

Diabetes Burden in American Indians

Commissioned by Eli Lilly

Diabetes is a significant health issue in the United States. Milliman aggregated publicly available data and research in an effort to determine the burden of diabetes on various sub-populations versus the total population. To see our research methodology, along with data on the burden of diabetes for additional sub-populations, refer to the preceding research summary: *Diabetes Burden on Population Groups*.

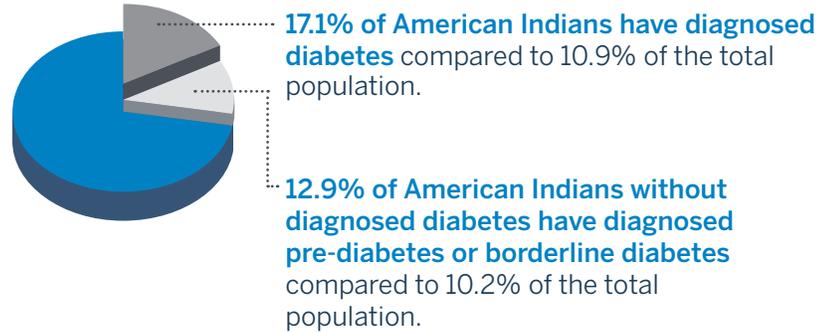
Prevalence^[1]

Roughly **1 in 6** American Indians has diagnosed diabetes.



Diabetes is **57% more prevalent** in American Indians than the total US population.

Diabetes Prevalence



Mortality Rates^[2]

Diabetes is the **4th leading cause of death** for American Indians, accounting for **1 in 17** American Indian deaths.

Mortality rates with diabetes as the underlying cause of death are **60% higher** for American Indians than for the total population.

Cost Burden^[3]

The total estimated cost of diabetes in 2017 is \$327 billion, including \$237 billion in direct medical costs and \$90 billion in reduced productivity. Diabetes prevalence, complications, and many other factors impact the cost burden of diabetes for population groups.



Healthcare dollars are spent treating diabetes and its complications across all populations



Higher medical expenditures in people with diabetes, regardless of population group

Risk Factors^[1]

Diabetes risk factors, such as physical inactivity and obesity, increase the odds of getting diabetes and the chance of diabetes-related complications. These risk factors are more common in American Indians. Other risk factors, such as access to healthy food, affordability of healthcare, and diabetes awareness, are hard to quantify and vary by region but are also significant factors in the risk of diabetes. Relative to the total population:



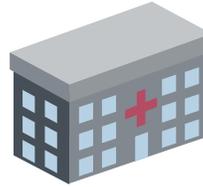
Less of the American Indians population engages in leisure time physical activity



More of the American Indians population is obese

Additional Information

Research was conducted on several additional topics to help quantify the burden of diabetes in American Indians, including: complications, cost burden, and healthcare utilization related to diabetes. However, no publicly available data sources were identified that met the standards of statistical relevance and reliability required. Future studies on these topics could help better illuminate the burden of diabetes for American Indians.



Limitations

Statistics included in this material are sourced from publicly available data sources and do not belong to Milliman. Milliman performed a cursory review of these data sources to ensure their validity and relevance to this subject matter. However, underlying defects in the data could not be identified. For more information on the source of these statistics, see the references section below.

References

- 1 Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2017. Retrieved January 16, 2019, from https://www.cdc.gov/brfss/annual_data/annual_2017.html
- 2 CDC. Underlying Cause of Death, 1999-2017. Retrieved January 16, 2019, from <https://wonder.cdc.gov/ucd-icd10.html>
- 3 American Diabetes Association (May 2018). Economic Costs of Diabetes in the U.S. in 2017. Retrieved January 16, 2019, from <http://care.diabetesjournals.org/content/41/5/917>