



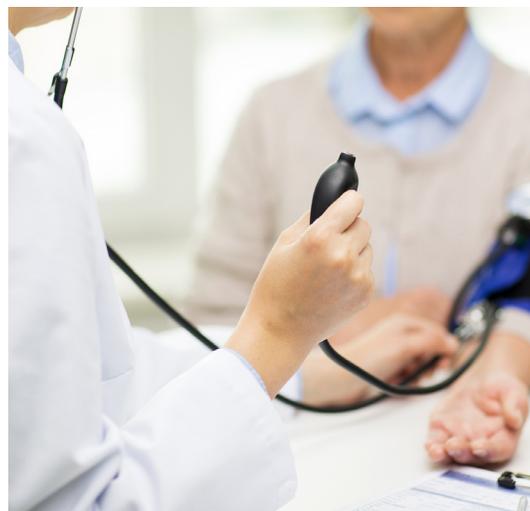
Health Equity for All

SAN JOAQUIN VALLEY
PUBLIC HEALTH CONSORTIUM

FRESNO
STATE
Central Valley Health
Policy Institute

Executive Summary

LONGEVITY FOR SAN JOAQUIN VALLEY ELDERS



Individual and Neighborhood Characteristics



Health Equity for All

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LONGEVITY FOR SAN JOAQUIN VALLEY ELDERS

Individual and Neighborhood Factors

ABSTRACT

This report examines the determinants of longevity for San Joaquin Valley (SVJ) persons aged 65 and older in relation to individual, health care, and neighborhood factors. Although examining patterns of survival and death for elders does not provide a complete picture of the overall health of older adults in the region, understanding longevity determinants can help identify priorities for public health. Findings indicate that San Joaquin Valley residents are more likely to die before age 65 and lose more years of life after age 65 than do other Californians. There were notable gender and race/ethnicity differences, with women and whites experiencing greater longevity than do men, Latinos, and African Americans. Elders in the San Joaquin Valley have higher use of avoidable hospitalizations and lower use of planned elective surgeries than their peers in the rest of California. Even after accounting for individual differences, elder San Joaquin Valley residents who lived in more walkable neighborhoods with more frequent planned surgeries had more years of life after 65, while those who lived in neighborhoods with increased higher poverty rates and higher rates of unplanned ER visits lost more years after age 65.

Acknowledgement

The San Joaquin Valley Public Health Consortium is a forum for County Public Health Directors, Health Officers, and invited members to explore and exchange ideas and information and to develop strategies for addressing pressing public health issues faced by the counties in the region. The Consortium engages in strategic planning, training, action oriented policy development, and research to improve the quality and responsiveness of public health programs in the San Joaquin Valley region. The vision of the Consortium is to achieve health equity for all residents in the San Joaquin Valley and the mission is to provide leadership for a regional health agenda that addresses the social determinants of health in the San Joaquin Valley. The San Joaquin Valley Public Health Consortium's core values are to help all residents in the Valley to lead healthy and productive lives through focusing on prevention and by addressing the social determinants of health. The Consortium continually works on building capacity of expert workforce, engaging communities, and utilizing evidence based practice to inform and advocate for health equity in all policies.

This report is the result of collaboration between Consortium members including the eight San Joaquin Valley Counties' Public Health Departments located in Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties; Adventist Health Central Valley Network, University of California, Merced, California State University, Fresno and the Central Valley Health Policy Institute at Fresno State. Funding for this publication was made possible by a grant from The California Endowment.

The authors would especially like to thank Amanda Conley, Donna DeRoo, Ashley Hart, Magdalena Flores, Diahann Gutierrez, Jacqueline Cortez, and Yesenia Silva who took the time to edit the report and facilitate the process. You are a gift and we deeply appreciate your work.

We would like to extend a special acknowledgement to Dr. Jody Hironaka-Juteau, David Pomaville, David Luchini, Bill Mitchell, Cathy Volpa, Charles Sandefur, Dr. Claudia Jonah Elizabeth Gazarek, Dr. John Walker, Dr. Karen Furst, Dr. Karen Haught, Kathleen Grassi, Keith Winkler, Dr. Miguel Perez, Dr. Paul Brown, Dr. Steve Roussos, Dr. Tim Livermore, and Van Do Reynoso for providing insights, excellent and extensive advice throughout the project and peer review comments for publication.

