

Diabetes



Introduction

Diabetes:

- Significant public health concern in the US
- Chronic disease that affects millions of Americans
- Exerts significant financial burden on the economy
- Huge implications for healthcare costs and quality of life for individuals and communities

Data

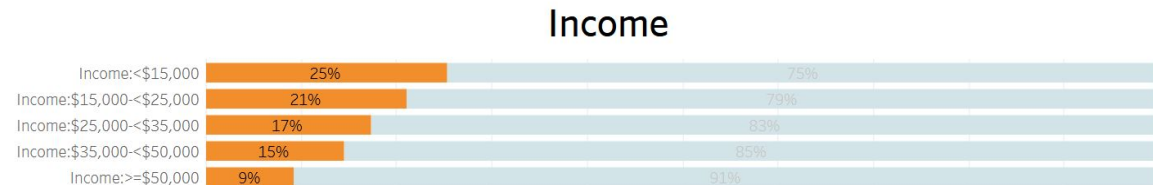
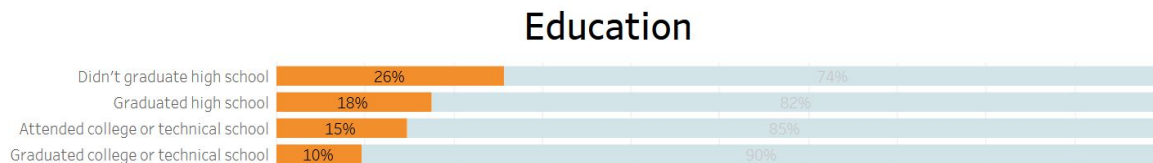
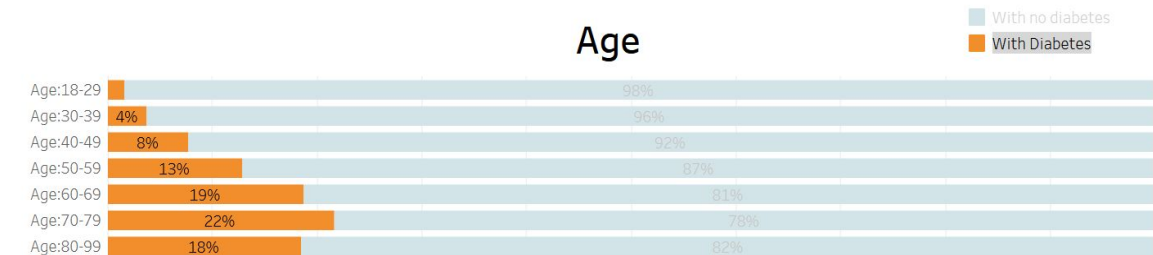
Our database contain 253,680 rows and 23 columns.

Each row is a unique patient with many variables such as: gender, age group, income level, education group, BMI and several health measurements.

Diabetes and Sociodemographic Factors

Diabetes is more prevalent in:

- Older individuals (>59 yo)
- Lower educational achievement
- Lower income class

