* Note regarding “Race/Ethnicity” labels
  + Race/Ethnicity is shown in the CCB as one combined variable, with mutually exclusive values, in hierarchical order of:
    - If a person is listed as “Latino” or “Hispanic” in the original data source they are shown in the CCB as “Latino” regardless of **any** other designation of race.
    - For all other persons, if they are they are listed in the original data source with more than one racial group, they are shown in the CCB as “Multi-race”.
      * For example, if they are listed in the original data source as “Black” and as “Asian” they will be shown in the CCB as “Multi-race”.
      * If they are listed in the original data source with more than one sub-racial/geographic group within one racial group, they will be shown in the CCB in the racial group, not as “Multi-race”. For example, a person listed in the original data source as Japanese and as Chinese would be shown in the CCB as “Asian”, not “Multi-race”.
      * If a person is listed as “Other” race AND as one other single race, they will be shown in the CCB as that single race group, not as “multi-race”.
    - All other persons (i.e. not Latino and not multi-race) will be shown in the CCB in a single-race categories.

The following labels are used for these race/ethnic groups:

|  |  |
| --- | --- |
| **Race/Ethnicity Name** | **Abbreviations** |
| American Indian or Alaska Native | AI/AN |
| Black | Black |
| Asian | Asian |
| Latino | Latino |
| Native Hawaiian and other Pacific Islander | NH/PI |
| White | White |
| Multi-Race | Multi-Race |
| Other | Other |
| Unknown | Unknown |

Life Expectancy

* Life tables for tracts, communities, counties and states are generated from age specific mortality rates, which are the quotient of deaths during a calendar year and exposure , approximated by the population of the same age at the midpoint of the year (July 1). Age structured population data for tracts and communities are estimated using data from the American Community Survey, 5-year sample (table B01001; multiple years). County and state age population by age are estimated by the Demographic Research Unit, CA Department of Finance. Deaths data are based on 100% extracts from the vital statistics reporting system, CA Department of Public Health.
* Life tables are estimated for communities (MSSAs) in counties where at least 95% of deaths could be accurately geocoded to the tract level. Mortality and exposure data were combined on the basis of 1-, 3-, and 5-year aggregations. Then, life tables were calculated for geographies meeting a minimum of at least 10,000 person-years of exposure. Intra-age mortality (nax) was calculated for ages below 5 using factors provided by Preston et al. (2001) and by the midpoint of the age interval for other age groups. Estimates, confidence intervals, and standard errors for age specific probabilities of death were calculated using Chiang’s method (Chiang 1984) with adjusted final age group (Eayres 2004).
  + Preston, Samuel H. and P. Heuveline and M. Guillot. 2001. Demography. Blackwell, pp. 47-48.
  + Chiang, C.L. 1984. The Life Table and its Applications. Robert E Krieger Publ Co., pp. 153-168.
  + D. Eayres and E.S. Williams. Evaluation of methodologies for small area life expectancy estimation. Journal of Epidemiology & Community Health 2004. 58(3):243-249.
* Simulated life tables were explored by bootstrapping life table deaths to produce confidence intervals for life expectancy (Andreev & Shkolnikov 2010), but are not currently shown. Andreev, E.M. and V. M. Shkolnikov. 2010. Spreadsheet for calculation of confidence limits for any life table or healthy-life table quantity. Max Planck Institute for Demographic Research: MPIDR Technical Report 2010-005; June 2010.
* In the current version of the CCB project, only the single underlying cause of death ICD-10 code is used. A future release of the CBD will incorporate “multiple cause of death” codes for some conditions.
* We based the hierarchical list of about 70 disease/injury conditions used in the CCB on a variant of the World Health Organization (WHO) global burden of disease condition list, modified to enhance the usefulness and applicability for U.S. public health priorities and programs. The hierarchy has three levels. The “Top Level” includes “Infectious Diseases”, “Coronary Heart Disease”, “Cancer/Malignant Neoplasms”, “Other Chronic Conditions”, and “Injury” as well as all causes combined. For data displayed at the census tract level, only this level of the hierarchy is included due to sample size and statistical reliability limitations. The next, “Public Health” level, splits each of these top levels into about 50 subcategories, and this is the default level for data/maps displayed at the community level. The final detailed level breaks a few of these Public Health level conditions down further, for the total of about 70 categories. All the levels are shown for data/maps displayed at the county level.
  + County: Top Level, Public Health Level, Detail Level
  + Community: Top Level, Public Health Level
  + Census Tract: Top Level
* Categorization of deaths was extracted from death certificates based on the International Classification of Diseases version 10 (ICD-10). The primary basis for the ICD10-to-condition mapping was the WHO Annex Table A from “[WHO methods and data sources for global burden of disease estimates 2000-2015, January 2017](http://www.who.int/healthinfo/global_burden_disease/GlobalDALYmethods_2000_2015.pdf)”. We did not use a similar, more recent and more detailed, system developed by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington (recent relevant publications include [The State of US Health, 1990-2016 Burden of Diseases, Injuries, and Risk Factors Among US States, JAMA 2018](https://jamanetwork.com/journals/jama/fullarticle/2678018) and [US County-Level Trends in Mortality Rates for Major Causes of Death, 1980-2014, JAMA 2016](https://jamanetwork.com/journals/jama/fullarticle/2592499)) in this version of the CCB because that system resulted in 721,783 (19.2%) of California deaths from 2000 to 2015 being mapped to “garbage codes”, for which more sophisticated methods would need to be employed. The possibility of redistributing these “garbage codes” to valid categories at the census tract level and otherwise using the IHME system is being explored and may be implemented in future versions of the CBD.
  + However, to enhance our use of the WHO system we compared the mapping of 3,758,856 deaths based on the WHO and IHME systems and changed the WHO mapping of ICD codes for several categories wherein the IHME classification was considered more appropriate (e.g., specific cancer sites rather than “other malignant neoplasms.”). All of these modifications are carefully described in a key resources tool for the CCB, available [here](https://github.com/mcSamuelDataSci/CACommunityBurden/blob/master/myCBD/myInfo/gbd.ICD.Map.xlsx) on our GitHub site. In addition, because our focus was on the “Public health” list of conditions, we remapped a number of ICD-10 codes from the WHO mapping to our own CBD system. All of these modifications are documented in a “key resources” tab for the CBD available noted above.
* **NOTE**: In order make drug- and poisoning-related conditions in the CCB as meaningful as possible for public health, and to maintain the condition list as mutually exclusive and exhaustive, we have modified these conditions from WHO and IHME standards based on consensus with colleagues and on “Consensus Recommendations for National and State Poisoning Surveillance – ISW7 2012” <https://cdn.ymaws.com/www.cste.org/resource/resmgr/injury/isw7.pdf>
  + The “**Drug overdose (poisoning/substance use disorders)**“ condition includes “accidental poisonings by drugs” codes (X40-X44) **and** “substance use disorder codes” (F11-F16, F18, F19), but not alcohol use disorder (F10) which is included in the separate detailed level “Alcohol use disorders” condition. This conditions also includes “newborn (suspected to be) affected by maternal use of drugs of addiction” (P044).
  + “Drug overdose (poisoning/substance use disorders)” **does not** include:
    - “Intentional self-poisoning by drugs” (X60-X64), which is included in the “Suicide” condition
    - “Assault by drug poisoning” (X85), which is included in the “Homicide” condition
    - “Drug poisoning of undermined intent” (Y10-Y16), which is included in the “Injuries of unknown intent” condition
  + The separate “**Poisonings (non-drug)**” conditions includes poisoning with non-drug-related substances (X46-X49).