STATE OF NORTH CAROLINA
DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER
GOVERNOR

MANDY COHEN, MD, MPH
SECRETARY

December 6, 2018

SENT VIA ELECTRONIC MAIL

The Honorable Louis Pate, Chair
Joint Legislative Oversight Committee on
Health and Human Services
North Carolina General Assembly
Room 311, Legislative Office Building
Raleigh, NC 27603

The Honorable Josh Dobson, Chair
Joint Legislative Oversight Committee on
Health and Human Services
North Carolina General Assembly
Room 301N, Legislative Office Building
Raleigh, NC 27603

The Honorable Donny Lambeth, Chair
Joint Legislative Oversight Committee on
Health and Human Services
North Carolina General Assembly
Room 303, Legislative Office Building
Raleigh, NC 27603

Dear Chairmen:

Session Law 2017-57, Section 11E.5.(b), requires the Department of Health and Human Services, Division of Public Health, Office of Minority Health, to report annually, on the status, participant demographics, cost and outcomes of the Evidence-Based Diabetes Prevention Program being administered in consultation with the Chronic Disease and Injury Prevention Section. Pursuant to the provisions of law, we are pleased to submit the attached report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division.

Should you have any questions regarding this report, please contact Beth Lovette, Interim Director for the Division of Public Health, at 919-707-5000.

Sincerely,

Mark T. Benton

for Mandy Cohen, MD, MPH
Secretary

cc:

Beth Lovette	Marjorie Donaldson	Katherine Restrepo	Theresa Matula
Rod Davis	Joyce Jones	Susan Perry-Manning	Leah Burns
Matt Gross	Mark Benton	Lisa Wilks	Erin Matteson
Zack Wortman	reports@ncleg.net	LT McCrimmon	Deborah Landry
Mark Collins	Steve Owen	Jessica Meed	Denise Thomas

WWW.NCDHHS.GOV
TEL 919-855-4800 • FAX 919-715-4645
LOCATION: 101 BLAIR DRIVE • ADAMS BUILDING • RALEIGH, NC 27603
MAILING ADDRESS: 2001 MAIL SERVICE CENTER • RALEIGH, NC 27699-2001

STATE OF NORTH CAROLINA
DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER
GOVERNOR

MANDY COHEN, MD, MPH
SECRETARY

December 6, 2018

SENT VIA ELECTRONIC MAIL

Mr. Mark Trogdon, Director
Fiscal Research Division
Suite 619, Legislative Office Building
Raleigh, NC 27603-5925

Dear Director Trogdon:

Session Law 2017-57, Section 11E.5.(b), requires the Department of Health and Human Services, Division of Public Health, Office of Minority Health, to report annually, on the status, participant demographics, cost and outcomes of the Evidence-Based Diabetes Prevention Program being administered in consultation with the Chronic Disease and Injury Prevention Section. Pursuant to the provisions of law, we are pleased to submit the attached report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division.

Should you have any questions regarding this report, please contact Beth Lovette, Interim Director for the Division of Public Health, at 919-707-5000.

Sincerely,

Mark T. Benton

for Mandy Cohen, MD, MPH
Secretary

cc:

Beth Lovette	Marjorie Donaldson	Katherine Restrepo	Theresa Matula
Rod Davis	Joyce Jones	Susan Perry-Manning	Leah Burns
Matt Gross	Mark Benton	Lisa Wilks	Erin Matteson
Zack Wortman	reports@ncleg.net	LT McCrimmon	Deborah Landry
Mark Collins	Steve Owen	Jessica Meed	Denise Thomas

WWW.NCDHHS.GOV
TEL 919-855-4800 • FAX 919-715-4645
LOCATION: 101 BLAIR DRIVE • ADAMS BUILDING • RALEIGH, NC 27603
MAILING ADDRESS: 2001 MAIL SERVICE CENTER • RALEIGH, NC 27699-2001

Evidence-Based Diabetes Prevention Program to Eliminate Health Disparities

Session Law 2017-57 Section 11E.5.(b)

Report to

The Joint Legislative Oversight Committee on

Health and Human Services

and

Fiscal Research Division

By

North Carolina
Department of Health and Human Services

December 6, 2018

Reporting Requirements

Session Law 2017-57 states:

SECTION 11E.5.(a) The Department of Health and Human Services, Division of Public Health, Office of Minority Health, shall continue to administer, in consultation with the Chronic Disease and Injury (CDI) Prevention Section, an evidence-based Diabetes Prevention Program modeled after the program recommended by the National Institute of Diabetes and Digestive and Kidney Diseases, targeting minority populations.
SECTION 11E.5.(b) By December 1, 2017, and annually thereafter, the Department of Health and Human Services shall report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division on the status, participant demographics, cost, and outcomes of the Diabetes Prevention Program authorized by subsection (a) of this section.