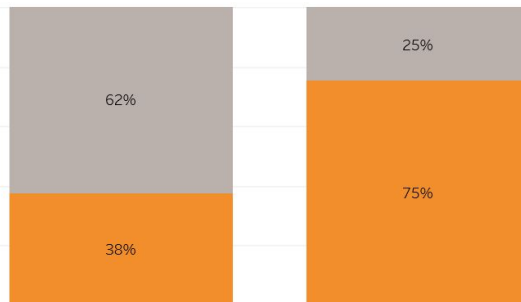


Diabetes and Other Diseases

- Diabetics are more prone to having other diseases compared to non diabetics

Diabetes and the presence and absence of other diseases

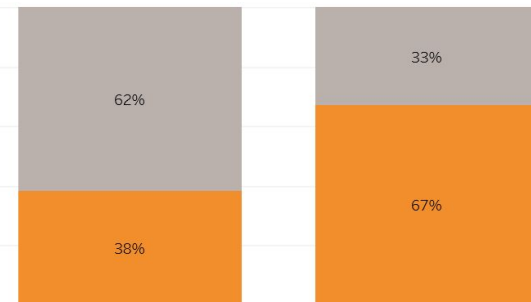
High Blood Pressure



With no diabetes

With Diabetes

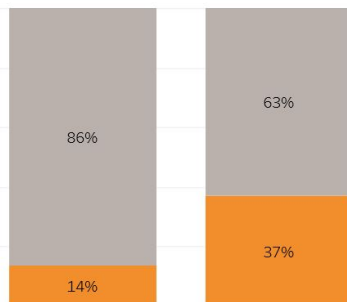
High Cholesterol



With no diabetes

With Diabetes

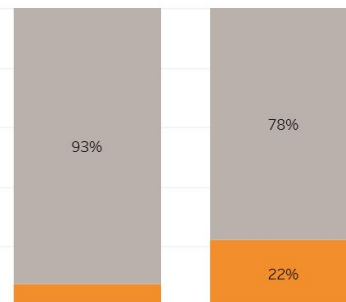
Difficulty of Walking



With no diabetes

With Diabetes

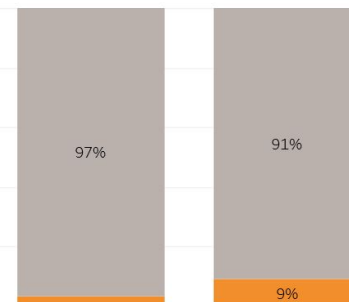
Heart Disease



With no diabetes

With Diabetes

Stroke



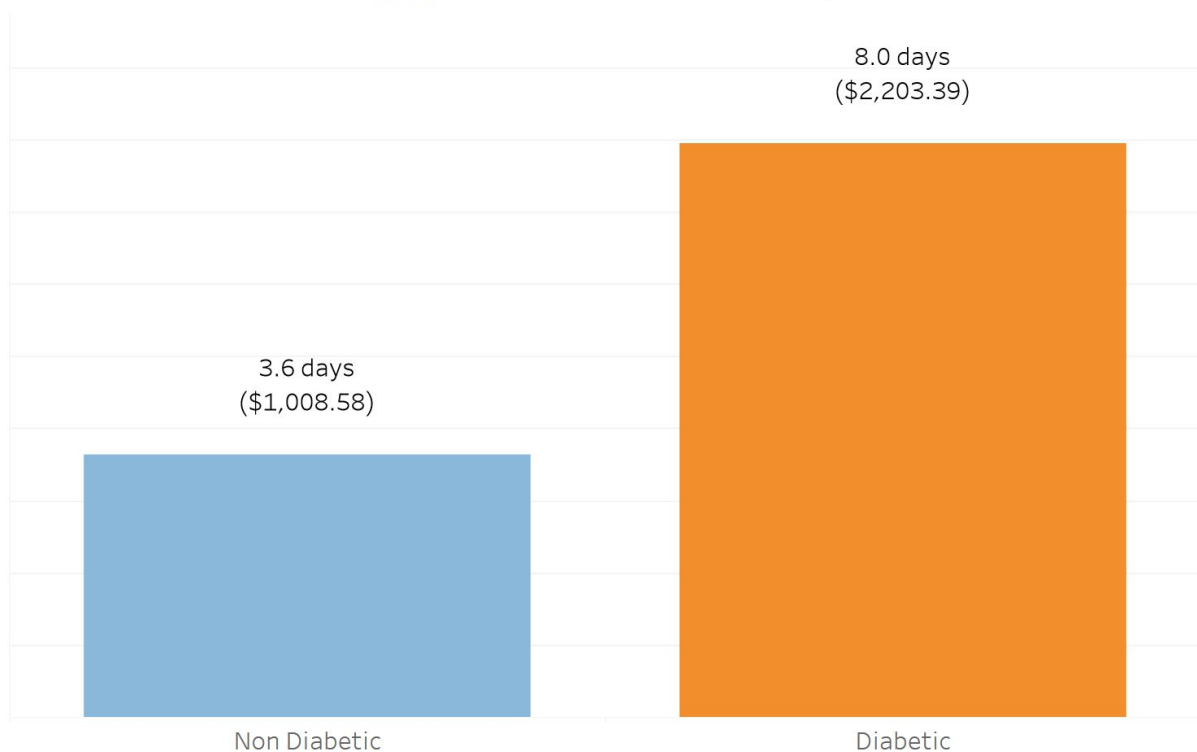
With no diabetes

With Diabetes

Diabetes and Sick Days

- Having diabetes is associated with more sick days which leads to more income loss

