# The Fierce Urgency of Now: Investments To Turn the Tide of the Diabetes Epidemic

## Report of the 2022-2023 Diabetes Working Group

Co-chaired by Black Health, Health People, and the New York City Department of Health and Mental Hygiene

BLACK HEALTH

HEALTH PEOPLE

NYC Health

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# Contents

# Executive Summary

**"We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of now. In this unfolding conundrum of life and history, there is such a thing as being too late. This is no time for apathy or complacency. This is a time for vigorous and positive action."**

— Dr. Martin Luther King Jr., "Beyond Vietnam: A Time to Break Silence" speech, April 4, 1967

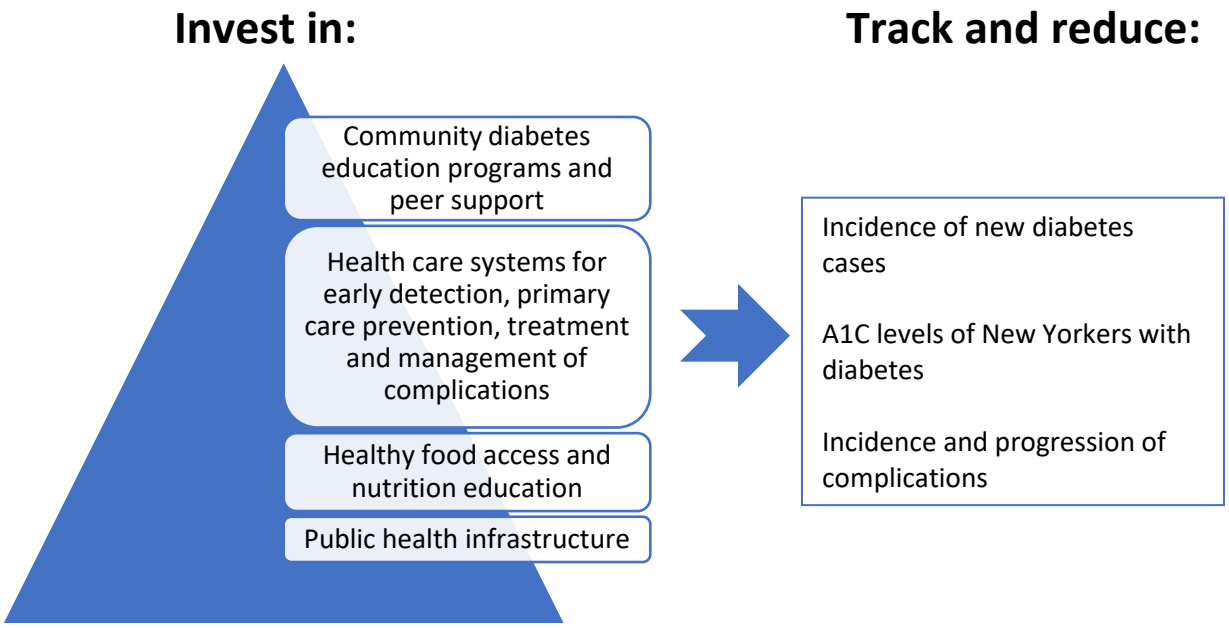
The ongoing diabetes epidemic in New York City (NYC) is a public health crisis leading to enormous harms to New Yorkers, including vision loss and blindness, kidney and nerve damage, heart disease, stroke, and lower limb amputation. Given the health impacts of structural racism,[1] diabetes and its complications disproportionately affect New Yorkers of color and neighborhoods living with poverty.[2] For example, while 13 out of 1,000 adult New Yorkers with diabetes had end-stage renal disease in 2018, that number was more than double among Black New Yorkers compared with White non-Latino/a New Yorkers.

COVID-19 has amplified the toll of diabetes. Across the U.S., including in NYC, COVID-19 bore a disproportionate impact on people living with diabetes. People living with diabetes were at an increased risk of severe disease and dying from COVID-19.[3] Poor health outcomes were higher among those with higher blood sugars. Our city must confront diabetes with the necessary investment in public response and proven measures that the severity of the diabetes epidemic demands.

