

Premature Death Report 2017



Public Health

Epidemiology & Program Evaluation

INTRODUCTION: What is Premature Death?

Premature death is a death that occurs before 75 years, a standard used in public health practices worldwide. By measuring premature death rather than overall death, the attention is focused on lives that could have been extended.¹ Premature deaths are influenced by the environment and conditions of where people live, learn, work and play. These conditions are known as social determinants of health (SDOH) and affect a wide range of health risks and outcomes. We know that poverty limits access to healthy foods and safe neighborhoods and that there are striking differences in communities with poor SDOH such as unstable housing, low income or unsafe neighborhoods.⁴ In 2015, 45% of

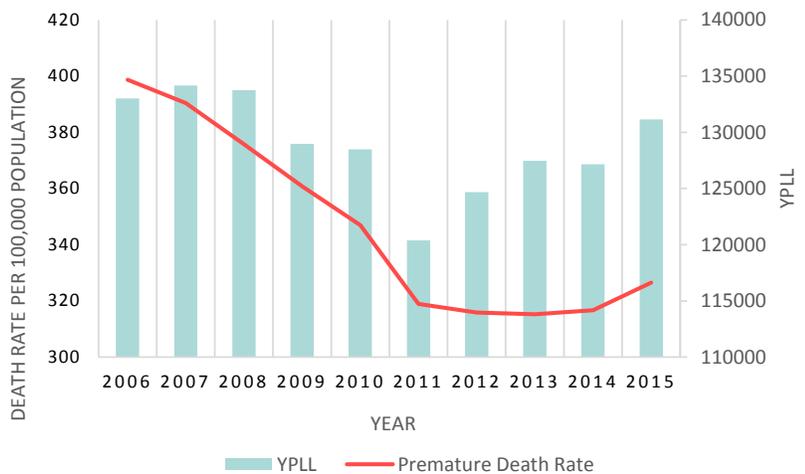
residents (7,819 people) who died in Riverside County were younger than 75. Cancer, heart disease, unintentional injury, chronic obstructive pulmonary disease (COPD) and cirrhosis are the top five causes of premature death in the county. Riverside University Health System—Public Health (RUHS-PH) is dedicated to advancing health equity and reducing the risk of preventable disease by improving the conditions of our community and supporting healthier lifestyles. By continuously reviewing these indicators, RUHS-PH is monitoring the health of Riverside County residents in order to help build and sustain communities that promote health.

KEY FINDINGS

- After nearly a decade of decline, premature death rates began to rise in 2014.
- In 2015, 7,819 people died prematurely—this was an increase of about 500 people in one year.
- Premature death rose in 2015 across the full range of racial/ethnic groups.
- Premature death has consistently been highest among American Indians and Blacks. In 2015, these groups experienced more years of life lost than other racial/ethnic groups.
- Unintentional injury or “accidents,” suicide and homicide accounted for 36,676 years of potential life lost (YPLL) or 34% of all years lost.
- Men are dying prematurely at a higher rate than women in Riverside County.
- From 2011– 2015, premature death contributed to 56% of all death, meaning nearly 40,000 deaths could have been prevented in men and women under 75.

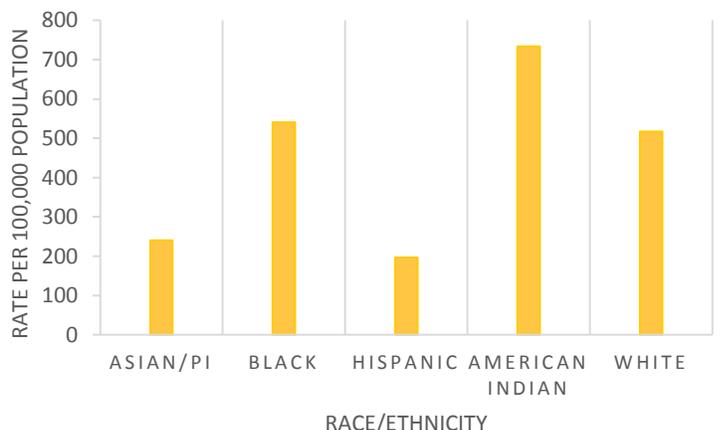
Premature Death Trends Over a Decade

Age-Adjusted Mortality Rate and YPLL
(Deaths under age 75 per 100,000 population)



