

Diabetes Report 2016

Because there is Strength in Unity



Produced by United South and Eastern Tribes, Inc.
Diabetes Program and Tribal Epidemiology Center

Overview

In accordance with the United States' (U.S.) trust obligation to provide healthcare to American Indian/Alaska Native (AI/AN) communities, Congress established the Special Diabetes Program for Indians (SDPI) in 1997 to address the growing rate of diabetes and related complications within Tribal Nations. United South and Eastern Tribes, Inc. (USET), an inter-Tribal organization that represents the collective interests of 26 federally recognized Tribal Nations located within the 13-state Indian Health Service (IHS) Nashville Area, is a recipient of SDPI funds. USET administers these funds to many member Nations and provides consultative diabetes support services. As part of these services, the USET Tribal Health Program Support (THPS) team produces annual Tribal Nation-specific and Nashville Area aggregate diabetes reports. As SDPI's 20th anniversary approaches, USET is highlighting the significant gains in the health and wellbeing of Nashville Area Tribal Nations and their citizens. These gains would not have been possible without the assistance of SDPI funds. USET shares stories that demonstrate these gains in the spirit of collaboration that has been a hallmark of USET since its inception.

As part of the annual SDPI application process, the USET Area Diabetes Consultant selects areas of improvement from the previous year's aggregate Diabetes Care and Outcome Audit data in an effort to improve the quality of clinical care for patients with diabetes in the Nashville Area for the upcoming year. The highlighted improvement areas were selected in May 2014 (using 2013 clinical data) and were to be addressed in 2015. This



Diabetes Staff from USET Member Tribal Nations

report compares 2013 and 2015 clinical data in order to assess a full year of improvement efforts. Also included is the Nashville Area's age-adjusted diabetes prevalence rate in comparison to all of IHS and U.S. all races. A snapshot of the Nashville Area's most important diabetes-related data is also featured in the report.

The USET THPS team is proud to provide a thorough analysis of identified improvement areas and age-adjusted prevalence. USET hopes that this information, along with the snapshot and success stories, will assist Tribal Nation leaders and policy makers in understanding the success—and the continued need—of SDPI.

The Special Diabetes Program for Indians (SDPI) has provided more than just treatment and prevention funds to Tribal Nations. It has provided Tribes with hope and the perseverance needed to elevate the health status of their communities for generations to come. I hope Congress continues to fund the SDPI because loss of this program would diminish the gains Tribal Nations have made in the fight against diabetes.

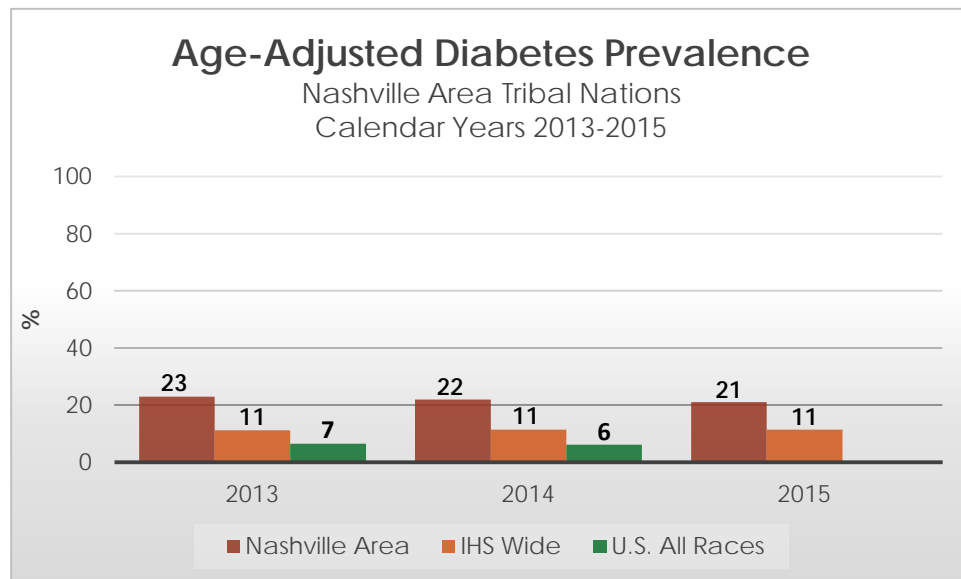
– Tihtiyas Sabattus, USET Tribal Health Program Support Director

Prevalence

Prevalence rates are percentages that measure how often a disease or condition occurs in a population. The AI/AN population tends to have a higher percentage of young people than other populations, so simple prevalence rates may not provide accurate comparisons. This is especially true with diseases such as diabetes which do not affect all age groups equally. A technique called age-adjusting allows for accurate comparisons between populations with different age groupings. The graph below shows the Nashville Area age-adjusted diabetes prevalence rate compared to the IHS-wide rate and the U.S. rate. The Nashville Area's rate for 2015 was 21%, which was:

- 1.4 times higher than the IHS-wide age-adjusted rate; and
- 2.6 times higher than the U.S. age-adjusted rate for all races of 6%.¹

The burden of diabetes was greater among the Nashville Area user population than the IHS user population as a whole, as well as all races combined in the U.S.



¹ In 2014 (more recent data is not available).