In recognition of these unacceptable realities, Black Health and Health People, organizations dedicated to direct outreach to and effective education for underserved communities where diabetes is so disproportionately prevalent, together with the NYC Department of Health and Mental Hygiene (NYC Health Department), co-chaired a working group in fall and winter 2022-2023. The goal of this working group is to review and highlight the most effective public health plans and timely and practical community, clinical and policy strategies to begin to measurably reduce the dire impact of diabetes in our city.

The core recommendation is to mobilize investments to support evidence-based interventions to address diabetes as an urgent social, economic, racial and health equity issue. We can no longer accept the status quo. We can change this.

We urge immediate investment in four major areas:




<u>Public health infrastructure and health equity-oriented policy reforms</u>

1. Build the NYC Health Department's capacity to lead and coordinate the city's public health response to diabetes.
2. Lead and invest in comprehensive, targeted public education campaigns to promote successful diabetes prevention, detection and management and connection to available resources.
3. Work with the state to reform Medicaid reimbursement and other policies that currently impede progress in improving diabetes outcomes.
4. Invest in a diabetes workforce, including community health workers, that can deliver local public health prevention and management interventions.
5. Modernize citywide data collection for tracking and timely reporting of diabetes incidence and complications, and to help inform the progress of interventions.

<u>Healthy food access and nutrition education</u>

1. Pursue state and federal cooperation to expand enrollment in and improve nutritional quality of food purchased through Supplemental Nutrition Assistance Program (SNAP) benefits and other programs that address nutrition insecurity.
2. Fund programs that bring fresh produce and other healthy foods to historically disinvested neighborhoods, such as farmers markets, mobile markets and Green Carts, while prioritizing electronic benefits transfer (EBT) and SNAP acceptance.
3. Expand programs that increase the accessibility of fresh fruits and vegetables for New Yorkers with low incomes, such as Health Bucks, Get the Good Stuff and Groceries to Go.
4. Evaluate options to limit exposure to unhealthy and deceptive food marketing.

5. Provide widespread, culturally responsive nutrition education for all ages.
6. Deepen and expand the NYC Food Standards to increase the availability of healthy foods at city facilities.
7. Support current efforts to revise school meals to produce healthy, tasty lunches and breakfasts, emphasizing plant-based meals, for students in the NYC school system.

Health care system change to focus on early detection, primary care prevention, treatment and management of complications

1. Create Diabetes Centers of Excellence in safety net hospitals.[4]
2. Pursue New York State (NYS) Medicaid reforms to remove barriers to reimbursement for effective diabetes management and prevention strategies, including lifestyle medicine and continuous glucose monitoring.
3. Focus clinical systems on early intervention for diabetes remission and prevention of complications, including amputations and vision loss.
4. Deliver City-funded education for the health care workforce and other stakeholders emphasizing successful strategies for diabetes self-management.

Community diabetes education programs and peer support

1. Expand the City's investments in community-led diabetes self-management programming.
2. Advocate for insurance reimbursement reform, including by NYS Medicaid, to support effective community-delivered and peer-led diabetes self-management.
3. Expand capacity of safety net providers to administer evidence-based and person-centered diabetes programming.
4. Directly fund faith-based and community-based organizations to administer evidence-based and person-centered diabetes programming.
5. Support local, state and federal government agencies to make effective diabetes self-management education widely accessible in communities of color and communities living with poverty.

We are determined that diabetes in NYC will be widely prevented, often put into remission and properly cared for, and its complications drastically reduced. With its range of key institutions, from medical centers to community- and faith-based organizations, and its public health infrastructure, NYC can move from a situation of tragedy to one of success and leadership in fighting diabetes that is felt throughout the city.

# Introduction

Diabetes is a chronic health condition that affects how your body turns food into energy. Insulin, a naturally occurring hormone made by your pancreas, helps the body use sugar for energy. With diabetes, your body does not make enough insulin or cannot use it as well as it should, which can cause high blood sugar. Over time, this can cause serious health problems as the high blood sugars start to affect the delicate vascular systems, such as those behind the retinas, in the kidneys and in the lower limbs.

Diabetes is an unprecedented health crisis where a single chronic disease fuels multiple related complications and conditions, including vision loss, kidney and nerve damage, heart disease, stroke, depression, amputation, and dementia. Diabetes is the leading cause of new cases of blindness and end-stage kidney disease, often requiring dialysis.[5] Diabetes is also being seen more and more at younger ages. Type 2 diabetes, which accounts for about 90 to 95% of diabetes cases nationally,[6] used to be known as adult-onset diabetes, but cases are growing rapidly among children and teenagers.[7]

This is occurring even though type 2 diabetes and many of its complications are highly preventable.

