

DIABETES IN WASHOE COUNTY

Diabetes is a significant health concern, as it is the sixth leading cause of death in the United States¹. Diabetes is classified as a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both.² The two most common forms of diabetes are type 1 and type 2 diabetes.

- **Type 1 diabetes** develops when the body's immune system destroys pancreatic beta cells, the only cells in the body that make the hormone insulin which regulates blood glucose. In adults type 1 diabetes accounts for 5% or 10% of all diagnosed diabetes cases. There is no known way to prevent type 1 diabetes as the causes may be autoimmune, genetic, or environmental.
- **Type 2 diabetes** usually begins as insulin resistance, and as the need for insulin rises the pancreas gradually loses its ability to produce it. In adults, type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes. Further, Type 2 diabetes is being diagnosed more frequently among children and adolescents. Obesity, family history of diabetes, older age, physical inactivity, and impaired glucose metabolism are among risk factors for developing the disease.

If diabetics do not properly manage their disease, serious health complications may occur, including: heart disease, blindness, kidney disease, lower-extremity amputations, diabetic ketocidosis, hyperosmolar coma, and death.³

DATA & DISCUSSION

Data presented in this section were based on Behavioral Risk Factor Surveillance System (BRFSF) unless data sources were specified otherwise.

Diabetes Morbidity and Mortality

Diabetes prevalence in Washoe County has been consistently lower than those of Nevada and the United States (**Figure 1**). Yet the mortality rate for diabetes is significantly higher in Washoe County compared to Nevada (**Figure 2**).

Figure 1. Prevalence of Diabetes, Adults, Washoe County, Nevada, and US; 2005-2008

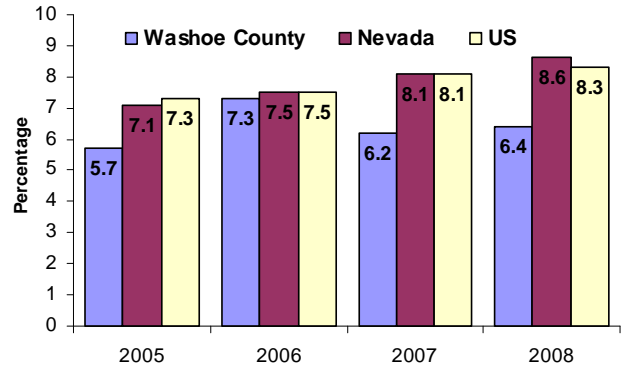
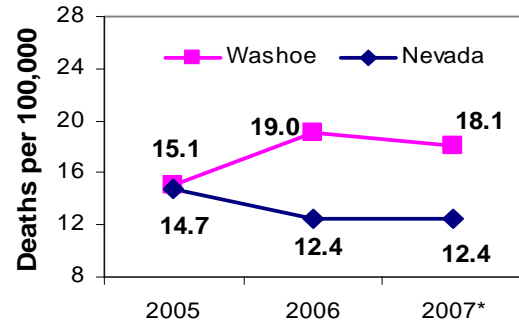


Figure 2. Age-Adjusted Death Rates for Diabetes Mellitus, Washoe County; 2005-2007.**



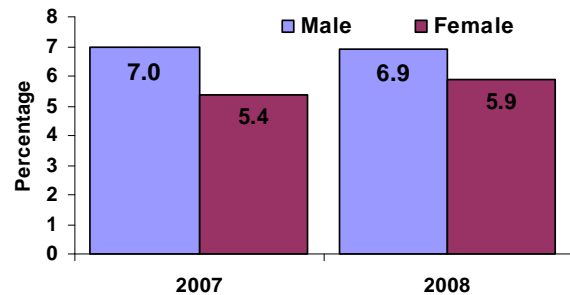
*These counts are not final and are subject to change.

**Age-adjusted Death Rates are per 100,000 population and are adjusted to the 2000 U.S. Standard population.

Data Source: Vital Statistics, Nevada State Health Division

Further, more males in Washoe County report a diabetes diagnosis compared to females (**Figure 3**).

Figure 3. Prevalence of Diabetes by Gender, Washoe County; 2007-2008.



Diabetes Management

Diabetes management includes adopting behaviors such as: receiving an annual flu vaccination, receiving a pneumonia vaccination, exercising regularly, not smoking, attending a diabetes management class, and receiving proper medical care.