State Prevalence Data

Diabetes is a growing epidemic for all races, but especially so for AI/AN people. The table below reflects, by state, the very high rates of diabetes within the IHS Nashville Area. An aggregated Tribal Nation age-adjusted diabetes prevalence rate was calculated for each Nashville Area state that contains at least one federally recognized Tribal Nation. This rate was compared to the all races age-adjusted prevalence rate for the state. Tribal Nation diabetes rates far exceeded 2014 all races state rates obtained from the Centers for Disease Control and Prevention. In Connecticut, Florida, Louisiana, Maine, Mississippi, New York, North Carolina, and Texas, the Tribal Nation age-adjusted prevalence rate is twice, and in some cases triple, that of the state all races rate.

Diabetes management and treatment is expensive. Higher rates of diabetes mean increased health care spending costs. According to the American Diabetes Association, the average annual cost of health care for a person with diabetes is \$13,741—more than twice the cost for a person without diabetes.¹ SDPI helps keep healthcare costs low by instituting diabetes prevention and control programs within Tribal Nations.

| State | Prevalence for State | Prevalence for Tribal Nation(s) |
|----------------|----------------------|---------------------------------|
| Alabama | 12% | 20% |
| Connecticut | 8% | 24% |
| Florida | 9% | 23% |
| Louisiana | 10% | 34% |
| Maine | 8% | 19% |
| Massachusetts | 9% | 13% |
| Mississippi | 12% | 38% |
| New York | 9% | 21% |
| North Carolina | 10% | 25% |
| Rhode Island | 8% | Tribal Nation data unavailable |
| South Carolina | 11% | 17% |
| Texas | 11% | 37% |
| Virginia | 9% | Tribal Nation data unavailable |

¹ American Diabetes Association. Economic costs of diabetes in the U.S. in 2012. Diabetes Care. 2013;36(4):1033–1046.



Snapshot

- The burden of diabetes in the AI/AN population is greater than in other racial and ethnic groups. The prevalence rate, or the percentage of a population that is affected with diabetes, was 21% for Nashville Area Tribal Nations in 2015.
- Managing a patient's ABCs (A1C, blood pressure, and cholesterol) can lower their risk of heart attack, stroke, or other complications. Nashville Area patients with diabetes continued to manage their ABCs in 2015. The 2016 IHS Diabetes Care and Outcome Audit analyzed the records of 79% of Nashville Area patients diagnosed with diabetes. Based on this sample, USET estimates that:
 - 3701 of the 7554 (49%) Nashville Area patients diagnosed with diabetes achieved an A1C below 8%.
 - 4683 of the 7554 (62%) Nashville Area patients diagnosed with diabetes achieved a blood pressure below 140/90 mmHg.
 - 3701 of the 7554 (49%) Nashville Area patients diagnosed with diabetes whose low-density lipoprotein (LDL) was tested had a value below 100 mg/dL.
- Diabetes and obesity are major risk factors for cardiovascular disease (CVD), including heart attack and stroke. According to the 2014 USET Mortality Report, CVD was the most common cause of death in the Nashville Area. Statin medications help prevent heart attack and stroke by lowering cholesterol levels, and are recommended for patients who have elevated cholesterol. Based on the records analyzed in the Audit, USET estimates that:
 - 1511 of the 7554 (20%) Nashville Area patients in the diabetes registry were classified as severely obese (body mass index [BMI] 40+).
 - 3248 of the 7554 (43%) Nashville Area patients diagnosed with diabetes were also diagnosed with CVD.
 - 2014 of the 3248 (62%) Nashville Area patients diagnosed with both diabetes and CVD were prescribed a statin drug to lower cholesterol.

Diabetes Demographics

Data extracted from Nashville Area electronic health records:

- 56% of persons age 65 and older had been diagnosed with diabetes.
- 38% of persons ages 45-64 had been diagnosed with diabetes.
- 14% of persons ages 20-44 had been diagnosed with diabetes.
- 1% of persons under age 20 had been diagnosed with diabetes.
- 20% of females in the Nashville Area user population had been diagnosed with diabetes, which is greater than the percentage of males (18%).
- 41% of Nashville Area patients diagnosed with diabetes had been living with the disease for more than 10 years.

Evaluation of Improvement Areas Selected for the 2015 Grant Year

Health disparities among AI/ANs are well researched and documented. AI/ANs have the highest rates of diabetes among all racial/ethnic groups in the US. With SDPI grant funds, Tribal Nations are able to implement and improve upon prevention and treatment programs that impact diabetes and the complications associated with this chronic disease.

The management of diabetes and its complications is expensive because people living with diabetes are more susceptible to chronic problems, such as high blood pressure, cardiovascular disease, and chronic kidney disease. With the assistance of SDPI funds, Tribal Nations are able to invest in prevention activities that can mitigate healthcare costs and improve the quality of life for people living with diabetes.

As part of the SDPI grant application, USET selects several areas of improvement. For the 2015 grant year, USET chose the following four improvement areas:

Glycemic Control. Nashville Area Tribal Nations successfully increased the percentage of patients living with diabetes who had an A1C below 8% from 45% in 2013 to 49% in 2015. The Nashville Area Tribal Nations also successfully decreased the percentage of patients living with diabetes who had an A1C above 9% from 31% in 2013 to 28% in 2015. When patients living with diabetes are able to maintain a healthy A1C, disease complications can be slowed or prevented. Diabetes complications have a substantial impact on the direct medical cost of diabetes.¹

Blood Pressure. Nashville Area Tribal Nations successfully increased the percentage of patients living with diabetes who had a normal blood pressure from 60% in 2013 to 62% in 2015. High blood pressure costs the U.S. \$46 billion each year, including the cost of healthcare, medications, and missed days of work.²