Executive Summary

Prediabetes is a condition where people have higher than normal blood glucose levels and are at risk for developing type 2 diabetes without intervention. Roughly one-third of North Carolinians with prediabetes are racial and ethnic minorities.

In 2016, the North Carolina General Assembly made funding available to the Division of Public Health (DPH) for the North Carolina Office of Minority Health & Health disparities (NC OMHHD) to establish and administer, in consultation with the Chronic Disease and Injury Section within the Division of Public Health, an evidenced-based diabetes prevention program targeting African-Americans, Hispanic/Latinos and American Indians (HB 1030, 2015-241, Section 12E.3). This report outlines the metrics of the North Carolina Minority Diabetes Prevention Program, (NC MDPP) and identifies areas for increasing its effectiveness.

Background

Prediabetes is a condition where people have higher than normal blood glucose levels (mg/dl), but their mg/dl is not yet high enough to be diagnosed as diabetes. Nationally, an estimated 86 million American adults have prediabetes, but only about 11% of them are aware. African Americans, American Indians, Alaska Natives, Asians, Hispanics, Native Hawaiians, and other Pacific Islanders are at higher risk than non-Hispanic whites for developing type 2 diabetes (CDC, Diabetes Report 2014). In 2013, the prevalence of prediabetes in North Carolina was estimated to be about 9%. In that same year, 9.5% of respondents to a Behavioral Risk Factor Surveillance System survey indicated that they had been told by a doctor or other health professional that they had prediabetes or borderline diabetes. Of those respondents, 31.3% were racial and ethnic minorities (African Americans: 13.0%; Hispanic/Latinos: 5.1%; American Indians: 6.8%; and other racial and ethnic minorities: 6.4%). (North Carolina State Center for Health Statistics, BRFSS 2014). Without intervention, each year, about 11% of those with prediabetes will progress to type 2 diabetes. However, early detection and treatment of prediabetes can help to slow the projected increase in type 2 diabetes prevalence.

Total direct medical expenses for diagnosed and undiagnosed diabetes, prediabetes and gestational diabetes in North Carolina was estimated at $8.4 billion in 2012 (American Diabetes Association, n.d). North Carolina's Medicaid program calculated that if both racial and economic disparities in diabetes prevalence were eliminated, more than $100 million could be saved each year (North Carolina State Center for Health Statistics, 2009).

Diabetes Prevention Programs (DPP) are designed to empower people with prediabetes to take charge of their health and well-being. These 12-month, evidenced-based programs can help people who have prediabetes or who are at high risk for type 2 diabetes make realistic and achievable lifestyle changes which can cut their risk of developing type 2 diabetes by up to 58% percent (CDC, "Preventing Type 2 Diabetes").

NC Minority Diabetes Prevention Program

The goal of the NC MDPP is to provide: (1) Community screenings for prediabetes and region-specific targeted marketing campaigns in minority communities promoting prediabetes and diabetes awareness, (2) 12-month NC MDPP Lifestyle Class Series in minority communities, and (3) Community conversations to minority communities across North Carolina.

NC MDPP Regional Collaboratives were created to engage, screen, and deliver a Centers for Disease Control and Prevention (CDC) curriculum ("Prevent T2" and "Prevenga el T2") to a cohort of minority communities within its region. The local health departments and their partners may engage, screen, and enroll non-Hispanic whites in the NC MDPP, provided that no less than 60% of program participants are members of racial/ethnic minority groups.

Specifically, NC MDPP is a multi-component initiative that includes the following:

1. Community Screenings and Region-Specific Targeted Marketing Campaigns
   Prediabetes screening events were facilitated at local health departments, faith-based organizations, food banks, pharmacies and other community agencies. Screening tools included: the CDC prediabetes paper screener, fasting and non-fasting blood glucose tests, hemoglobin A1c tests, and electronic health records. Community screenings were an essential component to increasing awareness about prediabetes and increasing access to Diabetes Prevention Programs through coordinated referral efforts.

   In fiscal year 2017-18, NC MDPP Regional Collaboratives exceeded the state goal of screening 4200 residents for prediabetes by June 30, 2018, and ultimately screened 10,341 individuals.

