



Humboldt County lung cancer, chronic obstructive pulmonary disease (COPD), and tobacco use mortality data report, 2005-2018

Version 10/25/2019

PURPOSE:

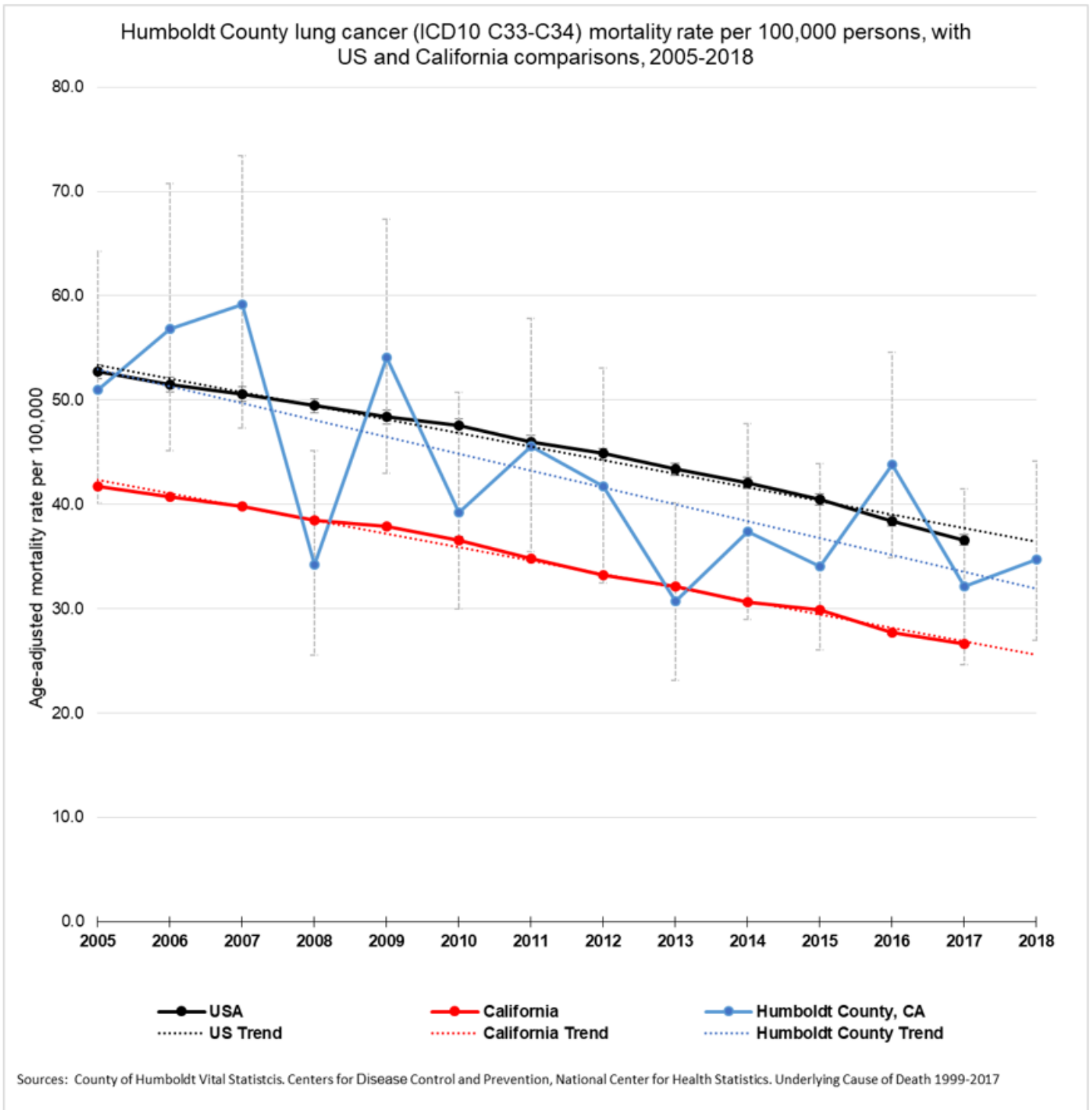
The purpose of this report is to supplement the section “Tobacco Use (Pg. 47-48)—Health Outcomes and Risk Behaviors” of the 2018 Humboldt County Community health assessment (CHA). The CHA can be found online at: <https://humboldt.gov/DocumentCenter/View/71701/2018-Community-Health-Assessment-PDF>