Funding and Contributors:

The California Endowment (TCE) and the San Joaquin Valley Public Health Consortium commissioned this project to identify and highlight the social and environmental determinants of health throughout the life course for populations residing in California's San Joaquin Valley. The Consortium contracted the Central Valley Health Policy Institute (CVHPI) at Fresno State to produce county-specific briefs as well as region-wide reports on the health landscape for the eight local county health departments who participate in the SJVPHC including: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. This document provides analysis of variety of secondary data sources including hospital care use from the Office of Statewide Planning and Development (OSHPD), birth and death records from the California Department of Public Health (CDPH), and the US Census.

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Suggested Citation:

Central Valley Health Policy Institute (2017). Longevity for San Joaquin Valley Elders: Individual and Neighborhood Characteristics. California State University, Fresno.

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Longevity for San Joaquin Valley Elders: Individual and Neighborhood Characteristics

Executive Summary

Context

The United States and other industrialized countries have experienced notable improvements in the length of life, and about 81% of US residents are expected to live past age 65. Public health initiatives, such as improvements in sanitation, control of infectious disease and improved nutrition have been key factors. Improvements in life expectancy, since the 1930's, are attributed to health care access and lifestyle behaviors. Despite overall increases in the length and quality of life for older people, broad differences across gender racial/ethnic, social class, neighborhood design and rural-urban residence have been found. Findings on the influence of diverse potentially modifiable factors on elder health outcomes indicate the potential for continued improvements. This report examines the determinants of longevity for San Joaquin Valley (SJV) persons aged 65 and older in relation to individual, health care, and neighborhood factors. Although examining patterns of survival and death for elders does not provide a complete picture of the overall health of older adults in the region, understanding longevity determinants can help identify priorities for public health.

Older Adult Longevity: Multiple Determinants

The number of years a person is likely to live (life expectancy) has been examined from multiple perspectives. Although there is consensus that genetic factors are determinants of longevity, specific pathways have not been identified. Further, there is increasing evidence for epigenetic (interactions of genes with environment or behavior factors) determination of longevity and thus the continuing attention to other potential causes. Four groups of determinants have been highlighted in prior studies:

- **Individual demographics:** For older adults in this country, individual factors such as gender, race/ethnicity, education and wealth have been linked to longevity, functional status, and quality of life. Populations with greater economic security live longer and report greater health and well-being including Asian Americans, older whites, women and those with more education. Notably, consideration of other factors, such as individual health behaviors or health care use, tends to reinforce the influence of demographic differences. For elders, demographic categories serve as proxy measures of a life-time of differential exposure to living condition, health events and interventions, social supports, and other sources of stress and resilience, all closely associated with different demographic positions in the society.
- **Health related behaviors:** Current and lifetime health risk behaviors, such as smoking, diet, exercise, substance use, and social support have been consistently linked to health outcomes. The influence of these factors appears smaller for elders than for younger persons; they are increasingly recognized as at least partially a response to neighborhood stressors. Health risk behaviors can change even in old age, and there is convincing evidence that smoking cessation, weight management and physical activity interventions can improve health and survival.
- **Health services use:** For older adults, the accessibility and quality of medical care has been associated with longevity and quality of life. Older adults who receive higher frequency and quality of primary medical care experience lower mortality. Older persons with greater access to primary care are less likely to have avoidable hospitalizations. There are broad social group and market-area differences in rates for surgeries both elective and mandatory that may better reflect differences in practice patterns or insurance than underlying medical necessity.
- **Neighborhood environment:** Because individual demographic and health risk behaviors in elders reflect both cumulative life experiences and current exposures, they have been found to be the most powerful predictors of longevity among elders. Researchers, nonetheless, have consistently found impacts of multiple neighborhood features on longevity. Neighborhood socio-economic status has been found to be an independent predictor of heart disease mortality and all-cause mortality. Racial/ethnic and economic segregation at the neighborhood level has also been linked to life expectancy and mortality for elders.