   In fiscal year 2017-18, NC MDPP Regional Collaboratives expanded their reach through region-specific awareness campaigns, by developing marketing materials with community members at Community Advisory Board meetings. Through these Community Advisory Board meetings, NC MDPP Participants developed culturally appropriate nutrition education materials, including a cookbook with NC MDPP participant favored recipes and testimonials. Regional staff have found significant success in the use of materials developed by NC MDPP participants in recruitment initiatives, and as resources for current participants.

2. 12-month NC MDPP Lifestyle Class Series
   Increasing minority participation in Diabetes Prevention Programs (i.e. Lifestyle Class series using the CDC Prevent T2 curriculum) is the core goal of NC MDPP. People who are enrolled in the 12-month NC MDPP Lifestyle Class series receive nutrition education, strategies for problem-solving, resources and access to facilities for safe physical activity, and stress management skills. The 12-month NC MDPP Lifestyle Class series are led by a trained lifestyle coach.

   The goal was to facilitate a minimum of 88–112 Lifestyle Class series across the state. By the end of fiscal year 2017-18, NC MDPP facilitated 145 MDPP 12-month Lifestyle Class series across the state, with 1,495 enrolled participants.

   NC MDPP 12-month Lifestyle Class series are being held in a variety of locations including: faith-based organizations, colleges, pharmacies, health departments, hospitals, and food banks. The CDC examines organizations delivering 12-month Lifestyle Class series throughout the county and recognizes organizations that have high quality programs with significant impact. Receiving full CDC Recognition is an accomplishment for a diabetes prevention program, as it signifies that the organization meets the CDC standards of effectively delivering a proven diabetes prevention lifestyle change program. In fiscal year

2017-2018, several NC MDPP agencies achieved the CDC full-recognition status. Others are pending full-recognition. In addition to CDC recognition, NC MDPP agencies are trailblazers for Medicare reimbursement as Wilson Family Drug in Region 10 was one of the first DPP sites within the state to become a recognized Medicare Diabetes Prevention Program (MDPP) supplier in fiscal year 2017-2018.

3. Community Conversations

   NC MDPP continued to facilitate Community Conversations that spurred dialogue that built awareness and support around health issues within the targeted communities. These conversations were particularly important to identify, and address, health inequities related to diabetes prevention and awareness. Many of the barriers identified were related to the drivers which impact good health. Specifically, barriers identified through Community Conversations included access to healthy foods, environmental conditions and recreational opportunities, safety, transportation, access to health care, and access to primary care.[1]

   Community Conversation events have been the vehicle for increased recruitment and retention of minorities in diabetes prevention programs. The Community Conversations effort empowered NC MDPP participants to become agents of change in their community with multi-generational impact, by equipping them to advocate to other community members and elicit their participation in diabetes prevention programs. Fostering inclusiveness in planning and promotion in diabetes prevention programs, while addressing health inequities and barriers to participation in diabetes prevention programs, is a key component of Community Conversation events. As a result, NC MDPP Regional Coordinators and staff have developed best practices for marketing campaigns and culturally appropriate resources that are region-specific.

Budget and Funding Mechanism

To administer the NC MDPP, OMHHD distributes funds for the program to nine different "Regional Collaboratives" in the state – each of which is overseen by a local health department. In fiscal year 2017-2018, Buncombe County Health Department expressed interested in facilitating a NC MDPP in their region. Buncombe County Health Department accepted the NC MDPP Level 2 award in fiscal year 2018-2019, allowing NC OMHHD to be statewide by serving all ten Regional Collaboratives in the state.

Local health departments continue to serve as each Regional Collaborative's fiduciary lead agency, encouraging others to join its Regional Collaborative in order to better engage with minority communities through meeting NC MDPP screening, education and outreach goals. Those local entities include health departments, community-based organizations (CBOs), faith-based organizations (FBOs), local Community Care of North Carolina (CCNC) networks, Federally Qualified Health Centers (FQHC), Rural Health Centers, farmworker programs, Indian Health Services, and hospitals.

Addressing this issue regionally continues to be a successful approach in meeting the service and financial goals of the NC MDPP program in fiscal year two. Because continuation funding was appropriated by the NC General Assembly at the same level as fiscal year one, the regional annual allocation formula remained the same. The expenditure coverage period began June 1, 2017 and ran through May 31, 2018.

The chart below displays the awarded amount, actual annual expenditures, the lead regional health department, counties served, total participants screened, total participants enrolled, and number of classes conducted by level. The allocation levels are based on each region's population and that population's prevalence of diabetes and prediabetes.