For NYC, where nearly 1 million people are living with diabetes,[8] the overriding problem is turning our increasing awareness of effective diabetes care and prevention into policies, programs, public knowledge and action. NYC must immediately make evidence-based and community-driven investments that we know can start to turn the tide on the diabetes epidemic and significantly decrease the huge toll that diabetes is taking on the lives of New Yorkers.

Diabetes in NYC requires public responses and proven measures that have been successful against other epidemics. This includes public information campaigns clearly explaining prevention and self-care strategies, updated information for clinicians, and regular collection of data on prevalence, demographics and neighborhood impact, which the City effectively used in the fight against HIV and AIDS as well as COVID-19.

At the same time, measures that specifically address diabetes are also necessary. Self-management education provided directly in the communities most impacted by diabetes has the potential to help thousands of people to lower their blood sugar and avoid terrible complications.[9,10,11] However, neither Medicaid nor Medicare, the main insurers for people who may have lower or fixed household incomes and may be at the highest risk for complications, will pay for this effective education delivered in community settings.

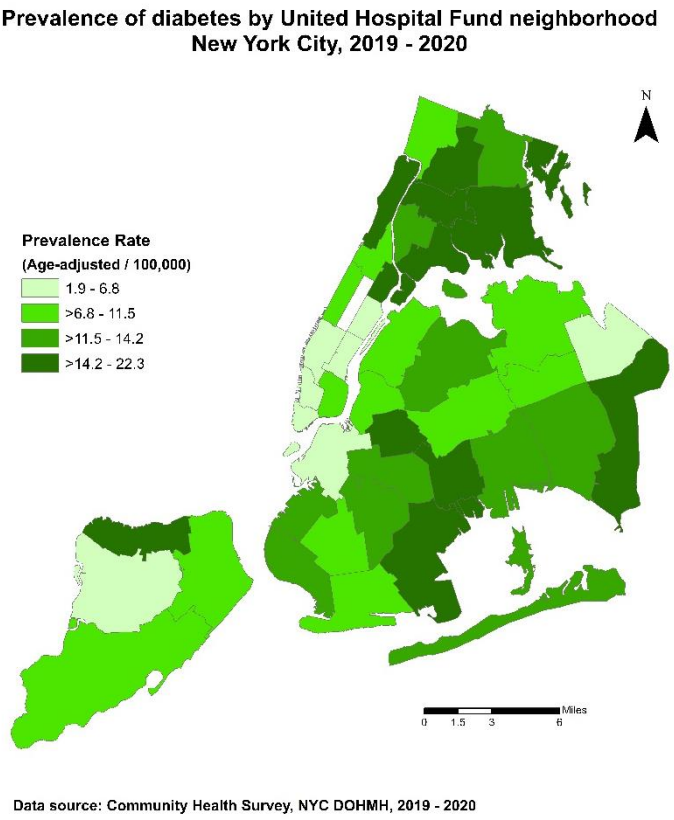
At a local level, it is also clear that wide medical system reform emphasizing early intervention for diabetes is critical. The city has seen a large and increasing number of hospitalizations for lower extremity amputations.[12] However, even the American Diabetes Association says 85% of these disabling surgeries are avoidable with proper early intervention.[13]

Most importantly, better addressing diabetes in NYC means working and partnering with communities in new ways. It means helping people who have now watched this epidemic worsen for two decades understand that self-management and prevention work; ensuring widespread access to the nutritious food essential to preventing and managing diabetes; and changing government policies that outright interfere with progress in diabetes management.

# Diabetes Inequities in NYC

As the map to the right shows, some neighborhoods experience more diabetes than others. These inequities can often be connected to historical and current structural, environmental and social discrimination factors, including redlining, residential segregation and disinvestment.[14]

Poverty makes it hard to access the tools needed for diabetes management and prevention, including healthy food, regular exercise, medication and other diabetes supplies. In NYC, adults living in neighborhoods with very high poverty (greater than 30%) and high poverty (between 20 and 30%) are about twice as likely to report having diabetes as those in neighborhoods with low poverty (less than 10%), with neighborhoods with very high poverty having the greatest prevalence of diabetes.[15]




Adult Black and Latino/a New Yorkers are about twice as likely as White New Yorkers to report having diabetes, and Asian and Pacific Islander New Yorkers are about 50% more likely than White New Yorkers.[16] Historical and current racism, socioeconomic inequities, and related barriers widen gaps seen in the quality of diabetes therapy. People of color often receive lesser quality of care[17] and experience a greater burden of diabetes-related complications.

