

Diabetes Management Among Low-Income Adults in New York City: Examining Health Disparities, Healthcare Access, and Social Determinants of Health (2015–2025)

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Abstract: Diabetes remains a major public health challenge in the United States, disproportionately affecting low-income and underserved populations. In New York City, especially the Bronx, diabetes prevalence and related complications are consistently higher among individuals facing socioeconomic disadvantages, limited healthcare access, and racial and ethnic disparities. Despite advances in prevention and treatment, many vulnerable groups encounter barriers to quality care, effective self-management, and preventive services, leading to increased hospitalizations, poor health outcomes, and premature mortality.

This concept paper explores diabetes care among low-income adults in New York City from 2015 to 2025, focusing on how social determinants of health influence disease management and outcomes. It highlights the interplay between poverty, healthcare access, insurance coverage, education, and structural inequalities in driving diabetes disparities. By reviewing current evidence and public health policies, the study aims to identify gaps in care and propose strategies to enhance equitable, patient-centered services. Findings are intended to assist public health practitioners, healthcare organizations, and policymakers in developing interventions that reduce disparities and improve diabetes outcomes in underserved populations.

Keywords: Diabetes, Type 2 Diabetes, Public Health, Health Disparities, Social Determinants of Health, Low-Income Populations, Healthcare Access, Diabetes Management, Health Equity, New York City, Bronx, Chronic Disease Prevention.

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I. INTRODUCTION

Diabetes has been a significant problem of national health in the United States, and low-income groups have disproportionately experienced the problem. The prevalence of diabetes is always greater in communities characterized by poverty, marginalization based on race and ethnicity, and lack of access to preventive efforts in health in New York City (Herman and Schillinger, 2023). This study has a health value to the general population where the area of intersection of chronic disease management and the social determinant of health is concerned. Outcomes of diabetes would also be influenced by clinical care and the behavior of individuals, as well as by more general socioeconomic and structural factors.

The NYC Department of Health (2025) indicates that approximately 11% of the adults in the city of New York are diagnosed with diabetes, and the Bronx is one of the regions with the highest rates. At the national level, there are over 38 million cases of diabetes, which shows the magnitude and the future impact of diabetes on healthcare systems (Centers for Disease Control and Prevention, 2024).

The study is required since the inequality of access to care, and the inequality of self-management are still causing unnecessary complications, hospitalization, and untimely death in disadvantaged populations. This concept paper proposes a targeted review of diabetes care among low-

income adults in New York City from 2015 to 2025, in response to unresolved disparities and their policy relevance. The elevated rates of diabetes and poor management of the aged and socioeconomically disadvantaged groups are structural injustices of care management, not personal failures. In theory, the strategies presuppose low cost and consistent access which is not always the case in socially constrained environments (ElSayed et al., 2023).

➤ Problem Statement

Low-income adults experience barriers to access to diabetes management plans and face disadvantages on the systemic level. Limited access to health foods, drugs, and monitoring supplies constrains adherence to dietary and pharmacological treatments, particularly in high-poverty New York City neighborhoods such as the Bronx. These limitations bring trade-offs between the satisfaction of basic needs and health. Lower-income people tend to be less likely to maintain self-care, such as medication adherence and regular monitoring (Nam and Jang, 2025). This has been occasioned by psychosocial and environmental limitations and not a lack of motivation.

The social determinant of food insecurity enhances the challenges by restricting access to nutritional foods and complicating the management of the diet. Chambers et al. (2024) point out that individuals living with diabetes and experiencing unmet food requirements had almost twice the odds of poor glycemic control, and the same tendency is observed even when the population's food environment is considered. These persistent stressors are combined with the lack of access to affordable, continuous healthcare services, which diminishes the possibility of receiving regular follow-ups and adapting the treatment plans on time.

In socioeconomically deprived regions, patients have a much lower chance of getting high-quality diabetes care than in the less-deprived setting (Kurani et al., 2021). It illustrates the wider gap in the systemic provision of services. Hence, these determinants, including economic insecurity, limited food settings, and disparate healthcare provision, determine the management of diabetes not merely as an individual burden but as an outcome of systemic disadvantage.

