

A close-up photograph of several pink roses in various stages of bloom, set against a dark, blurred background of green leaves. The lighting is dramatic, highlighting the texture of the petals and the veins on the leaves.

Alameda County

*Examining Increases in Mortality and
Disparities from 2018-2019 to 2020-2021*

Image by Annie Spratt



ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
PUBLIC HEALTH DEPARTMENT



Alameda County
Health Care Services Agency

Alameda County Health Care Services Agency (HCSA)

Colleen Chawla, Director

Nicholas Moss, MD MPH, Health Officer

Chuck McKetney, Interim Director, Community Assessment, Planning, and Evaluation

HCSA Alameda County Public Health Department (ACPHD)

Kimi Watkins-Tartt, Director

George Ayala, Deputy Director

Julia Raifman, Director, Community Assessment, Planning, and Evaluation

Matt Beyers, Supervising Epidemiologist, Community Assessment, Planning, and Evaluation

Yilak Fantaye, Epidemiologist, Community Assessment, Planning, and Evaluation

Elaine Bautista, Epidemiologist, Community Assessment, Planning, and Evaluation

Austin Wingate, Public Information Manager

Mena Kamel, Public Information Specialist

Acknowledgements

We would like to express our sincere gratitude to the Community Assessment, Planning, and Evaluation (CAPE) unit, located in the Alameda County Health Care Services Agency's Public Health Department, for gathering and analyzing the data for this mortality report. The CAPE unit worked with several health data systems and Public Health Department programs to ensure that the data presented in this report accurately reflected the lives, reality, and experiences of Alameda residents. Special thanks to Matt Beyers for being the report development lead and Chuck McKetney, the former interim Director of CAPE, and Julia Raifman, the current CAPE Director, for their knowledge and leadership.

See other data at <https://acphd.org/data-reports/>.

General questions about this report and the work of the Alameda County Public Health Department can be sent to HCSA-PIO@acgov.org.

Technical questions can be sent to CAPE-Epidemiology@acgov.org.

Updated February 2025 to correct the attribution in the graph on page 10.

Contents

- Key Findings4
- Introduction and Structure of Report4
- Underlying Causes of Health Inequities4
- Life Expectancy and All-Cause Mortality6
- Communicable Disease, Including COVID-1911
- Injury.....13
- Chronic Disease18
- Maternal, Pregnant Person, and Child Health.....22
- Discussion24
- Conclusion26
- Appendix: Mortality Data Sources and Limitations.....26

Key Findings

- There was a decline in life expectancy in Alameda County from 2018-2019 to 2020-2021, during the COVID-19 pandemic. Existing racial and ethnic disparities in mortality and life expectancy increased in 2020-2021 relative to 2018-2019. Disparities in life expectancy by neighborhood poverty level also increased during this time.
- Alameda County's age-adjusted COVID-19 mortality rate in 2020-2021 was less than half that of California and the United States. Alameda County prioritized equitable vaccination and testing and layered mitigation with mask policies during the Delta and Omicron BA.1 surges.
- There were increases in deaths at young ages in Alameda County in 2020-2021 that mirror increases across the United States. The main causes of increased deaths at young ages in Alameda County and across the United States were increases in unintentional overdose, homicide, and unintentional motor vehicle crash fatalities.
- Chronic diseases remain the leading causes of death among those 45 years old and older in Alameda County, though at lower rates than in California and the United States. Structural inequities have driven longstanding racial and ethnic disparities in chronic disease mortality rates, especially for Pacific Islander and African American/Black populations in Alameda County.
- Disparities in mortality are driven by historical and present-day national, state, and local public policy choices and institutional practices that shape inequities in the conditions in which people live, work, learn, and play in Alameda County. Disparities in mortality are not primarily the result of individual choices or behaviors.

Introduction & Structure of Report

The objective of this report is to describe changes in mortality in Alameda County over time with a focus on differences between 2018-2019 and 2020-2021—the first two years of the COVID-19 pandemic. The report begins with a brief description of the underlying causes of ongoing health disparities. Next there is a description of growing disparities in life expectancy and overall mortality by race, ethnicity, and neighborhood poverty. This is followed by specific mortality data across four domains: (1) communicable diseases, with a focus on COVID-19; (2) injury, with a focus on increases in mortality at young ages due to overdose, homicide, and motor vehicle crash fatalities and (3) chronic diseases—a persistent cause of death in middle and older age; and (4) maternal, pregnant person, and infant mortality.

The sources for all mortality information are described in the Appendix. These data focus on residents of Alameda County, no matter where they died. For that reason, some statistics may not match those from other sources, such as crime reports about homicide, which are based on occurrences and reflect homicides that happened in the county no matter where that person lived.

The Alameda County Public Health Department continues to work with community leaders, organizations, and partner agencies on short- and long-term programs and policy changes to reduce premature death and decrease disparities in morbidity and mortality by race, ethnicity, and poverty level.