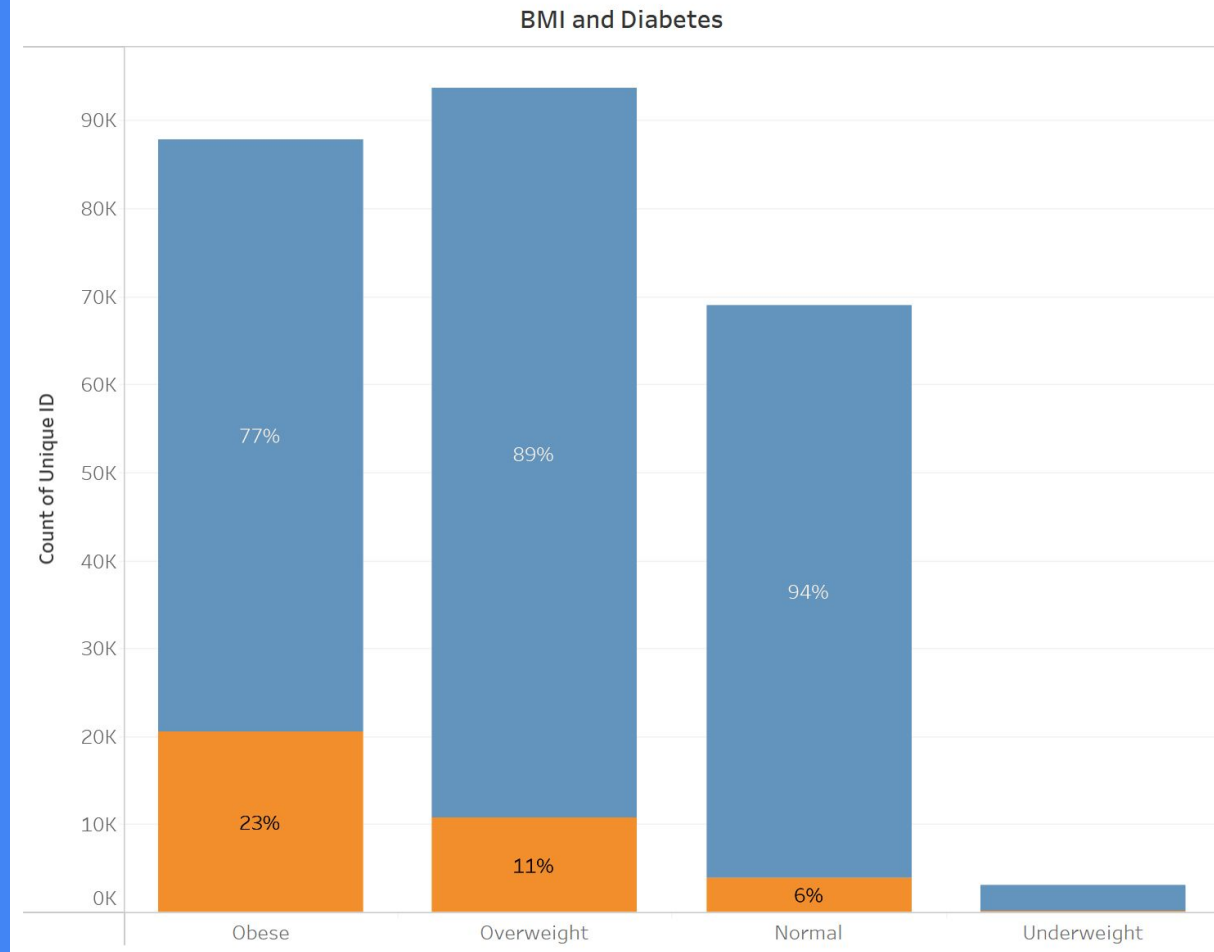
Average number of physically sick days per month
(equivalent loss of income*)