➤ Goal Statement

This project will aim to examine diabetes management patterns among low-income adults in New York City,

considering the data from 2015 to 2025. The objectives will include:

- To assess trends in diabetes prevalence and management outcomes among low-income adults in New York City.
- To examine the socioeconomic and healthcare factors influencing the diabetes outcomes among low-income adults.
- To propose recommendations to enhance diabetes management and decrease disparities among low-income adults.

II. METHODOLOGY

Researchers will perform a comprehensive analysis of all available secondary qualitative research pertaining to Diabetes Management in New York City from 2015 to 2025, focusing on low-income persons. The literature review will be based on publicly accessible surveillance data, governmental and policy reports, and scholarly-level articles that concentrate on the issue of diabetes management among low-income residents. The selection of these sources will consider that they are applicable to an urban setting and capture continuity and change over the decade. The results of these diverse data sources will be combined into a thematic analysis that will allow comparing trends, highlighting the barriers that repeatedly occur, and evaluating the interventions that have been feasible or effective under these conditions.

III. LITERATURE REVIEW

➤ Literature Search Strategy

To find relevant articles and studies for this review of diabetes management, the health and economic inequalities, and social and health care access of low-income adults in NYC, we searched the Monroe College Online Library (which includes EBSCOhost, PubMed, Google Scholar, etc.), as well as searching for Federal agency and public health organization reports for supplementary peer-reviewed articles. The literature search included both primary and secondary sources, including but not limited to cohort studies, registry studies, systematic reviews, and policy reports/white papers from the years 2015-2025.

➤ Key Search Terms

The list of search terms used was as follows: diabetes management; low-income adults in NYC; glycemic control; health disparity, food insecurity; access to health care; urban health; and social determinants of health.

Table 1 Summary of Literature Searched by Categories

Searched Categories	Scholarly Journals	Government Reports	Reviews	Total
Diabetes management outcomes	14	3	4	21
Low-income & disparities	12	4	3	19
NYC neighborhood data	8	6	2	16

Intervention strategies	10	2	4	16
Total	44	15	13	72

➤ Introduction

This literature review examines research on the management of diabetes in low-income adults in New York City. It concentrates on trends, determinants, and intervention strategies published between 2015 and 2025. The purpose is to combine peer-reviewed research with public health literature to visualize the effects of socioeconomic and health-system variables on the diabetes outcomes in urban and resource-constrained settings. It will focus on glycemic control, access to care, and neighborhood and population disparity in NYC. Through a critical review of research on prevalence, management outcomes, and intervention effectiveness, the review is useful in achieving the purpose of the project to determine factors of inequity and provide evidence-based suggestions to enhance care delivery in diabetes and reduce disparities among low-income adults.

➤ Conceptual and Contextual Overview

The management of diabetes is generally quantified based on glycemic results, notably HbA1c and sustained self-management activities, including taking medication, dieting, exercising, and monitoring of blood sugar. The popularity of HbA1c is because it indicates average blood sugar for 2-3 months, which makes it a convenient indicator of long-term control and quality of care (Sherwani et al., 2016). Diabetes continues to be very prevalent at the population level. Approximately 38.4 million individuals in the US had diabetes in 2021 (11.6% in the US); among them, 38.1 million were adults (14.7%), and about 22.8% of adults with diabetes had not been diagnosed (CDC, 2024). A biomedical perspective can adopt the attitude of looking at adherence as an individual responsibility and disregarding the availability of resources necessary to adhere to medical recommendations. Income, access to food, and access to healthcare are some of the social determinants of health that dominate the management of diabetes among the low-income urbanized population (Office of Disease Prevention and Health Promotion, 2020). Shaheen et al. (2021) have discovered that 31.8 percent of individuals with type-2 diabetes in the United States experience food insecurity, and it is a condition that is associated with worse sugar regulation in the blood. This is supported by systematic reviews, indicating that socioeconomic distress and structural challenges like racism always contribute to low medication adherence and poor diabetes outcomes (Studer et al., 2023). Such structural interpretation is supported by the NYC-specific evidence. A1C Registry linked to hospital system data indicates that communities with high poverty rates, such as Hunts Point-Mott Haven and East Harlem, are more than two times more likely to experience poorly controlled diabetes ($A1C > 9\%$) than high-income neighborhoods (NYC Health, 2023). A spatial analysis of glycemic control in New York City discovered that the lack of adequate resources in under-

resourced neighborhoods hones the poor management of diabetes, and therefore, diabetes risk is structural.