Underlying Causes of Health Inequities

Low-income communities of color in Alameda County have reduced opportunities to live fully healthy lives, in comparison to all residents in Alameda County. On average, African American/Black, Hispanic/Latino/a/x, Native American, and Pacific Islander populations have less access to: intergenerational wealth; health care and

insurance; living wage employment with benefits like paid sick leave; affordable, healthy housing; safe parks and recreational opportunities, and healthy food options.^{i,ii,iii,iv,v} Large proportions of these populations live in neighborhoods with higher rates of exposure to pollutants, environmental toxins, and violence.^{vi,vii,viii}

Inequities in opportunities to live long, healthy lives have been driven by historical and present-day policies and institutional practices, including slavery, colonization, and Jim Crow laws in the United States.^{ix,x, xi,xii,xiii, xiv,xv, xvi} After World War II, redlining caused people of color to be explicitly excluded from mortgage lending in certain neighborhoods by the government, by private financial institutions, and by homeowners' associations.^{xvii,xviii} In Alameda County, people who were not white were excluded from insured loans in neighborhoods except those adjacent to industrial areas and along the I-880 corridor, where there is higher exposure to noise and air pollution.^{xix} In the years leading up to the pandemic, housing shortages and a slow pace of new building led to spiking rents, evictions, and a burgeoning crisis of homelessness.^{xx,xxi} These conditions reproduce poverty, stress, instability, and distrust in communities of color, contributing to health inequities.

This inequitable context shaped inequities in vulnerability to the health and economic impacts of the COVID-19 pandemic. Lower-income residents of color were more likely to enter the pandemic with pre-existing medical conditions and less likely to be able to take recommended or required protective measures. Many worked in low-wage jobs in essential industries that remained open, exposing workers to COVID-19 prior to vaccine availability. Low-income workers who became ill often faced economic hardship when missing work due to not having paid sick leave, and it was often challenging to isolate when ill due to crowded living conditions. Caring for and home-teaching children during school closures, maintaining household income, staying informed and adequately protected, and accessing preventive health care and treatment were all more challenging for people living in lower-income communities.

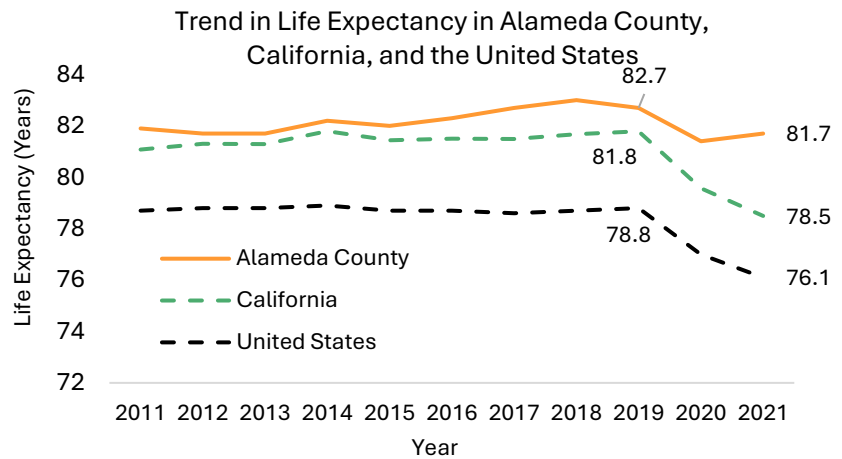
Unjust historical and modern-day policies shaped fragile conditions for residents and communities that saw the largest drops in life expectancy and increases in mortality in the 2020-2021 period examined here. Levels of morbidity and mortality rose with neighborhood poverty, and with steeper increases for African American/Black, Hispanic/Latino/a/x, Native American, and Pacific Islander communities than for White or Asian communities.

The following sections of the report should be viewed through the lens of history. These sections will also provide information about mortality focusing on life expectancy, communicable disease including COVID-19, injury, chronic disease, and maternal and child health and will illustrate differences in these outcomes. This will be followed a brief discussion of interventions to address these outcomes.

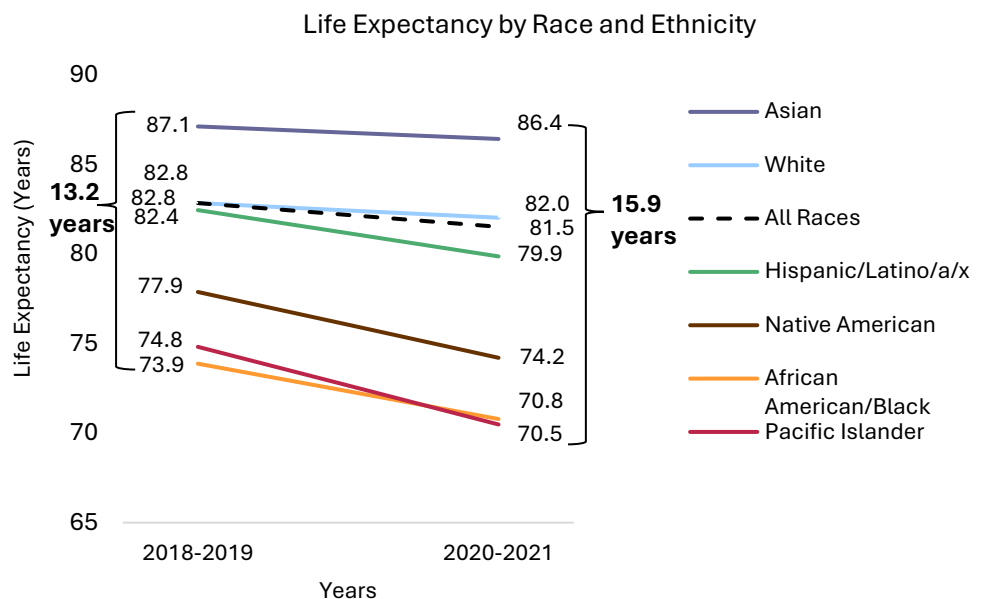
Life Expectancy and All-Cause Mortality

Overall life expectancy¹ in Alameda County decreased from 82.7 years in 2019 to 81.4 years in 2020. Life expectancy improved to 81.7 years in 2021 but remained 1.0 year lower than life expectancy in 2019.