Annual Eye Exams. Nashville Area Tribal Nations successfully increased the percentage of patients living with diabetes who received an annual eye exam from 45% in 2013 to 55% in 2015. Diabetes is the leading cause of new cases of blindness in adults. Diabetes-related blindness costs the U.S. about \$500 million annually.³

Low-Density Lipoprotein Testing. Nashville Area Tribal Nations successfully increased the percentage of patients living with diabetes who had a low-density lipoprotein (LDL) test from 70% in 2013 to 76% in 2015. Having a high LDL, a type of unhealthy cholesterol, is one of the major risk factors for heart disease, heart attack, and stroke. Stroke costs the U.S. an estimated \$34 billion each year, including the cost of health care services, medications to treat stroke, and missed days of work.⁴

1 Michael Brandle, Honghong Zhou, Barbara R.K. Smith, Deanna Marriott, Ray Burke, Bahman P. Tabaei, Morton B. Brown, William H. Herman. The Direct Medical Cost of Type 2 Diabetes. *Diabetes Care*. Aug 2003, 26 (8) 2300-2304.

2 Mozafarian D, Benjamin EJ, Go AS, et al. Heart Disease and Stroke Statistics-2015 Update: a report from the American Heart Association. *Circulation*. 2015;e29-322.

3. Javitt JC, Aiello LP, Chiang Y, Ferris FL III, Canner JK, Greenfield S. Preventive eye care in people with diabetes is cost-saving to the federal government: implications for health-care reform. *Diabetes Care*. 1994;17(8):909-917.

4. National Center for Health Statistics. National Vital Statistics Report. Deaths: Final Data for 2006. Vol. 57, 14 April 2009.

Chitimacha Tribe of Louisiana

For over 15 years the Chitimacha Health Clinic has worked together with the Chitimacha Recreation Department to offer “The Chitimacha Challenge” Fitness Program, which is supported by our SDPI grant. The program is open to Tribal citizens, their spouses, and employees of the Chitimacha Tribe of Louisiana. The program is designed to be simple and to encourage a more active lifestyle. Participants are asked to do at least three 30 minute workouts per week for 12 weeks, and to document them in a log at the fitness center. The activities can be anything: weight training, walking, aerobics, swimming, etc. One of the three weekly workouts can even include things around the house such as yard work, playing outdoors with your children, or anything that gets your heart rate up.

Tribal administration makes a point to encourage employee participation by allowing Fitness Leave for 30 minutes three times per week while staying on the clock. Tribal employees also have “Funday Monday” during which they can wear their challenge t-shirts with jeans for as long as they stick with the program. The interdepartmental cooperation is vital to the success of this program and has led to continued interest and participation year after year.

We offer the challenge in the spring when it is generally still cool and very beautiful outside. During the challenge, the Recreation Department offers a variety of sports open to Tribal citizens for free, such as kickball, canoe rentals, and use of the Tribal pool. Our goal is that after incorporating the activities for 12 weeks they will become a habit. This year, 33 members of the community and employees completed the challenge. Upon completion, the participants received incentives. We received very positive feedback on these incentives. We try to offer incentives that advertise our program by carefully choosing things that people will enjoy and use to continue their wellness journey.



SDPI funds support many services for the Chitimacha Tribe of Louisiana that impact the project outlined above, including program supplies and participant incentives for the Chitimacha Challenge program.

Penobscot Indian Nation

The Penobscot Indian Nation Health Department has had many diabetes success stories. Many individual patients have directly benefited from the Penobscot Indian Nation diabetes program as indicated by serum biomarkers like hemoglobin A1C levels. In addition to providing medical care, health education, and life coaching, the Penobscot Indian Nation provides access to a fitness room as well as instruction from a personal trainer. The community values these services, which are directly paid for by our SDPI grant. Many of our diabetes patients use the fitness room to achieve glycemic control. Physical activity increases the ability of cells to absorb the glucose in a person's blood, which helps with blood sugar control.

SDPI funding also enables patients to have access to a registered dietitian, which is imperative for people with diabetes. Many of our diabetic patients have benefited from working with our registered dietitian as she not only educates patients about diet but she also teaches patients how to self-manage their disease (i.e., how to adjust doses of insulin based on their nutrition and physical activity). She has helped five patients manage blood sugars with insulin pumps and the result for those patients has been life changing! Many more patients have benefited from the help of continuous glucose monitoring, which is a tool that helps patients see for themselves how well (or not!) their blood sugars are controlled over the course of five days. She has had success with many patients and has seen, first hand, the power of patient empowerment. When patients are equipped with resources and education, they grow to have the self-confidence and ability to control their own blood sugars!

Given the complexity of diabetes self-management and the ramifications and complications associated with poor control, it is essential that we continue to provide our patients with holistic, quality health care! SDPI funding is vital for our success in this endeavor!

SDPI funds support many services for the Penobscot Indian Nation that impact the project outlined above, including the following:

- Registered Dietitian Nutritionist to conduct community nutrition programs and provide medical nutrition therapy.
- Fitness Room Coordinator to oversee the community fitness facility.
- Supplies for healthy cooking demonstrations.
- Patient education materials for clinic and community use.
- Clinical supplies including home glucose monitoring and continuous glucose monitoring supplies.