➤ Trends in Diabetes Prevalence and Management Outcomes Among Low-Income Adults in New York City

Cross-sectional and longitudinal studies of the results of diabetes in low-income adults show the existence of disparities in outcomes and differ in their interpretation of these disparities. A cross-sectional survey of nationally representative samples can provide valuable prevalence data but reveal little about the persistence of poor glycemic control. In a study by Fang et al. (2021), repeated cross-sectional data from the National Health and Nutrition Examination Survey showed that adults of lower income with diabetes had a significant chance of uncontrolled glycaemia ($A1C \geq 8\%$) in comparison with adults of higher income (27.8% vs. 18.6%). Although this report provides a very convincing case of income-based disparities, its design does not differentiate between short-term lapses and long-term failure to achieve glycemic targets. The same can be stated about the Behavioral Risk Factor Surveillance System-based analyses that use self-reported data and do not follow up with participants over a long period of time (Satterfield et al., 2016). Therefore, these studies implicitly confirm behavioral accounts of poor control without testing their persistence over time.

The interpretation is directly challenged by longitudinal cohort studies. Addala et al. (2023) compared 5-year repeated A1C analysis using laboratories and found them in major cities in the U.S. where adults with diabetes type 2 diabetes reside. High-poverty neighborhood residents were found to be 35-40% less likely to have an $A1C < 8\%$ consistently despite access to healthcare and underlying clinical features. Such an outcome contradicts the cross-sectional inference by Fang et al. (2021), which demonstrates that the poor control of low-income adults is frequently chronic and not acute. It indicates that structural limitations- not intermittent non-adherence are the central ones. The repeated objective A1C measurements enhanced causal inference by Walker et al. regarding the persistence of poor outcomes.

Further, the structural perspective is supported by neighborhood-level analysis. In New York City, Wu et al. (2018) showed with geocoded, lab-confirmed A1C data that the high-A1C states ($A1C > 9\%$) were concentrated in the Bronx and central Brooklyn. A similar geospatial study was conducted in Chicago by Lee et al (2018). They discovered that there were also packed cases of uncontrolled diabetes in deprived neighborhoods. The overlap of these results between cities with similar spatial designs indicates that the NYC trends are not isolated, but they represent widespread city injustices. However, in both studies, personal income was not

used but rather area-level deprivation indices, making them prone to ecological bias.

Stratification by age questions the belief that the elderly are more susceptible. As commonly seen in cross-sectional studies, the glycemic control of older adults tends to be better. However, registry-linked longitudinal estimates showed that younger adults (18 to 44 years) living in socioeconomically deprived urban neighborhoods were much more likely to experience persistent poor control as compared to adults (65 years and older) (Walker et al., 2016). This finding contradicts behavioral models that consider younger age as protective. They mentioned job insecurity and insurance breakdowns are overburdened and disproportionately impact working-age adults within the low-income context. There is also an overlap of racial and ethnic gaps with income and geography. Hill-Briggs (2020) pooled the evidence of various cohort-based and registry studies and demonstrated that even with the insurance and healthcare utilization adequately controlled, Black and Latino adults are more susceptible to uncontrolled diabetes and other related complications. The results contradict previous access-centered paradigms based on the assumption that insurance would significantly decrease disparities and instead endorse a paradigm that emphasizes structure and cumulative disadvantage.

Lastly, severity outcomes are in the same trend. Reviewing U.S. urban populations, Chen et al. (2016) established that adults with diabetes residing in deprived regions experienced more preventable hospitalizations. Most of this gap was the result of worse glycemic control. A gap was identified by the authors in that no long-term, income-specific hospitalization data on NYC were available. Overall, longitudinal, spatial, and cohort research demonstrates that the prevalence and poor outcomes of low-income urban adults with diabetes are chronic and predetermined by the structure. Cross-sectional studies indicate behavioral causes, and longitudinal data indicate that differences persist with time. It is important to delve deeper into the mechanisms of socioeconomic and healthcare.