Premature Death Rate by Race/Ethnicity, 2015

Age-Adjusted Mortality Rate
(Deaths under age 75 per 100,000 population)

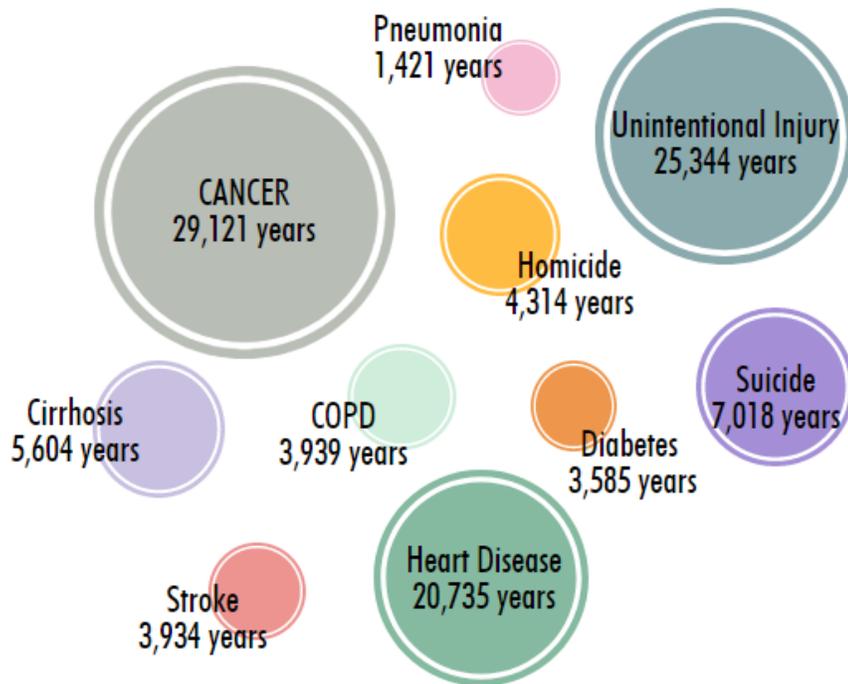


Years of Potential Life Lost (YPLL): Why do we use this?

Years of potential life lost (YPLL) is used to measure premature death before age 75. If we expect residents to live at least 75 years, then people who die earlier are considered to have died prematurely.² For instance, someone who dies at age 65 loses 10 years of potential life, while a person who dies at age 40 loses 35 years of potential life. To calculate total YPLL, we add up all the years of potential life lost and identify which cause of death led to the greatest amount of premature death. To identify the leading causes of premature death, cause of death was ranked by YPLL and number of deaths.

Years of Potential Life Lost (YPLL) by Causes of Death

Riverside County, 2015



	Deaths	Percent
Cancer	2,154	27.5%
Heart Disease	1,606	20.5%
Unintentional Injury	816	10.4%
COPD	386	4.9%
Stroke	315	4.0%
Cirrhosis	306	3.9%
Diabetes	268	3.4%
Suicide	236	3.0%
Homicide	108	1.4%
Pneumonia	86	1.1%

