2015 Mississippi Diabetes Action Plan

A. Scope and Financial Impact of Diabetes

In 2012, the Centers for Disease Control and Prevention (CDC) estimated 29.1 million Americans or 9.3% of the country's population live with diabetes. Of this number, 21.0 million are diagnosed, and 8.1 million are undiagnosed.

In 2013, the Mississippi State Department of Health estimated that 290,557 or 12.9% of Mississippi adults live with diabetes. Mississippi has the third highest diabetes prevalence in the country, after Alabama and West Virginia, and the prevalence is significantly higher than the national prevalence of 9.7%. No public health district in Mississippi has diabetes prevalence below that of the national prevalence. Diabetes prevalence by district is below presented.

Table 1-Mississippi diabetes prevalence by public health district, 2013

Public Health District	Persons with Diabetes	Diabetes Prevalence (%)
District I	31,876	14.2
District II	36,232	13.3
District III	22,478	15.0
District IV	24,986	13.8
District V	46,142	10.1
District VI	24,590	14.0
District VII	17,322	14.0
District VIII	26,209	11.5
District IX	51,402	14.7

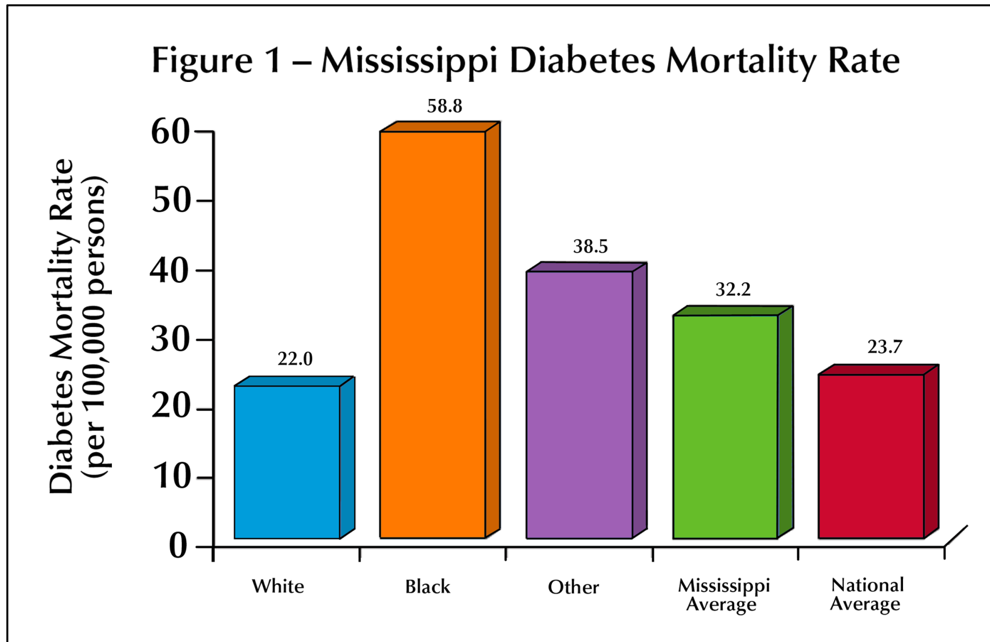
Source: 2013 Mississippi BRFSS

According to the Behavioral Risk Factor Surveillance System (BRFSS) data, an additional 8.5% (166,755) of adult Mississippians report having prediabetes, which predisposes an individual to develop diabetes within ten years. This means over 1 in 5 (21%) adult Mississippians struggle with either diabetes or prediabetes. This may be a conservative estimate. The CDC reports a national prediabetes estimation of 37%, so the Mississippi prediabetes BRFSS estimate is likely greatly underreported. The difference in estimates is likely due to the fact that physicians do not routinely diagnose prediabetes. According to CDC's national prediabetes estimate, the actual prediabetes prevalence in Mississippi could be above 30%, potentially positioning over 600,000-750,000 Mississippians on the path to develop diabetes.

Mississippi's diabetes prevalence is expected to continue to increase as its obesity prevalence increases. As childhood obesity increases, it is expected that diabetes among children will also continue to increase, making it a problem pervasive among all Mississippians with no exceptions.