[1] NC MDPP addresses several of these barriers by providing transportation to NC MDPP 12-month Lifestyle Classes and incentives that support healthy behaviors including: food scales, Calorie King books, gym memberships, and stress management tools.

Level 1	Counties Served	Award Amount	Total Amount Expended	Cumulative Total Served (per 6-30-18 cut off for Year 2)
Region 7 Granville-Vance Health District (Lead Agency)	Franklin, Granville-Vance, Halifax, and Wake	$294,321.00	237,823.00	819 people screened for prediabetes; 155 NC MDPP participants; 16 NC MDPP 12-month Lifestyle Class Series
Region 9 Martin-Tyrrell-Washington Health District (Lead Agency)	Bertie, Dare, Martin, Tyrrell, Washington	$294,321.00	$282,512.00	800 people screened for prediabetes; 173 NC MDPP participants; 19 NC MDPP 12-month Lifestyle Class Series
Region 10 Pitt County (Lead Agency)	Beaufort, Craven, Greene, Jones, Pitt, Wayne, Wilson	$294, 321.00	$294,321.00	3338 people screened for prediabetes; 217 NC MDPP participants; 20 NC MDPP 12-month Lifestyle Class Series
Level 2	**Counties Served**	**Award Amount**	**Total Amount Expended**	**Cumulative Total Served (per 6-30-18 cut off for Year 2)**
Region 4 Cabarrus County (Lead Agency)	Cabarrus, Gaston, McDowell, Rowan	$230,105.00	$230,105.00	1309 people screened for prediabetes; 182 NC MDPP participants; 14 NC MDPP 12-month Lifestyle Class Series
Region 5 Alamance County (Lead Agency)	Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person, Randolph, Rockingham	$230,105.00	$216,485.00	1213 people screened for prediabetes; 234 NC MDPP participants; 30 NC MDPP 12-month Lifestyle Class Series
Region 6 Richmond County (Lead Agency)	Harnett, Hoke, Moore, Richmond, Scotland	$230,105.00	$217,458.00	1377 people screened for prediabetes; 146 NC MDPP participants; 14 NC MDPP 12-month Lifestyle Class Series
Region 8 Robeson County (Lead Agency)	Onslow, Robeson	$230,105.00	$222,677.00	814 people screened for prediabetes; 67 NC MDPP participants; 7 NC MDPP 12-month Lifestyle Class Series
Level 3	**Counties Served**	**Award Amount**	**Total Amount Expended**	**Cumulative Total Served (per 6-30-18 cut off for Year 2)**
Region 1 Macon County (Lead Agency)	Clay, Jackson, Macon, Swain, Transylvania	$165,808.00	$161,412.00	340 people screened for prediabetes; 171 NC MDPP participants; 14 NC MDPP 12-month Lifestyle Class Series
Region 3 Forsyth County (Lead Agency)	Wilkes, Forsyth	$165,808.00	$122,537.00	331 people screened for prediabetes; 150 NC MDPP participants; 11 NC MDPP 12-month Lifestyle Class Series

Participant Demographics (cumulative per 6-30-18 cut-off)

	Ethnic Categories									
	Not Hispanic or Latino			Hispanic or Latino			Unknown Not Reported Ethnicity			
	Female	Male	Unknown	Female	Male	Unknown	Female	Male	Unknown	Total
Racial Categories										
African American/Black	708	97	0	3	0	0	46	8	0	862
Asian	5	1	0	0	0	0	0	0	0	6
Native American/Alaskan Native/American	104	17	0	2	0	0	4	0	0	127
Native Hawaiian/Pacific Islander	3	1	0	0	0	0	0	0	0	4
White	218	29	0	74	16	0	15	2	0	354
Other	7	1	0	71	5	0	0	0	0	84
Unknown	3	2	0	45	5	1	1	1	0	58
Total	1048	148	0	195	26	1	66	11	0	**1495**
Total number of participants reported being a racial or ethnic minority										**1224/1495 (81.9%)**

Insurance	Number of Participants
Uninsured	167
Insurance from employer/union	394
Individual Insurance	138
Medicare	231
Medicaid	93
Tricare/VA/other military insurance	46
Indian Health Service	25
Other Insurance	159
Unknown	242

*Insurance status was captured via self-report.

Source of Care	Number of Participants
Private Doctor's Office	789
Hospital, clinic, or outpatient department	85
Community health center	181
Other kind of health care facility	23
No usual source of care	39
Unknown	378

*Source of care was captured via self-report.

