



## Diabetes in Older Adults, Riverside County

### Introduction

Diabetes is the seventh leading cause of death in the United States and affects an estimated 29.1 million people (CDC, 2014) nationally. Diabetes disproportionately affects older adults (American Diabetes Association, 2014). More than one-third of all diabetes cases occur in persons 65 years and older; and this population continues to increase. The older adult population in Riverside County has increased by 19 percent since 2010 and is projected to increase by another 20 percent by 2020 (California Department of Finance, 2014). This is due in part to improvements in medical technology which increases life expectancy and, in part, to the aging baby boomer generation. Understanding the burden of disease for older adults can help provide guidance for diabetes management and promote independence and healthy aging among this population.

Diabetes develops when the body does not use insulin properly and eventually loses its ability to produce that specific hormone entirely. There are three types of diabetes: type 1, type 2 and gestational diabetes. Type 1 diabetes is usually diagnosed in children and young adults. Less than 5 percent of older adults with diabetes have this form of the disease. Since type 1 diabetes is usually caused by genetics, it is not impacted by the same risk factors as type 2 diabetes (e.g. diet and exercise). Over 95 percent of older adults with diabetes are diagnosed with type 2, which are impacted by risk factors such as obesity, hypertension and heart disease, all of which can be often controlled by diet and exercise. This brief will focus on older adults with type 2 diabetes in Riverside County.

### Prevalence

An age and ethnic disparity exists among older adults diagnosed with diabetes. Almost 20 percent of Riverside County's population 65 years old and older have been diagnosed with diabetes (CHIS, 2011). Among the older adults in Riverside County, diabetes disproportionately affects American Indian and Latinos. Although the prevalence is lowest among Whites, it is still higher than the state prevalence for this group (Fig. 1).

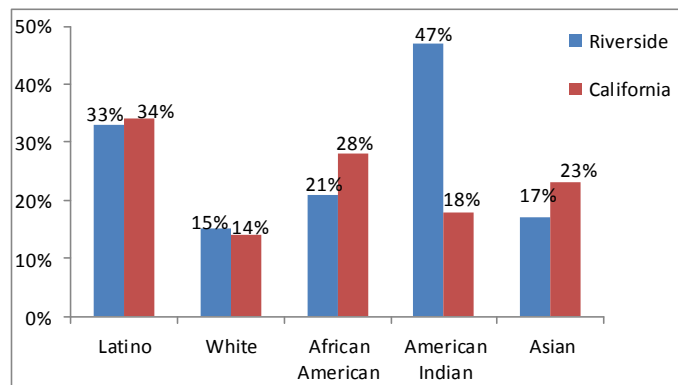
Diabetes prevalence increased by 12 percent among older adults (65+) from 2003 – 2012 in Riverside County. This increase may be due to the increasing older adult population in Riverside County which more than doubled during this time period.

These prevalence rates for Riverside County remained slightly above both state and national levels from 2003 to 2007. In 2007, while diabetes prevalence for older adults (65+) in California and the U.S. continued to increase, prevalence rates in Riverside County for older adults decreased, but increased again in 2009, surpassing the state rates by 2011/2012 (Fig. 2).

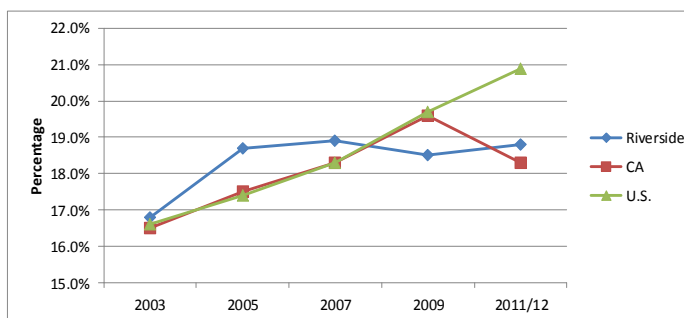
### Key Findings

- ◆ Among adults 65 years and older, diabetes prevalence is highest among American Indians (46.7%) and Latinos (32.7%); it is lowest among Whites (15.0%). Latinos and American Indians also have the highest rates of overweight and obesity in Riverside County (71.0% and 75.3% respectively).
- ◆ Diabetes prevalence increased by 12% among older adults (65+) from 2003—2012 (Fig.2).
- ◆ Older adults (65+) are more likely than other age groups to be overweight and obese and have more cases of falls, hypertension and heart disease— all of which can affect diabetes death rates.
- ◆ Approximately one-third (31%) of older adults (65+) in Riverside County with diabetes live below the County's cost of living thresholds (Fig.4).

**Figure 1: Diabetes prevalence among older adults (65 +), by ethnicity, Riverside County & CA, 2011/2012**



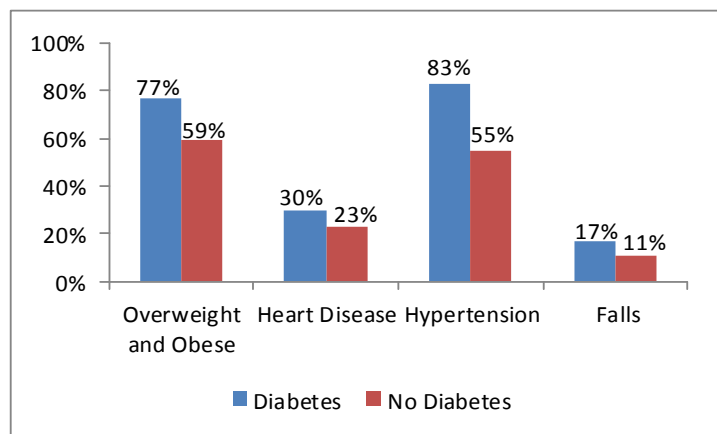
**Figure 2: Diabetes prevalence among older adults (65 +), Riverside County, CA & U.S., 2003—2011/2012**



Obesity and overweight prevalence for older adults in Riverside County are consistent with diabetes prevalence, increasing from 2003 to 2007; decreasing slightly in 2009 and rising again in 2012. State and national obesity and diabetes prevalence also show similar trends.