TOTAL PREMATURE DEATHS: 7,819 deaths

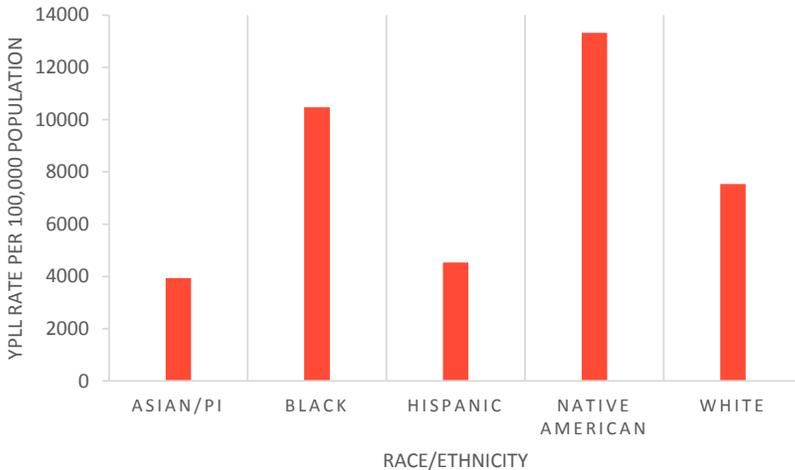
TOTAL YEARS OF LIFE LOST: 133,801

- In 2015, cancer, heart disease, unintentional injury, COPD and stroke were the top causes of premature death in Riverside County. These deaths accounted for 67% of all premature death.
- Unintentional injuries (816 deaths), suicide (236 deaths) and homicide (108 deaths) cause 34% of YPLL, but only 15% of premature deaths, highlighting the impact of injuries on younger residents.
- Cancer accounted for 27% of all deaths in 2015 and also contributed to 27% of YPLL, indicating that it is a leading cause of death and years of life lost.
- Heart disease accounted for 20% of all death and also contributed to 19% of YPLL, indicating that it is also a leading cause of death and years of life lost.