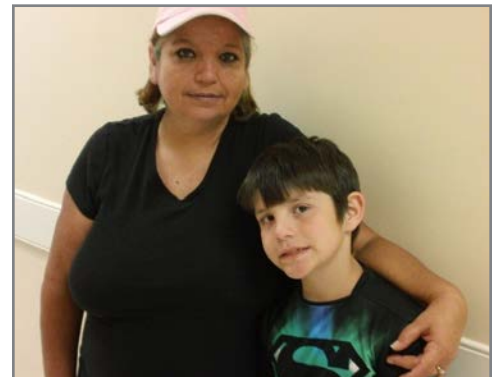
Catawba Indian Nation

Catawba Service Unit provides team-based care and involves providers, nurses, dietitians and diabetes educators, pharmacists, and more in using SDPI resources wisely. SDPI funding helps provide testing supplies, labs, medications, and nutrition/diabetes services. Several successes were due to having resources that assisted with lifestyle changes and comprehensive diabetes care.

Annette was diagnosed with Type 2 diabetes when she was a teenager. She lost weight and had normal blood sugars for over 10 years though diet and exercise. Last year she was working on losing some weight she had regained when she found out she was pregnant. She was checked for diabetes early because of her history and found out at 13 weeks her blood sugars were back in the diabetic range. The team at Catawba coordinated care with her obstetrician, who managed her diabetes. Annette received insulin and test supplies, and had frequent visits to see the Registered Dietitian for checks on weight and glycemic control. These supplies and services are funded through SDPI. She did a great job of eating well throughout her pregnancy, keeping up her exercise routine, and managing her weight and blood sugar. She completed a 5K last December while she was pregnant. Annette's 7-pound baby was born only 3 weeks early, which shows her gestational diabetes was managed well. Her blood sugar is back to normal.



When Sheri wound up in the emergency room in July 2015, with a prediction of a future heart attack or stroke if things did not change, she says that made her stop and think: "I wasn't doing anything I should have been doing. I stopped taking my medicine, was not eating right, not taking care of myself, and smoking." Sheri said that when her kids came to the hospital and were crying because they were scared, she decided she had to make changes. She followed up at our clinic for help in getting her health on track. "I have not missed a pill since," she says. She stopped drinking regular soda and eating fried foods, and cut down on portions of breads and pasta despite having a weakness for them. She began working out and walking most days. Right away, she started losing weight gradually. She has lost about 30 pounds and went down several clothing sizes. Her hemoglobin A1C went from over 8 to 6.6. The fantastic drop in her hemoglobin A1C shows that she has maintained a healthy blood sugar for 2 to 3 months. She wants to keep losing weight but finds when her life gets more stressful, things go off track. She has been able to maintain her current weight and most of her lifestyle changes are now routine.



Our clinic staff felt very challenged when one of our patients was diagnosed with Type 2 diabetes earlier this year. Neal is not able to read, only knows single numbers by sight, and is limited to only simple instructions as far as diet, activity, and medication. A Physician Assistant, Registered Nurse, and Registered Dietitian saw Neal weekly for the first month, set up his pill box, and taught him how to check his blood sugar. The team kept instructions very simple and encouraged Neal to call with questions. He called with good questions



almost daily the first few weeks and he did well when he got a concrete answer. Neal's hemoglobin A1C was 14 when he was diagnosed, which is high and shows that his blood sugar was out of control. He quickly changed his habit of drinking several sodas a day, stopped eating sweets, took his medicine twice a day, and kept up an active routine by walking and doing yard work daily. At each visit the team pointed out how these changes were improving his health. Neal began to get his energy back, his stomach was upset less often, and he was feeling better overall. He is now at a stable, healthy weight. He sets up his own pill box for the week the night before he comes to the clinic and the Registered Nurse checks it. She helps him remember which pills are for day and night by putting sun or star stickers on the compartments. Neal is coming in every two weeks now, and after 3 months his hemoglobin A1C dropped to 7.0, which shows

he has been maintaining healthy blood sugars! He was very excited to share the story of his success and has worked very hard to be in good control of his diabetes.

SDPI funds support many services for the Catawba Indian Nation that impact the project outlined above, including the following:

- Diabetes Coordinator/ Registered Dietitian Nutritionist and Dentist to provide care to patients with diabetes.
- Contracted care including eye exams and podiatry.
- Patient education materials for clinic and community use.
- Clinical supplies, such as home glucose monitoring and in-clinic point of care testing supplies.
- Diabetic shoes that aid in comfort and fit for walking.

Mississippi Band of Choctaw Indians

My name is Kyle. I am a Tribal Citizen of the Mississippi Band of Choctaw Indians. I was diagnosed with diabetes in December 2015. My A1C was 9.8 when I was diagnosed. I was devastated when I learned of the diagnosis. However, I went through a series of educational topics from blood sugar monitoring, behavior changes, blood sugar control, foot exam and education, and nutrition. The instructions were easy to understand. It was a wake-up call for me. I took my medicine when I was supposed to and one of the changes I made was that now I drink plenty of water. I have put my sodas away. I don't eat all the things I use to eat and not as much as I use to eat. I have lost 19 lbs. and I feel a whole lot better. My A1C is now 5.9. My physician was excited and praised the improvement I made in the past few months. He encouraged me to keep doing well. The SDPI funds have helped me get the diabetes education that I needed to help manage my diabetes.

SDPI funds support many services for the Mississippi Band of Choctaw Indians that impact the project outlined above, including the following:

- Diabetes Management Center Medical Doctor/Director to provide care to patients with diabetes.
- Registered Nurse to provide education.
- Three case managers to assist with clinical care of patients with diabetes.
- Clinical supplies including home glucose monitoring supplies.
- Supplies for healthy cooking demonstrations.
- Patient education materials.

