



Diabetes

Child Health Measures Report 2007-2016

Rocky Mountain Tribal Epidemiology Center

This fact sheet provides information about risk factors for diabetes in American Indian youth in Montana and Wyoming. More than 26,000 American Indian youth participated in the Rocky Mountain Tribal Epidemiology Center (RMTEC) **Child Health Measures Initiative** (CHM) from 2007 to 2016. Tribal volunteers screened for diabetes risk factors using the following measures: Body Mass Index, Weight and Height, Blood Pressure, Acanthosis Presence, Physical Activity, and Fruit and Vegetable Consumption. Results from the CHM are highlighted in this report and include youth enrolled in grades K-12 at schools on reservations in Montana and Wyoming.

At least one out of three people will develop diabetes in their lifetime. Diabetes is the third most common chronic disease of childhood. American Indian youth are at risk for developing type 2 diabetes.

CHM Demographics

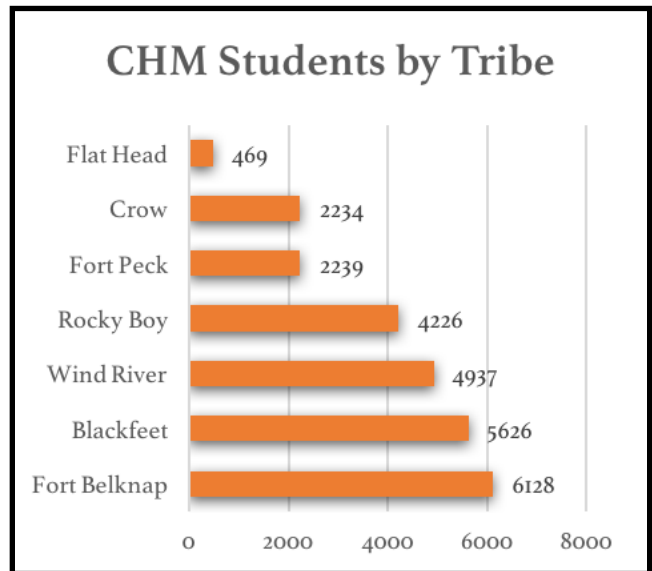
Gender

- 52% Male (12,571)
- 48% Female (11,836)

Average Age

- 10.8 Years

Tribes



Risk Factors for Type 2 Diabetes in Youth

- Being Overweight
- Having a Family History
- Limited Physical Activity
- Increase in Caloric and Fat Intake
- Obesity
- Body Mass Index (BMI) Greater than 25
- Abdominal Obesity

Kids with diabetes are more likely to have asthma.

- 11% of CHM youth have asthma.

Family history of diabetes is a risk factor.

- 12% report their mom or dad have diabetes.
- 36% report their grandmother or grandfather have diabetes.

On average, CHM youth report 31-minutes of physical activity every day.

- Physically Active 1 Hour- Average 5 days in the last week.
- Moderate Activity- Average 3.3 days in the last week.

Normal School Day

- 66% watched 1 hour of TV per day or less.
- 65% played 1 hour of Video Games per day or less.

CHM Average BMI^[1] 21.48

- Research indicates that most youth with type 2 diabetes have a BMI greater than 27 or > 85% for age

Acanthosis nigricans is associated with insulin resistance and a risk factor for diabetes. Acanthosis was present in 12.5% of youth.

- Grade 1 Acanthosis- 63%
- Grade 2 Acanthosis- 22%
- Grade 3 Acanthosis- 12%
- Grade 4 Acanthosis- 3%

Food Security

- 56% of youth have been hungry in the last year because there wasn't enough food in the house.
- 20% of youth have a family garden.

Diet

- 10% drank 8 or more glasses of water during a typical day.
- 69% drink sugary drinks some or most of the time.

- 42% drink energy drinks some or most of the time.
- 61% drink milk some or most of the time.

Healthy Balanced Meals

- 37% eat breakfast at school.
- 49% eat lunch at school.
- 25% eat vegetables most of the time.
- 35% eat fruit most of the time.
- 44% eat at a restaurant once a week.

Self-Image

- 70.5% said that when they look in the mirror, they like what they see.
- 75% want to weigh less.

Family History

- 5% said birth mom did not have diabetes.
- 5% said birth mom did not have heart disease.
- 9% said birth mom had asthma.
- 7% said birth dad has diabetes.

The Future of CHM

Years ago, Native Americans did not have diabetes. People were active, hunting and gathering their food for healthy meals. RMTEC plans to work with tribal communities in the next year to address risk and protective factors identified in the CHM Initiative. RMTEC's goal is to develop culturally appropriate programs to reduce American Indian childhood obesity. For more information about this report, please contact Pharah D. Morgan, MPH, MS at the Rocky Mountain Tribal Epidemiology Center 711 Central Avenue, Suite 220 Billings, MT 59102 Call: (406) 252-2550 pharah.morgan@rmtlc.org. Visit our website at www.rmtec.org for more information.



[1] Note BMI calculations vary based on age and gender, for more information visit:

<https://www.cdc.gov/healthyweight/assessing/bmi/>