SUMMARY

1. Deaths from lung cancer (ICD10 codes C33-C34) and COPD (ICD10 codes J40-J47) have decreased over the last decade nationally, statewide and in Humboldt County (Figures 1 and 5).
2. Tobacco smoking attributed mortality (SAM) is a major burden of morbidity and mortality in Humboldt County. Smoking causes or contributes to approximately:
 - a. 80% of all lung cancer deaths
 - b. 78% of all COPD deaths
 - c. 62% of total cancer deaths
 - d. 15% of heart disease deaths
 - e. 34% of all deaths in Humboldt County(see “notes”, page 10 for more information)
3. The lung cancer and COPD mortality rates for most Humboldt County decedent zip codes exceed US and California (figures 2 and 6), with some zip codes exceeding 1.5 to four times these benchmark rates.
4. From 2005-2018 Lung cancer and COPD were major contributors to “premature death” in Humboldt County (<age 75, see notes, page 10):
 - a. The average age for Humboldt County lung cancer deaths is approximately 71 years (figure 3), with 60% of deaths occurring before age 75.
 - b. For COPD deaths, the average age at death is 75 years (figure 7), with 45% of deaths occurring prior to age 75.
5. White non-Hispanics have the highest mortality rate of any racial group in Humboldt County, although, the difference from other groups is not statistically significant (figures 4 and 8).



Figure 1:



95% confidence estimates were calculated for each annual rate estimate (see notes, page 10 for additional information.)

Figure 2:

