.

## 5. Discussion

### 5.1 Interpretation of Findings

According to this study, various and complex barriers burden the underserved in their quest for preventive diabetes care. As described, socioeconomic disparities, rural realities, cultural and language, and organizational constraints within health systems, ,are not far from real life and literature. The barriers outlined in this study are closely related to those observed in other studies done with the underserved populations in the global community (Karachaliou et al., 2020; Haque et al., 2020). The strongest themes emerging from respondents' open-ended responses were related to SES, specifically, inability to afford health insurance and lack of finances for contacting healthcare providers to manage diabetes. In the rural study, authors emphasized lack of transportation and restricted access to specialized facilities as the key barriers to preventive care in urban work cultural and language barriers appeared to be essential problems. These studies imply that poverty, literacy level, and place of residence are central in the seeker-to-provider ratio of individual nations' healthcare systems.

It's clear that even the existing strategies, like mobile health clinics and community health programs, are site-specific, and the authors argue that while such models might overcome some of the access barriers, they cannot be sustained indefinitely. This was evident more in mobile clinics in rural provinces, which had few working hours and low funding. Further, RQCI reported that cultural and linguistic differences were considered critical but were insufficiently incorporated into health literacy campaigns. These conclusions imply the importance of precise, culturally appropriate approaches considering language barriers in multicultural metropolitan environments.

### 5.2 Barriers and Inequalities

The presence of stereotypical barriers to the prevention of the development of diabetes in underserved populations is complex. Based on the results presented earlier, the emerging major challenge is socioeconomic disparity. Patients venturing to seek medical treatment or preventive care in a low-income setting will be treated in facilities where they must pay out-of-pocket charges for diagnosis tr, treatment, or medication. To this, the grim state of health insurance by accessible, affordable health insurance, especially for the low-income or the colored, is added. This is not only financially burdensome but means that diagnostic work-ups are delayed and potential treatments postponed, leading to worse health in these vulnerable groups.

The geographic barriers also make the situation worse for access to care. The rural population especially has poor accessibility to many health facilities, thus making it very hard for people to access routine or special checkups. These populations are also locked into poverty due to the lack of any sort of access to transportation, which in turn means they cannot even attempt to get the preventive health care they need or manage a chronic illness. Secondly, many areas within rural regions lack adequate access to physicians and healthcare specialists and fail to arrange adequate medical services for their population.

Another determinant is culture and language, where there is always an increased progression of health inequality. Ethnic minorities and people who are still learning English find it difficult to express themselves to caretakers or do not understand what the caretaker is saying that they miss their diagnoses or are diagnosed with the wrong illnesses. Specifically, cultural perception of health also plays a central role in people's decision-making as much as they are willing to practice certain health aspects or even seek medical services. For example, some individuals may be suspicious of the healthcare system or prefer cultural healing from

allopathic medicine. Such cultural disparities can prevent a person from participating in preventive health measures optimistically and contribute to noncompliance with ordered medications.

System-level factors that exacerbate these inequalities include low funding for community-based healthcare services, lack of health literacy campaigns, and saturated health systems, all of which systematically cause health inequalities. This is due to a shortage of health care professionals, long waiting hours, and lack of integration between the various sectors of health care, leading to the prevention of these diseases and deterioration of, for example, diabetes.

**5.3 Strategies for Improvement**

Based on these results, the present work indicates the following recommendations for enhancing the utilization of preventive services for diabetes among vulnerable populations. Such approaches are community-based, telemedicine, health education, and policy intervention.

**Community-Based Interventions:**

Clinic/mobile health, community health workers, and peer support were mentioned as performing well in countering some of the abovementioned barriers. Some stations for clinics have been mobile and deployed in rural and remote areas, which ensures that service delivery gets closer to patients who might not easily access facilities derived from geographical barriers. These clinics had not only more comprehensive preventive services, including early detection of diabetes but also education and post-care services. In the same way, community health workers who may be from the same community as the patient–may reduce cross-cultural barriers and assist the patient in managing their health issues. There are also evident benefits to forming a peer support group because this enhances the overall care of the patient with diabetes, and they also share responsibility.

**Telemedicine:**

Telemedicine has played a significant part in addressing geographic and system barriers in healthcare, which have seen a shift after the COVID-19 outbreak. Telemedicine helps solve the problem in areas with scarce healthcare facilities, service providers, and geographic barriers, as those clients can access healthcare services online. Some of the benefits of telemedicine include follow-up with specialists/physicians, tele-diabetes education programs, and follow-up care. On the positive side, telemedicine has vast potential, but its efficacy relies on the availability of technology, connectivity, and understanding of technology, which is lacking in developing countries and some of the other essential users.

**Health Education and Literacy:**

Based on the discussion, perhaps one of the most significant insights generated by this study is the significance of culturally appropriate health promotion and educational efforts. Previous health promotion interventions regularly neglect the health promotion needs of ethnic minorities and immigrants. Therefore, cultural beliefs and practices should,, be included in the type of interventions requireto reduce health literacies and promotee preventive practices. Diabetes, especially its prevention and management, requires culturally sensitive strategies to increase health interest among people of color local charismatic figures would play a pivotal role in enhancing the success rate of community-based health education.

**Policy and Structural Changes:**

To eliminate the barriers to care, changes in policies are required in the following ways. This, in turn, can reduce the amount of money that low-income earners and families spend on health care by extending the reach of Medicaid from kids and mothers to adults, the elderly, the disabled, and others. Furthermore, it is also easier to make diabetes medications and treatments available to the underserved population by subsidizing them. The other requirement is an increased focus on developing healthcare structures, such as health facilities in rural settings where preventive and sustained care are required. Another factor that should be of particular interest to the national policymakers is the overall level of health literacy in the population although the general trend

mirrors the overall disadvantaged position of the poorer and culturally deprived sections of the population, which, by and large, reflects their general inability to properly approach health promotion and disease prevention.

### 5.4 Limitations of Study

A few limitations should be noted regarding the study. Despite these limitations, this study offers an avenue for looking into difficulties and approaches associated with extending preventive care for diabetes in underrepresented populations. Thus, one of the major limitations is the sample size, which may not be large enough to capture all the diversity of underserved within different areas. Moreover, the study sample covers specific urban and rural sites, which restricts the universal generalization of the results across regions and countries. Subsequent research in other contexts affords a richer understanding of the barriers to care that affect other populations.

### Future Research Directions

Therefore, future studies should aim to establish the success of the strategies described in this study, most especially their sustainability and health implications. Further studies should assess how the devices, especially those originating from mobile health and telemedicine, are useful in diabetes prevention and management in minority populations. Lastly, included were articles that looked at the effects of policies, including Medicaid expansion or insurance changes, on care utilization in patients with diabetes to provide an understanding of the effects of policies on health disparities.

## 6- Conclusion

In conclusion, expanding the availability of screening services for diabetes in rural and poor areas is one of the key steps toward solving the problems of diversity and longevity of chronic diseases. This paper discusses the complexity of the issues affecting those populations through socioeconomic, geographic location, cultural, and systemic factors. It also stressed the need to provide care in the context of such barriers as cultural beliefs, geographical location, small numbers, language, and literacy level beyond other care, including community-based care, telemedicine, and culturally competent education. Existing strategies are good, but they lack some vital aspects that fail to meet sustainability and expandability. Making the sort of sustained change needed also requires coordinated and collective action by policymakers, healthcare providers, and other community stakeholders to identify and remove barriers, practice and promote proven models of care, and lobby for changes in healthcare policies that increase access to services and positive health outcomes for those who have historically been left behind.

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