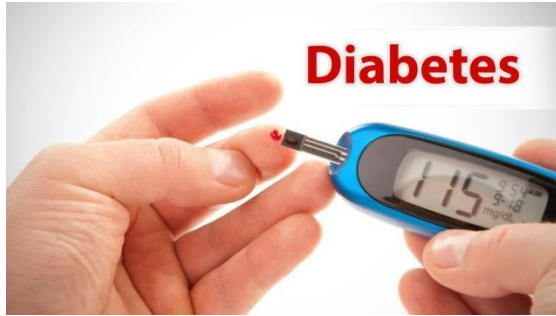




**EASTERN BAND OF CHEROKEE PUBLIC HEALTH AND HUMAN SERVICES DIVISION  
HEALTH PRIORITY ISSUES: FACTS AND RESOURCES  
JUNE 1, 2019**

## **EBCI HEALTH PRIORITY – DIABETES**



*Diabetes is a chronic disease that affects how the body turns food into energy.<sup>1</sup> Normally, food is broken down into sugar and released into the bloodstream, and the pancreas makes a hormone called insulin which acts like a key to let the blood sugar into cells to use as energy.<sup>1</sup> With diabetes, the body either doesn't make enough insulin or it can't use the insulin it makes as well as it should.<sup>1</sup> When the body doesn't have enough insulin,*

*the blood sugar stays in the bloodstream, which over time leads to serious health problems such as heart disease, vision loss, and kidney disease.<sup>1</sup>*

*While there is no cure for diabetes, healthy lifestyle habits, keeping medical appointments, learning how to self-manage the disease, and proper use of medication can greatly reduce the impact of diabetes on one's life.<sup>1</sup>*

*Diabetes was one of the three focus areas for our 2015-2017 Tribal Health Improvement Plan. The diabetes team worked to improve community outcomes by increasing physical opportunities, lessen the number of sugar-sweetened beverages consumed in the community, and helped support the community's diabetes management.*

## **Data Highlights**

### **Health Indicators**

Diabetes by the numbers

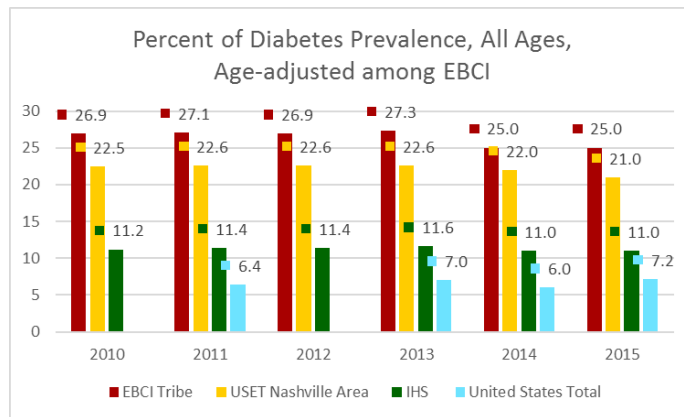
- 30.3 million Americans have diabetes, and 1 in 4 don't know they have it.<sup>1</sup>
- Diabetes is the seventh leading cause of death in the United States.<sup>1</sup>
- Diabetes is the No. 1 cause of kidney failure, lower-limb amputations, and adult-onset blindness.<sup>1</sup>
- The number of diagnosed diabetes has more than tripled in the United States over the past 20 years as the population has aged and become more overweight or obese.<sup>1</sup>