*loss of income was computed by using \$277 per sick day based on a 2021 study

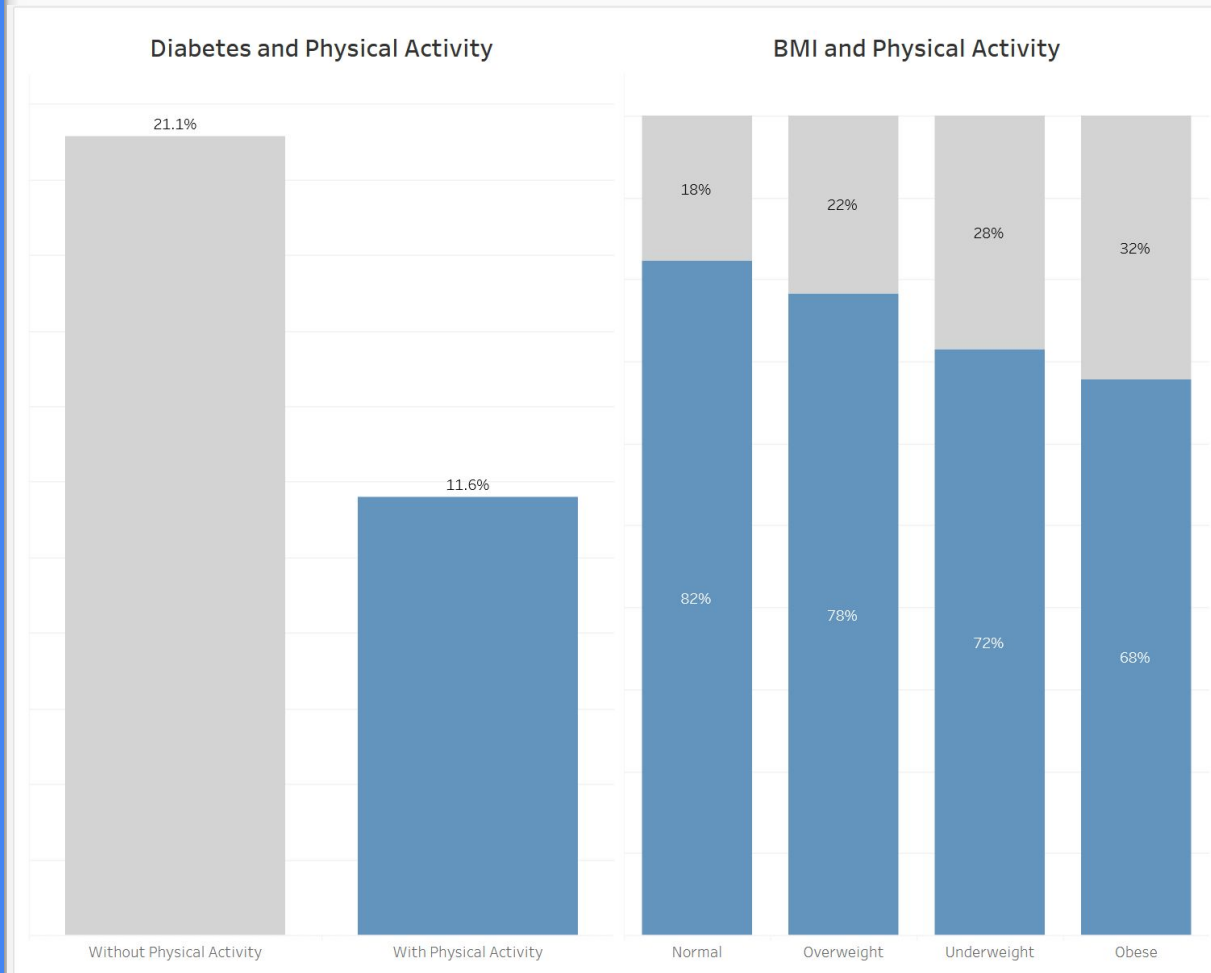
Relationship of BMI and Diabetes

- Diabetes is more prevalent in obese individuals