Diabetes accounted for 1,039 deaths in Mississippi in 2012. For every 100,000 population, there are 32.2 deaths in Mississippi due to diabetes in comparison to the national mortality rate of 23.7 deaths per 100,000 population. In Mississippi, by gender, 35.6 males and 29.1 females die due to diabetes per 100,000 population.

There is also a disparity in the diabetes mortality rate, when analyzed by race. 58.8 blacks whereas 22.0 whites die from diabetes per 100,000 population.



Source: 2012 Mississippi Vital Statistics

National Diabetes Burden

Diabetes is a struggle of its own, and not controlling diabetes is also associated with many serious complications, including heart disease, hypertension, stroke, blindness, kidney disease and failure, neurological disorders, vision problems, and lower-limb amputations. Treating the array of problems associated with diabetes is an expensive burden.

According to the CDC, in 2012, diabetes cost the nation $245 billion. Of this amount, $176 billion was attributed to direct medical costs and $69 billion was attributed to reduced productivity, such as disability, work loss, and premature death. The American Diabetes Association (ADA) Journal estimated the economic burden on diagnosed diabetes, undiagnosed diabetes, gestational diabetes, and prediabetes to have exceeded $322 billion in year 2012 alone. The CDC estimates that medical expenditures are 2.3 times higher for those living with diagnosed diabetes as opposed to Americans without diabetes. In Mississippi, for the one year of 2012 alone, the ADA estimates the economic burden of diabetes to exceed $2.74 billion.

According to the ADA, the largest components of medical expenditures for diabetes are:

- Hospital inpatient care (43% of the total medical cost),
- Prescription medications to treat complications of diabetes (18%),
- Anti-diabetic agents and diabetes supplies (12%),
- Physician office visits (9%), and
- Nursing/residential facility stays (8%).[i]

According to the ADA, indirect costs in the United States, related to diabetes treatment also include:

- Increased absenteeism ($5 billion)
- Reduced productivity while at work ($20.8 billion)
- Reduced productivity for those not in the labor force ($2.7 billion)
- Inability to work as a result of disease-related disability ($21.6 billion)
- Lost productive capacity due to early mortality ($18.5 billion)

Diabetes and its Burden on State Employees

Between September 2013 and August 2014, Mississippi's Department of Finance and Administration reports that 13,892 participants of the State and School Employees Health Insurance Plan have diagnosed diabetes. Employees in this cost analysis include those of all state agencies, the Institutions of Higher learning, community colleges, K-12 school systems, and all libraries. The charges with treating these employees amount to over $28 million ($28,819,497). These charges reflect only direct charges and do not account for indirect costs as listed above.

Diabetes and the Medicaid Burden

In 2013, total charges to the Mississippi Division of Medicaid for diabetes and diabetes-associated complications totaled almost 1 billion dollars ($964,428,604). These charges only account for one payer, Medicaid, and do not reflect charges to Medicare, private insurance companies, self-payers, and other providers. Data to comprehensive charges by other payers were not accessible by the Mississippi State Department of Health at this time.

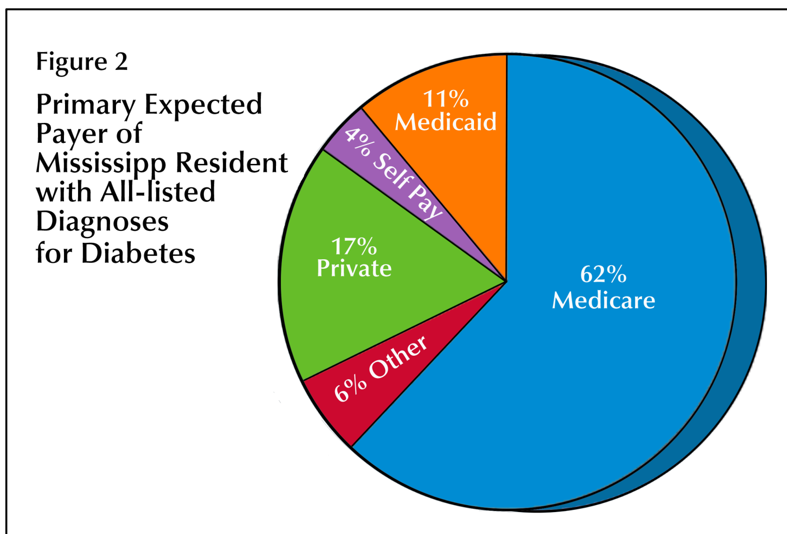
Diabetes Hospitalizations and the Burden