There are three types of diabetes, type 1, type 2, and gestational.<sup>1</sup>

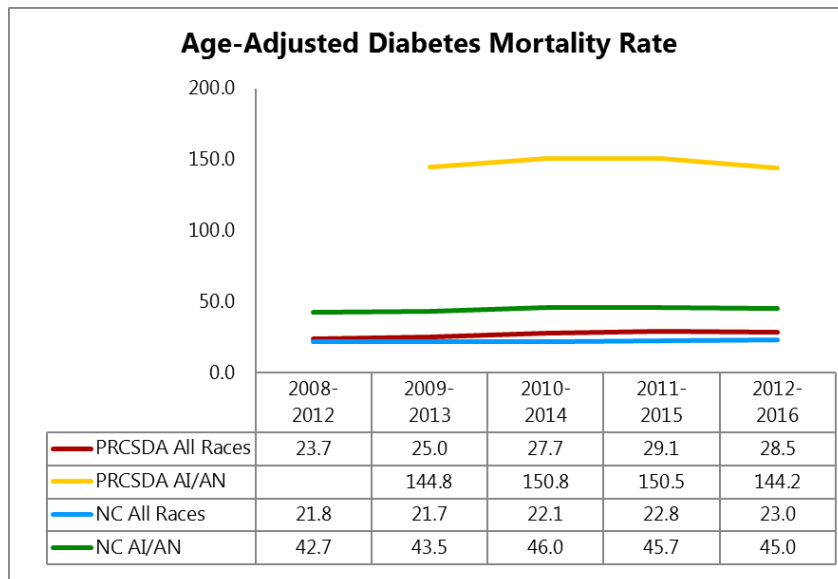
1. Type 1 diabetes is normally found in children, teens, and young adults.<sup>1</sup> Currently, it is unknown how to prevent type 1 diabetes.<sup>1</sup>
2. Type 2 diabetes is most commonly seen in adults (though it has been increasing in children, teens, and young adults).<sup>1</sup> Type 2 diabetes can be prevented or delayed by eating healthy, losing weight if overweight, and getting regular physical activity.<sup>1</sup>

- Gestational diabetes develops in pregnant women who have never had diabetes.<sup>1</sup> Gestational diabetes usually goes away after the baby is born, but the mothers risk of developing type 2 diabetes later in life increases.<sup>1</sup> The baby is more likely to become obese as a child or teen, and more likely to develop type 2 diabetes later in life.<sup>1</sup>

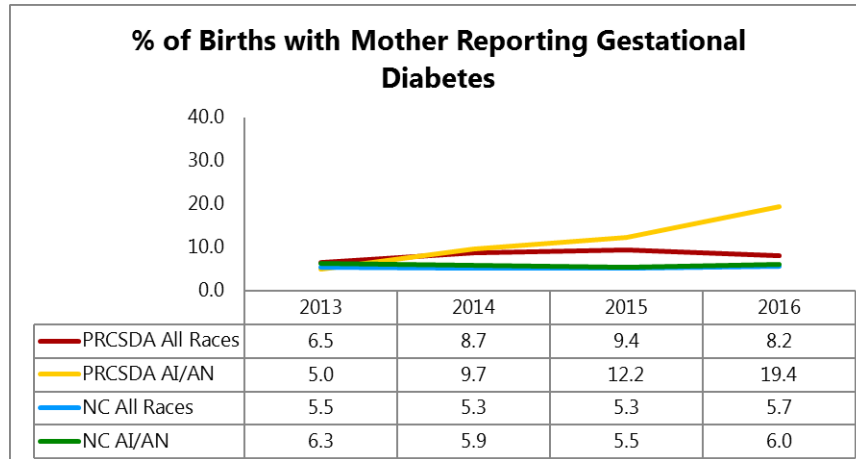
In 2015, 25% of the EBCI population had diabetes, compared to the rates in the USET Nashville Area, Indian Health Services, and the United States, which were 21.0%, 11%, and 7.2% respectively. The good news is that diabetes prevalence (the rate of cases in a population) has seen a slight decline since its high of 27.3% in 2013.



It is important to remember that diabetes can lead to serious health problems that may result in an early death. The chart below shows that EBCI’s high prevalence of diabetes has led to a higher diabetes mortality rate for AI/AN in the PRCSDA (Cherokee, Graham, Haywood, Jackson, and Swain counties).



While diabetes prevalence has seen a decline over the past few years, gestational diabetes incidence has seen the opposite, rising from 5% incidence in 2013 to 19.4% in 2016.



### **Understanding the Issue**

Below are some of the diabetes-related survey statistics from the 2017 Tribal Community Health Survey and the 2016 Tribal Elder Survey.