Wampanoag Tribe of Gay Head Aquinnah

The Wampanoag Tribe of Gay Head Aquinnah continues to show progress in improving our diabetic statistics, through the help of clinical and community based programs that are supported by the SDPI grant. Blood glucose control has improved as evidenced by an increasing number of diabetics with Hemoglobin A1C levels that have continued to decrease, daily fasting blood sugars that have decreased, reduced usage of insulin and decreased dosages of hypoglycemic medications. Weight loss has increased with a significant amount of those who have lost over 5% of their body mass, resulting in decreased body mass index.

These programs, which include individual nutrition counseling, cooking classes, and nutritional dinners, are provided by a Registered Dietician who is dedicated to the improvement of our Tribal citizens' health. Emphasis is on portion control, counting carbohydrates, meal preparation, meal selection, and preparing healthy and delicious meals for diabetics.

We have some new additions to our existing programs, one of which is an afterschool cooking class which stresses healthy snacking and eating. The children have the fun of



preparing all of the snacks and, of course, the enjoyment of eating them. The children have shown an increased willingness to try new and healthy foods, efficacy in cooking skills, and a desire to continue with the classes. We have included parents as much as they are able to participate and are looking forward to increasing the participation in our next sessions. We have also held a healthy food lecture and luncheon for the elders of the Tribe. This event had a great turnout and was successful, so this will be scheduled again. Our quarterly meetings are now catered with organic healthy foods, which the Tribal citizens have been very pleased with. These changes are all led by our Registered Dietician, and made possible through the SDPI funding.

Our dietician has assisted in meeting the nutritional needs and education for the Tribal Nation. The positive changes are felt throughout the Tribe. We have received positive feedback. We have had enthusiastic conversations about the new healthy foods they are enjoying and the positive changes in the way they feel.

SDPI funds support many services for the Wampanoag Tribe of Gay Head Aquinnah that impact the project outlined above, including the following:

- Registered Dietitian Nutritionist to conduct the community nutrition program and provide nutrition counseling.
- Supplies for healthy cooking demonstrations.
- Patient education materials for clinic and community use.

Passamaquoddy Tribe at Pleasant Point

The University of Maine Cooperative Extension Program and the Pleasant Point Health Center SDPI Program collaborated on two community programs during 2016. In the fall of 2015, a Registered Dietitian Nutritionist (RDN) from the University of Maine Cooperative Extension Program came to Sipayik Reservation and conducted a 4-week program called Dining with Diabetes Down East. The program was adapted to include information specific to the Passamaquoddy community, culturally specific foods, and some use of the Passamaquoddy language. Each session included a presentation, cooking demonstrations, and facilitated discussion. A general overview was presented during the first session and the other sessions covered one of the "ABCs" of diabetes. The SDPI program at Pleasant Point provided the program promotion, recruitment, registration, and follow-up that ensured a successful turnout of 25 participants. Several months after the program, a random sample of participants was called to provide feedback. Participants indicated that they really enjoyed the food tasting, used at least one of the recipes, learned about healthy fats, portion sizes, carbohydrates, and label reading, and have used the precise portion plates that were provided at the end of the program. The success of this program was due to the collaborative efforts between the Pleasant Point Health Center SDPI program and the University of Maine Cooperative Extension.

The RDN from the University of Maine Cooperative Extension Program and the RDN from Pleasant Point Health Center (A husband and wife team!) co-taught the Diabetes Education in Tribal Schools (DETS) curriculum for pre-school, kindergarten, first, and second grade from October 2015 – March 2016. The children and teachers learned about more and less healthy foods and activities; and about diabetes. One of the last classes involved bringing in a community member with diabetes so that the students could ask them questions about the disease. This class was the most moving for the students as well as the community member, who was also the kindergarten teacher. The success of the program is due to the collaborative effort between the teachers, students, Pleasant Point Health Center SDPI program and the University of Maine Cooperative Extension.

SDPI funds support many services for the Passamaquoddy Tribe at Pleasant Point that impact the project outlined above, including the following:

- Registered Dietitian Nutritionist to conduct community nutrition programs and provide medical nutrition therapy.
- Diabetes Program Assistant to support community efforts.
- Supplies for healthy cooking demonstrations.
- Patient education materials.

Aroostook Band of Micmac Indians

Support from the SDPI program has helped continue patient care for the Aroostook Band of Micmac Indians. This year the Micmac Service Unit (MSU) provided a Diabetes Clinic Day every quarter. These clinic days help our clinic keep every diabetic patient up-to-date on their annual check-ups and needs. One of our patients living with diabetes has



improved his health significantly by keeping his regular appointments, diabetes clinic day appointment, eating healthy and exercising. The patient was at his heaviest weight at 363 pounds in April 2015 and dropped to 345 pounds in December 2015. Along with weight loss, the patient's daily dosages of insulin have significantly decreased, which indicates better control of his diabetes. His Hemoglobin A1C, which gives a picture of the average amount of sugar in the blood over the last 2-3 months, stayed consistent while his LDL, bad cholesterol, dropped from 148 to 109. The support from funding provided by SDPI and hard work from staff at the MSU has helped many diabetic patients, such as this one, to reach and maintain better health.

SDPI funds support many services for the Aroostook Band of Micmac Indians that impact the project outlined above, including the following:

- Registered Dietitian Nutritionist to provide medical nutrition therapy.
- Diabetes clinic medical supplies.
- Diabetes monthly support group.