Average life expectancy was higher in Alameda County relative to California and the United States prior to and following the COVID-19 pandemic. Alameda County had less of a decline in life expectancy during the COVID-19 pandemic than California and the United States.



Large racial and ethnic disparities in life expectancy in Alameda County increased in 2020-2021 relative to 2018-2019, from a gap of 13.2 years in 2018-2019 to a gap of 15.9 years in 2020-2021.² Declines in life expectancy ranged from 0.7 years for Asian people and 0.8 years among White people to 2.5 years for Hispanic/Latino/a/x people, 3.1 years for African American/Black people, 3.7 years for Native American people, and 4.3 years for Pacific Islander people.

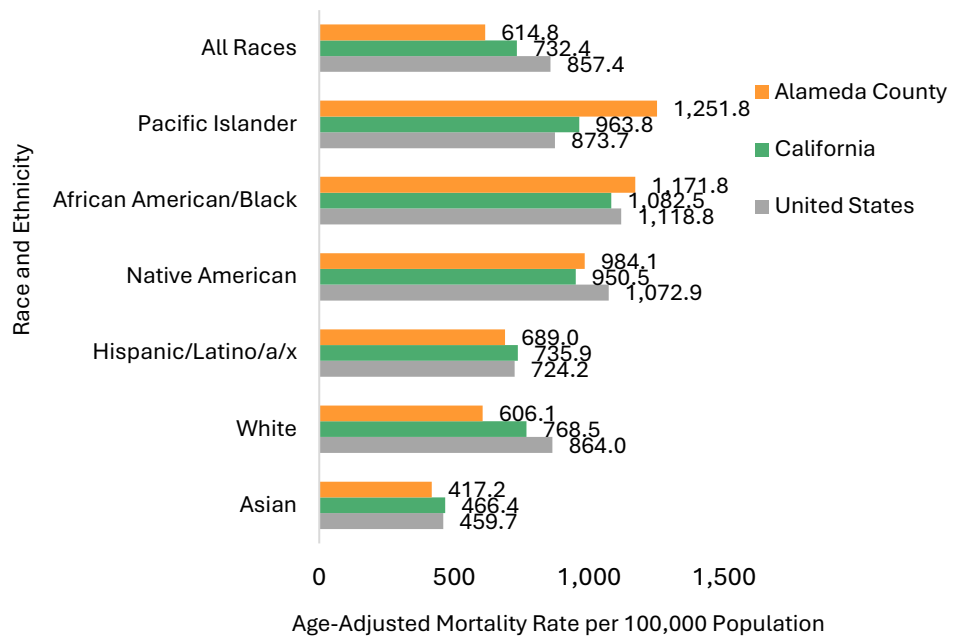


¹ Life expectancy at birth is a measure of the overall health of a population. It is a snapshot of the mortality rates in the year of death compared to the population's age composition at that time.

² Unless otherwise specified, the data are for Alameda County, and—when no years are specified—for 2020-2021.

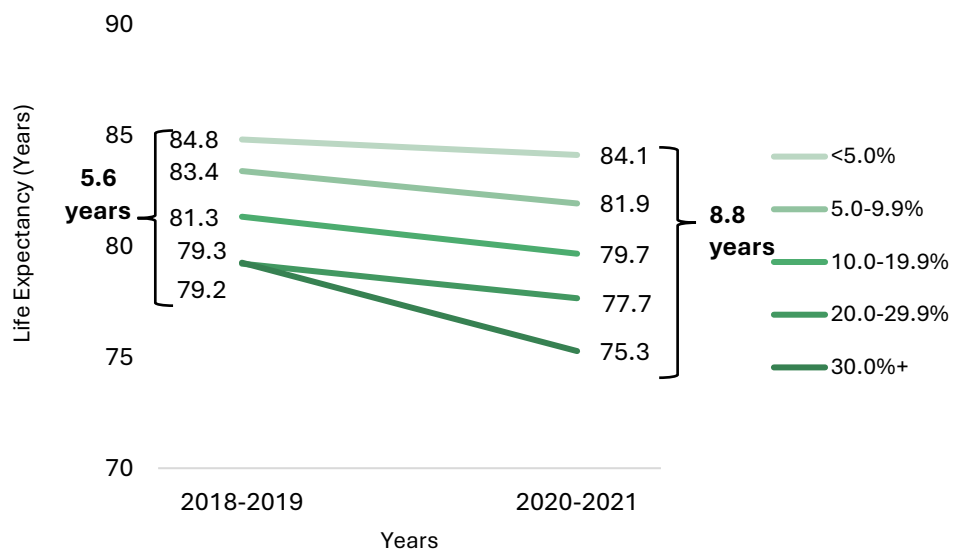
While the age-adjusted mortality rate³ for all causes in Alameda County was lower than those of California and the United States in 2020-2021, only a subset of the Alameda County population benefits from lower mortality. African American/Black and Pacific Islander people in Alameda County had a higher mortality rate than people of the same race and ethnicity in California and the United States. Native American people have higher mortality relative to all races in Alameda County, California, and the United States.

All-Cause Mortality Rates in Alameda County, California, and the United States, by Race and Ethnicity, 2020-2021



There are gaps in life expectancy by neighborhood poverty level in Alameda County.⁴ The life expectancy gap between the lowest poverty (<5.0%) and highest poverty (30.0%+) neighborhoods increased from 5.6 years to 8.8 years in 2020-2021. For each poverty group, the decrease in life expectancy was statistically significant except for the 20.0-29.9% group.