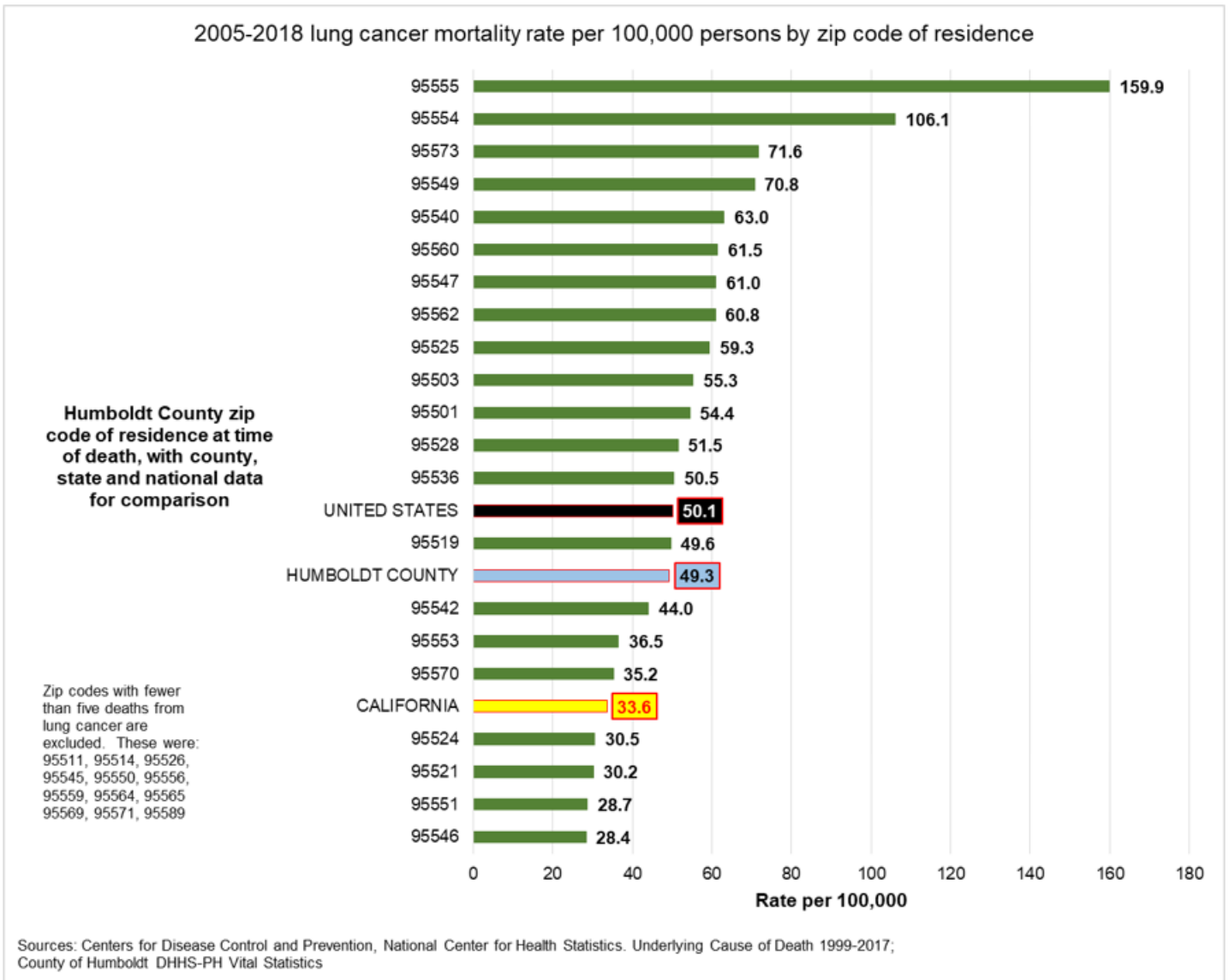


Figure 3:

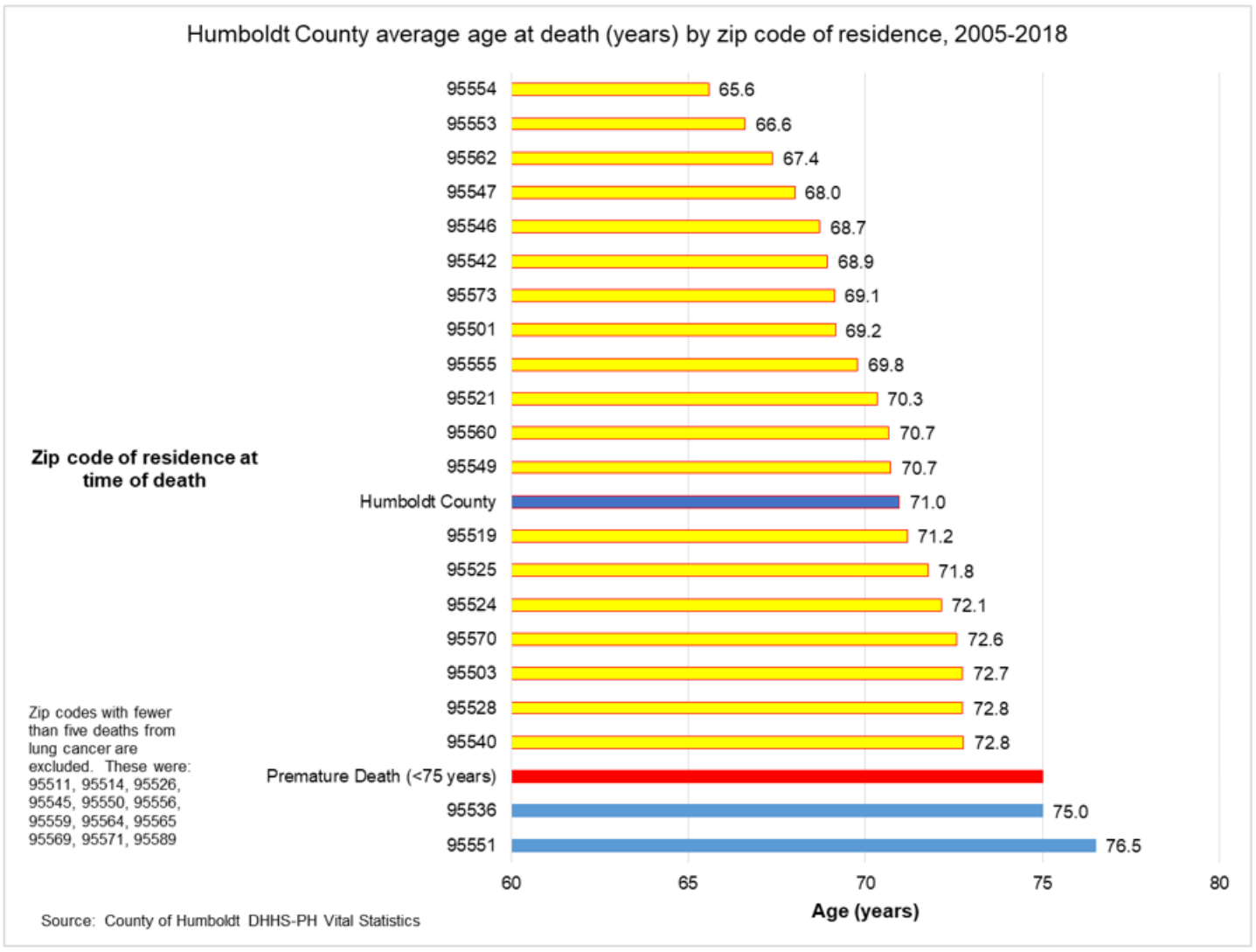
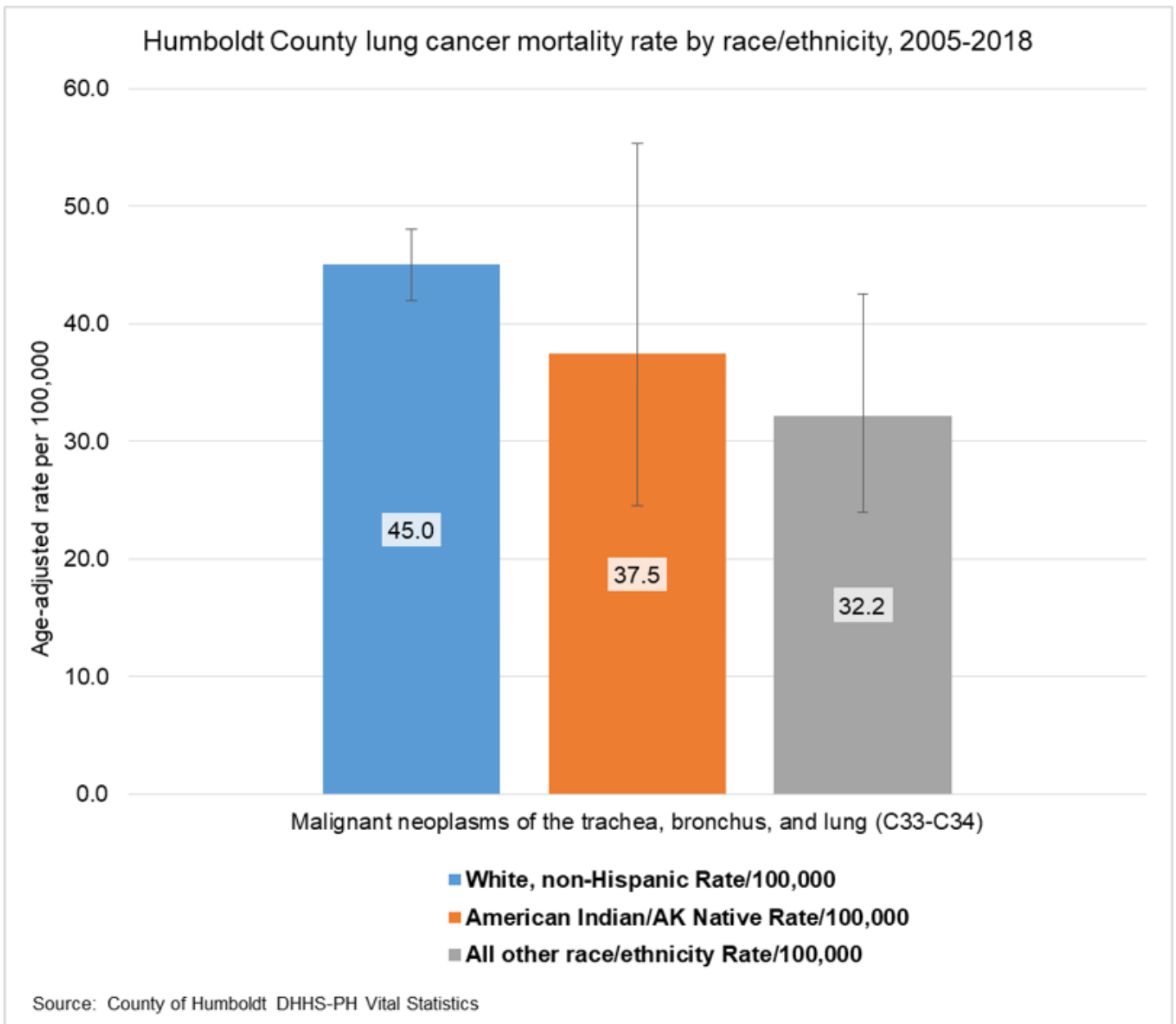