Diabetes Hospitalizations and the People: Diabetes sends a lot of Mississippians to the hospital. In 2011, over one in five Mississippi hospitalizations (22.5% of all hospitalizations or 87,985 hospitalizations) were by patients with diabetes as either a primary or secondary diagnosis (co-existing condition).

Diabetes contributes to lack of productivity and an unhealthy labor force. In 2011, Mississippi's diabetic patients spent over half a million days (523,736) in a hospital, which was about a quarter of the total patient days for all causes of hospitalizations.

Furthermore, there are disparities among diabetes-associated hospitalizations in Mississippi, likely due to external contributing variables such as resource and care access. Geography of residence, gender, and race are examples of hospitalization disparities. In 2011, 61% of Mississippi's diabetes-associated hospitalizations were patients who lived in *rural counties*, while 39% lived in *metro counties*. In addition, of all diabetes-associated hospitalizations, 57% of admitted patients were women, while 43% were men. Finally, the hospitalization rates were higher for Mississippi's African-American residents than for Caucasian patients, 32 and 26 per 1,000 population, respectively.

Diabetes Hospitalizations and the Money: Diabetes-related hospitalizations also cost the state a significant amount - 27% of all hospitalization charges were attributed to diabetes and to diabetes associated complications in 2011. Primary diagnosis of diabetes, alone, amounted to over $191 million in charges. The hospitalization charges for primary and secondary diagnosis of diabetes totaled nearly 3 billion dollars ($2,854,658,697) in year 2011. Medicaid and Medicare were responsible for 73% of all diabetes-related hospital charges in 2011. Medicare patients accounted for 62% of these charges, while Medicaid patients accounted for 11% of hospitalization charges.



Source: 2011 Mississippi Hospital Discharge Data

Diabetes Hospitalizations by County: In Mississippi, the overall hospitalization rate for 2011 is 28 patients with diabetes-related hospitalizations per 1,000 persons. The counties highlighted are those with diabetes-related hospitalizations above the state's overall diabetes-associated hospitalization rate.

Table 2- Prevalence of hospitalizations associated with diabetes – all listed diagnoses, 2011

County	Number of discharges	Rate per 1,000		County	Number of discharges	Rate per 1,000
Adams	1,276	39		Leflore	1,294	41
Alcorn	1,217	33		Lincoln	909	26
Amite	338	26		Lowndes	1,291	22
Attala	566	29		Madison	1,798	19
Benton	167	19		Marion	1,027	38
Bolivar	1,336	40		Marshall	758	21
Calhoun	446	30		Monroe	1,214	33
Carroll	349	33		Montgomery	544	50
Chickasaw	608	35		Neshoba	1,494	50
Choctaw	251	30		Newton	667	31
Claiborne	316	32		Noxubee	388	34
Clarke	703	42		Oktibbeha	617	13
Clay	647	32		Panola	1,063	31
Coahoma	1,262	49		Pearl River	1,062	19
Copiah	943	32		Perry	568	46
Covington	694	36		Pike	1,567	39
DeSoto	2,253	14		Pontotoc	647	22
Forrest	3,085	41		Prentiss	778	31
Franklin	232	29		Quitman	355	44
George	554	24		Rankin	3,927	27
Greene	261	18		Scott	1,323	47
Grenada	555	26		Sharkey	103	21
Hancock	820	18		Simpson	857	31
Harrison	5,470	29		Smith	394	24
Hinds	7,356	30		Stone	657	37
Holmes	856	45		Sunflower	1,013	35
Humphreys	387	42		Tallahatchie	589	38
Issaquena	7	5		Tate	780	27
Itawamba	697	30		Tippah	724	33
Jackson	3,644	26		Tishomingo	745	38
Jasper	651	39		Tunica	419	40
Jefferson	396	52		Union	745	27
Jefferson Davis	447	37		Walthall	432	28
Jones	2,035	30		Warren	967	20
Kemper	343	33		Washington	967	19
Lafayette	618	13		Wayne	567	27
Lamar	1,213	21		Webster	497	49
Lauderdale	2,430	30		Wilkinson	220	23
Lawrence	581	46		Winston	504	26
Leake	865	37		Yalobusha	502	40
Lee	1,905	23		Yazoo	896	32
				Mississippi	**84,649**	**28**

