



COUNTY OF HUMBOLDT
DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH BRANCH
529 I Street, Eureka, CA 95501
Phone: (707) 445-6200; Toll Free: (866) 597-1574
Fax: (707) 445-6097
www.co.humboldt.ca.us

Humboldt County diabetes mortality data report, 2005-2018

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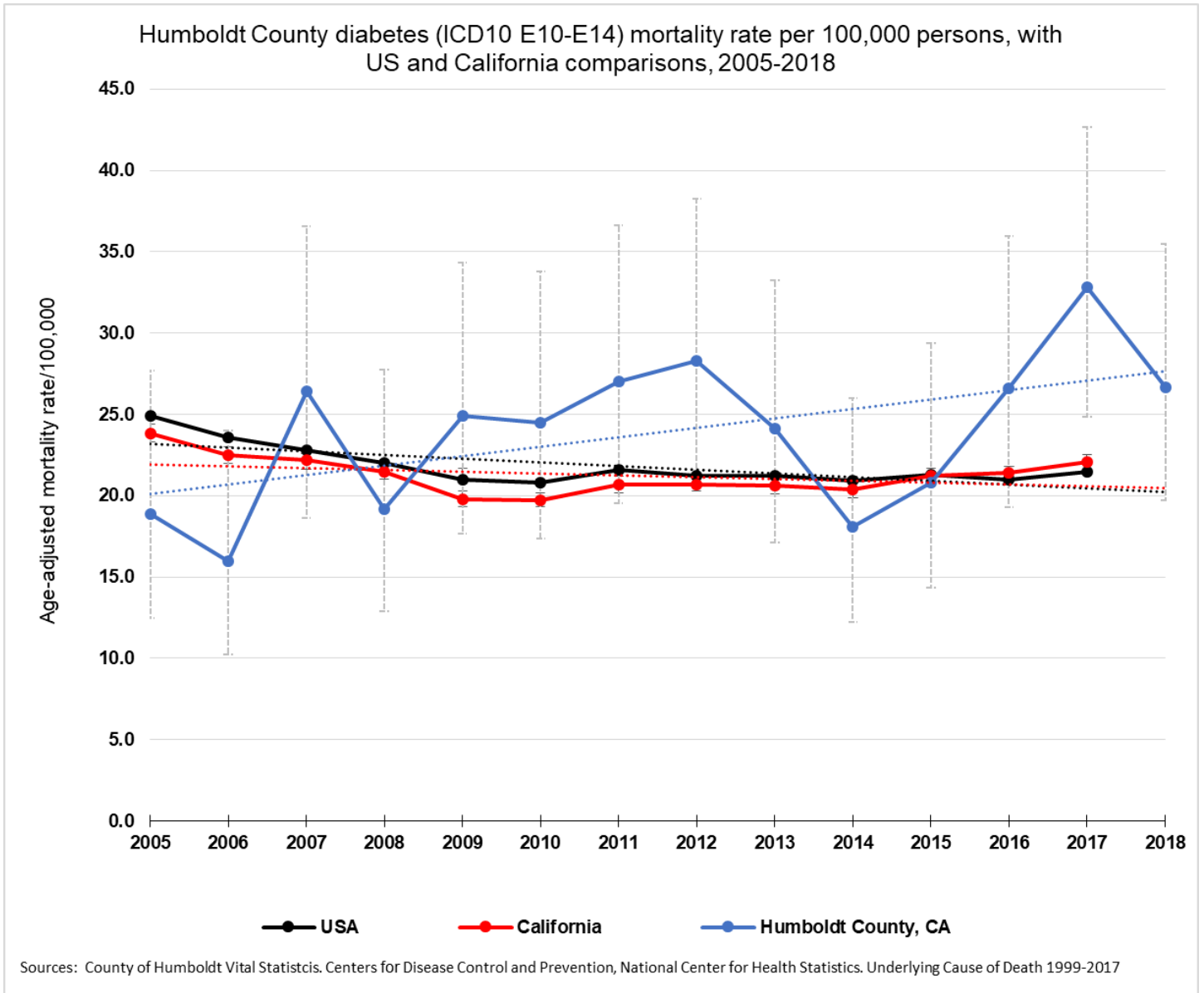
PURPOSE:

The purpose of this report is to supplement the section “Diabetes, Heart Health and Stroke (Pg. 51-52)—Health Outcomes and Risk Behaviors” of the 2018 Humboldt County Community health assessment (CHA). The CHA can be found online at <https://humboldt.gov.org/DocumentCenter/View/71701/2018-Community-Health-Assessment-PDF>