➤ *Socioeconomic Determinants Influencing Diabetes Outcomes*

It is evident that socioeconomic determinants are the key factors that have been influencing the outcome of diabetes in low-income adults, yet the previous research varied in the interpretation of such factors. A few cross-sectional studies focused primarily on poor diabetes management as a behavior. As an example, Taha et al. (2022) utilized a survey of adults with type 2 diabetes in the U.S. and explained the risks of medication nonadherence by patient beliefs and preferences with little focus on affordability or income imbalance. However, this method would not evaluate the persistence of nonadherence in the changing economic conditions. This behavioral framing is challenged by long-term evidence. Berkowitz et al. (2015) analyzed repeated measures of the panel study of income dynamics and discovered that the

financially strained adults with diabetes were much more prone to report nonadherence to test drugs due to expenses, even given insurance. This result is directly opposite to Taha et al. (2022), demonstrating that nonadherence is not based on preference but formed structurally. Nevertheless, Berkowitz et al. (2015) depended on self-reported compliance and excluded laboratory-validated glycemic results and restricted conclusions regarding long-term control.

Food insecurity has been studied both cross-sectionally and longitudinally, and converging results have been found. Alawode et al. (2023) established that food insecurity was present in 31.8% of Americans with type 2 diabetes, with an independent correlation with stronger HbA1c levels. Building on this study, Berkowitz et al. (2015) showed that the transition to food insecurity was associated with declining glycemic control as time progressed. Combined, these results indicate that food insecurity proactively disrupts the management of diabetes instead of being in passive association with mismanagement. In contrast, the two studies concentrated on the household-scale access and did not comprehensively consider the food contexts of the neighborhoods, which is a weakness in higher-density urban settings.

Disadvantage is augmented by housing instability. Berkowitz et al. (2018) found that adults with chronic disease are likely to visit the emergency department more frequently and poorly control their disease when exposed to housing instability. Previous models only used housing in the background, but not as a determinant of chronic disease management. Another route is employment-related stress and mental health. Houle et al. (2016) discovered that depressive symptoms are a significant way that the low socioeconomic status gives rise to poor glycemic control. This changes mental health to an outcome-connecting mechanism, instead of a comorbidity. Hill-Briggs et al. (2020) share this point of view and synthesized that poverty, race, and neighborhood segregation together contribute to the elevation of the risk of diabetes in Black and Latino adults. In general, studies have continually discovered that income insecurity, food and housing instability, and psychosocial stressors act together to undermine diabetes outcomes. The differences in the studies are primarily caused by a difference in the methods, rather than by the direction of causation. These results support the necessity of longitudinal and intersectional studies.

➤ *Healthcare Access and System-Level Factors Affecting Diabetes Management*

The coverage of health insurance has been identified as a major means of enhancing diabetes outcomes, and research published after 2015 has been inconsistent regarding the outcome of the measure of improvement. Lee (2019) applied a national difference-in-differences design to 22,335 adults with diabetes (BRFSS 2011 -2016) and found that Medicaid expansion was strongly associated with increased self-reported access to care and a higher diabetes management score in

Medicaid expansion states compared to non-Medicaid expansion states (adjusted difference-in-differences +1.91, $p = 0.001$). Nevertheless, a subsequent quasi-experimental study involving low-income adults who are eligible for Medicaid (BRFSS 20082018) showed a smaller pattern of change (Yan et al., 2021). The research found that Medicaid expansion increased insurance coverage by 7.2 percentage points and enhanced the ability of patients to afford a visit to the doctor by 5.5 percentage points in the first year of the post-expansion period. However, it did not show meaningful improvement in the overall diabetes continuum-of-care outcomes, including connections to care, self-care, and treatment. The evidence indicates that the increase in insurance can contribute to enriching finances. Nevertheless, continuity of care and management of diabetes may remain inadequate, particularly over the long term, unless the health system also enhances its capacity and follow-up arrangements.