Source: 2011 Mississippi Hospital Discharge Data

B. Benefits of Implementation

According to the Centers for Disease Control and Prevention (CDC), an estimated 79 million Americans have prediabetes, a condition that can lead to type 2 diabetes and heart attack and stroke if not addressed. The percentage of Americans with diabetes has more than tripled in the past two decades. CDC estimates that as many as 1 of 3 American adults could have diabetes in 2050 if current trends continue.

The Mississippi State Department of Health addresses the burden of diabetes through its Diabetes Prevention and Control Program (DPCP). The DPCP is solely funded by a grant from the CDC and was established for the purpose of reducing the incidence and prevalence of type 2 diabetes in Mississippi and increasing the quality of life for all persons diagnosed with diabetes. The DPCP is charged with preventing the number of new cases of diabetes and improving management of diabetes for those diagnosed with the condition. The DPCP does this by increasing access to diabetes education programs, increasing access to diabetes prevention programs, and strengthening the health system implementation through community and clinical linkages.

One of the largest clinical trials of lifestyle intervention, the National Diabetes Prevention Program research trial, led by the National Institutes of Health and co-sponsored by CDC, demonstrated that pre-diabetic individuals who participated in the lifestyle change classes were 58% less likely to develop type 2 diabetes. Prevention of the progression of pre-diabetes to diabetes not only prevents the disease itself and therefore improves the quality of life for patients, but prevents complications such as blindness, kidney failure, and limb amputations. Diabetes and its complications are deadly and expensive to the health care system. Diabetes prevention saves lives and money.

National studies have also shown that diabetes education saves money and decreases healthcare utilization. They have also found that hospitalization rates for patients who had no education are higher than individuals who had at least one educational visit. Patient education and self-care practices also are important aspects of disease management that help people with diabetes stay healthy. Diabetes can affect many parts of the body and is associated with serious complications, such as heart disease and stroke, blindness, kidney failure, and lower-limb amputation. Diabetes Self-Management Education (DSME) helps patients improve glycolic control, which could reduce the risk for diabetes complications, hospitalizations, and health care costs. The curriculum of DSME often includes the diabetes disease process and treatment options; healthy lifestyle; blood glucose monitoring; preventing, detecting and treating diabetes complications; and developing personalized strategies for decision making.

The Mississippi State Department of Health does not currently offer diabetes management services through any of its public health clinics. In times past there was a co-management program, supported by state funds, where patients who could not afford their medications were sent to the local health department to have their prescriptions filled. That program over the years has been phased out due to program eligibility requirements and lack of funding sources. As of November 1, 2014 that program is completely closed and the remaining clients were referred to local pharmacies for services. Clients are currently educated on other safety-net-providers (i.e. Federally Qualified Health Centers) who can more readily diagnosis and treat diabetes. The DPCP is currently piloting a Diabetes Self-Management Program that offers patient education and has received National Recognition from the American Diabetes Association for this program.

While the program is appreciative of the funds it receives from CDC, it is limited to implementing only the activities outlined in the CDC approved work plan. To address other identified needs, program staff has to rely on partners who may or may not have the resources to meet the needs and or requests of the general public.

C. Coordination of Efforts

Partnerships and collaborations are crucial to leveraging manpower and resources to improve diabetes prevention and management in Mississippi. The CDC not only encourages collaboration, but has now made it a requirement for all recipients of funding. The DPCP has forged partnerships internally and at the local, regional, state and national levels to fulfill its mission.