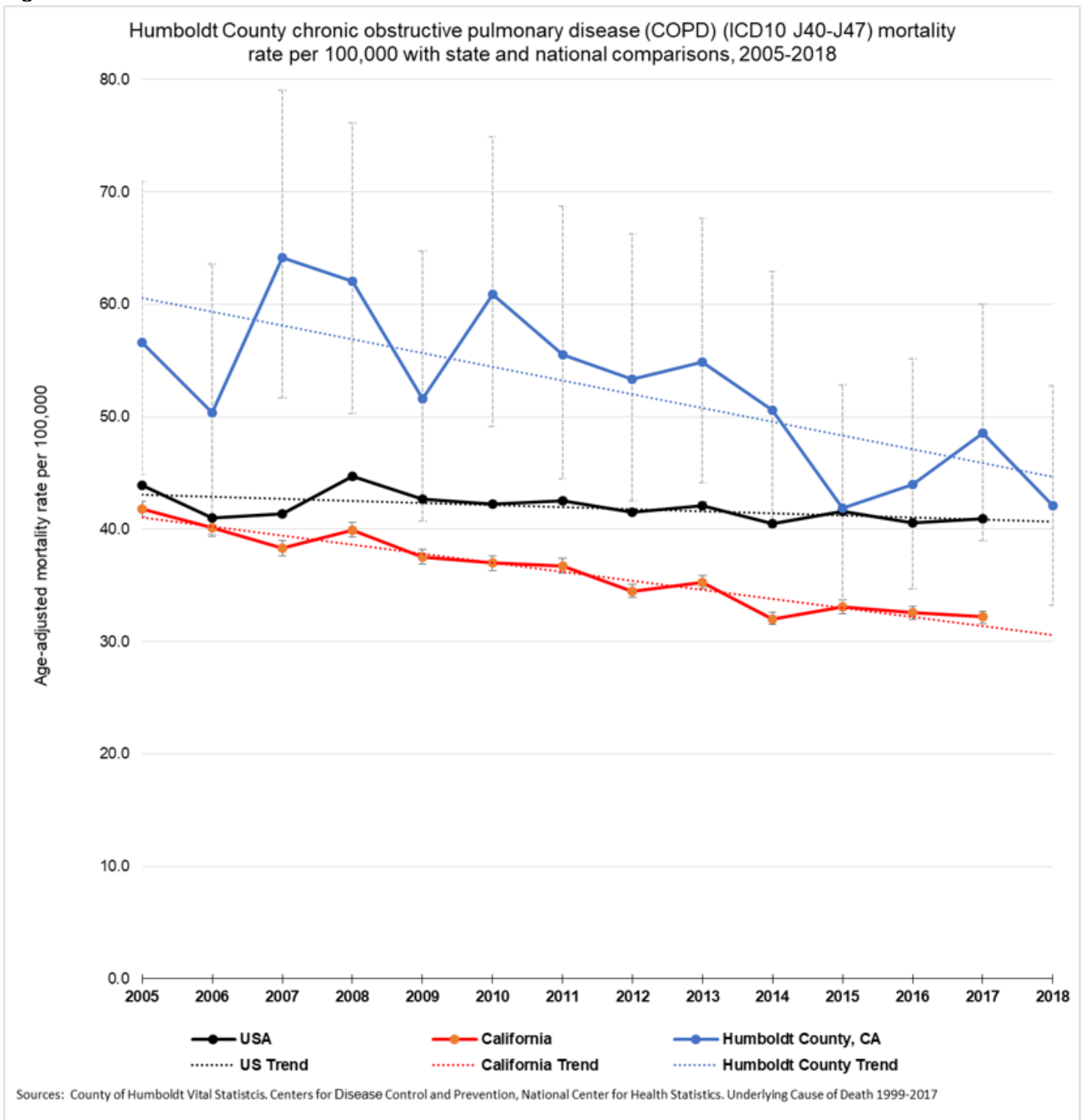