As overwhelming as can diabetes seem, it is important to appreciate that small changes can make big differences. Relatively small reductions in blood sugar, for instance, are significantly protective against amputation.[18] Even when people are older, it is still possible to "correct" some of the damage high blood sugar has caused**.** A recent study looked at the dementia risk of more than 250,000 people with diabetes age 50 and older. The study found that participants had a lower risk of dementia if just half their A1C measurements were below 9%, compared with participants who had more than half their A1C measurements in the 9% or greater range.[19]

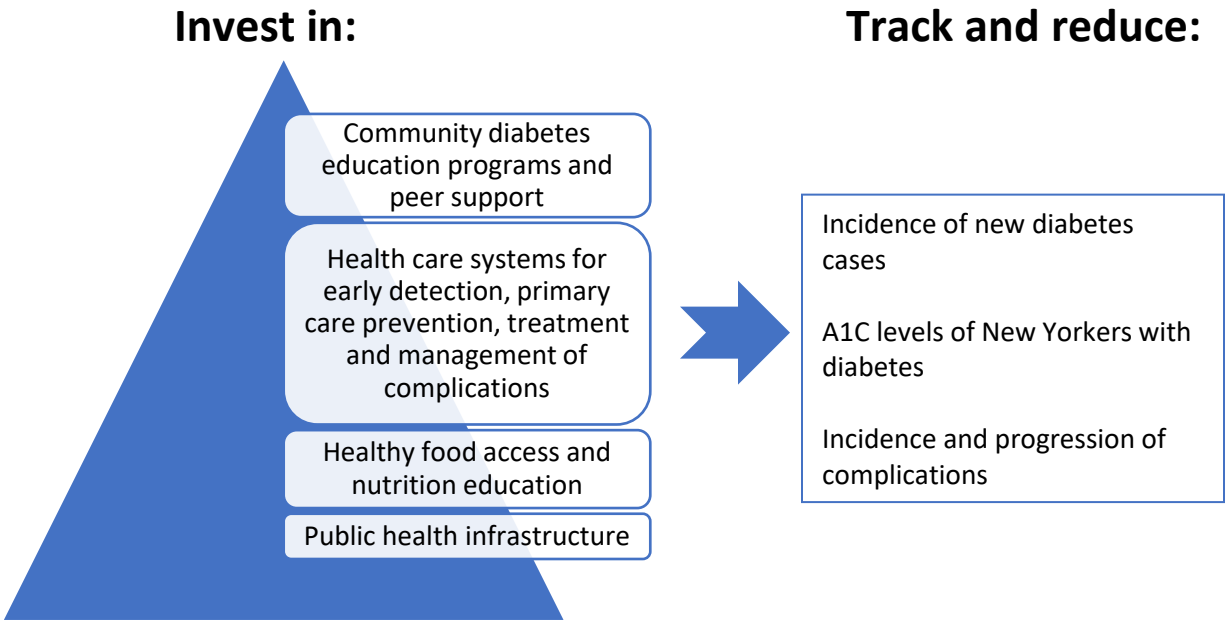
More diabetes prevention and self-management support can mean healthier children, less dementia, adults guarded from the threats of complications such as amputation and blindness, and a higher quality of life for many New Yorkers and their loved ones! Here is a mission for our city that we can and must undertake.

## Taking Action: Expand Resource Access, Reduce the Burden of Diabetes

In recognition of the unacceptable reality of diabetes inequity in NYC, Black Health and Health People, together with the NYC Health Department, co-chaired a working group in fall and winter 2022-2023. The goal of this working group is to review and highlight the most effective public health plans and timely and practical community, clinical, and policy strategies to begin to measurably reduce the dire impact of diabetes in our city.

The core recommendation is to mobilize investments to address diabetes as an urgent social, economic, racial and health equity issue. Investments should be prioritized specifically in communities that have been left with an inequitable burden from diabetes. Investments at all levels of public and private sectors are required. We can no longer accept the status quo. We can change this.