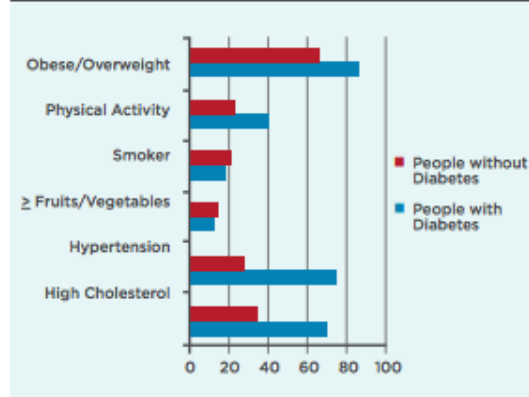
- 2017 Tribal Community Health Survey
  - Respondents were asked to choose their top health concerns
    - The number one response, with 37.04%, was “Lack of physical activity”
    - The number three response with 33.5% was “Poor diet or maintaining a healthy weight”
    - The number four response was “chronic disease (examples: diabetes, high blood pressure, heart disease, obesity, and cancer).”
  - Respondents were asked what their biggest health concern in the near future (5-10 years) and the number one response was chronic disease with 45.1% of responses.
  - Respondents were asked what their biggest concern was for their family’s health and biggest concern was chronic disease with 44.81%.
- 2016 Tribal Elder Survey
  - 43% of EBCI elder respondents stated that they have been diagnosed with diabetes (compared to 39% aggregate tribal data and 18% nationwide).

## **Specific Populations At Risk**

Scientists are not sure the exact mechanism that causes the body to ignore or stop making enough insulin.<sup>2</sup> However, below are known risk factors for the disease:

- Being overweight: High levels of fatty tissue are associated with cells becoming resistant to insulin.<sup>2</sup>
- Fat distribution: If the body stores fat in the abdomen, the risk is greater than if the fat is stored in the hips or thighs.<sup>2</sup>
- Physical inactivity: Being active helps the body become more sensitive to insulin and also helps with weight control and using glucose as energy.<sup>2</sup>
- Smoker
- $\geq$  Fruits/Vegetables
- Hypertension
- High Cholesterol
- Age: Individuals over age forty-five are at higher risk, although this may be largely due to older people being less physically active. However, type 2 diabetes is becoming more common among children and adolescents.<sup>2</sup>
- Family history.<sup>2</sup>
- Gestational diabetes.<sup>2</sup>
- Giving birth to a baby over nine pounds.<sup>2</sup>
- Smoking.<sup>2</sup>
- High blood pressure.<sup>2</sup>
- Abnormal lipid metabolism (cholesterol).<sup>2</sup>

**Graph 7: Percentage of North Carolina Adults with Select Type 2 Diabetes Risk Factors**



Source: 2011 and 2012 BRFSS Survey Results: North Carolina, N. C. STATE CTR. FOR HEALTH STATISTICS

## **Health Resources available/needed**

EBCI's Public Health and Human Services has many programs that help with nutrition, diet and exercise, and diabetes prevention and management, including Cherokee Choices, Home Health, Tsalagi Public Health, and Tribal Food Distribution. For more information about PHHS' services, please visit <http://www.cherokee-phhs.com> to find the program that best suits your needs, or call 828-359-6180 to connect to services.

Cherokee Indian Hospital Authority also offers diabetes services including their Healthy Heart Initiative, which offers education on diabetes self-management, exercise plans, special activities, nutrition counseling, and individualized education to meet patient goals. For more information, talk to a CIHA provider, call 828-497-9163, or visit their website at [http://cherokeehospital.org/page?title=Healthy-Heart-Initiative-\(HHI\)](http://cherokeehospital.org/page?title=Healthy-Heart-Initiative-(HHI)).

The North Carolina Cooperative Extension also provides many helpful services for healthy eating and living. To find out more, visit their website at <https://ebci.ces.ncsu.edu/> or call 828-359-6939.

References:

1. <https://www.cdc.gov/diabetes/basics/diabetes.html>
2. <https://www.chlpi.org/wp-content/uploads/2014/05/2014-New-Carolina-State-Report-Providing-Access-to-Healthy-Solutions-PATHS.pdf>