Life Expectancy by Neighborhood Poverty Level

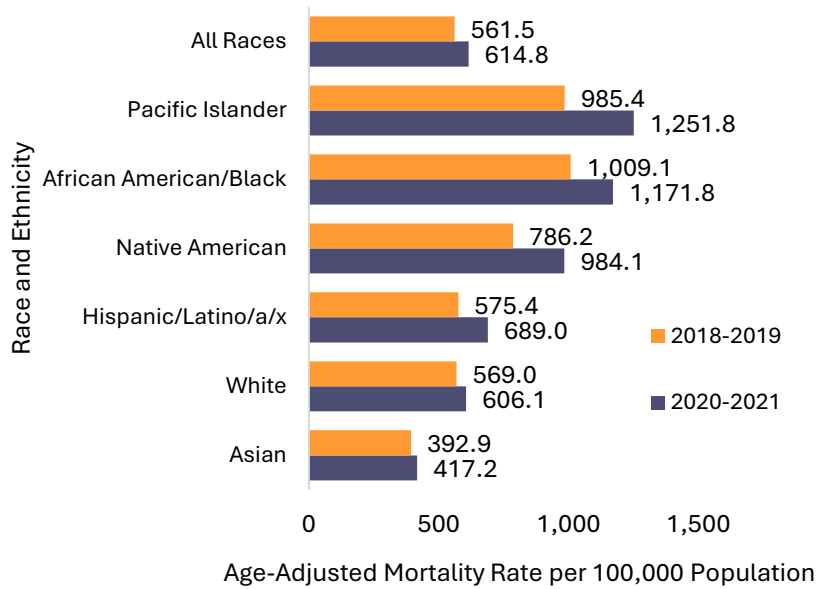


³ The age-adjusted *all-cause* mortality rate is the rate of all deaths in a specific population. It is a good overall measure of health. Similarly, *cause-specific* mortality rates are useful to describe specific causes of death. All-cause and cause-specific rates can be used to look at trends in overall health over time, compare over geographic areas, and to identify inequalities between groups. Age adjusting is a method that accounts for differences in age structure or age composition so that populations of different age distributions can be directly compared.

⁴ The social gradient—comparing across neighborhoods grouped by the poverty rate of individuals in each neighborhood—is a method to examine the role of neighborhood poverty in health outcome measures. Each residential address on the death certificate is placed into a neighborhood (census tract). The neighborhoods—and their constituent deaths and populations—in the county are aggregated into five groups: less than five percent poverty, from five percent to less than ten percent poverty, from ten percent to less than 20 percent poverty, from 20 percent to less than 30 percent poverty, and 30 percent poverty or more. For each of these groups, the overall measure and by race and ethnicity are calculated.

In Alameda County, the mortality rate rose by 9.5% in the overall population between 2018-2019 and 2020-2021. There were large racial and ethnic disparities in the relative increases in mortality rates. Of note, among Pacific Islanders, all-cause mortality rose by 27.0%. Overall, Alameda County had less of an increase in mortality from 2018-2019 to 2020-2021 than the United States (19.2%) and California (21.0%). Most of the increase in the overall mortality rate in Alameda County was due to COVID-19 (72.7%).

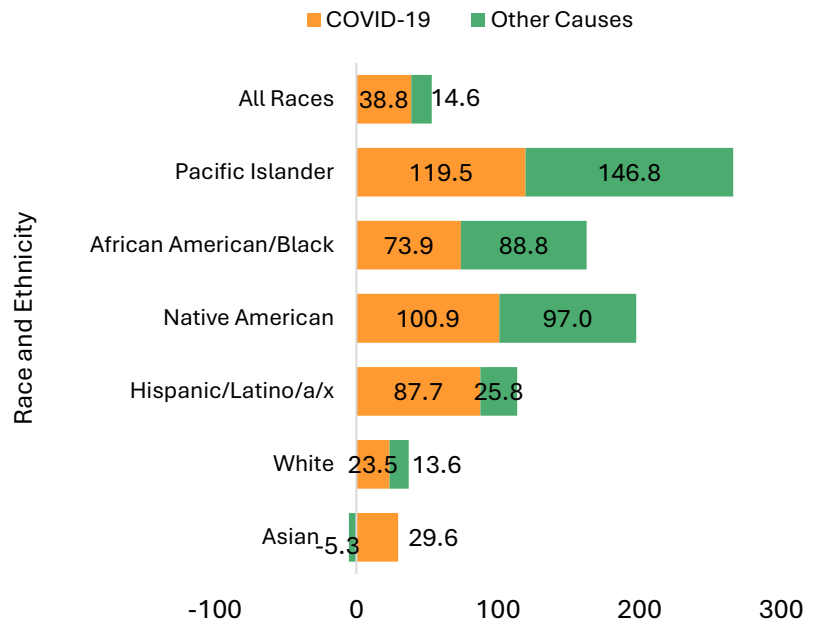
All-Cause Mortality Rate by Race and Ethnicity in Alameda County, 2018-2019 and 2020-2021