In April 2014, the Diabetes Prevention and Control Program, in collaboration the National Association of Chronic Disease Directors and the Centers for Disease and Control and Prevention, convened diabetes stakeholders and partners to develop a statewide scalability plan to aid and improve the current state of diabetes in Mississippi. Collectively, strategies were identified to 1) promote awareness of pre-diabetes among people at high risk for type 2 diabetes; 2) increase referrals to and use of CDC recognized lifestyle change program for the prevention of type 2 diabetes; 3) increase and expand reimbursement for CDC recognized lifestyle change programs for the prevention of type 2 diabetes; and 4) expand access to CDC recognized lifestyle change programs.

Through a partnership with the Diabetes Coalition of Mississippi (DCM), the DPCP addresses issues that affect people with or at risk for developing diabetes, advises on policy issues related

to diabetes, and maintains a quality system of education for all people with diabetes and the healthcare professionals who care for them. The DCM has grown from an informal group of 18 individuals to an organized group of 69 individuals, representing over 50 different organizations. Membership includes representation from statewide diabetes organizations, nonprofit organizations that serve people with diabetes, local diabetes coalitions, pharmaceutical companies, transportation, faith-based communities, colleges/universities, business communities, hospitals/medical centers, statewide quality improvement organizations, Federally Qualified Health Centers, managed care, professional diabetes associations, state government, and consumers.

Through a partnership with the American Diabetes Association, the DPCP provides the Certified Diabetes Preparatory Course for licensed professionals who are interested in becoming a Certified Diabetes Educator (CDE) and for currently licensed CDEs who need to re-certify in order to maintain their certification. This has resulted in approximately fourteen new Certified Diabetes Educators, increasing from 116 to 130 in the state. CDEs are vital to the effective clinical management of diabetes. The Mississippi Affiliate of the American Association of Diabetes Education (MSAADE) is partnering with the DPCP to implement a mentoring program for professionals to expedite the process of gaining the number of diabetes education hours to sit for the CDE exam. Aspiring CDEs will be paired with experienced CDEs to help them achieve the necessary requirements. The American Association of Diabetes Educators (AADE) collaborates with the DPCP to provide candidates with reference materials at a discounted price, conducts site audits of the applicant organizations, and provides technical assistance throughout the application process.

Through partnerships with the University of Mississippi Medical Center (UMMC), the American Diabetes Association (ADA) and the American Association of Diabetes Educators (AADE), technical assistance is provided to organizations interested in becoming an ADA recognized or an AADE accredited Diabetes Self-Management Education and Support Program. Eight new Diabetes Self-Management Education and Support Programs have been added. Most notably, on November 7, 2014, the ADA recognized the MSDH Diabetes Self-Management Education Program (DSME) for achievement in diabetes education. The ADA cited the program for high-quality education that is an essential component of effective diabetes treatment. The MSDH's Diabetes Self-Management Program is only the fourth state program to be recognized by the ADA. This achievement will allow the MSDH to scale DSME programs to those areas within the state of Mississippi where there is a high prevalence of diagnosed diabetes but limited or no access to DSME programs. This will increase access to recognized DSME programs throughout the state by people diagnosed with diabetes.

The Diabetes Foundation of Mississippi is a longstanding DPCP partner. Through their partnership, annual updates are provided to health care professionals on the standards of care for diabetes prevention and management, including understanding of quality care, diabetes prevention strategies, current topics in diabetes management, and the latest recommendations for medical nutrition therapy.

The DPCP is partnering internally with the Stanford Diabetes Self-Management Program to increase access to lay-led, community-based diabetes self-management education. The DPCP co-sponsors trainings and leads Diabetes Self-Management participant workshops. This program teaches participants 1) techniques to deal with the symptoms of diabetes, fatigue, pain, hyper/hypoglycemia, stress, and emotional problems such as depression, anger, fear and frustration; 2) appropriate exercises for maintaining and improving strength and endurance; 3) healthy eating 4) appropriate use of medication; and 5) how to work more effectively with health care providers.