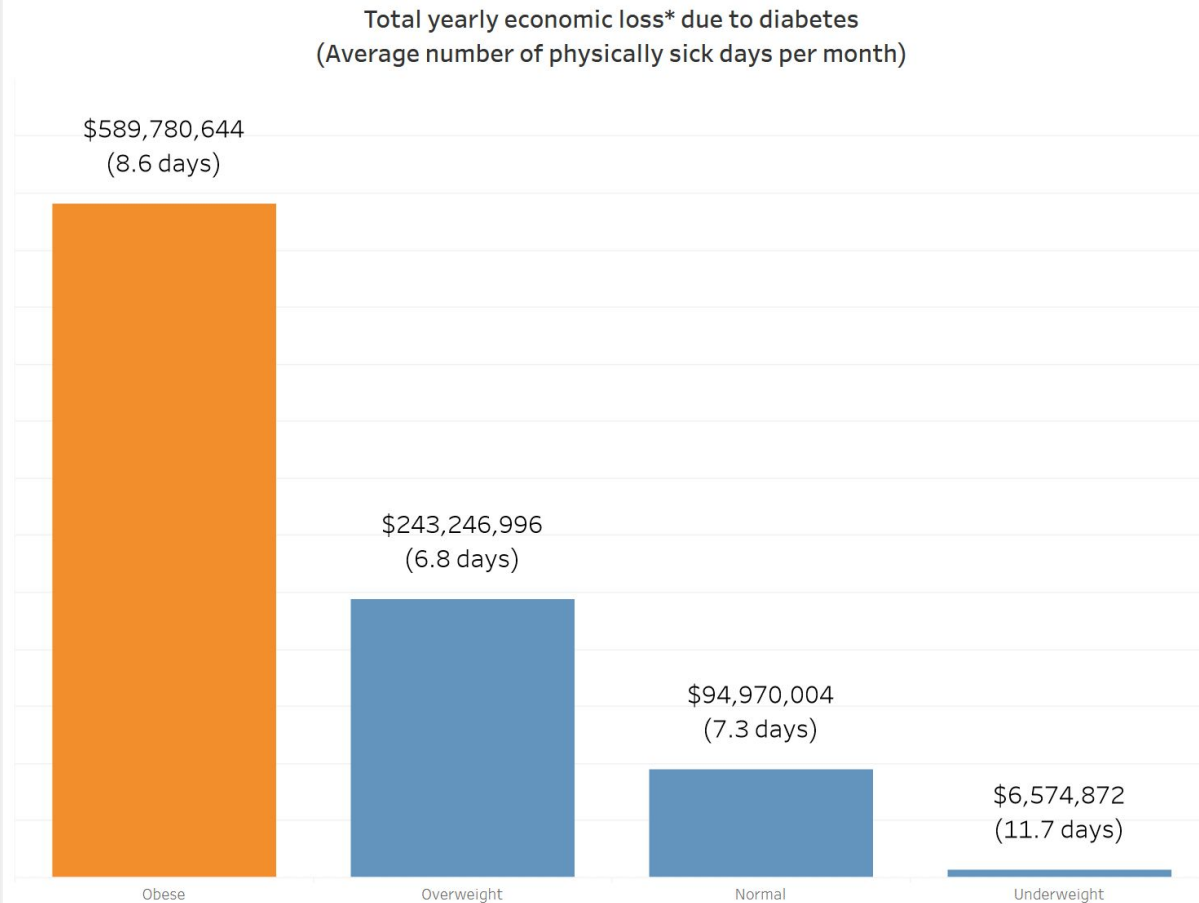
Relationship of Physical Activity and Diabetes

- Physical activity is associated with lower Bmi and lower percentage of diabetics