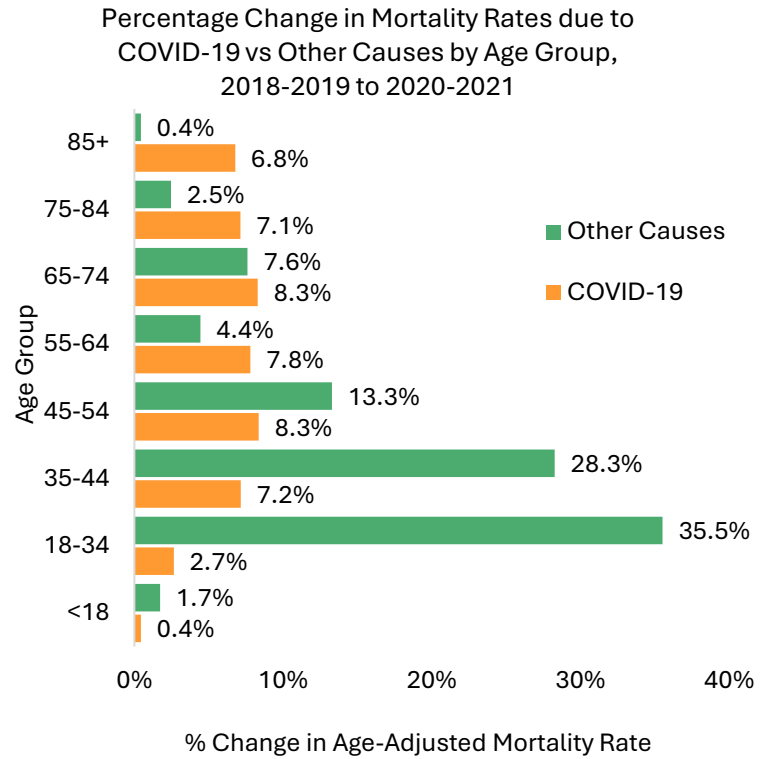
There were large racial and ethnic disparities in COVID-19 mortality rates within Alameda County. The COVID-19 mortality rate was three to five times higher for Pacific Islander, Native American, Hispanic/Latino/a/x, and African American/Black people than for White people in Alameda County.

Causes of death besides COVID-19 also increased during 2020-2021. Pacific Islander, African American/Black, and Native American people had large increases in mortality due to both COVID-19 and other causes. For Pacific Islander and African American/Black people, causes other than COVID-19 contributed more to the overall increase in mortality rate than COVID-19. Some specific other causes are highlighted on the next page.

Change in Mortality Rates due to COVID-19 vs Other Causes by Race and Ethnicity, 2018-2019 to 2020-2021

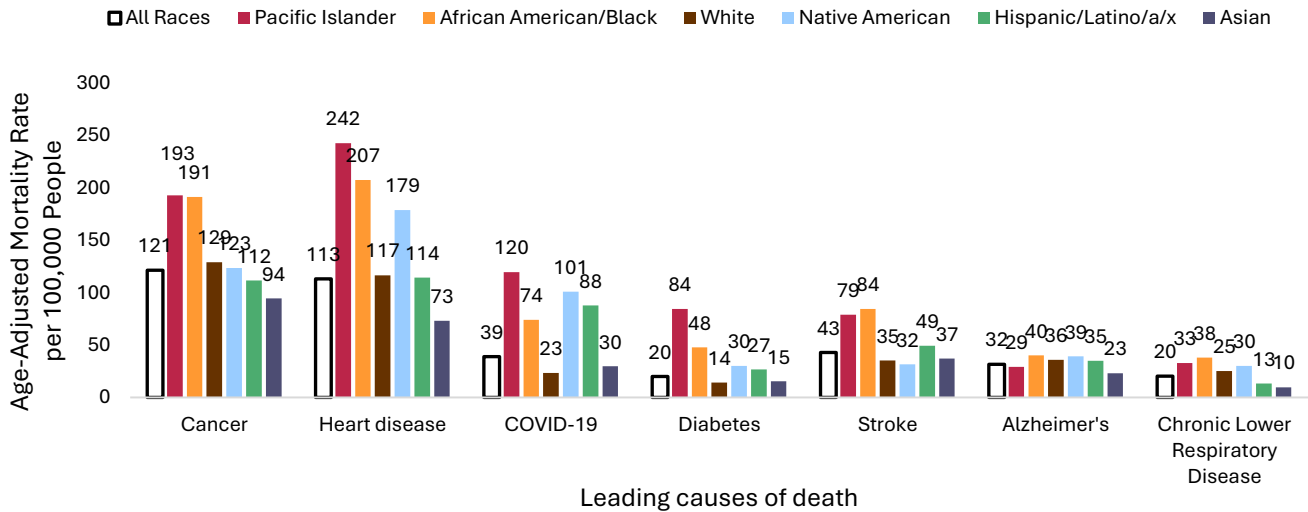


Relative increases in mortality rates due to COVID-19 were similar across age groups (although the increase in the absolute number of deaths was largest for older populations). There were large increases in deaths due to causes other than COVID-19 in younger age groups.



The leading causes of mortality in Alameda County in 2020-2021 were cancer, heart disease, COVID-19, stroke, Alzheimer’s, and diabetes. There were large racial and ethnic disparities in mortality rates for each of the leading causes of death. The high mortality rates for Pacific Islander and African American/Black across several leading causes of mortality suggest there are structural drivers of disparities and that policies that improve structural drivers of health are key to reducing disparities.

Mortality Rate for Leading Causes of Death, Overall and by Race and Ethnicity, 2020-2021



Note: For privacy reasons, the data for Pacific Islander and Native American for all causes but COVID-19 is 2014-2021; for all other data, it is 2020-2021.

