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[California Community Burden of Disease](#) is an application developed by CDPH for epidemiologic analysis and scientific insight, exploring the intersection between health disparities and community conditions.

MEASURE DETAILS AND LIMITATIONS

Number of deaths (2017) describes the absolute magnitude of the disease or condition and is a clear and easily understood measure. This measure does not take into account the "age distribution" or size of the population, so can be misleading if making comparisons. All measures using vital statistics death data are limited based on the accuracy of the coding of cause of death on the death certificate.

Premature Deaths: Years of Life Lost (YLL) (2017) tilts towards conditions that cause more deaths among younger people, so YLL is sometimes referred to as "premature deaths". The number of years of life lost for deaths at each age are determined here using the "Global Burden of Disease" methods from the World Health Organization. Years of Life Lost are expressed here as rates per 100,000 population.

Percent Increase measures the change in the death rate over time and shows which conditions are increasing (or decreasing) most rapidly. This is measured here by showing the percentage increase in the age-adjusted death rate from 2007 to 2017. "Age-adjusted" death rates are used to account for the impact of the changing age distribution of the California population on the measure.

Disparity Ratio measures the difference in the death rate between population groups for the same condition using combined data from 2015 to 2017. Here the measure is based on differences between racial/ethnic groups. The measure compares the age-adjusted death rate in the group with the highest rate to the group with the lowest rate. A large ratio between the two rates indicates a large disparity.

Years Lived with Disability (2015) is based on calculations and modeling done by the Institute for Health Metrics and Evaluation. These models utilize assumptions and multiple data sources to produce reliable California-specific estimates of years lived with disability. (expressed here as rate per 100,000 population)

Infectious Disease estimates are included for conditions that are "reportable" to public health authorities and for influenza, which is generally not reportable, but is a focus of substantial public health effort. All communicable diseases are associated with some level of morbidity and mortality, and most cases are preventable with known public health control measures. This measure uses "estimated" number of cases rather than reported numbers because, for a variety of reasons, for many conditions a large portion of cases that actually occur are not reported.

Chart footnotes:

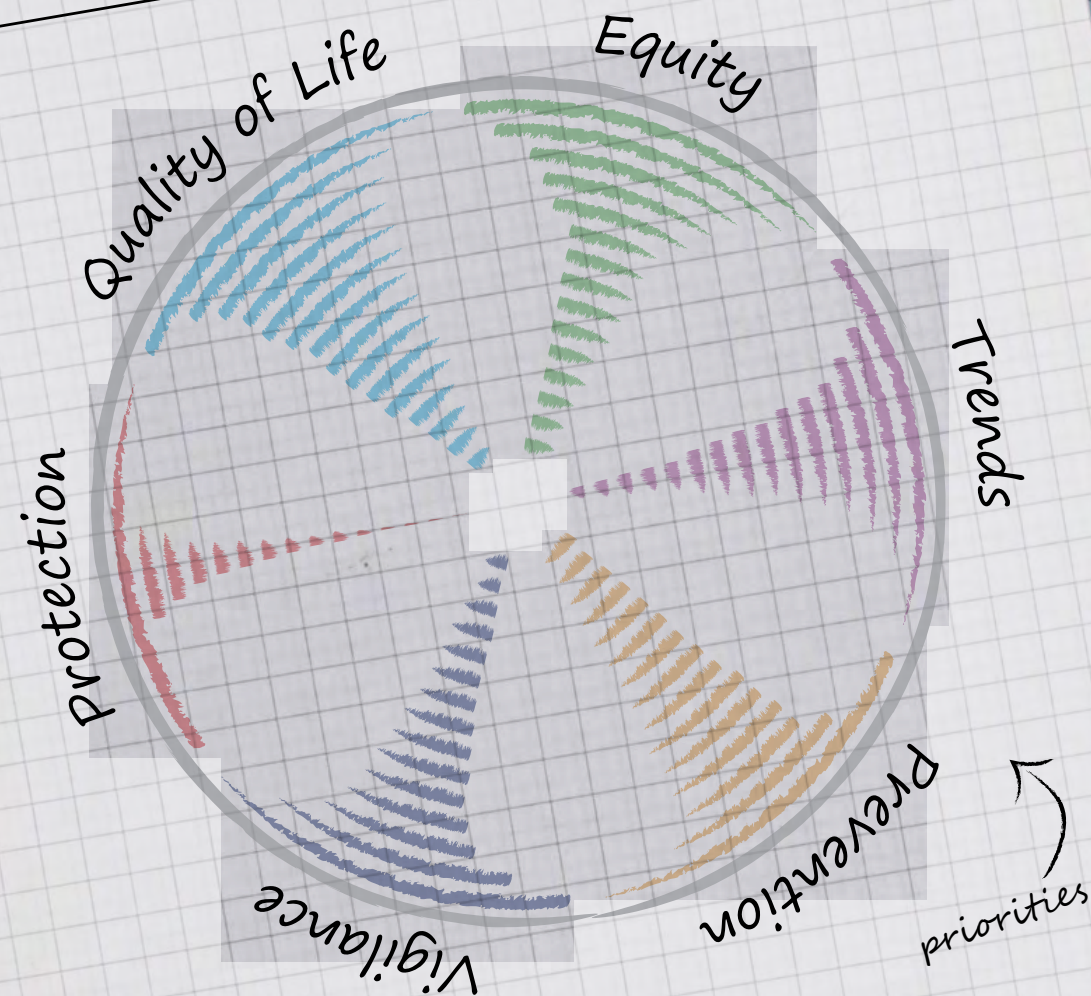
1. Average of low and high estimates for 2015-2016 season based on national estimates for influenza
2. Condition not reportable to Public Health
3. 2011 CDC national foodborne burden of illness estimate
4. 2008 national estimates adjusted by CA proportion of population and increasing reports from 2008-2016
5. STEC O157 underreporting and underdiagnosis multipliers used for reports of shiga-toxin positive stools and hemolytic-uremic syndrome;
6. Number of cases of chronic infection newly reported in 2015
7. Number of cases reported in 2016
8. New HIV infections diagnosed and reported in 2016