Premature Death by Race/Ethnicity

Years of Potential Life Lost (YPLL) by Race/Ethnicity

Riverside County, 2015



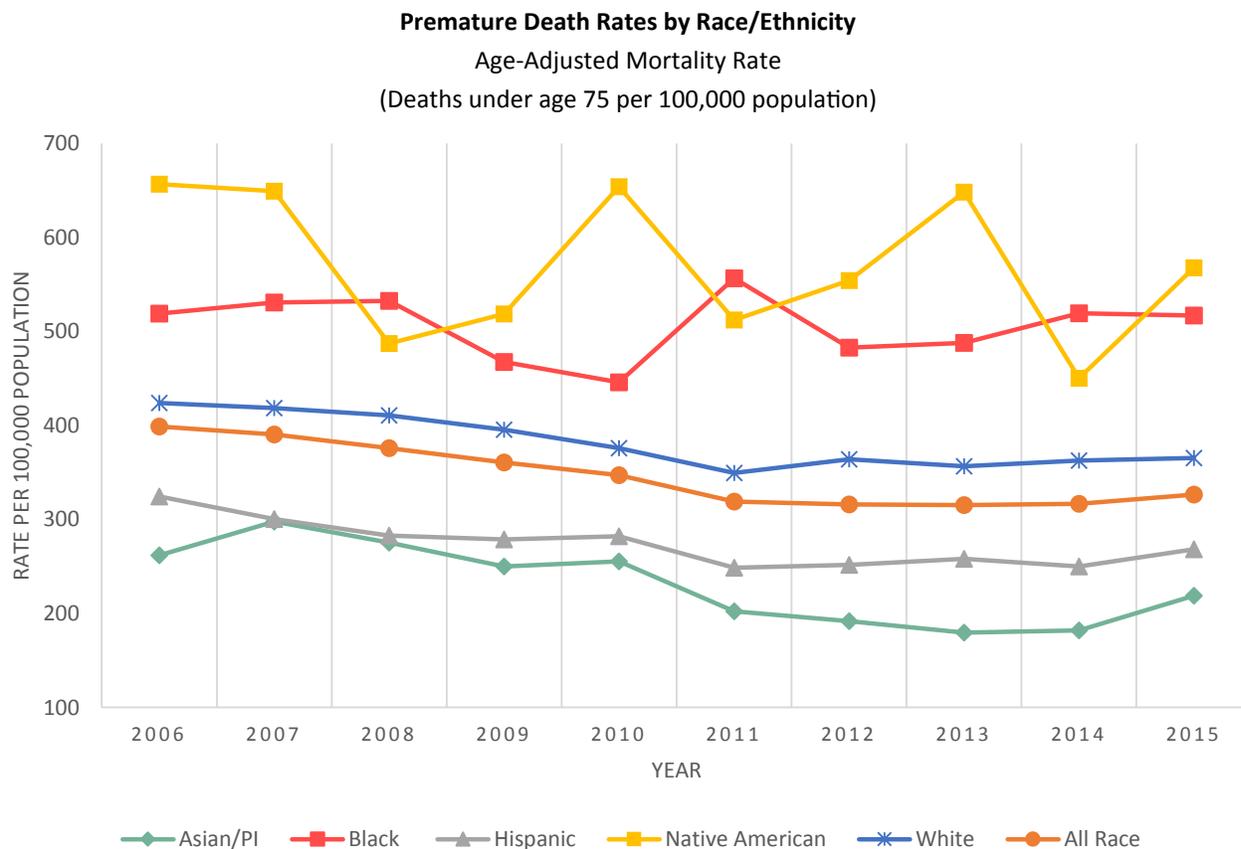
- Native Americans and Blacks are dying at a younger age compared to other racial/ethnic groups.
- Native Americans and Blacks account for only 11% of total years of life lost; however, they have the highest YPLL rates. Indicating a disparity in premature death among these racial/ethnic groups.
- The YPLL rate for Blacks is more than three times the rate of Asian/PI's, and more than twice the rate of Hispanics.
- The YPLL rate for Native Americans is more than three times the rate of Asian/PI's, and more than three times the rate of Hispanics.