From 2018-2019 to 2020-2021 in the full population of Alameda County, there were increases in mortality due to COVID-19 as well as other specific causes of mortality. For all causes, the mortality rate increased 9.5%, a difference that is statistically significant. There were also statistically significant increases in the mortality rates due to unintentional overdose, chronic liver disease and cirrhosis, and homicide. While mortality rates due to other causes increased—and some decreased—other changes were not statistically significant.

Change in Mortality Rate for Leading Causes and Statistically Significant Changes, 2018-2019 to 2020-2021

		Age-Adjusted Mortality Rate per 100,000 Population		
		2018-2019	2020-2021	Change
Five leading causes	Cancer	124.0	121.4	-2.1%
	Heart disease	113.0	113.1	0.0%
	Stroke	39.6	42.8	8.2%
	COVID-19*	NA	38.8	NA
	Alzheimer's disease	35.0	31.7	-9.4%
Statistically significant change in rate	All causes	561.5	614.8	9.5%
	COVID-19*	NA	38.8	NA
	Unintentional overdose	11.6	19.3	65.6%
	Chronic liver disease and cirrhosis	8.9	11.2	25.5%
	Homicide	5.1	9.2	80.4%

* While the statistical significance of the increase of COVID-19 was not calculable, the impact of COVID-19 on mortality rates was in fact significant.

Communicable Disease Including COVID-19

COVID-19 was a top-five cause of death in Alameda County in 2020-2021 overall as well as for all age groups 45 to 54 and older.

Average Number of Deaths per Year by Age Group, Five Leading Causes, 2020-2021

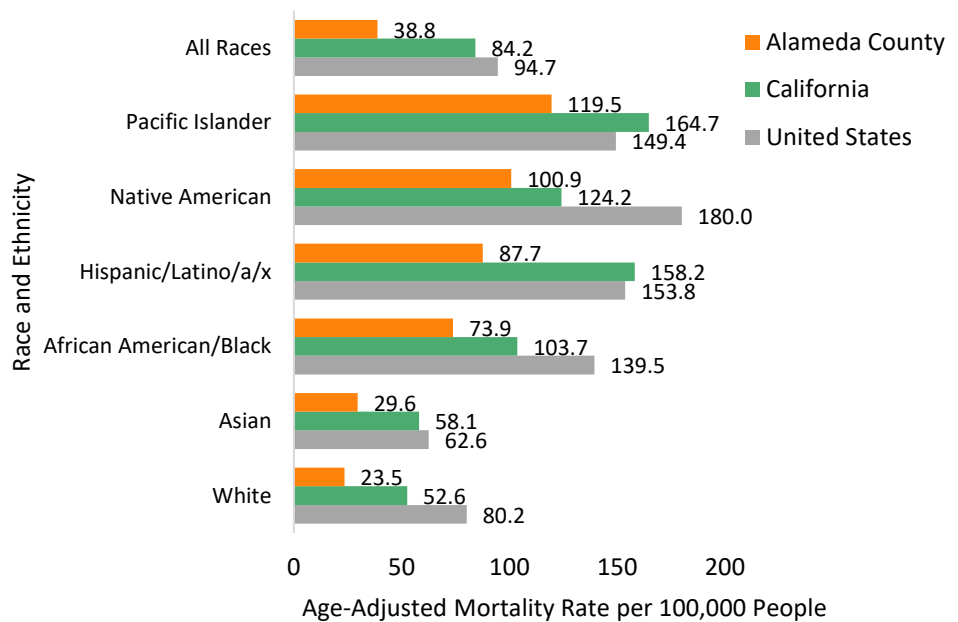
Rank	<18	18-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages
1	Perinatal complications	Unintentional overdose	Unintentional overdose	Cancer	Cancer	Cancer	Cancer	Heart disease	Cancer
	30	101	70	148	358	621	622	828	2,277
2	Congenital conditions	Homicide	Cancer	Heart disease	Heart disease	Heart disease	Heart disease	Cancer	Heart disease
	15	70	41	102	252	392	479	458	2,111
3	Abnormal clinical findings ^a	Motor vehicle crash	Heart disease	Unintentional overdose	COVID-19	COVID-19	Stroke	Alzheimer's disease	Stroke
	11	48	36	68	99	152	196	429	786
4	Homicide	Suicide	Homicide	COVID-19	Unintentional overdose	Stroke	COVID-19	Stroke	COVID-19
	<10	38	36	47	75	111	164	378	725
5	Cancer	Other injury ^b	Suicide	Chronic liver disease & cirrhosis	Diabetes	Diabetes	Alzheimer's disease	COVID-19	Alzheimer's disease
	<10	24	28	39	74	88	121	236	578

a. Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS).

b. Injury other than homicide, suicide, unintentional motor vehicle crash, and unintentional overdose.

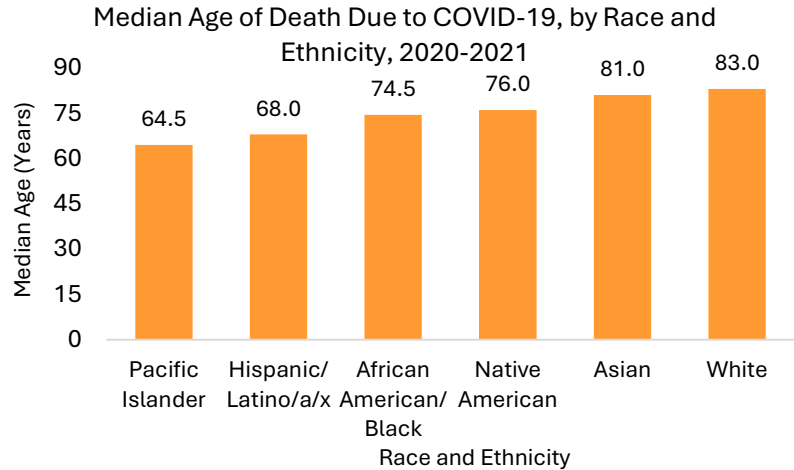
Alameda County's age-adjusted COVID-19 mortality rate was 41% that of the United States and 46% that of California in 2020-2021. COVID-19 mortality was lower in Alameda County than in California and the United States for each race and ethnicity.⁵ At the same time, there were large racial and ethnic disparities in the burden of COVID-19 mortality within Alameda County. The COVID-19 mortality rate was 5.1 times higher for Pacific Islander people than for White people in Alameda County.