Figure 4:



95% confidence estimates were calculated for each annual rate estimate (see notes, page 10 for additional information.)

Figure 5:



95% confidence estimates were calculated for each annual rate estimate (see notes, page 10 for additional information.)

Figure 6:

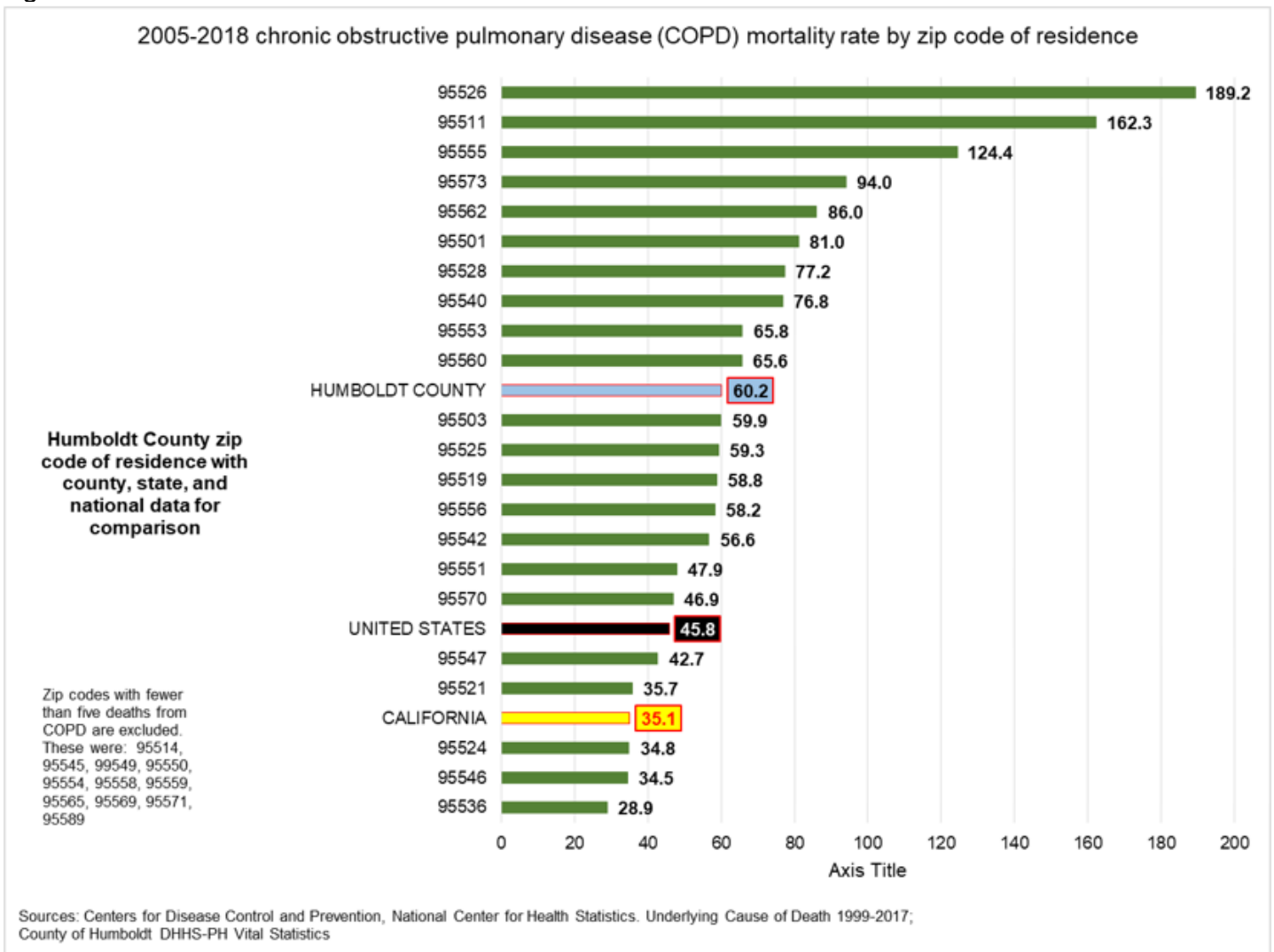


Figure 7:

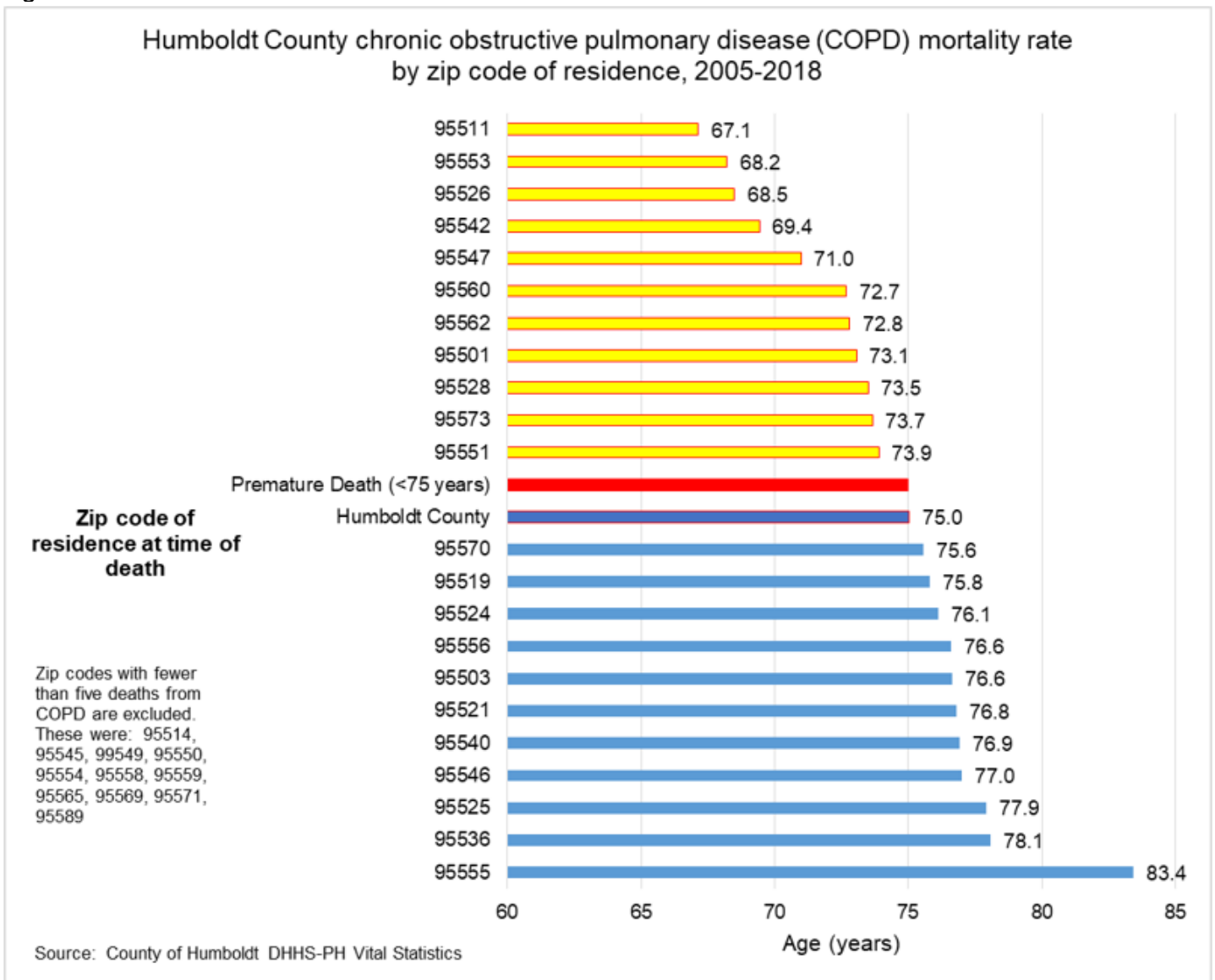
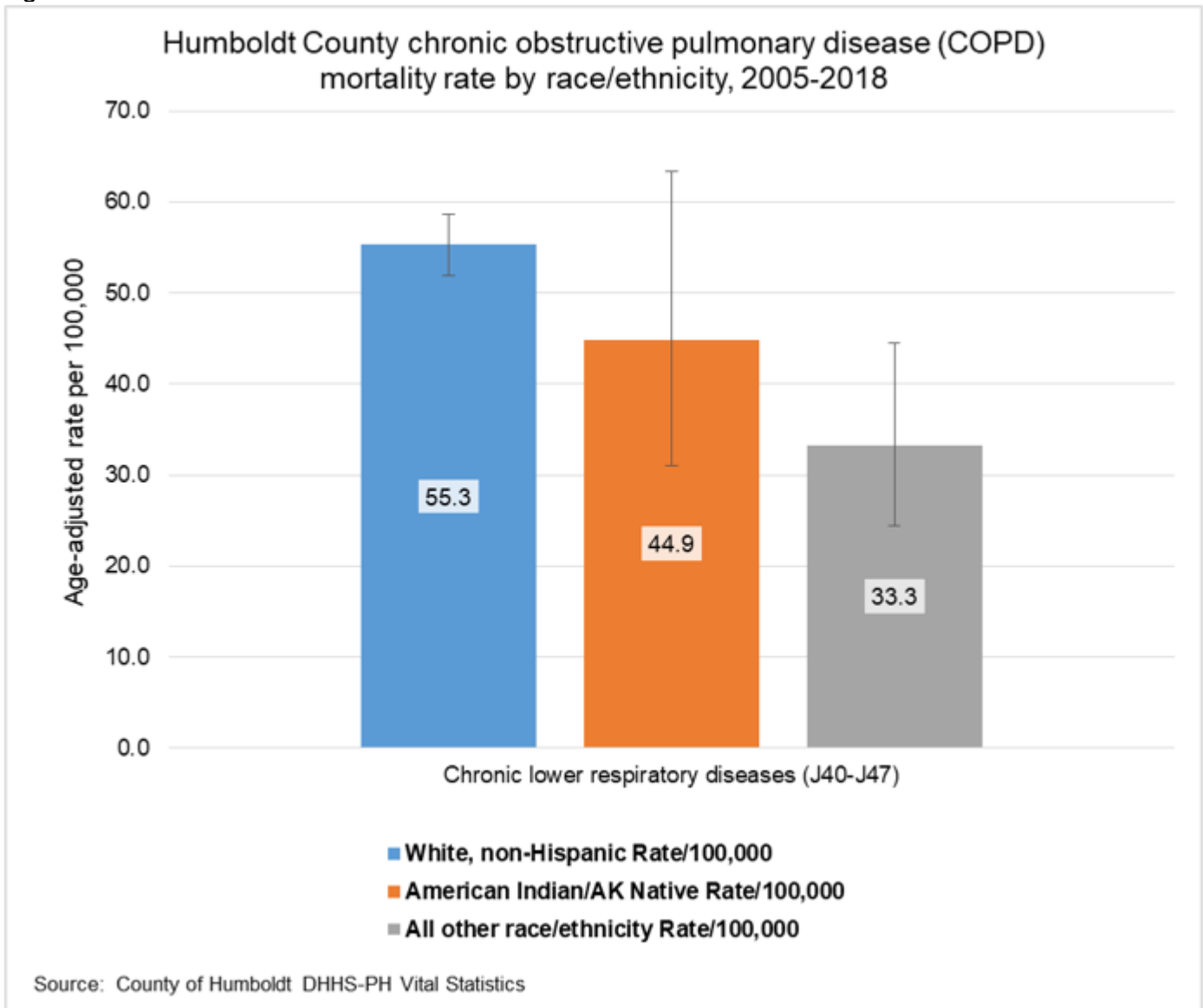