Service fragmentation and limited access to the main outcomes are key factors that explain why coverage gains fail to result in improvements in health outcomes. Continuity of care is believed to decrease the use of acute care, but a research study conducted by Riggs et al. (2023) indicated that continuity of care is an idea with measurement problems. The continuity indices varied substantially based on the types of specialties included, and the resulting measures were not strongly associated with emergency department visits across the definitions. This particularly applies to adults with low incomes who encounter numerous clinicians in the primary care, specialized care systems, urgent care, and hospitals. System design, such as silos and referral barriers, as well as appointment scarcity, may result in fragmentation and not necessarily patient choice. The weakness of the study is that research and quality measures could exaggerate the impact of continuity in case it is conceptualized inconsistently or too strictly.

In low-access urban locations, the quality of care is frequently contrasted with standards in more affluent systems. However, research indicates that safety-net primary care can meet or exceed these standards on primary diabetes outcomes. Knitter et al. (2022) evaluated type 2 diabetes in 92154 U.S.

adults on Medicaid and discovered that federally qualified health centers (FQHCs) achieve glycemic outcomes like those in primary-care settings. Another fact that they observed is the limited and diverse evidence base. These results warn of the conclusion that “safety-net care = decreased quality” and focus on team resources, diabetes education, and services integration. Table 1 abstracts these system-level constraints and facilitators relative to how patient behavior is only one reason why diabetes management is driven by organizational obstacles within low-income communities.

The results of communication and follow-up between providers and patients are also influenced when face-to-face visits cannot be guaranteed. Robinson et al. (2020) investigated a group of 446 veterans who had type 2 diabetes and utilized a patient portal. They discovered that team-initiated secure messages enhanced self-management and self-efficacy, driven by the feeling of autonomy support among patients. Although veterans are not equivalent to NYC, the concept is applicable: active digital follow-up could substitute missed clinic appointments (only when patients are online, and the health system is integrated to support it).

This NYC information indicates high system-level inequalities. In 2021, the percentage of adults with an A1C level above 9% varied by more than 2 times between neighborhoods (e.g., 20.7% in Hunts Point-Mott Haven and 8.5% in Greenwich Village- SoHo) (NYC.gov, 2024). These inequalities cannot be explained solely by individual behavior, but also by structural barriers to the organization and accessibility of care. The inequity is also driven by unequal access to sophisticated diabetes care tools in safety-net clinics. Steenkamp et al. (2024) discovered that a properly developed quality-improvement program in a safety-net diabetes clinic minimized the differences in access to diabetes technologies. According to their work, inequalities can be addressed or reduced by system design and allocation of resources. Altogether, there is evidence favoring the fact that the disparities with diabetes within the low-income urban communities are primarily motivated by the organization of the health system and resource allocation, but not patient behaviors.

Table 2: Healthcare System Barriers Affecting Diabetes Management in Low-Income Populations

Barrier	Impact on management	Supporting evidence
Unstable insurance coverage	Interrupts continuity of care and medication access	Medicaid expansion improved coverage but not diabetes care continuity (Yan et al., 2021; Lee, 2019).
Fragmented care delivery	Limits coordination and timely treatment adjustments	Continuity measures show weak links to outcomes due to fragmented systems (Riggs et al., 2023).
Limited access to primary care	Reduces follow-up and monitoring frequency	Safety-net capacity constraints restrict routine diabetes follow-up (Knitter et al., 2022).
Inadequate provider follow-up	Weakens self-management support	Proactive communication improves self-management where available (Robinson et al., 2020).
Unequal system-level resources	Concentrates poor control in deprived areas	Uncontrolled diabetes clusters in high-poverty neighborhoods (NYC DOHMH, 2024).

➤ *Interventions and Strategies to Improve Diabetes Management and Reduce Disparities*

Interventions aimed at improving diabetes care among low-income groups now acknowledge that medical treatment alone does not suffice to close cumulative gaps. Research is thus shifting to multilevel remedies consisting of community assistance, redesigning of health care services, and policy alteration. However, it remains uncertain which approaches can yield sustainable, long-term changes in blood-glucose regulation and the extent to which they can be generalized.