In a partnership with the MSDH Heart Disease and Stroke Prevention Program and the Comprehensive Cancer Control Program, the DPCP is conducting a Patient Centered Medical Home Collaborative. Through this initiative, healthcare systems receive training on the use of health information technology and team-based care to better manage diabetes, hypertension, and cancer screenings in clinical settings.

The DPCP collaborated with the MSDH Office of Tobacco Control on several initiatives to increase referrals to the Tobacco Quitline for people with diabetes.

Through a partnership with the Centers for Disease Control and Prevention and the National Association of Chronic Disease Directors (NACDD), the DPCP initiated actions to implement the National Diabetes Prevention Program (NDPP) in the selected geographic areas of the state. NDPP is an evidence-based lifestyle change program which has been proven to prevent or delay the onset of type 2 diabetes by nearly 60%. With the assistance of the NACDD, a statewide plan was developed to scale the NDPP in Mississippi.

The DPCP is partnering with the Appalachian Regional Commission (ARC) to implement programs that improve the quality of life for persons living in the Appalachian region of Mississippi who are already diagnosed with diabetes or are at risk for developing type 2 diabetes. The DPCP partners with the Appalachian Diabetes Control Translation Project (ADCTP) diabetes coalitions to develop evidence -based Diabetes Self-Management Education Programs, Diabetes Prevention Programs, and to increase the number of Certified Diabetes Educators by 10%. The DPCP is an active member of the Advisory Board of the ADCTP, an ARC

funded project to establish and maintain diabetes coalitions throughout the entire Appalachian region. At present there are six active affiliate coalitions located in the Appalachian Region of Mississippi: Choctaw County Diabetes Coalition, Coalition for a Healthy Winston County, Noxubee County Diabetes Coalition, Marshall County Diabetes Coalition, Yalobusha County Diabetes Coalition, and Kemper County Diabetes Coalition.

Clinical Quality and Performance Measures for the Treatment of Patients with Diabetes

The DPCP recommends using the ADA Clinical Practice Recommendations along with the guidelines promoted by the National Diabetes Education Initiative (NDEI) as the clinical quality performance measures for diagnosing , treating and managing forms of diabetes, including type 1, type 2, gestational, and pre-diabetes. The ADA Clinical Practice Recommendations are updated annually and subsequently published in the Association's professional journal Diabetes Care. A copy of these standards is located on the DPCP's webpage: http://HealthyMS.com/DiabetesCare.

The National Diabetes Education Initiative is recommended as a web-based anthology of evidence-based diabetes educational content to meet the unique learning needs and clinical challenges of healthcare professionals. Premium content offerings and innovative formats include a slide library featuring more than 1,500 downloadable slides on diabetes education topics; guideline compendia; on-demand educational programs, including case studies, expert webcasts, and newsletters; and patient education materials. Membership is free http://HealthyMS.com/DiabetesCare.

The DPCP recommends that health care practitioners implement a protocol for identifying the population with undiagnosed type 2 diabetes and those who are at risk for developing type 2 diabetes. To do so, the DPCP recommends scaling and implementing all components of the CDC National Diabetes Prevention Program throughout Mississippi. The CDC-led National Diabetes Prevention Program is an evidence-based lifestyle change program for preventing type 2 diabetes. The NDPP is based on a research study in which 58% of the study population reduced the risk of developing type 2 diabetes.

D. Diabetes Action Plan

Seven broad actions are required to improve the system of care for people with or at risk for diabetes:

1. Raise public awareness of how to prevent and manage diabetes
2. Unify diabetes prevention and management efforts
3. Increase access to credible diabetes self-management education
4. Strengthen the infrastructure and overall system of diabetes clinical care
5. Develop an infrastructure for diabetes prevention
6. Improve evaluation and surveillance capacity
7. Expand the infrastructure and capacity of the Diabetes Prevention and Control Program.

Goal 1: Raise Public Awareness of how to prevent and manage diabetes.

Strategies for Goal 1:

- Develop a statewide communication and marketing plan to raise awareness of how to prevent and manage type 2 diabetes and to drive traffic to existing programs.
- Sponsor periodic Diabetes Month events to raise awareness of how to prevent and manage type 2 diabetes – a "Giving Diabetes the Blues Symposium", Diabetes Exhibition, Diabetes Walk, and World Diabetes Day event.