Saint Regis Mohawk Tribe

The Saint Regis Mohawk Tribe's "Let's Get Healthy" Program's most successful event last year was our participation in the 25th Annual Community Wellness Day, which was supported by the SDPI grant. It was held on Thursday, July 23, 2015. The focus of Wellness Day was to highlight programs located in and around Akwesasne that help strengthen the mind and body and to provide health education. A total of 86 vendors from the Saint Regis Mohawk Tribe, the Mohawk Council of Akwesasne and surrounding areas participated. Also featured during the day was a blood drive, healthy snacks catered by a local Akwesasne business, various health presentations, and prizes. There were 770 community members who registered for the event!



The Diabetes Nurse Case Managers implemented a blood glucose screening. They screened 221 participants. They also provided education and a card with each participant's blood glucose numbers, explaining what it meant and healthy target ranges. At our booth, we also distributed program brochures, fitness class schedules, diabetes education and health information materials to community members.

The Health Promotion Staff (HPS) demonstrated stability ball exercises and recruited community members to join in and try them out. Anyone who tried at least three of the nine exercises received a small fitness towel or water bottle. The HPS also implemented a fun obstacle course for youth participants.



One of the HPS presented a brief overview of our program, the services we provide, and her role in the program. She also shared her presentation "How to Stay on Track and Achieve your Fitness Goals." She, along with other staff, led the crowd in a Pow Wow Fit demonstration, which consisted of a quick and easy cardio workout that combines Pow Wow dancing, flexibility, balance, and strength training. The routine was completed to a modern twist on a traditional Mohawk song. Many participants commented on how much they enjoyed the Pow Wow Fit routine. Some even asked to repeat it!

SDPI funds support many services for the Saint Regis Mohawk Tribe that impact the project outlined above, including the following:

- Diabetes Coordinator, Nurse Case Manager, and two Health Promotion Specialists to provide education to the Tribal community.
- Program incentives.
- Supplies for healthy cooking demonstrations.

Narragansett Indian Tribe

In September of 2015, Narragansett Indian Health Center (NIHC) began a 6-week “seated yoga” intervention program introducing the fundamentals of yoga. This program was supported by the SDPI grant. The 75-minute classes were held weekly at the NIHC Senior Center. The objectives of the program were to introduce ways to increase flexibility, balance, strength, and endurance, while at the same time decreasing blood pressure using yoga.

The goals of the class were to 1) reduce blood pressure, 2) increase strength, and 3) decrease the occurrence of falls experienced by Tribal citizens.

The activities included seated yoga along with breathing exercises. Participants verbalized awareness of the effect of using the breathing techniques to release tension and reduce stress, producing a decrease in blood pressure.

The attendees were active participants in the program. Upon conclusion of the class, a survey was conducted to gather participant feedback. Participants felt improvement in overall balance, posture, and movement, and they experienced an increase in strength and flexibility. We also learned that their satisfaction with the program was high.

Among the attendees were diabetic patients who experienced a decrease in blood pressure. Those patients were encouraged to continue with the yoga exercise program in order to continue to benefit from the class and improved reduction in blood pressure. All expressed interest to do so.

This factor demonstrated that the program was a success and attendees requested that the program be continued. The program was offered again during the summer of 2016.

SDPI funds support many services for the Narragansett Indian Tribe that impact the project outlined above, including Fitness Specialists and supplies for the seated yoga program.

Seminole Tribe of Florida

Brian, a Seminole Tribe of Florida citizen, has been a long time participant in our Pathways Programs, which are supported by the SDPI grant. These programs have helped him work on his goal to lead a healthier life. Brian participated in the Six Week Pathways Pedometer/ Fit Bit Program and averaged 60,629 steps weekly. By the end of the program, Brian had accumulated 363,776 steps in six weeks, which is the equivalent of walking roughly 182 miles. Brian also participated in the 2016 Pathways Activity Program, which was another



six-week walking program. During this program, Brian increased his weekly step average to 109,604 steps and his total step count for the six weeks was increased to 657,624 steps, which is the equivalent of walking roughly 329 miles. Brian has not only been working on increasing his physical activity level, but he has also been improving his eating habits through the Pathways 21 Day Weight loss Challenge. These programs focus on healthy eating and weight loss by providing three nutritious and well-balanced meals, healthy snacks, and encouraging increased water consumption. With the help of these programs, Brian decreased his weight from 219.2 pounds with a body mass index (BMI) of 34.8, to a weight of 199.0 and a BMI of 31.0.

"I enjoy participating in these programs because they help me reach the goals I set for my health. They have not only helped me with my diabetes, high blood pressure, high cholesterol, and weight, but they have also improved my self-confidence. I appreciate all of the positive benefits that I have received through participating in these programs and the opportunity they provide me to set new goals for my health."

-Brian

Erika, a Seminole Tribe of Florida citizen, began our SDPI Pathways Spring Walking Program feeling sluggish and tired from her recent weight gain and lack of exercise. With the new FitBit she began utilizing through our SDPI program, Erika has been able to keep track of measurable and specific statistics to see how much she is moving and how it is affecting her body (for example, her heart rate, sleep patterns, and calories burned). The FitBit encourages users to log at least 10,000 steps a day and rewards them with “badges” and other fun ways to cheer on those wearing the device. Many people that have never used a tracking device are completely unaware of how much- or little- they are moving. From the moment she got the FitBit, Erika was hooked. “I go to the gym and just keep walking or jogging until it vibrates that I reached my 10,000 steps!” Erika said. To say that she is walking more is an understatement; she also tracks her food now and lets nothing stop her from exercising. The easiest way to describe how the FitBit has changed Erika? “It literally has changed my life!” We are grateful for the SDPI program which affords us the opportunity to provide these community programs to create lasting behavior change in our Tribal communities.