Program Status Updates (cumulative per 6-30-18 cut-off)

Program cumulative total by fiscal year-end 17-18	Status update as of 6/30/18	Progress
4200 total people screened for prediabetes	10341 people screened for prediabetes	**Goal exceeded**
10% of the regional budget spent on targeted marketing campaigns	10% of the regional budget spent on targeted marketing campaigns, using various region-specific platforms, with an estimated reach of 7 million people.	**Goal met**
1400 total people enrolled into MDPP	1495 people enrolled into NC MDPP	**Goal exceeded**
88-112 total NC MDPP 12-Month Lifestyle Class series	145 NC MDPP 12-Month Lifestyle Class series	**Goal exceeded**
18 total Community Conversation events	19 Community Conversation events	**Goal exceeded**

Public Health Outcomes

The retention rate for class series is strong, with 84% of participants attending 4 or more classes in the first 6 months. This is significant because NC MDPP participants continue to exceed the attendance goals of 50% attendance for 4 or more classes in the first 6 months. More importantly, participant adherence to behavior modification interventions is often tied to attendance according to the national evidence-based models.

Intervention Summary Report	Participant Outcomes
*Weight Change (%) mean(sd)	-2.0 (4.9)
Sessions Attended mean(sd)	13.4 (3.1)
Attendance Rate mean(sd)	83.7 (19.2)
Meet PA goal (150 min/week)	696 (50.1%)

*Percent weight change is subject to change.

**All measures calculated based on CDC data collection standards of participants who attended a minimum of 4 classes (n=1417).

NC MDPP participants have steadily attended NC MDPP 12-month Lifestyle Class sessions, with an average participant attendance of 13 sessions. The total number of sessions available to NC MDPP participants vary by region. In Phase 1 (0-6 months), participants are asked to participate in 16 Lifestyle Class sessions. During Phase 2 (7-12 months), participants are asked to attend a minimum of 6 Lifestyle Class sessions. Regional staff have received overwhelming feedback that NC MDPP participants desired more than 6 Lifestyle Class sessions during Phase 2 (supportive phase). As a result, Regional staff have worked to increase the number of sessions held during Phase 2 by providing fitness opportunities, cooking classes, grocery store tours and other events to support NC MDPP participants during this supportive phase.

NC MDPP participants continue to experience negative weight change (i.e. weight loss) as well as an increase in the number of minutes engaged in physical activity, with 50% of NC MDPP participants are meeting the recommended physical activity minutes for adults. NC MDPP participants are also experiencing improved hemoglobin A1c levels, with several NC MDPP participants reporting that their hemoglobin A1c level is no longer in the prediabetes range.

Recommendations

NC MDPP staff have identified several opportunities to improve access to Diabetes Prevention Programs and increased cultural competency in diabetes prevention efforts. As the demand for DPP programs in reaching older adult and low-income populations continues to rise, NC MDPP staff are working diligently to meet that demand. NC OMHHD partnered with the Diabetes Prevention Specialist from the Division of Public Health CDI Section to facilitate informational webinars about becoming a Medicare Diabetes Prevention Program supplier. While the Medicare Diabetes Prevention Program model is not conducive for all NC MDPP regions, Regional Collaboratives that have the capacity to extend programing to Medicare recipients have started the process to becoming a recognized MDPP supplier.

NC MDPP Staff have expressed an interest in cultural competency training for themselves and other partnering agencies. NC MDPP OMHHD provides support by informing them of Racial Equity Institute Trainings to increase cultural competence and Regional Collaboratives have worked collaboratively to facilitate trainings in their area.

During the upcoming year NC OMHHD can build upon drivers and incentives that have effectively addressed socioecological barriers. NC MDPP OMHHD Staff and Regional Collaborative partners are working with Reinvestment Partners to increase access to healthy foods for NC MDPP participants and their families. NC MDPP Regional Collaboratives continue to partner with organizations including food banks and parks and recreational facilities to increase access to healthy foods and safe facilities for physical activity.

The following recommendations can enhance NC MDPP:

1. NC OMHHD MDPP Staff will meet with NC MDPP Regional Coordinators to discuss strategies for training staff and partnering organizations to develop and expand existing resources to meet the needs of diverse populations.
2. NC OMHHD MDPP Staff will review the finding of the site visit data and consider reassigning the NC MDPP funding levels to NC MDPP Lead Agencies with high production and demonstrated need.
3. NC OMHHD will provide technical assistance and ongoing trainings related to cultural diversity and cultural competency for health and human service professionals to support program expansion.
4. NC OMHHD will continue to work with its partners to connect NC MDPP participants and communities to on-going resources, relevant programmatic opportunities, and other initiatives that seek to improve health outcomes and behaviors.