* ICD-10 Mapping
  + In the current version of the CBD project, only the single underlying cause of death ICD-10 code is used. A future release of the CBD may incorporate ‘multiple cause of death” codes for some conditions.
  + We used a variant of the World Health Organization (WHO) global burden of disease condition list to create our own hierarchical disease and injury categorization with three levels. The first 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 51 subcategories displayed at the community level?????????The final detailed level breaks a few of these PH level conditions down further, for a total of 66 categories displayed at the county 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 is 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 ([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); Supplemental Appendices) in this version of the CBD 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,which may not be appropriate for our system. 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 CBD, available HEREXXX on our GitHub site.In addition, because of 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. These include alcohol… All of these modifications are documented in a “key resources” tab for the CBD available HERE XXXXXXXXXXXXXXXX.

* Census Tract Data Issues
  + Nineteen census tracts included in the 2010 census?????? were excluded from all project calculations and maps for communities or census tracts because they are listed as containing 0 population.
  + Another xxx tracts with population less than xxx were also excluded because of the limited utility of any data from these tracts.
  + Census tracts (and communities) where greater than X percent of the population live in congregant living quarters ARE/WILL BE noted with an “\*” on relevant maps and charts. For some comparisons (e.g. of rates) these tracts could be removed from the larger geographies in which they are contained, based on user request.
  + During a detailed review of multiple data sources, we observed a number of instances where stated county of residence was not consistent with the census tract to which that death was geocoded. In these instances we recoded the county based on the address and subsequent geocode.

* Formulas and measures
  + Years of Life Lost (YLL)
    - Following the methods of the Global Burden of Disease Study, the YLL for each death is based on the age at death, and the additional number of years a person living in an optimal setting could be expected to live (page 30, [here](http://www.who.int/healthinfo/global_burden_disease/GlobalDALYmethods_2000_2015.pdf)). For example, someone dying at birth would be associated with 91.94 YLL, someone dying at 25 associated with 67.08 years, and someone dying at 98 with 3.70 years. Beyond the published data, we associated 1.0 YLL for anyone dying above age 105.
    - Our mapping of age at death to YLL can be found on our GitHub site [here](https://github.com/mcSamuelDataSci/CACommunityBurden/blob/master/myCBD/myInfo/le.Map.xlsx).