SUMMARY

1. Deaths from diabetes (ICD10 codes E10-E14) have decreased over the last decade nationally and statewide. However, Humboldt County diabetes deaths have steadily increased over the same time period (Figure 1).
2. This supplement only includes deaths where diabetes is the primary or major contributing cause of death. Diabetes is a significant risk factor for morbidity and mortality from other chronic diseases. Examples:
 - a. Diabetics are two to three times as likely to die from heart disease or have a stroke than non-diabetics
 - b. Diabetics are at significantly greater risk to die from kidney disease than people without diabetes.
3. The diabetes mortality rate for the majority of Humboldt County decedent zip codes exceed US and California (figure 2), with some zip codes exceeding 1.5 to two times those benchmark rates.
4. The average age for Humboldt County diabetes deaths is approximately 74 years (figure 3) and is a major contributor of “premature death” (<age 75, see notes, page 6), especially when coupled with heart disease. Over 50% of Humboldt County diabetes deaths from 2005-2018 occurred prior to age 75.
5. The diabetes mortality rate is significantly higher in American Indian/Alaska Native and White non-Hispanic persons in Humboldt County (figure 4).

Figure 1:



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

Figure 2:

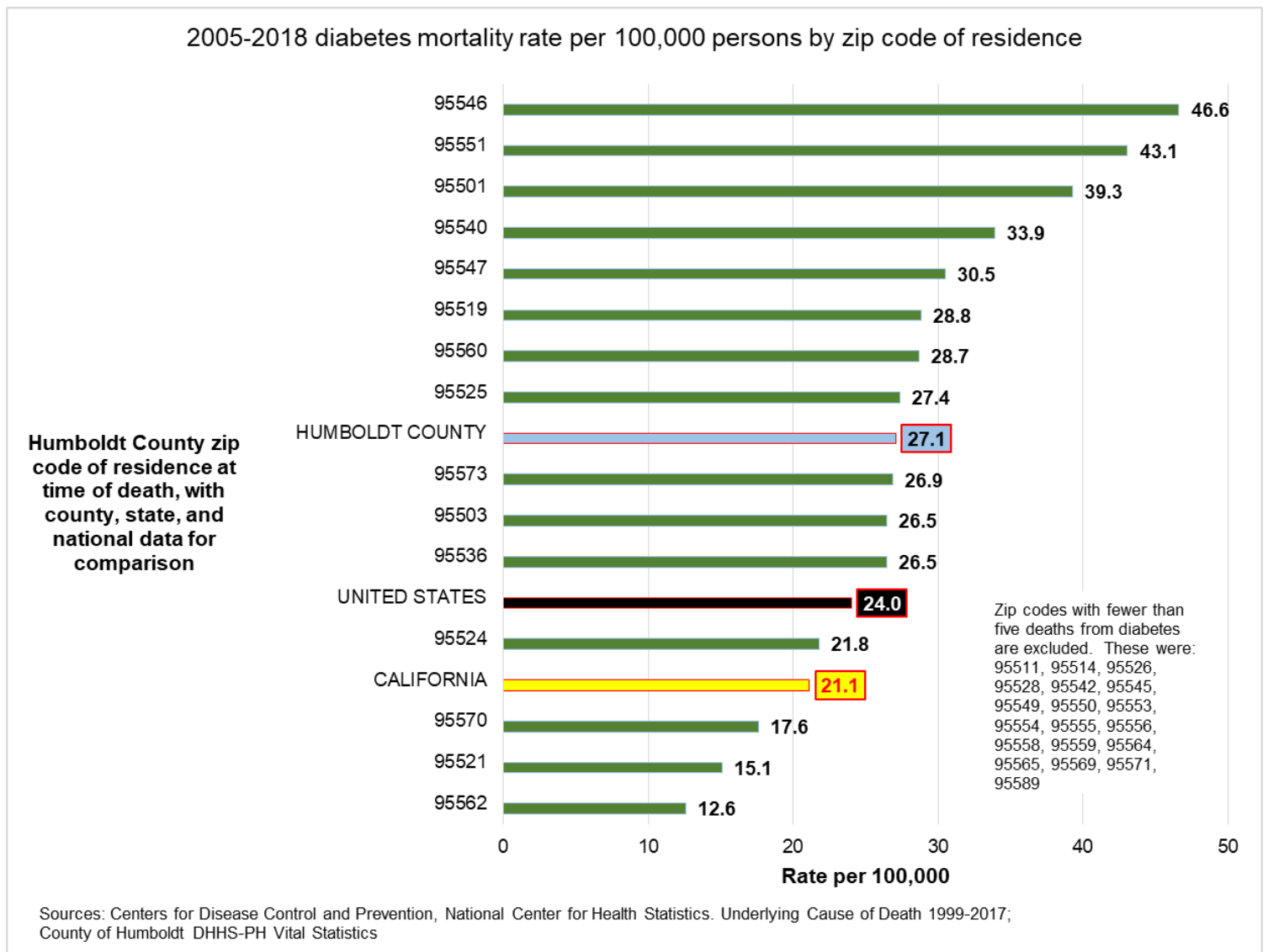


Figure 3:

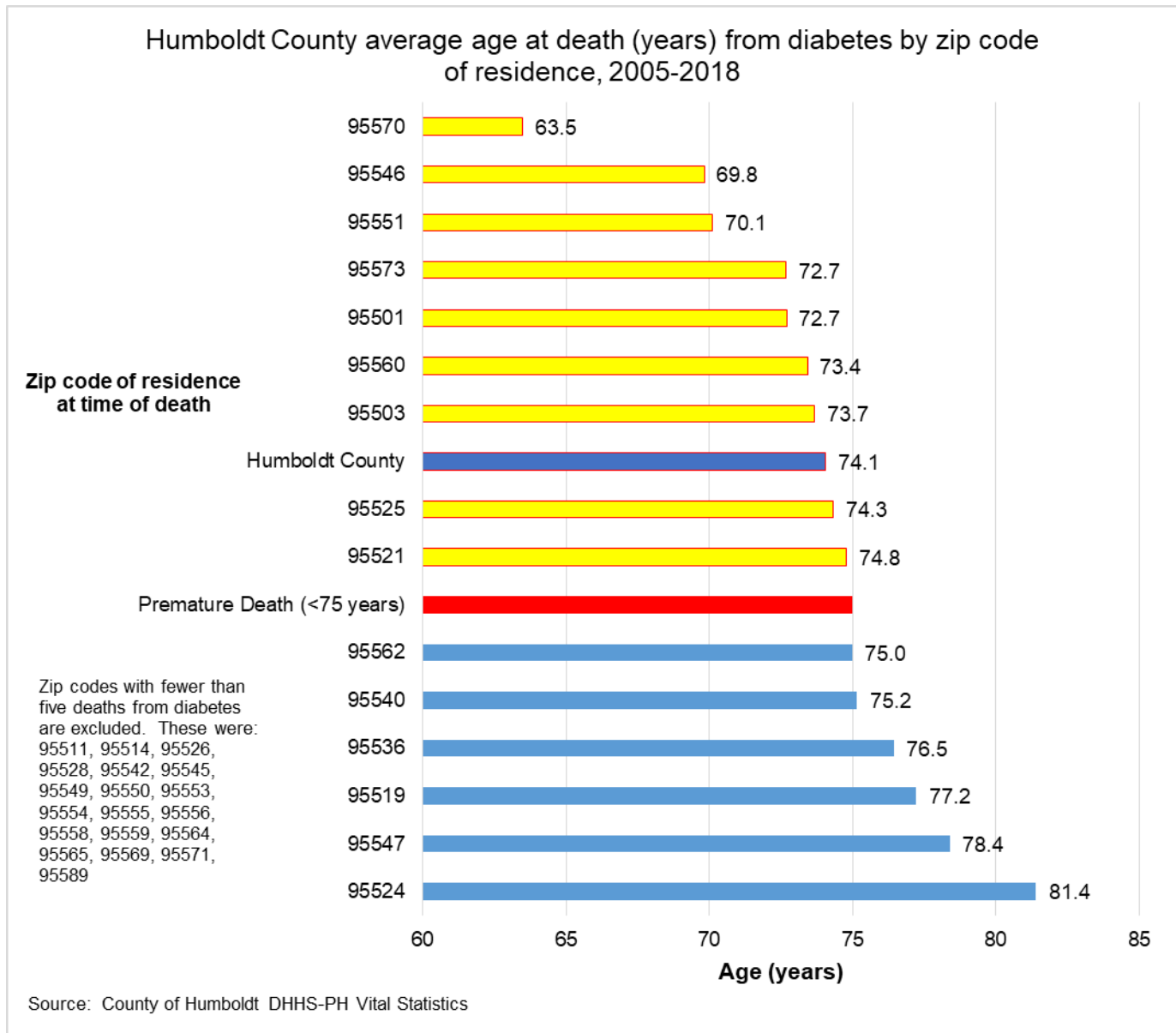
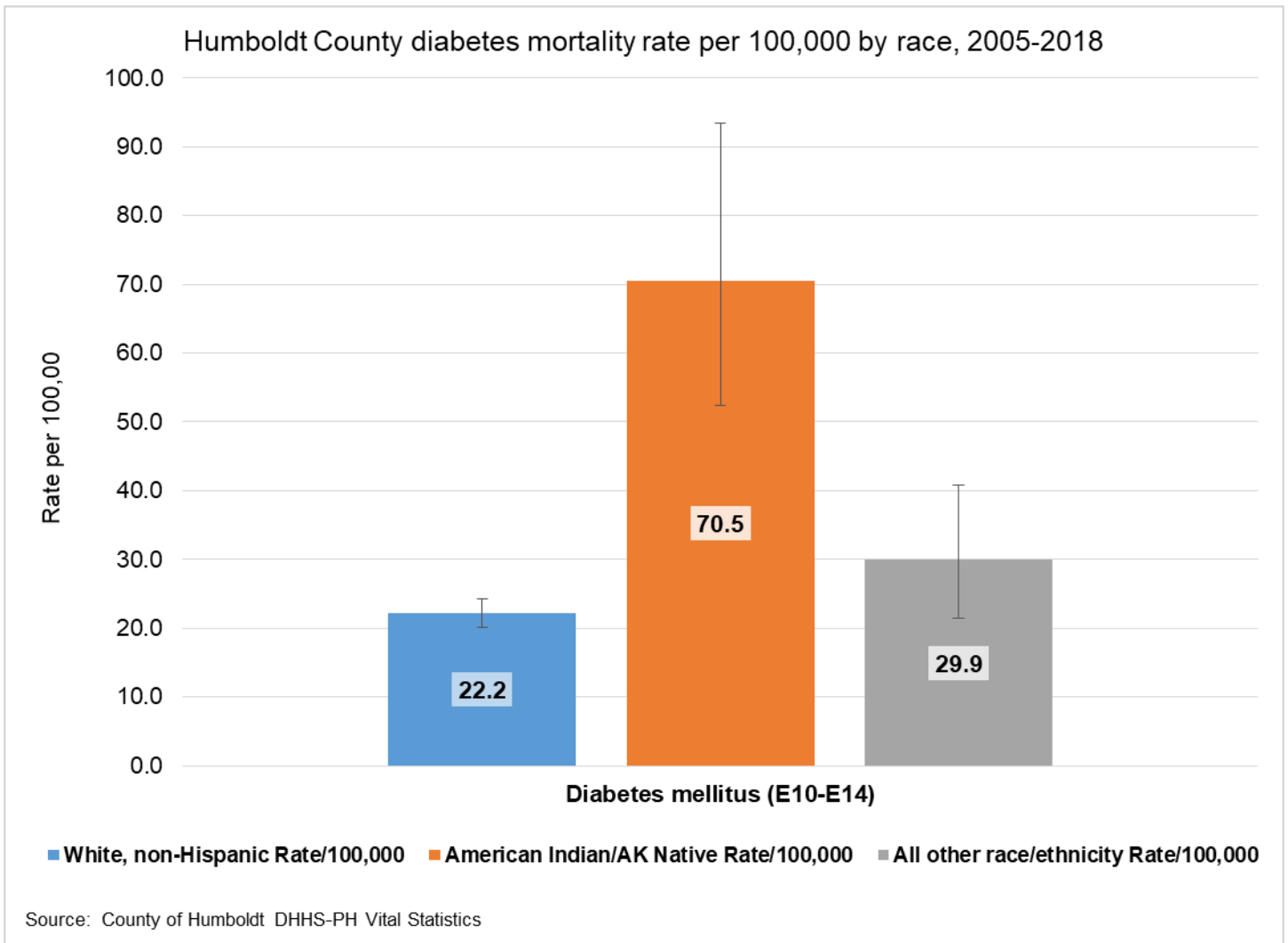


Figure 4:



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>

Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP): Heart Disease and Stroke. <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/heart-disease-stroke.htm>

Kidney Disease and Increased Mortality Risk in Type 2 Diabetes. Journal of the American Society of Nephrology. February 2013, 24 (2) 302-308; <https://jasn.asnjournals.org/content/24/2/302>

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:

Diabetes deaths are classified using the International Classification of Diseases, Tenth Revision (ICD–10) for codes E10-E14.

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 diabetes 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/hus/contents2013.htm#021>