Older Adult Longevity and Public Health Departments

San Joaquin Valley Public Health Consortium (SJVPHC) member local health departments have extensive primary prevention and related programming aimed at improving the length and quality of life for older adults. Area Agencies on Aging, long-term care providers across a continuum, and other human services systems also serve elders with health-related needs. Table 1, lists some of the key activities addressing elder health of SJVPHC local health departments.

Methods

This report utilizes data from a variety of statewide governmental agencies. Death Statistical Master Files for the years 2009-2013 were obtained from the California Department of Public Health (CDPH). Emergency department (ED) visits and patient discharge data (hospitalizations) were gathered from the Office of Statewide Health Planning and Development (OSHPD), 2009-2011. The Walk Score® generated by walkscore.com was used to analyze walkability. Approval from the California Department of Public Health Vital Statistics Advisory Committee (VSAC) and the California Health and Human Services Agency's Committee for the Protection of Human Subjects (CPHS) was obtained. All data files mentioned above provided information on place of residence (county and zip code), age, gender, and other non-identifiable demographics. All rates and population estimates were based on 2010 Census files. Self-reported data is reported from UCLA's California Health Interview Survey (CHIS).

There are several ways to measure longevity, including life expectancy at age 65. We used gender-specific years of potential life lost compared to all Californians as a measure of premature mortality. This method allows for the adjustment of gender and age differences in life expectancy. In order to address morbidity, several indicators were developed including hospitalization and emergency department rates for ambulatory care-sensitive conditions (ACSC) and scheduled elective procedures.

Findings

Figure 1 illustrates the cumulative percentage of death by age and race/ethnicity between the years 2009 and 2013. Individuals living in the SJV suffer from premature death at a greater rate than those living in other regions of the state. Within every age group, the SJV has a greater proportion of accumulated deaths compared to the rest of California. Most notably, 40% of all deaths in African Americans, Latinos, and "other" race categories occur to individuals younger than 60 years of age. In contrast, less than 20% of white deaths are of individuals less than 60 years of age. These regional and racial/ethnic differences in premature mortality shape the context for examining longevity in the SJV and highlight the need to focus on the determinants of premature mortality in the region.

Figure 1. Cumulative Percentage of Age of Death by Race/Ethnicity in the SJV, 2009-2013