COVID-19 Mortality Rates in Alameda County, California, and the United States, by Race and Ethnicity

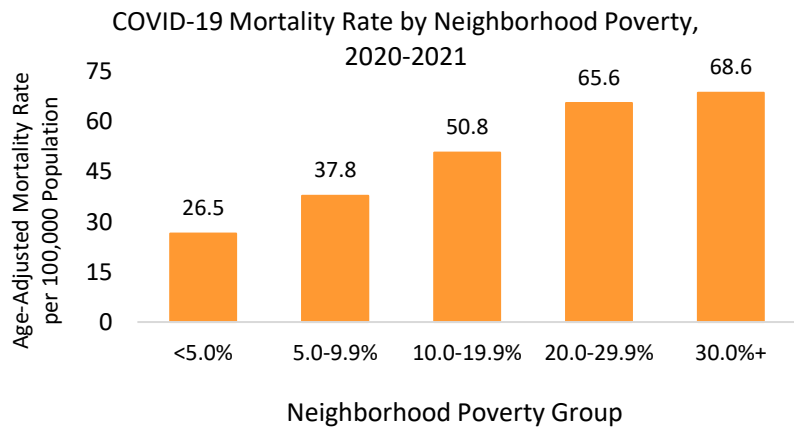


⁵ Note that, here, the rate for the Latino/a/x population is greater than that for the African American/Black population. The opposite is true on the COVID-19 dashboards. The data here are age adjusted, while the data on the dashboards are crude rates. Latino/a/x death rates by age groups are higher among older age groups, which led to the difference.

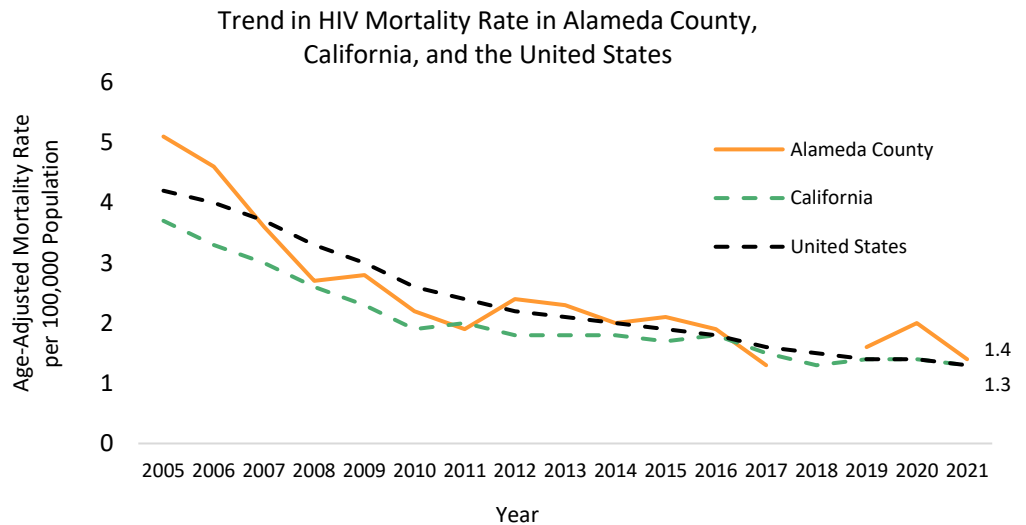
There were racial and ethnic disparities in the ages at which people died of COVID-19 in Alameda County. The median age⁶ of COVID-19 death for Pacific Islander people (64.5 years) was 18.5 years younger than the median age of COVID-19 death for White people (83 years). Age-group specific COVID-19 mortality rates for Pacific Islander, Native American, and Hispanic/Latino/a/x people 45 to 54 were more than ten times that for White people of the same age in Alameda County.



There were disparities in COVID-19 death rates by neighborhood poverty, with neighborhoods in which more than 30% of residents live below the poverty line experiencing 2.6 times the death rates of neighborhoods in which less than 5% of residents live below the poverty line.