Community-based interventions, particularly those involving community health workers (CHWs) have yielded small gains continuously. Spencer et al. (2016) reported a reduction of 0.51% in HbA1c levels at 12 months, in low-income Latino adults whose diabetes care was provided by CHW, versus usual care in a randomized controlled trial. Another study by Kangovi et al. (2018) also found an improvement in clinical outcomes and patient engagement when CHWs met the social needs along with coordinating care. These findings are inconsistent with the previous clinic-based research studies, which presented only partial effectiveness, but both articles indicated that maintaining such programs is challenging. They relied on external funds to achieve success and had no long-term reimbursement mechanisms.

The solutions to this issue at the policy and system levels include proposing strategies that would incorporate equity-related actions within the healthcare community. The screening of social needs and coordination of care is increasingly promoted by value-based payment models and used in Medicaid demonstrations. In a study by Finkelstein et al. (2020), a Medicaid program which links individuals to social resources was studied. It was established that the patients have improved overall health and have visited the emergency department less often. Nonetheless, it failed to indicate steady alterations in chronic-disease indicators like HbA1c. It implies that although a policy change has the potential to transform the usage of health services by patients, changes in metabolic health might not be realized immediately.

Food assistance and nutrition programs are among the most prevalent types of interventions. Recent quasi-experimental interventions of produce prescription programs have reported enhanced food security and self-rated improvements in diabetic control amongst intervention participants (Hager et al. 2023). However, their effect on HbA1c has not been consistent. These inconsistent findings suggest that the nutritional interventions can also be a critical support to diabetes management; however, the effect of a specific program on metabolism is important and may be influenced by the duration of the program, its intensity, and the use of a combination with regular clinical follow-up.

The objective of patient navigation and care coordination is to add connections between disconnected health systems. Natale-Pereira et al. (2016) found that navigation supported the attendance of low-income adults with chronic conditions and the initiation of preventive care. Nonetheless, it was not reliably able to enhance the level of blood sugar in a controlled experiment. In comparison, high nurse-led care-management models led to higher outcomes, but less staffing and financial resources are necessary. These results indicate a trade-off between the strength of an intervention and its scalability.

All intervention types face issues of implementation. A consistent number of barriers have been identified in reviews: workforce shortages, lack of reimbursement mechanisms, restrictions on data-sharing, and inconsistent patient engagement, particularly in cases of competing socioeconomic stressors on patients (Andermann, 2016). Engaging in interventions that fail to recognize structural barriers like unstable housing or a small clinic capacity can only be effective in the short term. Combined models of community resources, clinical teams, and policy incentives are more promising but observed inconsistently. Generally, the literature indicates that the issue of diabetes disparities in low-income adults can only be reduced through multilevel efforts and not through individual interventions. The potential of community-based and nutrition-oriented programs is valid, provided by supportive health-system design and policy infrastructure. These learnings explain why there is a need to have recommendations that are more sustainability-oriented, scalable, and structurally aligned.

➤ *Literature Gaps and Methodological Limitations*

Although the scientific literature on the topic of diabetes management in the context of low-income urban population is rather large, there are still significant gaps in terms of methodological and conceptual assumptions. The key weakness of the study is cross-sectional surveys like NHANES and BRFSS. They provide estimates of prevalence but cannot monitor the alteration of poor glycemic control over time (Fang et al., 2021; Satterfield et al., 2016). This restricts the causal explanation and is generally more inclined towards behavioral instead of structural explanations. Longitudinal and registry-based studies are also limited because they provide only a certain range of patterns over time. Some use area-based indicators of deprivation rather than individual socioeconomic data, which raises potential ecological bias and conceals intra-neighborhood variation (Walker et al., 2016; Wu et al., 2018). Moreover, the registry studies tend to exclude people who do not regularly use healthcare services, thus underestimating the most marginalized population.

Further gaps are found through intervention research. Even though nutrition-focused, community-based, and care-coordination interventions demonstrate short-term outcomes, most studies are time-bound, dependent on external funds, and

lack evidence on their sustainability (Spencer et al., 2016; Hager et al., 2023; Natale-Pereira et al., 2016). Policy research reveals that differences in diabetes outcomes with improved insurance coverage imply that some discrepancy exists between access and effective management (Lee et al., 2020; Yan et al., 2021). Lastly, the intersectional approach is applied in studies such as Hill Briggs (2020) to investigate the combined effect of income, race, age, and neighborhood context on outcomes, and this indicates the need to adopt integrated longitudinal approaches.