Goal 2: Maintain the existence of a unified voice for diabetes prevention and management

Strategies for Goal 2:

- Support the Diabetes Coalition of Mississippi (DCM) to serve as a unified voice to increase use of lifestyle intervention programs to prevent type 2 diabetes and to reduce the overall impact of diabetes and its complications on Mississippi.
- Secure Diabetes Coalition Director to be responsible for planning, implementing, and evaluating activities associated with the Coalition to include providing general oversight for coalition activities and associated projects, grant development, submission, and management, state and national reporting, and technical assistance to local/regional coalitions and partnerships that focus on diabetes prevention and control. The Director will work to develop and implement strategies that will lead to long-term involvement of community institutions, organizations and individuals in health promotion, assessment, and evaluation activities.
- Provide MSDH Public Health Districts with a community grant to address chronic disease prevention, obesity, and physical activity in their community. Eligible public

health districts would be those that have completed a community assessment and identified chronic disease, obesity, and physical activity as priority needs.

Goal 3: Increase access to credible diabetes self-management education programs

Strategies for Goal 3:

- Collaborate with Information & Quality Healthcare, Mississippi's Quality Improvement Organization, to develop a healthcare provider database for recruitment and referral to existing Diabetes Self-Management Education and Support programs and/or to Diabetes Self-Management Education Recognition sites.
- Customize CMS/CDC marketing materials and disseminate to providers and consumers to raise awareness of DSME programs in their geographic region and to increase referrals to those programs.
- Develop a Diabetes Action Plan for Mississippi (in response to the 2014 legislative mandate) that "assesses the financial impact and reach of diabetes, assesses the benefits of implemented DPCP programs and activities, identifies actions to reduce the impact of diabetes, pre diabetes and related complications, and delineates the expected outcomes of proposed actions."

Goal 4: Strengthen the infrastructure and overall system of diabetes clinical care

Strategies for Goal 4:

- Develop an electronic learning tool that will serve as a continuing education resource for diabetes and cardiovascular healthcare providers (including Information Technology staff, and pharmacists).
- Standardize and disseminate the goals for treating, preventing, and managing diabetes.

Goal 5: Develop an infrastructure for diabetes prevention programs (DPP).

Strategies for Goal 5:

- Implement a DPP pilot among state employees.
- Increase the use of lifestyle intervention programs in community settings for the prevention of type 2 diabetes by developing and implementing District Diabetes Prevention Plans.
- Identify and implement strategies to promote awareness of pre-diabetes among high risk individuals, and increase/expand reimbursement for, referrals to, and expand access to CDC-recognized lifestyle change programs.
- Facilitate the establishment of one or more lifestyle change programs annually at the District level.

- Customize and disseminate the AMA/CDC tool kit to health care providers to raise awareness of pre-diabetes treatment options and resources.

Goal 6: Develop and expand capacity of the Diabetes Prevention and Control Program to effectively implement and evaluate evidence based programs designed to reduce the incidence and prevalence of diabetes and its related complications.

Strategies for Goal 6:

- Establish infrastructure and capacity within all nine Public Health Districts to implement the goals and activities stated in this work plan.
- Facilitate the provision of qualified staff to monitor, implement and render technical assistance to each Public Health District.
- Implement activities to improve data collection, data analysis, and evaluation and surveillance capacity.
- Facilitate the provision of qualified evaluation and surveillance staff to support evaluation activities.
- Develop an evaluation plan to measure progress towards achieving goals and activities stated in this proposed work plan.

Expected Outcomes:

1. Increased awareness among Mississippians on the burden of diabetes.
2. Increased number of diabetes stakeholders engaged in coordinated effort to impact diabetes in Mississippi.
3. Increased number of health care providers aware of and applying the ADA standards of care for diagnosis and treatment of diabetes.
4. Increased number of Diabetes Prevention Programs (DPP).
5. Increased number of persons diagnosed with prediabetes who are referred to and participate in a Diabetes Prevention Program.
6. Increased number of Diabetes Self Management Education Recognition Programs.
7. Increased number of persons who are referred to and participate in a DSME program.
8. Increased number of employers offering DPP as a covered benefit.
9. Increased number of programs and organizations partnering with the DPCP to impact diabetes in Mississippi.