YEARS OF POTENTIAL LIFE LOST (YPLL), 2015

By Race/Ethnicity and Cause of Death

	Asian/PI	Black	Hispanic	Native American	White
#1	Cancer 1,587 years	Cancer 2,634 years	Unintentional Injuries 10,402 years	Unintentional Injuries 387 years	Cancer 14,992 years
#2	Heart Disease 817 years	Heart Disease 2,497 years	Cancer 9,491 years	Heart Disease 296 years	Unintentional Injuries 11,700 years
#3	Unintentional Injuries 749 years	Unintentional Injuries 1,993 years	Heart Disease 5,417 years	Cancer 197 years	Heart Disease 11,468 years
#4	Suicide 355 years	Homicide 1,069 years	Suicide 2,232 years	Cirrhosis 156 years	Suicide 3,870 years
#5	Stroke 291 years	Diabetes 520 years	Homicide 2,177 years	Diabetes 77 years	Cirrhosis 2,985 years

- Cancer, unintentional injury and heart disease are the leading causes for YPLL for all race/ethnicities.
- Cancer was the largest contributor to YPLL for Asian/PI, Black and White residents. Unintentional injury was the largest contributor to YPLL for Hispanic and Native American residents.

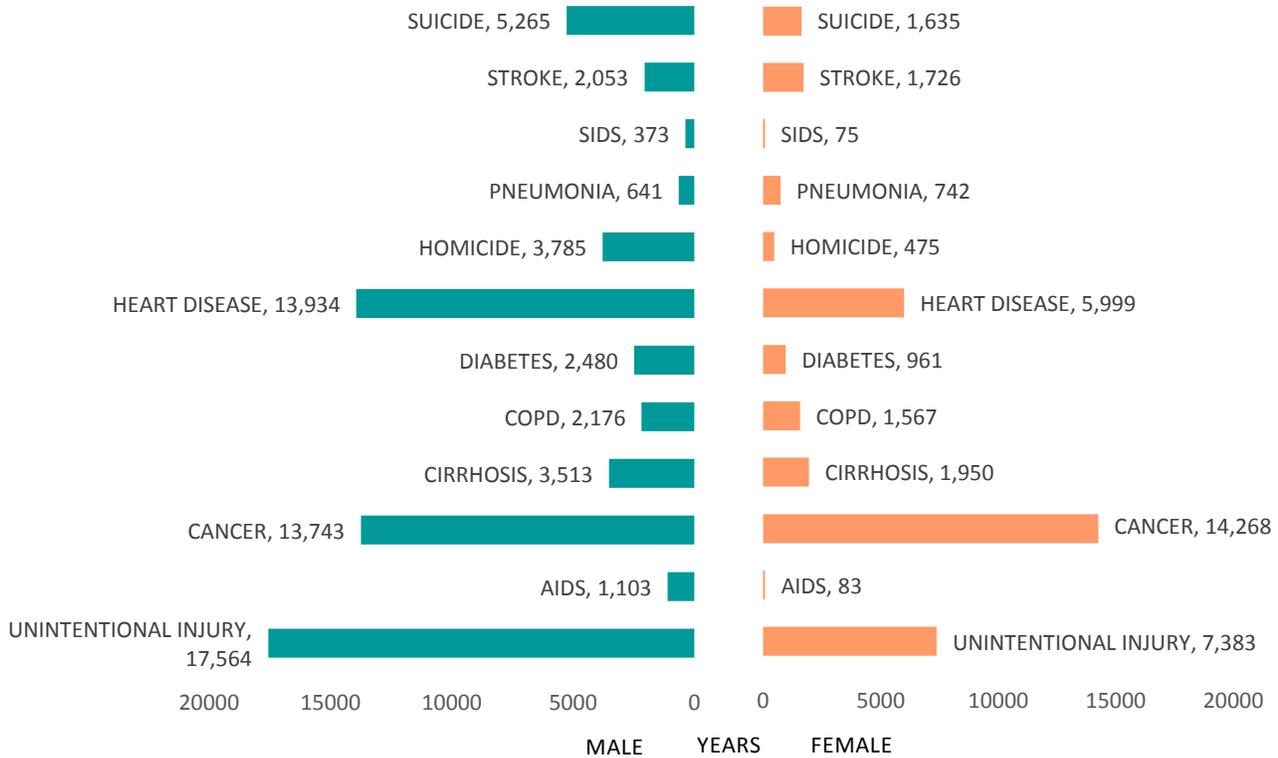


- Premature death rates for all race/ethnicities decreased from 2006 (398.7 deaths per 100,000 population) to 2015 (326.5 deaths per 100,000 population).
 - Asian/PI premature death rate dropped from 261.9 to 218.9 (per 100,000 population) from 2006 to 2015.
 - Black premature death rate remained relatively stable from 519.0 to 516.9 (per 100,000 population) from 2006 to 2015.
 - Hispanic premature death rate dropped from 324.5 to 268.1 (per 100,000 population) from 2006 to 2015.
 - Native American premature death rate dropped from 656.6 to 567.8 (per 100,000 population) from 2006 to 2015. Rates for Native Americans may fluctuate due to small population numbers.
 - White premature death rate dropped from 423.7 to 365.2 (per 100,000 population) from 2006 to 2015.
- In 2011, a drop in premature death mirrored the overall death rate in Riverside County and California. This decrease was also seen among Asian/PI, Hispanic, White and Native American populations. However, there was a rise in premature death among Blacks in 2011.
- An increase in premature death rates was seen in Asian/PI, Hispanic, and Native American populations from 2014 to 2015. Rates for Blacks and Whites remained relatively stable.