SDPI funds support many services for the Seminole Tribe of Florida that impact the project outlined above, including the following:

- Program supplies and participant incentives for up to 300 Pathway community walks per year.
- Pathways to Healthy Families Program with annual reservation-wide Rez Rally 5K Walk/Run.
- Diabetes fitness specialist.

USET SDPI Successes

As seen throughout the report, USET member Tribal Nations have had many successes for people living with diabetes. This is largely due to SDPI, which has assisted Tribal Nations with prevention efforts and treatment programs for patients living with diabetes. Tribal Nations have been able to improve upon their care and education activities for their citizens.

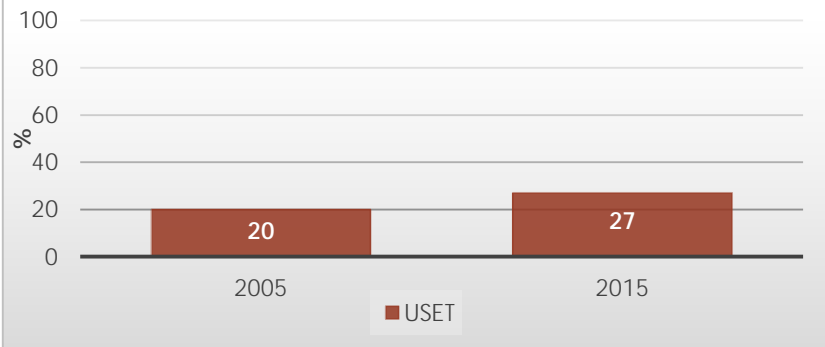
This improved care has impacted the Nashville Area Tribal Nations by increasing the number of patients over age 65 who are living with diabetes. The graph to the right demonstrates that more Elders are living longer with diabetes than in previous years, which means they are doing a better job of managing their diabetes.

While glycemic control and blood pressure control remained steady for Nashville Area Tribal Nation citizens since 2005, the graph to the right shows that the percentage of patients with diabetes who had a low-density lipoprotein (LDL) below 100 mg/dL increased from 31% in 2005 to 49% in 2015. Given that high LDL values can cause stroke, heart disease, and heart attack, this change has had a positive impact on cardiovascular disease in Nashville Area Tribal Nations.

SDPI has become essential to providing clinical diabetes care in many Tribal Nation diabetes programs. SDPI programs support diabetes care by supplementing the availability of medications to include newer diabetes medications, increasing the availability of diabetes care specialists such as podiatrists and certified diabetes educators, offering home glucose monitoring supplies, supporting clinical functions such as lab testing for diabetes care, and community fitness and nutrition programs. SDPI has created healthier communities and positively impacted the quality of life for Tribal Nation citizens living with diabetes.

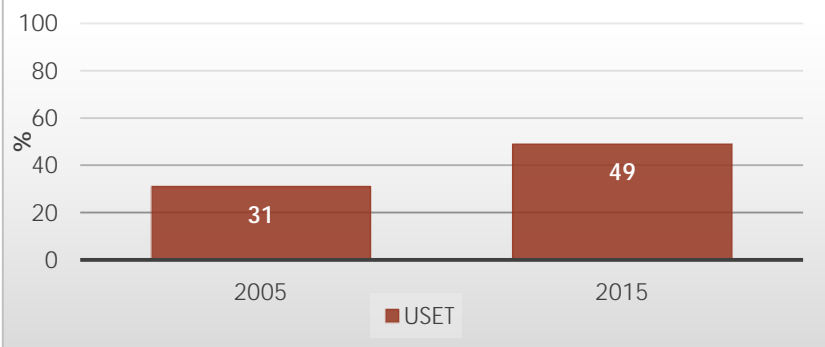
Patients Over Age 65 with Diabetes

IHS Diabetes Care and Outcome Audit
United South and Eastern Tribes



Low-Density Lipoprotein below 100 mg/dL

IHS Diabetes Care and Outcome Audit
United South and Eastern Tribes



Methodology

Each year the USET Tribal Nations, IHS, and Urban Indian health care facilities participate in an electronic or manual audit of medical records for patients with diabetes. Participating facilities submit their data to the IHS Division of Diabetes for centralized processing and analysis. The data is cleaned by the IHS Division of Diabetes for outliers and then sent to the USET Diabetes Consultant.

Data used in this report were obtained from the IHS Diabetes Care and Outcome Audit for years 2013-2015 for participating USET member Tribal Nations. The Audit analyzed a sample population of 5995 from the 7554 patients with diabetes.

Prevalence data in this report was calculated from Resource and Patient Management System (RPMS) data using the age-adjusted method. The age-adjusted method calculated rates specific to 11 age groups and then multiplied these rates by the weighted adjustments from the U.S. Census Bureau 2000 standard population.

There are a few limitations to note. First, the data in this report is only based on patients who are in the diabetes registry, which is a part of the electronic health record, who had at least one visit to a primary care clinic in the reporting years, and who are AI/AN. Secondly, patients who are pregnant, have died before the end of the audit period, have pre-diabetes, and those who are on dialysis and receive most of their primary care at the dialysis facility are excluded from this report.

References

U.S. comparison data: <http://gis.cdc.gov/grasp/diabetes/DiabetesAtlas.html>.

AI/AN data provided to USET by the Indian Health Service Division of Diabetes Treatment and Prevention.