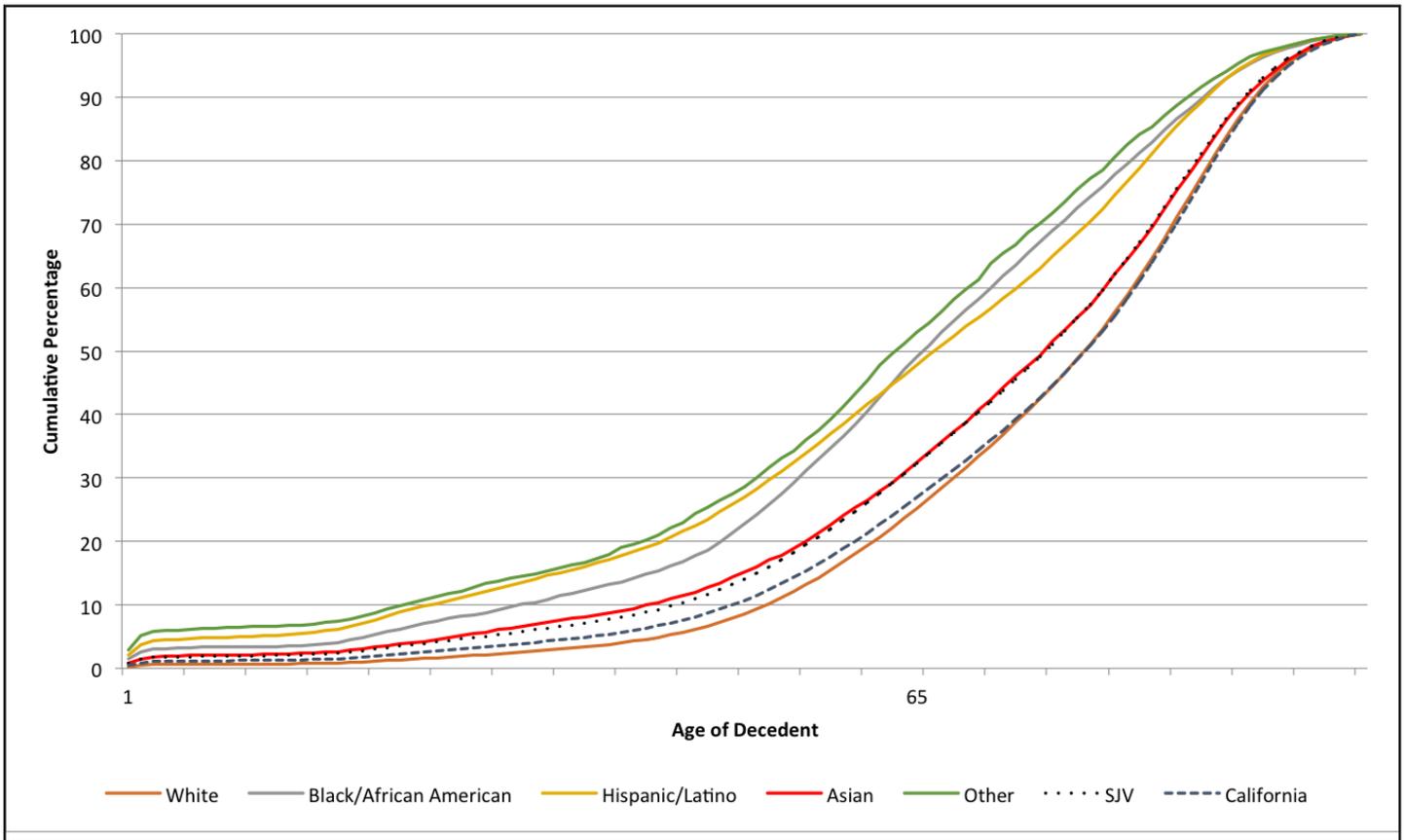
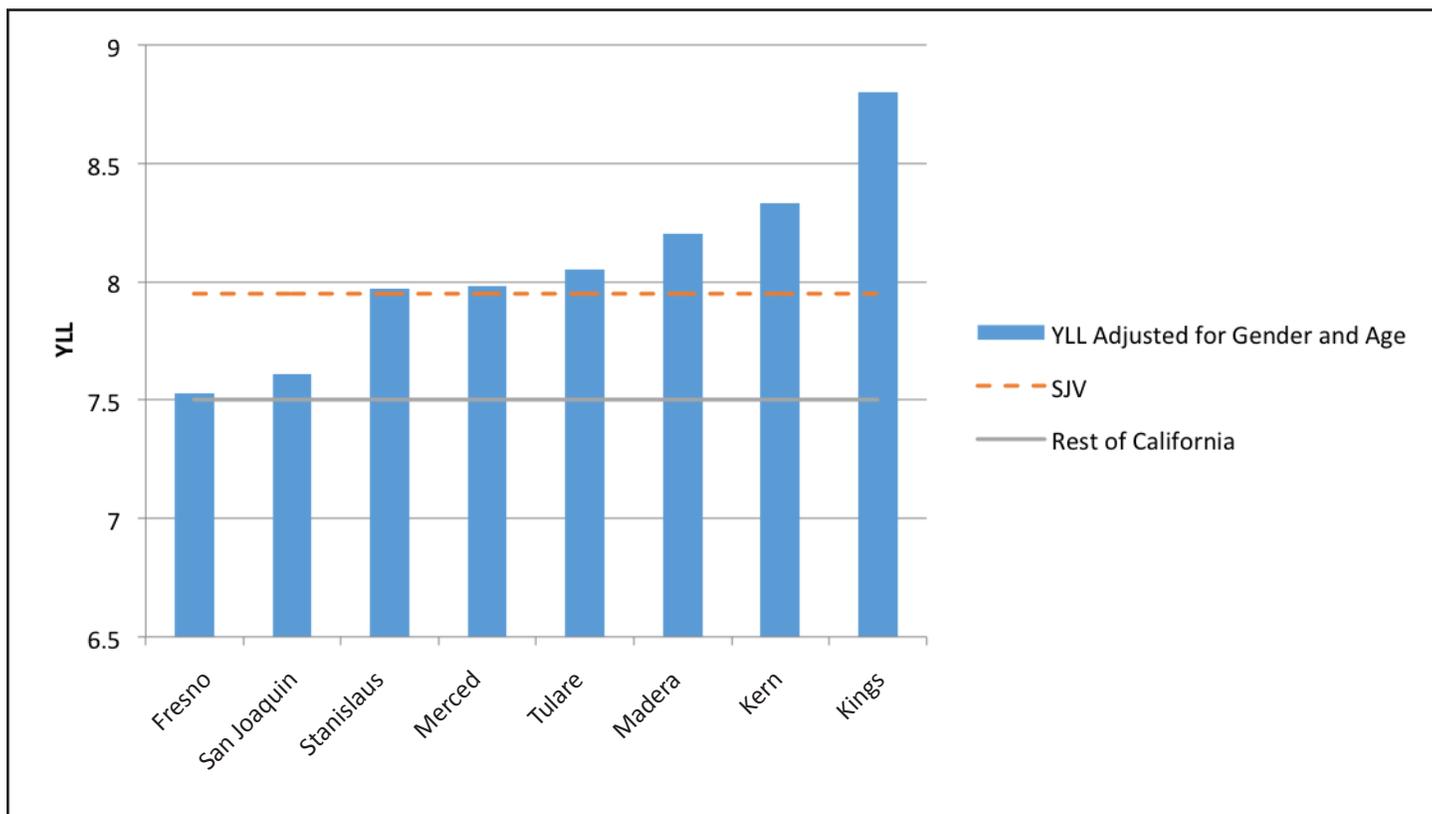