We urge increasing resources to support intervening and tracking in the following ways:



# 1. Public Health Infrastructure

NYC and the NYC Health Department need to build on existing work to meet the critical challenges of the current diabetes epidemic. The city's public health infrastructure for diabetes must start to reflect the investments required to address an epidemic that now impacts 1 million people. As a priority, the working group has advocated that the NYC Health Department take leadership and build capacity to coordinate the city's public health response to diabetes, which must involve:

1. Launching comprehensive, targeted public education campaigns to promote successful diabetes prevention, detection and management and referrals to available community resources critical to fighting a pervasive epidemic. We believe that in a city where, based on national data, 38% of adults have prediabetes,[20] with more than 5% of those proceeding to develop diagnosed diabetes every year,[21] there is a need to change the widespread public perception that reflects long inaction on diabetes — that "nothing can be done." Instead, we need to reassure our citizens that they can indeed start to manage and prevent diabetes. Therefore, we recommend highly engaging, empowering campaigns with representative people who have successfully managed or put into remission their own diabetes as the "spokespeople" for this message. Additionally, we recommend factual public messages with tips, such as reading food labels, on feasible, small steps to manage sugar intake. It is crucial for the public to understand that early blood sugar management is especially important to prevent diabetes-related complications — for instance, the early damage to the delicate vascular system behind the retina, which can lead to long-term vision loss.
2. Working with the state to reform Medicaid reimbursement and other policies that currently impede progress in improving diabetes outcomes. For instance, NYC can advocate obtaining Medicaid waivers so that NYS Medicaid would pay for proven self-management programs in communities and support lifestyle medicine programs, particularly dietitian-led services, including frequent individual and group visits and provider-led shared medical appointments. This would facilitate the wide availability of local, community-delivered self-management programs in neighborhoods disproportionally affected by diabetes.
3. Investing in a diabetes workforce, including community health workers, that can deliver local public health prevention and management interventions. As it has for other epidemics, by training community health workers, the NYC Health Department can increase their scope of work around chronic disease prevention and management. This in turn can expand reach and promote prevention and management strategies among communities.
4. Investing in data modernization to better track diabetes prevention and management efforts so that timely and accurate data can be availably publicly, help inform quality improvement and highlight the progress of interventions and initiatives.

## 2. Healthy Food Access and Nutrition Education

A healthy, balanced diet is the cornerstone of diabetes management and prevention and can even lead to diabetes remission, especially when emphasizing whole and minimally processed plant foods. Over 50% of New Yorkers diagnosed with diabetes participate in food assistance programs such as SNAP, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and emergency food.[22] Food insecurity and poor nutrition exacerbate diet-related chronic diseases such as type 2 diabetes, and many neighborhoods with high poverty and large communities of color face more barriers to healthy food access.

Community nutrition resources that aim to increase access to healthy food, such as farm stands and Green Carts, are dwarfed by the ubiquity and promotion of unhealthy ultra-processed foods and beverages. In addition, these small produce outlets face problems that limit their accessibility in low-income neighborhoods. These barriers include fees for small farm stands and Green Carts being unable to process EBT such as SNAP. The working group advocates that NYC prioritize investment to improve healthy food access and nutrition knowledge for the primary prevention of disease and improved outcomes. This investment must support NYC Health Department efforts to:

1. Pursue state and federal cooperation to expand enrollment in and improve nutritional quality of food purchased through SNAP benefits and other programs that address nutrition insecurity
2. Fund programs that bring fresh produce and other healthy foods to historically disinvested neighborhoods, such as farmers markets, mobile markets and Green Carts, while prioritizing EBT and SNAP acceptance
3. Expand programs that increase the accessibility of fresh fruits and vegetables for New Yorkers with low incomes, such as Health Bucks, Get the Good Stuff and Groceries to Go
4. Evaluate options to limit exposure to unhealthy food and deceptive food marketing
5. Provide widespread, culturally responsive nutrition education for all ages
6. Deepen and expand the NYC Food Standards to increase the availability of healthy foods at city facilities. The NYC Food Standards are evidence-based nutrition criteria that apply to all meals and snacks served by City agencies and their subcontractors, including NYC Public Schools. Recent updates promote whole and minimally processed plant foods and limit beef, processed meat and added sugars. Ensuring our city agencies that serve children and populations at risk for diabetes serve nutritious foods is a priority and needs to be continually supported.
7. Support current efforts to revise school meals to produce healthy, tasty lunches and breakfasts, emphasizing plant-based meals, for students in the NYC school system. The rate of new cases of type 2 diabetes in children ages 10 to 19 nearly doubled between 2002 and 2015 in the U.S.,[23] making prevention in children particularly urgent. We strongly advocate for the support and expansion of this school initiative. This model involves direct actions that improve population health against chronic disease similar to those implemented to address infectious disease in the past. The program incorporates input from a committee of 12 prominent chefs and hundreds of children and parents to ensure that new recipes are well received. This is an example of how important it is to work with communities in new ways to successfully reduce diabetes risks.