Data Sources

1. Number of Deaths, Years of Life Lost, Percent Increase, and Disparity Ratio: Fusion Center analysis prepared using CDPH Vital Statistics Death Data Files, 2007-2017. www.cdph.ca.gov/Programs/CHSI/Pages/Data-and-Statistics-.aspx
2. Years Lived With Disability: Institute for Health Metrics and Evaluation (IHME). GBD Compare. Seattle, WA: IHME, University of Washington, 2015. vizhub.healthdata.org/gbdcompare
3. Infectious Disease: Center for Infectious Diseases, California Department of Public Health. www.cdph.ca.gov/Programs/CID/Pages/CID.aspx

Measuring Public Health Status in California

A Summary



Only by understanding and addressing what creates, and what limits, the opportunities for health in our communities, can we implement a successful vision for a healthy California for everyone.

- Karen L. Smith, MD MPH
State Public Health Officer and Director

Many ways to view the health status of Californians

Public health looks across multiple measures to identify significant trends and public health challenges.

Number of Deaths	Premature Deaths (Years of Life Lost)	Greatest % Increase in Deaths	Disparity Ratio	Years Lived With Disability	Infectious Disease
Measures how many people died from a given condition.	Measures premature death based on the difference between the age at which a person actually dies and the age at which they would be expected to die in an ideal healthy population.	Measures the change in the death rate over time and shows which conditions are increasing most rapidly.	Measures the difference in the death rate between population groups (in this case race / ethnicity) for the same condition.	Measures the number of years during life where quality of life is decreased due to disability from each condition.	Measures the number of new communicable disease cases.
<ol style="list-style-type: none"> 1. Ischemic heart disease 37,800 2. Alzheimer's disease 24,880 3. Stroke 16,230 4. COPD* 13,260 5. Lung cancer 11,530 6. Hypertensive heart disease 11,530 7. Other cardiovascular 10,980 8. Unintentional injuries 9,509 9. Kidney disease 7,549 10. Congestive heart failure 7,172 11. Other cancer 6,965 12. Cirrhosis of the liver 6,648 13. Other neurological 6,403 14. Respiratory infections 6,333 15. Diabetes 5,993 	<ol style="list-style-type: none"> 1. Ischemic heart disease 1,633 2. Unintentional injuries 872 3. Substance use 639 4. Stroke 633 5. Alzheimer's disease 605 6. Lung cancer 594 7. COPD* 533 8. Cirrhosis of the liver 521 9. Hypertensive heart disease 487 10. Suicide 474 11. Other cardiovascular 464 12. Other cancer 412 13. Kidney disease 375 14. Other neurological 343 15. Diabetes 332 	<ol style="list-style-type: none"> 1. Kidney disease 68.7 2. Ill-defined conditions ** 41.9 3. Alzheimer's disease 32.8 4. Congestive heart failure 25.7 5. Substance use 22.2 6. Other neurological 20.2 7. Other infectious 16.1 8. Endocrine, blood, immune 14.8 9. Hypertensive heart disease 13.3 10. Liver cancer 10.8 11. Uterine cancer 7.3 12. Maternal conditions 7.0 13. Suicide 7.0 14. Other respiratory 5.4 15. Cirrhosis of the liver (0.1) 	<ol style="list-style-type: none"> 1. HIV and other STDs 16.5 2. Homicide 13.4 3. Tuberculosis 9.9 4. Skin cancer 8.4 5. Substance use 7.0 6. Ill-defined conditions** 4.7 7. Prostate cancer 4.4 8. Maternal conditions 4.3 9. Cardiomyopathy 4.2 10. Cirrhosis of the liver 3.9 11. Meningitis 3.2 12. Neonatal