Benchmarks (Healthy People 2020):

1. Reduce the annual number of new cases of diagnosed diabetes.
2. Reduce the diabetes death rate.
3. Reduce the proportion of persons with diabetes with an A1c value greater than 9.

4. Increase the proportion of the diabetic population with an A1c value less than 7.
5. Increase the proportion of persons diagnosed with diabetes who receive formal diabetes education.
6. Increase the proportion of persons with diabetes whose condition has been diagnosed.
7. Increase the proportion of persons at high risk for diabetes or pre-diabetes who report increasing their levels of activity.
8. Increase the proportion of persons at high risk for diabetes or pre-diabetes who report trying to lose weight.

E. Budget

To adequately address diabetes in Mississippi, a greater investment is required to facilitate a lasting impact. The public health continuum of type 2 diabetes includes primary prevention, diagnosis, and prevention of diabetes complications through disease management, and treatment of diabetes complications such as kidney disease, foot complications, and high blood pressure. It is imperative that we increase awareness of diabetes, including risk factors and preventive measures. There is a need to increase referrals to diabetes self-management education programs and to CDC accredited diabetes prevention programs. Trainings must also be offered on the latest guidelines for diagnosis and treatment of diabetes to healthcare providers. The DPCP will also use funds requested to provide Mississippi resources to our local communities to aid in building synergy that will "*Lead Mississippi Towards a Diabetes Free Tomorrow*". The funding requested will allow MSDH to begin to close identified gaps in staff and data and build a greater capacity to define and adequately address diabetes and other chronic diseases across our Great State.

Goal 1 **$3,000,000**

Raise public awareness of how to prevent and manage diabetes

1. Statewide Diabetes Prevention and Control Marketing Campaign to include print media, radio, television, and educational toolkits.
2. Statewide Diabetes Awareness Events

Goal 2 **$1,000,000**

Maintain the existence of a unified voice for diabetes prevention and management

1. Diabetes Coalition of Mississippi infrastructure development and capacity.
2. Diabetes Coalition of Mississippi Executive Director.
3. Public Health District Community Grants for chronic disease prevention and health promotion.

Goal 3 **$2,000,000**

Increase access to credible diabetes self-management education programs

1. Electronic health care provider database for DSME recruitment, referral, monitoring and tracking.
2. Customize CMS/CDC marketing materials and disseminate to providers and consumers to raise awareness of DSME programs in their geographic region and to increase referrals to those programs.
3. Hire consultant to convene a committee and develop the 2016 Diabetes Healthy Action Plan.

Goal 4 **$500,000**

Strengthen the infrastructure and overall system of diabetes clinical care

1. E-learning Institute to serve as a continuing education resource for diabetes and cardiovascular healthcare providers (including Information Technology staff, and pharmacists).
2. Standardize and disseminate the goals for treating, preventing and managing diabetes.

Goal 5 **$1,500,000**

Develop an infrastructure for diabetes prevention

1. Implement a DPP pilot among state employees.
2. Development of local Diabetes Prevention Scalability Plans.
3. Support for and establishment of Lifestyle Change Programs.
4. Customize and disseminate the CDC/AMA pre-diabetes awareness tool kit to healthcare providers in the state.

Goal 6 **1,600,000**

Develop and expand capacity of the Diabetes Prevention and Control Program to effectively implement and evaluate evidence-based programs designed to reduce the incidence and prevalence of diabetes and its related complications

1. Establish infrastructure and capacity within all nine Public Health Districts
2. Secure qualified staff to monitor, implement and render technical assistance to each Public Health District.
3. Secure qualified evaluation and surveillance staff to support evaluation activities.
4. Develop an evaluation plan to measure progress towards achieving goals and activities stated in this proposed work plan.
5. Data collection, data analysis, evaluation and surveillance activities.

Total Budget $9,600,000

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[i] American Diabetes Association. op. cit. p. 1033

Mississippi State Department of Health

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