## 3. Early Detection, Primary Care Prevention, Treatment and Management of Complications

The value of early detection of diabetes is enormous. It is an opportunity to significantly prevent complications such as vision loss. While most people diagnosed with diabetes may not have symptoms of vision damage for years, damage to the delicate vascular system behind the retina can start to occur quickly, even during prediabetes. About one in three people with diabetes over age 40 have signs of eye disease.[24] Early detection of and intervention for diabetes can also increase the chances of patients achieving diabetes remission, which is when their blood sugar levels stay within the normal range without diabetes medications.

Once diagnosed with diabetes, regular screening for and early detection of signs of complications can help reduce the risk of severe and permanent damage. It is paramount for the public to widely understand the importance of early blood sugar management in protecting against vision loss and other health complications of diabetes. This is another value of funding local diabetes self-management programs, which would give providers timely and widely available referral pathways for patients. The immediate crisis of increasing amputations requires multiple strategies, with a focus on educating practitioners in proven strategies and on individualized service plans and algorithms.

Additionally, while health care access programs such as NYC Care help provide health care services to many New Yorkers who do not qualify for health insurance, health insurance must be expanded to reach all New Yorkers regardless of immigration status.

Our priority recommendations for health care system support for early detection, primary care prevention, treatment and reducing complications are:

1. Create Diabetes Centers of Excellence in safety net hospitals.[25] Safety net hospitals in NYC primarily serve patients who have lower household income or do not have insurance. State and city support for these hospitals to become Diabetes Centers of Excellence would help ensure that people with diabetes seeking care in these facilities receive the highest standard of care possible.
2. Pursue NYS Medicaid reforms to remove barriers to reimbursement for effective diabetes management and prevention strategies, including lifestyle medicine and continuous glucose monitoring. Lifestyle medicine is a specialty form of medical care that uses therapeutic lifestyle interventions as a primary way of treating chronic conditions, including cardiovascular diseases, type 2 diabetes and obesity. Therapeutic interventions include whole food, plant-forward eating; physical activity; restorative sleep; stress management; avoidance of risky substances; and positive social connections. As an approach to diabetes treatment, lifestyle medicine regularly helps patients achieve remission. NYC is a leader in publicly available lifestyle medicine. The Lifestyle Medicine Program at NYC Health + Hospitals/Bellevue was among the first of its kind in a public health care setting. The program is now expanding to six more hospitals within the NYC Health + Hospitals system. These centers will benefit thousands of people with diabetes and are an important statement of government determination to offer effective services to

New Yorkers with diabetes. These programs need to be continually supported and expanded on.

3. Focus clinical systems on early intervention for diabetes remission and prevention of complications, including amputations and vision loss.
4. Through the NYC Health Department, deliver City-funded education for the health care workforce and other stakeholders emphasizing successful strategies for diabetes self-management. This can include public, patient-focused education campaigns about the importance of screening and early treatment for diabetes and its complications, providing vital support to the efforts of the medical team.

## 4. Community Diabetes Education Programs and Peer Support

More than 20 years of demonstration and research projects have shown that good self-management education, often delivered over multiple small group sessions, not only helps reduce blood sugar and weight but significantly guards against debilitating complications like amputation and kidney disease.[26,27] For example, beyond its physical impact, diabetes also significantly increases the risk of depression. Evaluation suggests that participation in diabetes self-management programs such as the Diabetes Self-Management Program (DSMP), diabetes self-management education and support (DSMES), and NYC Care Calls can help participants manage and improve depression.[28,29,30,31,32,33] Self-management education can offer the city an important, community-driven resource for grappling with the mental distress that is now so widespread in New York.