➤ *Theoretical Framework*

The given project integrates three theories, namely, Social Determinants of Health (SDOH), Fundamental Cause Theory, and the Chronic Care Model (CCM), to understand why American low-income adults in New York City still obtain unequal treatment of diabetes. These frameworks do not attribute causality to personal decision-making, but instead indicate wider social, economic, and health-system factors that influence results.

According to the SDOH framework, diabetes outcomes are the outcome of extended social, economic, and environmental influences such as income, housing, food, and healthcare access (Hill -Briggs, 2020). Urban areas such as New York show more neighborhood deprivation and segregation, to present residents with a greater amount of risk and unequal access to care (Consolazio et al., 2025).

The theory of Fundamental Cause further elaborates on the reason why socioeconomic status is a strong health factor. It contends that individual resource flexibility, i.e., money, knowledge, and power, can help individuals to prevent illness or reduce its consequences, despite the better treatment outcomes (Clouston & Link, 2021). This theory could be used to shed some light on the persistence of diabetes disparities even after clinical care improved.

The Chronic Care Model introduces a health-system perspective, emphasizing aligned care, patient self-management support, and a connection to community assets (Gilman, 2021). Collectively, these models affect the design of the project. They conceptualize diabetes management as the result of the interplay between social conditions and health-care systems, which informs analysis and recommendation arguments to promote equity-based, multilevel intervention instead of concentrating on individual behavior change.

➤ *Conclusion*

According to the review, socioeconomic and health-system inequities, rather than personal behavior, primarily guide diabetes management of low-income adults in New York City. The gaps in glycemic control related to income insecurity, food and housing instability, discontinuous care, and inequity in access to high-quality services are always indicated. Nutritional, community-based, and system-level interventions hold promise but can only impact the issue

because of questions of implementation and sustainability. These findings underscore the importance of equity-based, structure-informed programs to enhance the outcomes of diabetes.

IV. DISCUSSION & FINDING

➤ *Trends in Diabetes Prevalence and Management Outcomes Among Low-Income Adults in New York City*

The results of this project indicate that diabetes prevalence and poor management outcomes among low-income adults in New York City have shown limited improvement over the past decade, despite advances in drugs and clinical guidelines. In other words, the medicine alone is not sufficient to address the structural issues, which determine the treatment of diabetes in deprived areas of urban settings.

This opinion is supported by comparison with the external literature. According to a large metropolitan cohort study conducted by Gao (2025), the total rates of diabetes in the U.S. cities stabilized in 2015, but blood-glucose management deteriorated in adults in the persistently deprived areas. This is indicative of increasing disparity in care as opposed to convergence. According to Fang et al. (2021), national treatment gains offset increasing disparities in long-term control between socioeconomically disadvantaged populations, in particular, urban areas with instability at work and housing. These investigations contradict more positive reports in NYC aggregated trends, which could conceal continued poor control in vulnerable populations.

Comparisons with other countries provide additional context. In a report, Kilvert and Fox (2023) have documented small improvements in diabetes care gaps across selected cities in the United Kingdom following long-term investment in primary care and social support infrastructure. The absence of such improvement in NYC points to a suggestion that the lack of unified health delivery and poor social-policy integration decreases the profits of clinical innovation. Combined with other comparisons, these illustrations demonstrate that the patterns observed in NYC are not only the result of a delay in implementing medical innovations but also structural disadvantage.

➤ *Socioeconomic Healthcare Factors Influencing Diabetes Outcomes*

This project demonstrates that socioeconomic disadvantage and health-care systems interact to affect diabetes among low-income adult populations in the city of New York. Income insecurity, poor access to food, poor housing, and disjointed care do not operate in isolation but rather undermine long-term management of diabetes. These results are consistent with the Social Determinants of Health and Fundamental Cause Theory, which indicate that the inequality in access to resources always establishes health disparities.