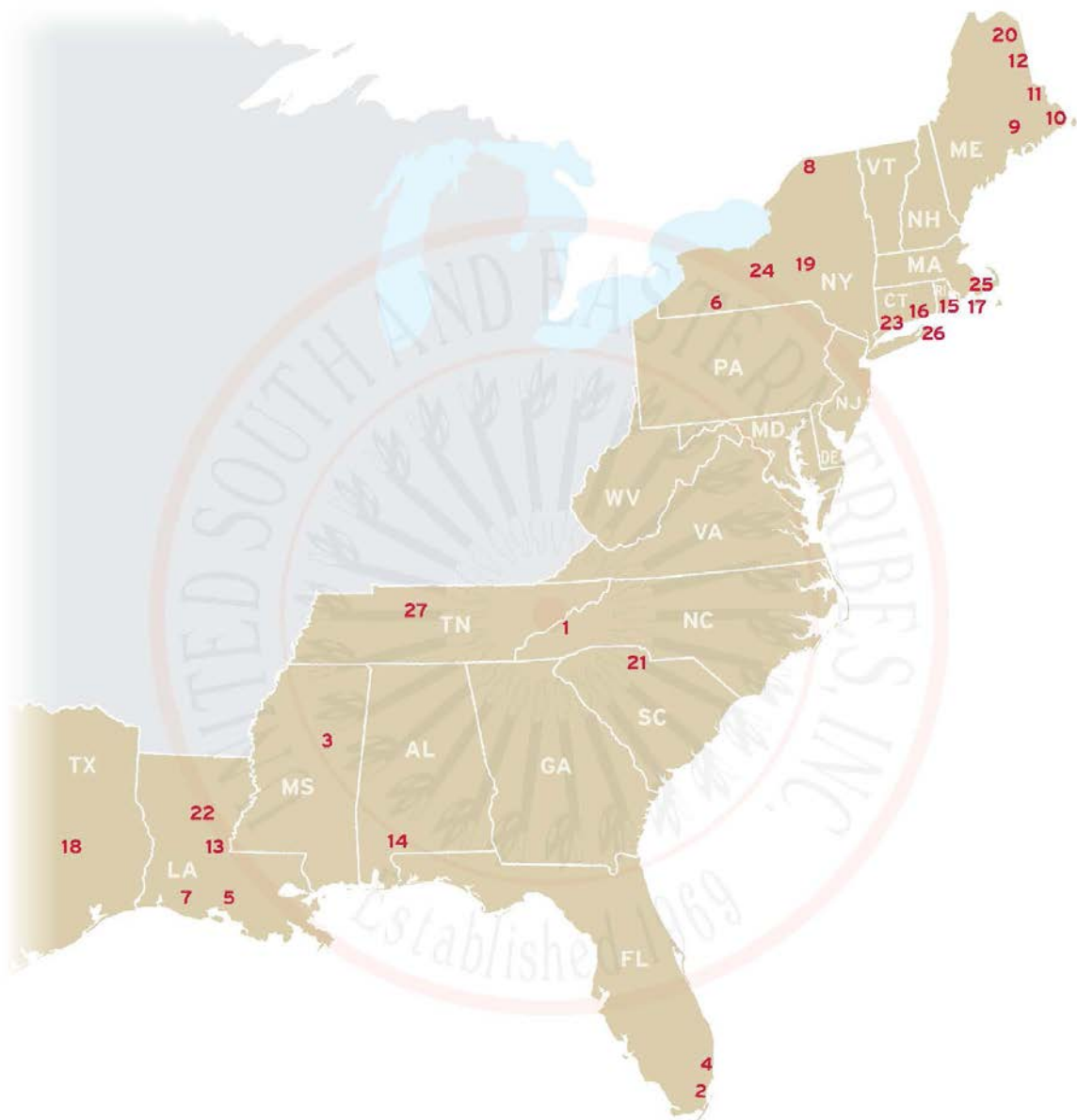
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The contributing USET staff members for the 2016 USET Diabetes Report include Hilary Andrews, Christy Duke, Vicki French, Kate Grismala, Bryan Hendrix, Liz Malerba, Tori Reaves, Dianna Richter, Dee Sabattus, Angela Snell, Pamela Staples, Emilee Thomas, and Mark Withers.

For specific questions regarding this report, please contact Dianna Richter, USET Diabetes Consultant, at drichter@usetinc.org or 615-467-1556.

USET Tribal Nations and SDPI Grantees



1. Eastern Band of Cherokee Indians
2. Miccosukee Tribe of Indians of Florida
3. Mississippi Band of Choctaw Indians
4. Seminole Tribe of Florida
5. Chitimacha Tribe of Louisiana
6. Seneca Nation of Indians
7. Coushatta Tribe of Louisiana
8. Saint Regis Mohawk Tribe
9. Penobscot Indian Nation
10. Passamaquoddy Indian Township
11. Passamaquoddy Pleasant Point
12. Houlton Band of Maliseet Indians
13. Tunica-Biloxi Indians of Louisiana
14. Poarch Band of Creek Indians
15. Narragansett Indian Tribe
16. Mashantucket Pequot Tribal Nation
17. Wampanoag Tribe of Gay Head (Aquinnah)
18. Alabama-Coushatta Tribe of Texas
19. Oneida Indian Nation
20. Aroostook Band of Micmac Indians
21. Catawba Indian Nation
22. Jena Band of Choctaw Indians
23. Mohegan Tribe of Connecticut
24. Cayuga Nation*
25. Mashpee Wampanoag Tribe
26. Shinnecock Indian Nation*
27. USET Office

*This Tribal Nation did not receive SDPI funding in 2016.