Figure 8:



95% confidence estimates were calculated for each annual rate estimate (see notes, page 6 for additional information.)

For questions regarding this report, contact Ron Largusa MSPH, Epidemiologist, Humboldt County DHHS-Public Health. (707)-268-2187. rlargusa@co.humboldt.ca.us

Sources:

Humboldt County DHHS-Public Health Vital Statistics, 2005-2018

2019 California County Health Status Profiles <https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx>

Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018. Data are from the Multiple Cause of Death Files, 1999-2017, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. <http://wonder.cdc.gov/ucd-icd10.html>

Morbidity and Mortality Week in Review (MMWR). Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses -- United States, 2000—2004. November 14, 2008 / 57(45);1226-1228 <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>

State of California Department of Finance—Demographics <http://www.dof.ca.gov/Forecasting/Demographics/>

Census.gov American FactFinder <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

Notes:

Lung cancer and COPD deaths are classified using the International Classification of Diseases, Tenth Revision (ICD–10) for codes C33-C34; J-40-J47.

Additionally, Humboldt County DHHS-Public Health-Epidemiology analyzes the electronic death registry system for California (CA-EDRS) using VRBIS (Vital Records Business System). The following text fields, or “Literals”, are qualitatively reviewed and each death is grouped into categories:

- a. Causes of death due to or as a consequence of a particular health event
- b. Significant conditions contributing to death, including substance use.
- c. Description of injury or illness
- d. Manner of death, as determined by the Humboldt County Coroner or designee (example: Unintentional, Suicide, Natural, etc.)

Death rates are considered “Unreliable” and must be viewed with caution when the rate estimate is calculated with a numerator of 20 or less and/or a relative standard error over 23%. For further information visit: https://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_09.pdf

Annual rates for the US, California, and Humboldt County (figures 1 and 3) are age-adjusted to the 2000 US Census population distribution. Crude rates are used in figure 2 to better estimate the lung cancer and COPD mortality burden in Humboldt County zip codes. Confidence intervals for mortality rates from 100+ deaths are calculated using standard normal distribution. Confidence intervals for rates calculated from <99 deaths are calculated using gamma probability distribution.

The cutoff age for determining “years potential life lost” (YPLL) can vary from <65 years to <85 years, depending on the causes of death under study. Typically, the CDC and NCHS use <75 years as the most common cutoff age. This report uses average age at death listed on the death certificate compared with <75 years cutoff as an approximation of YPLL. For an example of YPLL calculation, visit: <http://www.cdc.gov/nchs/hsu/contents2013.htm#021>

The estimates for Humboldt County smoking-attributable mortality (SAM) were estimated from smoking-attributable fractions in the MMWR article “Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses --- United States, 2000—2004” (<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>).