This structural opinion is supported by other studies. Mujahid et al. (2023) established that residence in economically disadvantaged neighborhoods is connected to poor glycemic control, even when personal income and insurance coverage have been controlled. This implies that place-based disadvantage can overwhelm individual resources. According to Martinez Cruz et al. (2025), adults who are low-income and diabetic receive fragmented care. Their treatment is marked by the lack of follow-ups and an unplanned treatment course, even with health insurance. This is observed to correlate with trends observed within the safety-net environment in NYC, in which insurance does not necessarily guarantee ongoing care. Moreover, such evidence is consistent with the Chronic Care Model, which says that managing chronic diseases effectively involves providing coordinated care to a patient as opposed to just visiting them occasionally. In general, the current data lead to the conclusion that structural and system issues are the primary causes of inequalities in diabetes in New York City, rather than the lack of willingness to comply in patients.

➤ *Implications for Improving Diabetes Management and Reducing Disparities*

Based on the intervention-related results, this project proposes that single or temporary interventions cannot be sufficiently effective to have a significant impact on reducing diabetes disparities among low-income adults unless there is some general structural conformity. The potential of community-based, nutritional, and care-coordination approaches is high, although their effect is typically small and difficult to maintain, as it aligns with the theoretical guidelines of equity.

This understanding is supported by external information. Werfalli et al. (2020) documented a momentary positive effect of community health worker-led programs on HbA1c, which fell as the programs were transitioned to community support, limiting sustained diabetes control. Conversely, Zhang et al. (2025) found that sustained differences in chronic disease outcomes were higher in health systems that integrated, rather than made, standalone referrals to social care, based on routine primary care. This comparison empowers Fundamental Cause Theory, which hypothesizes that interventions that do not redistribute resources will not have much long-term effect. This tension can also be evidenced at policy levels. Pisavadia et al. (2025) state that individualistic interventions focused on service navigation or individual behavior might be a replication of disparities when the determinants remained unaltered, reflecting persistent diabetes inequalities observed across NYC boroughs. According to the Chronic Care Model, the best way to intervene is to have congruence of community resources, health care teams, and policy incentives. Combined, external data indicate that achieving changes in diabetes inequalities in NYC demands tackling the problem on a multilevel approach and focusing on equity-enabling strategies that involve the social policy measure, healthcare system

redesign, and long-term investment in communities instead of depending upon individual-program-level measures.

V. IMPLICATIONS

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This understanding is supported by external information. Zhang et al. (2025) found that sustained differences in chronic disease outcomes were higher in health systems that integrated, rather than made, standalone referrals to social care, based on routine primary care. This comparison empowers Fundamental Cause Theory, which hypothesizes that interventions that do not redistribute resources will not have much long-term effect. This tension can also be evidenced at policy levels. Pisavadia et al. (2025) state that individualistic interventions focused on service navigation or individual behavior might be a replication of disparities when the determinants remained unaltered, reflecting persistent diabetes inequalities observed across NYC boroughs. According to the Chronic Care Model, the best way to intervene is to have congruence of community resources, health care teams, and policy incentives. Combined, external data indicate that achieving changes in diabetes inequalities in NYC demands tackling the problem on a multilevel approach and focusing on equity-enabling strategies that involve the social policy measure, healthcare system redesign, and long-term investment in communities instead of depending upon individual-program-level measures.

VI. LIMITATIONS

There are several limitations associated with this project that need to be noted. The project was completed in a time-constrained environment, which limited how far we could delve into the various determinants of diabetes outcomes. Most of the data used to compile this project is drawn from secondary sources and is not based on direct observations or information collected by the writer. Therefore, most of the conclusions drawn in this project are based on previously published research, and not by the collection and analysis of original data. While I attempted to correctly interpret the literature for this assignment, the project may reflect my knowledge and experience as a student studying public health.

VII. CONCLUSION

Disparities in diabetes in New York City are embedded in both structural and system-level inequities, rather than being due to patient noncompliance. The continuing gaps between the boroughs, along with the dispersed provision and focused deprivation, demonstrate that biomedical innovations alone are not enough. The combined model in use in this research paper describes the effect of social circumstances and health-care design, which result in inequalities. Multilevel, equity-based policies that integrate social policy, neighborhood investment, and integrated chronic-care provision are key to addressing these disparities. The inequities will probably prevail even with better treatment and technology without structural reform.

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