There are several recognized models for delivering self-management education. In our current health crisis, all New Yorkers need support both at the City level and more broadly through sustainable reimbursement supported by Medicare and Medicaid.

DSMES is part of the standard of care for diabetes management. DSMES helps empower people with diabetes with the knowledge and skills necessary for diabetes self-care. It has a flexible curriculum that can be delivered to groups or individually, often in medical settings. The effectiveness of DSMES is well supported in the literature. Participants who receive DSMES have significant improvements in diabetes self-care, blood sugar management and diabetes-related health care utilization.[34,35,36]

Community-led interventions include Stanford University's DSMP, a six-week peer-led program for people with diabetes, and NYC Care Calls, a telephonic diabetes self-management program delivered by bilingual health educators at the NYC Health Department. These programs are cost-effective and can be established and scaled quickly if reimbursement or funding is available.[37]

For NYC, scaling these self-management programs is vital to increasing access to support and education resources and improving blood sugar management, especially in neighborhoods hard-hit by diabetes.

Our priority recommendations for increasing access to community diabetes education programs and peer support are:

1. Expand the City's investments in community-led diabetes self-management programming. By taking self-management courses directly to local sites, community delivery ensures that those who most need help with self-management get that help.
2. Advocate for insurance reimbursement reform, including by NYS Medicaid, to support effective community-delivered and peer-led diabetes self-management. Despite being a covered health insurance benefit, DSMES is underutilized.[38,39] This is, in part, because DSMES is only reimbursable when provided by specific health care professionals in medical but not community settings. Currently, community-based programs such as DSMP are not reimbursable. Despite evidence that community-delivered self-

management works, Medicaid and Medicare, the main insurers for the populations most affected by diabetes, still do not support it.

3. Expand capacity of safety net providers to administer evidence-based and person-centered diabetes programming.
4. Directly fund faith-based and community-based organizations to administer evidence-based and person-centered diabetes programming. Community- and faith-based groups have valuable community connections and credibility to ensure that self-management education is widely available. NYC must fund these organizations, and, at the same time, the City must advocate with the state and federal government to make peer-delivered chronic disease self-management education federally reimbursable.
5. Support local, state and federal government agencies to make effective diabetes self-management education widely accessible in communities of color and communities living with poverty in particular.

## Existing NYC Health Department Programs

The NYC Health Department currently leads the initiatives described in the table below. This work complements the incredible work of other city agencies, NYC Health + Hospitals, community-based organizations and health care providers. The working group recognizes that many of these programs have limitations in their reach and are not always resourced to the level needed to address the current state of diabetes in NYC. Much more must be done.

| Clinical Treatment | Access to Education | Healthy Eating | |
|---|---|---|---|
| Delivers diabetes self-management trainings to medical assistants through the Medical Assistant Project | Provides National Diabetes Prevention Program TA and training | Distributes Health Bucks, which can be used to redeem fresh fruits and vegetables at any NYC farmers market | Provides TA and training on nutrition through the Eat Well Play Hard initiative for early child care centers serving families with low incomes |
| Provides technical assistance (TA) to 1,500 NYC REACH health practices | Connects New Yorkers to health programs through the Patient Engagement Call Center | Offers Get the Good Stuff for SNAP participants to get free fruits, vegetables and beans at certain NYC supermarkets | Conducts free Stellar Farmers Market Nutrition education and cooking demonstrations |
| Provides TA and support to aspiring DSMES programs through the DSMES umbrella Accreditation Program | Facilitates DSMES workshops | Runs Groceries to Go for eligible New Yorkers to get monthly credits to purchase groceries through an online platform | Runs media campaigns to promote healthy eating |

The NYC Health Department's varied and innovative programs to combat diabetes range from TA on diabetes care for more than 1,500 medical practices in the NYC REACH network to the highly popular Health Bucks program, which provides redeemable vouchers for fresh fruits and vegetables at farmers markets. NYC must expand and better support these existing efforts as an integral part of a new, focused fight against diabetes, the city's largest epidemic.

# Members of the Diabetes Working Group

Convened by Dr. Michelle Morse, Chief Medical Officer of the NYC Health Department.

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