Since diabetes often compromises the immune system, diabetics are vulnerable to severe cases of the flu and pneumonia. Thus, it is recommended that they receive an annual flu vaccination and a pneumonia vaccination. In Washoe County, diabetics are more likely to receive an annual flu shot and a pneumonia shot compared with non-diabetics (Figure 4 and Figure 5).

Figure 4. Received Flu Shot by Diabetes Diagnosis, Washoe County; 2007-2008.

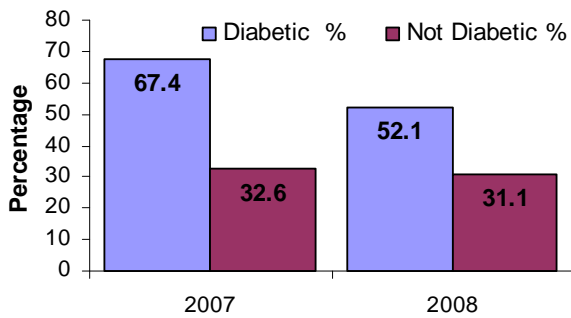
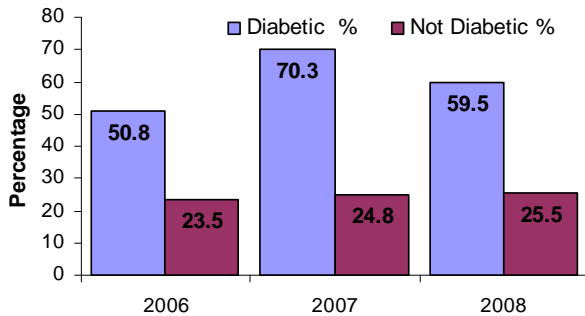


Figure 5. Received Pneumonia Shot by Diabetes Diagnosis, Washoe County; 2006-2008.



Exercise helps control blood glucose, weight, blood pressure, and cholesterol; therefore, it is another recommended strategy for managing diabetes. In Washoe County people with diabetes are less likely to have reported exercise in the past 30 days (Figure 6).

If a diabetic is obese, it is recommended that he or she lose weight. Not only is obesity a risk factor for developing diabetes, it also makes managing the disease more difficult. In Washoe County diabetics report rates of obesity at nearly double the adult general population (Figure 7).

To prevent complications of diabetes, it is also recommended that diabetics avoid tobacco use and

exposure since it raises blood glucose, cholesterol, and blood pressure. Fortunately, smoking among local diabetics has dropped significantly in recent years (Figure 8).

Figure 6. Exercise in past 30 days by Diabetes Diagnosis, Washoe County; 2005-2008.

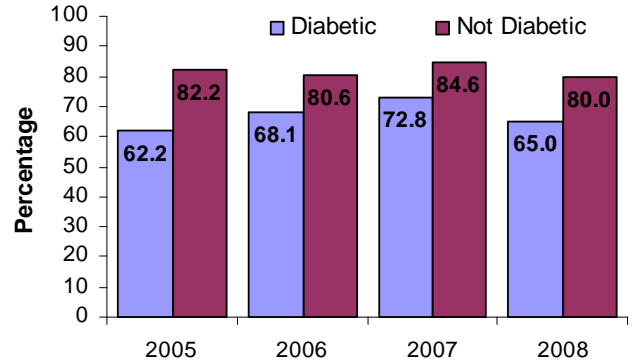


Figure 7. Prevalence of Obesity by Diabetes Diagnosis, Washoe County; 2005-2008.

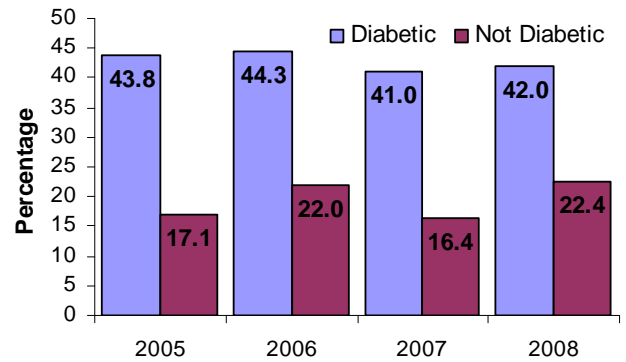
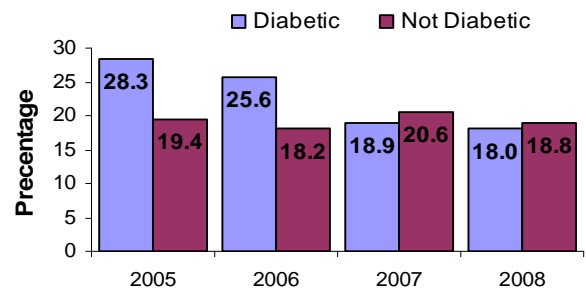


Figure 8. Prevalence of Smoking by Diabetes Diagnosis, Washoe County; 2005-2008.