BMI and Sick days of Diabetics

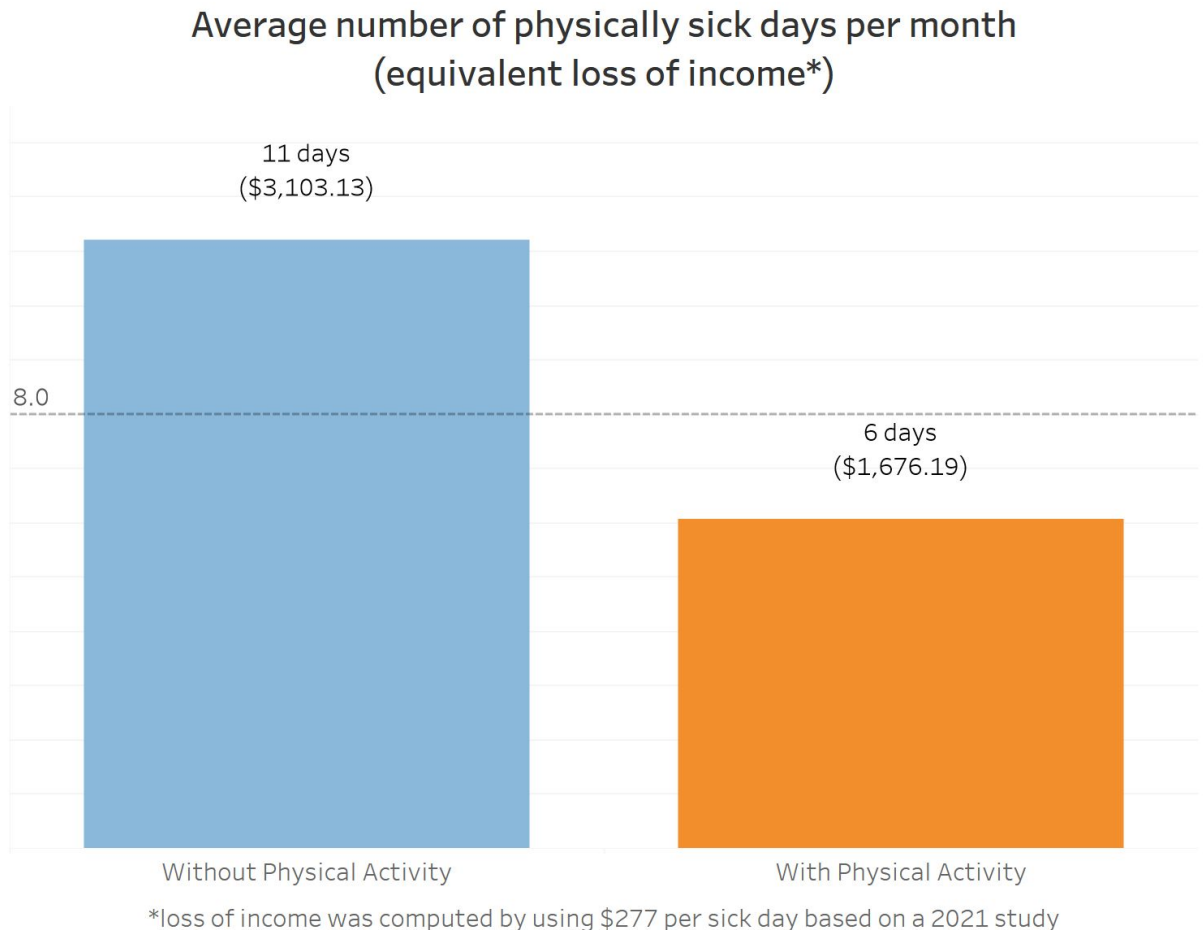
- The obese individuals in our sample accounts for the highest total yearly economic loss due to an average of 8.6 sick days a month



* economic loss was computed by using \$277 loss of income per sick day based on a 2021 study

Physical activity and Sick days of Diabetics

- Physical activity in diabetics is associated with lesser number of sick days and less loss of income



Conclusion

- Diabetes is more common in older individuals, lower income and education levels, and in obese individuals, who also suffer from other diseases, leading to more sick days and income loss. Physical activity has been shown to be associated with lower BMI and fewer sick days in diabetics.
- Physical activity also results with 50% less diabetic cases.

Recommendation

- Start young
 - Healthy lifestyle campaign targeting the youth.
 - Incentivise high schools, colleges and universities to provide free healthy lifestyle education
- Create policies to mitigate the obesity epidemic
 - Increase purchase tax of products with high level of sugar and saturated fat
- Invest to improve physical activity
 - Increasing fundings for creating infrastructure for physical activity parks and gym funding programs for people with high risk for diabetes