Premature Death by Sex

Years of Potential Life Lost (YPLL) by Sex and Cause of Death

Riverside County, 2015



TOTAL YPLL: 133,801 years

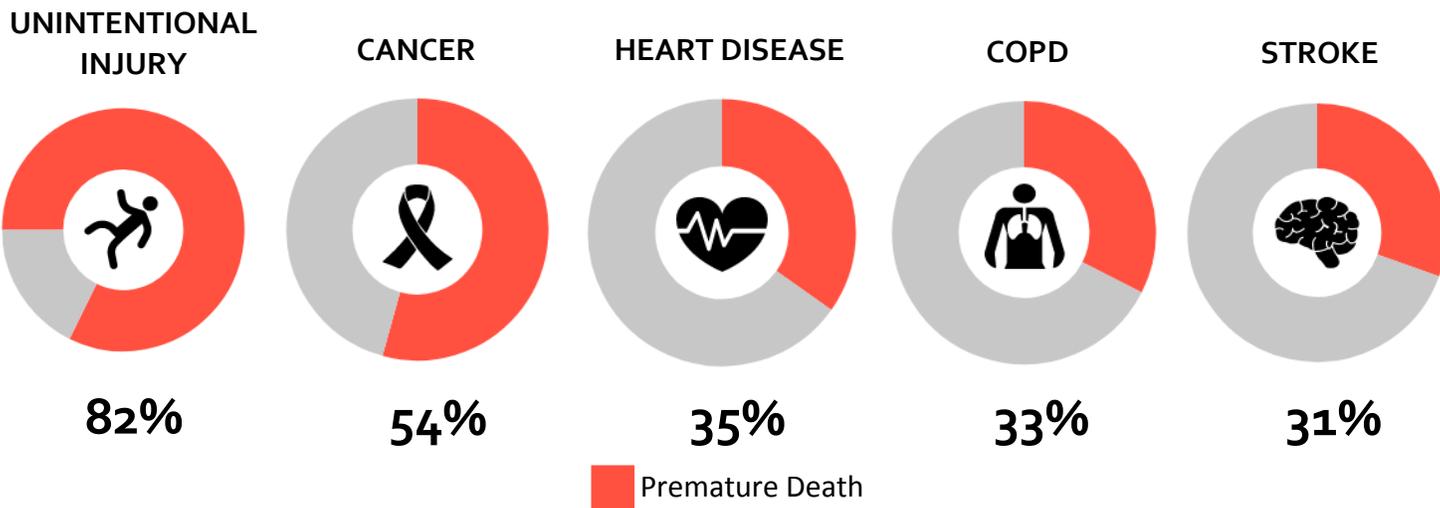
**MALE:
84,166 years lost**

**FEMALE:
49,635 years lost**

- In 2015, men accounted for 84,166 years lost; while females accounted for 49,635 years lost. Men are dying prematurely at a higher rate than women in Riverside County.
- Unintentional injury, cancer and heart disease were the leading contributors to years lost in both males and females.
 - YPLL for Unintentional Injury:
 - FEMALE: 7,383 years
 - MALE: 17,564 years
 - YPLL for Cancer:
 - FEMALE: 14,268 years
 - MALE: 13,743
 - YPLL for Heart Disease:
 - FEMALE: 5,999 years
 - MALE: 13,934 years
- Females account for more YPLL than males in cancer and pneumonia.

Leading Causes of Death and Premature Death

Riverside County, 2011-2015



The five leading causes of death in Riverside County are unintentional injury, cancer, heart disease, COPD and stroke. Together, they account for 67% of all Riverside County deaths in 2015, with similar rates in prior years. From 2011–2015, premature death contributed to 56% of all death, meaning nearly 40,000 deaths could have been prevented in men and women under 75.

- 82% of all unintentional injury death was premature
- 54% of all cancer death was premature
- 35% of all heart disease death was premature
- 33% of all COPD death was premature
- 31% of all stroke death was premature

What's next?

Future studies will address primary drivers of premature death in recent years. Both unintentional injury (motor vehicle, fall, pedestrian, etc.) and intentional injury (homicide, suicide, etc.) cause a substantial portion of preventable deaths. In Riverside County, 4 in 5 deaths due to unintentional injury were premature. Death from homicide, suicide, assault and opioid overdose contribute to higher years of life lost.

Leading causes of premature death are considered preventable through behavior modification and surrounding environmental and social change.^{3,4} Changes in our behaviors such as eating well and staying active, not smoking, limiting alcohol consumption and regularly visiting the doctor for immunizations and screenings are key to our health. The conditions in which we live, work, learn and play also have a major impact on our health. Access to social and economic opportunities, safety in neighborhoods, quality of education, social support and resources available in communities also determine health.⁴ Differences in deaths among those over 75 years and premature death provide us with insight into the burden of disease and injury in the county. By investigating how YPLL and premature death relate to life expectancy, we can promote health equity in our communities and support healthy behaviors that can lead to longer and healthier lives. Preventing the loss of life in younger individuals and prolonging disease onset during productive years of life is vital for the health of our community.

References

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