Participation in self-management education or training has helped diabetics improve their health outcomes and quality of life. About 57%, 67%, and 57% of individuals with diabetes reported attending diabetes management class in Washoe County in 2006, 2007, 2008, respectively. About 80% in 2006, and 87% in 2007 and 2008 of individuals with diabetes reported visiting a doctor in past 12 months.

Proper medical care is crucial to successful diabetes management. The Centers for Disease Control and Prevention² recommends that all individuals with diabetes be checked for the following:

- ◆ blood pressure at every visit;
- ◆ feet for sores at every visit, and a thorough foot exam at least once a year;
- ◆ a glycated hemoglobin (A1C) test at least twice a year;
- ◆ urine and blood tests to check kidney function, at least once a year;
- ◆ blood lipid tests.

In Washoe County diabetics are reporting regular doctor visits, A1C checks, and foot exams. While Washoe County is higher than the 50% Healthy People 2010 goal for annual A1C tests, there is significant improvement to be made to reach the Healthy People 2010 goal of 75% for doctors providing an annual foot exam³ (Figure 9 and Figure 10).

Figure 9. Individual with Diabetes reporting doctor checked A1C in past 12 months, Washoe County; 2006-2008.

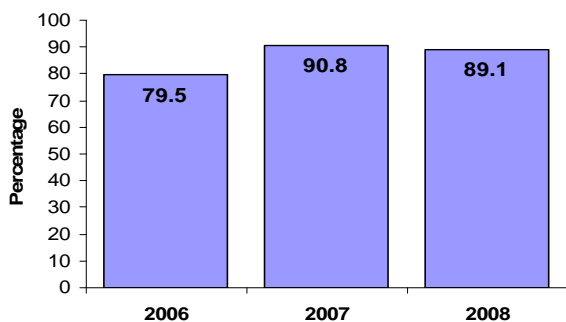
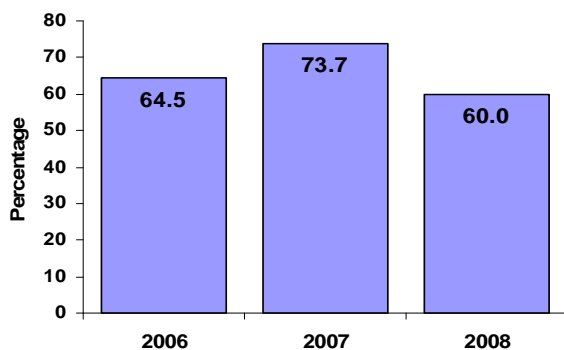


Figure 10. Individual with Diabetes reporting Doctor checked feet in past 12 months, Washoe County; 2006-2008.



RECOMMENDATIONS

Recommendations for health care professionals:

One of the best things you can do to help patients prevent or delay the onset of type 2 diabetes is to encourage them to eat healthy, be physically active, and maintain a healthy weight.² Also, encourage overweight or obese patients to lose weight. In some cases you may need to refer patients to a registered dietician to assist them in making healthy food choices.

For your patients who have been diagnosed with diabetes, encourage them to manage their diabetes by:

- ◆ receiving an annual flu vaccination,
- ◆ receiving a pneumonia vaccination,
- ◆ incorporating regular exercise into their daily routine,
- ◆ avoiding tobacco,
- ◆ attending a diabetes management class,
- ◆ receiving regular medical care, and
- ◆ losing weight if they are overweight or obese, or maintaining a healthy weight.

Local Resources:

The website www.gethealthywashoe.com has information on diabetes, including resources and information on physical activity, nutrition, and avoiding tobacco use and exposure.

Free assistance is available for those interested in quitting using tobacco products. 1-800-Quit-Now provides professional counselors to assist in cessation.

The Sanford Center for Aging, housed at the University of Nevada, Reno, also provides disease self-management courses for older adults. For more information call 775-784-4774.

REFERENCES

1. Centers for Disease Control and Prevention (2009). Deaths: Final Data for 2006. National Vital Statistics Reports, 57: 14
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Please contact Erin Dixon of the Washoe County Chronic Disease Coalition at 775-328-2442 should you have any questions regarding this edition of Epi-News.