conditions 3.2 13. COPD* 3.2 14. Endocrine, blood, immune 2.9 15. Suicide 2.8 	<ol style="list-style-type: none"> 1. Low back pain 1,226 2. Headache disorders 866 3. Depressive disorders 730 4. Drug use disorders 663 5. Diabetes mellitus 642 6. Anxiety disorders 587 7. Hearing loss 522 8. Other musculoskeletal 512 9. Neck pain 509 10. COPD* 481 11. Falls 439 12. Stroke 313 13. Dermatitis 286 14. Osteoarthritis 264 15. Psoriasis 247 	<ol style="list-style-type: none"> 1. Influenza 2,650,000 2. Chlamydia 472,000 3. Gonorrhea 287,000 4. Campylobacter 260,000 5. Giardia 165,000 6. Salmonella 140,000 7. E. coli 0157 77,000 8. Shigella 68,000 9. Cryptosporidiosis 42,500 10. Hepatitis C 33,748 11. Syphilis 28,000 12. Hepatitis B 10,169 13. Valley Fever 5,372 14. HIV 5,061 15. Tuberculosis 5,000
While ischemic heart disease has decreased, it remains the top ranked condition based on multiple measures including total number of deaths. Alzheimer's disease was the second ranked condition.	Based on this measure the second and third highest ranking conditions become unintentional injury and substance use, two conditions affecting relatively younger people. Ischemic heart disease is still ranked first because of the large numbers of deaths from this condition.	Several conditions have increased substantially in California from 2007 to 2017 including Kidney diseases and Alzheimer's disease.	Persistent disparities in health remain, with a range of social determinants of health*** leading to some populations experiencing higher burdens of disease than others. The widest gaps are for HIV and homicide, in which the rates for the group with the worst outcomes are many times higher (16.5 and 13.4) than the group with the best outcomes.†	Back, head and neck pain, and mental health-related conditions are top ranking conditions based on years lived with disability. Diabetes and hearing loss also contribute greatly to years lived with disability.	Common communicable diseases include respiratory infections (influenza), sexually transmitted infections (chlamydia, gonorrhea, syphilis), and gastrointestinal/food-borne infections (campylobacter, giardia). For some communicable diseases that do not "rank high" currently, there is potential for rapid epidemic increases and deaths if current control measures are not maintained.
These measures present several different ways of ranking conditions that cause deaths .			These measures present conditions that impact quality of life .		



* COPD refers to chronic obstructive pulmonary disease.

** Ill-defined conditions refer to symptoms and signs not elsewhere classified. More research is needed to determine whether the number of deaths in this category relate to data coding issues, and/or issues of health care access.

*** Social determinants of health are social, economic, and environmental factors that create or limit opportunity for health and powerfully influence health outcomes for entire populations.

† Disparity Ratio, Worst Rate : Best Rate per condition: 1. Black : Asian; 2. Black : Asian; 3. Asian : White; 4. White : Asian; 5. White : Asian; 6. Black : Asian; 7. Black : Asian; 8. Black : Asian; 9. Black : Asian; 10. Hispanic : Asian; 11. Black : Asian; 12. Black : Asian; 13. White : Asian; 14. Black : Asian; 15. White : Hispanic

The data above represent the most recent years available for each measure. More detail on back.