Figure 2 highlights the regional and county differences that remain after such adjustment. Unfortunately, each individual county, and the SJV region as a whole, have greater YLL than the rest of California. These differences in YLL are, at the very least, attributable to factors beyond the influence of an individual’s gender and age. Further, a multivariate analysis showed that neighborhood walkability, poverty, rate of ACSC ED utilization, and the rate of scheduled elective procedures are significantly and independently associated with YLL beyond individual demographics. Poverty and the rate of ACSC ED visits are both associated with higher levels of YLL compared to areas of affluence and low ACSC ED rates, respectively. The walkability of a neighborhood and the rate of scheduled elective procedures proved to be protective factors associated with YLL.

Figure 2. Years of Life Lost Age 65 and Older Adjusted for Gender and Age by County in the SJV, 2009-2013

Discussion and Recommendations

This analysis of 2009-2013 data indicates that Valley residents are more likely to die before age 65 and lose more years of life after age 65 than do other Californians. There were notable gender and race/ethnicity differences, with women and whites experiencing greater longevity than do men, Latinos, and African Americans. At the same time, the findings indicate that elders in the San Joaquin Valley have higher use of avoidable hospitalizations and lower use of planned elective surgeries than their peers in the rest of California. Even after accounting for individual differences in race/ethnicity, gender, and education, elder San Joaquin Valley residents who lived in more walkable neighborhoods with more frequent planned surgeries had more years of life after 65, while those who lived in neighborhoods with increased higher poverty rates and higher rates of unplanned ER visits lost more years after age 65.

Although the local public health departments that make-up the San Joaquin Public Health Consortium do not receive specific funding for eldercare preventive and care management programming, many have sought to engage elders in chronic disease self-management, health care and medications access initiatives, nutrition, and other preventive care initiatives. They have also sought elder involvement in a range of initiatives that address the social determinants of health by improving neighborhood conditions and strengthening networks of support for treatment and disease management. While this two-pronged approach seems responsive to the data, the notable variability across racial/ethnic groups and neighborhoods in elder outcomes, also suggests the need for more concentrated attention to elders' engagement in health care and prevention in the least well-served neighborhoods, using culturally tailored strategies for engaging elders in prevention and treatment.

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