## For older adults, diabetes often co-occurs with other major health problems including heart disease, obesity and hypertension

**Figure 3: Selected health problems by diabetes diagnosis for older adults (65+), Riverside County, 2011/2012**



Obesity is a nationwide health concern, especially for older adults. Overweight or obese are defined as having a body mass index (BMI) of 25 or greater (CHIS, 2011). Approximately three-quarters of older adults (65+), diagnosed with diabetes in Riverside County

were overweight or obese. Also, older adults diagnosed with diabetes were more likely to be diagnosed with heart disease and hypertension in 2011/2012 (Fig 3).

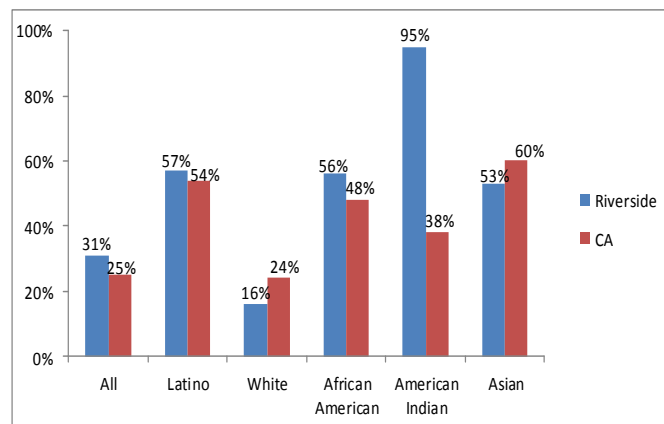
Both diabetes and falls are serious problems among the elderly. Diabetes increases the likelihood of impaired vision and thus can contribute to the increased likelihood of falls among this population. Data has shown that older adults diagnosed with diabetes were more likely to report falls (Fig.3).

Older adults (65+) make both economic and social contribution to our society and promoting healthy aging in communities is important. Working together, the County and community-based programs can promote healthy aging through preventive interventions that address health behaviors and encourage healthy eating and regular exercise. These activities can improve quality of life, diabetes management and overall health outcomes for this population.

## Social Determinant Spotlight: Socioeconomic Status (SES) and Diabetes Prevalence

The Elder Index is the measure of poverty for older adults. Researchers determined that nearly 500,000 older adults in California could not make ends meet, lacking sufficient income to pay for a minimum level of housing, food, healthcare, transportation and other basic expenses (UCLA Center for Health Policy Research, n.d.). Approximately one-third (31%) of older adults (65+) in Riverside County who are diagnosed with diabetes live below the County’s cost of living thresholds as defined by the Elder Index (Fig.4). Also, significant diabetes disparities exist among American Indian, African American and Latino older adults (65+) in Riverside County. Socioeconomic Status can explain some of these disparities, as more than half of African American, Latino and Asian older adults and 95 percent of American Indian older adults in Riverside County, with diabetes, live below the cost of living threshold (Fig.4). Therefore, older adults (65+) in Riverside County, living below this cost of living threshold, are at particularly high risk for poor health outcomes.

**Figure 4: Percentage of older adults (65+) diagnosed with diabetes and whose income are below county cost of living thresholds as defined by the Elder Index, Riverside County & CA, 2011/2012.**



**Suggested Citation:** Napier, R. (2015). Diabetes in Older Adults, Riverside, CA: Riverside County Department of Public Health, Epidemiology and Program Evaluation.

**Acknowledgments:** Wendy Hetherington, Sarah Mack, Michael Osur, Salomeh Wagaw, Sheena Talati, Aaron Gardner

**References:**

- American Diabetes Association (2014). Older Adults. Retrieved from <http://www.diabetes.org/in-my-community/awareness-programs/older-adults/>
- Centers for Disease Control and Prevention (2014). *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: US Department of Health and Human Services; 2014. Retrieved from <http://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html>
- CHIS. (2011). AskCHIS data tables, retrieved from <http://ask.chis.ucla.edu/main/DQ3/subset.asp>
- State of California, Department of Finance (2014). Demographic Research Unit. Report P-2: State and County Population Projections by Race/Ethnicity and Age (5-year groups) 2010-2060. Sacramento, CA, July 2014. Retrieved from: <http://www.dof.ca.gov/research/demographic/reports/projections/P-2/>
- UCLA Center for Health Policy Research. (n.d.). The Elder Index Research and Policy. Retrieved from <http://healthpolicy.ucla.edu/programs/health-disparities/elder-health/elder-index-data/Pages/elder-index-data.aspx>

County of Riverside  
Department of Public Health

**Epidemiology &  
Program Evaluation**

---

**4065 County Circle Drive  
Riverside, CA 92503  
Phone: 951-358-5557  
Fax: 951-358-5348  
[www.rivcohealthdata.org](http://www.rivcohealthdata.org)**