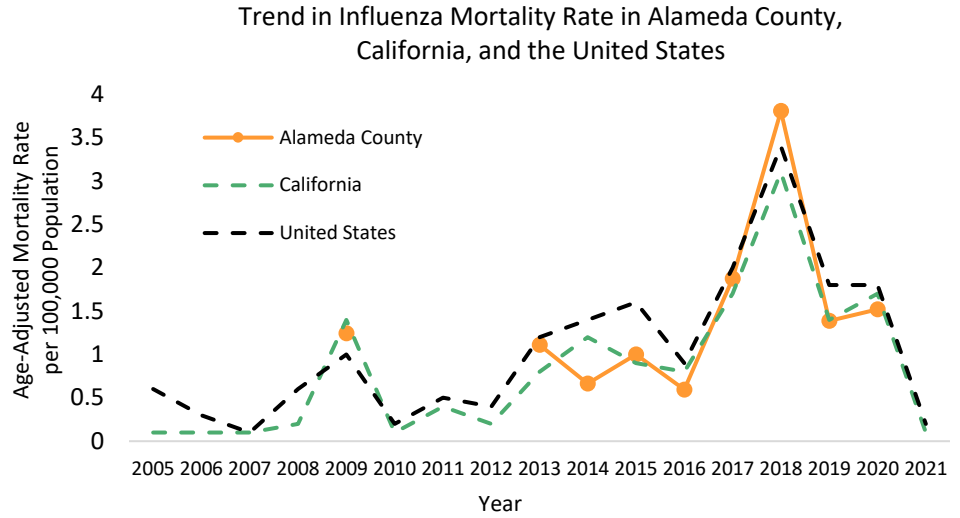


HIV mortality rates declined by 73% between 2005 and 2021, aligned with similar trends across California and the United States.



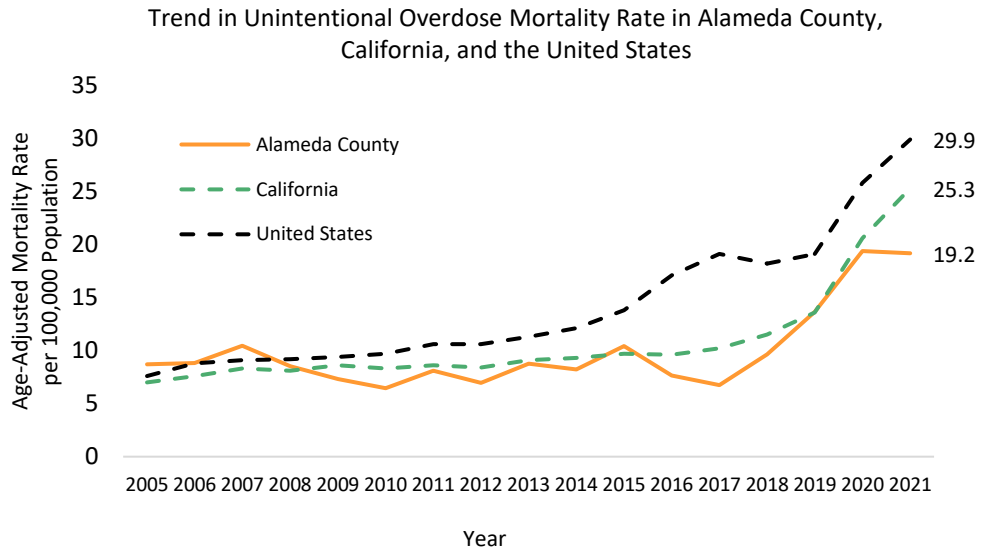
⁶ The median age at death is an easily understood measure that can compare some types of groups. It is not applicable to every type of group; for instance, comparing the median age of death of high school graduates to that of the overall population, because high school graduates have already reached high school age, whereas some in the overall population died before that age. It is applicable for race and ethnicity.

Influenza deaths have varied greatly by year in Alameda County, California, and the United States. While there are too few influenza deaths to report in Alameda County in many years, influenza mortality rates in Alameda County were like those in California and the United States in years in which data were reportable. When influenza death rates spiked in 2018, Alameda County had a higher rate of influenza mortality than California and the United States.

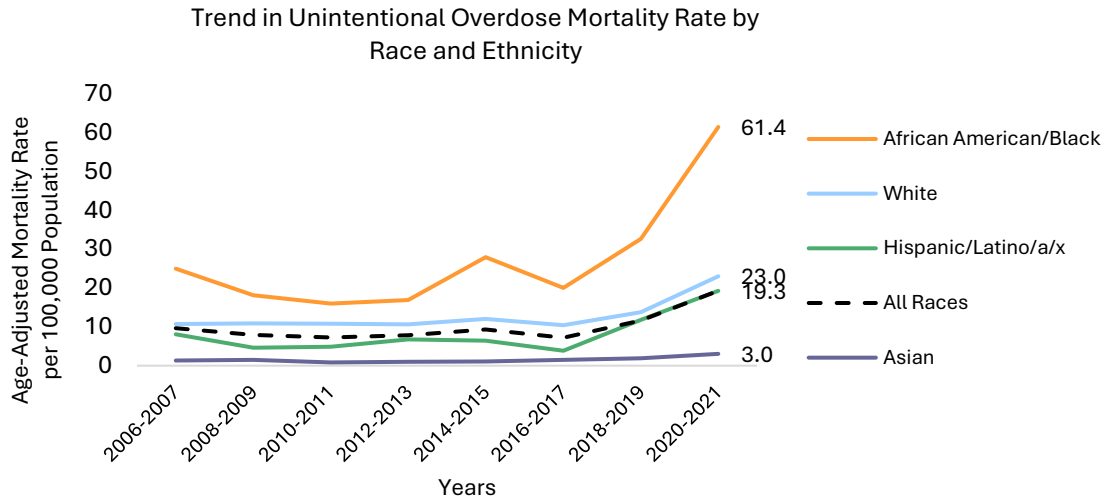


Injury

The Alameda County unintentional overdose mortality rate increased each year from 6.7 deaths per 100,000 population in 2017 to 19.4 in 2020 and 19.2 in 2021. This was consistent with trends of rising unintentional overdose deaths in California and the United States, which reached 25.3 and 29.9 deaths per 100,000 people in 2021, respectively.

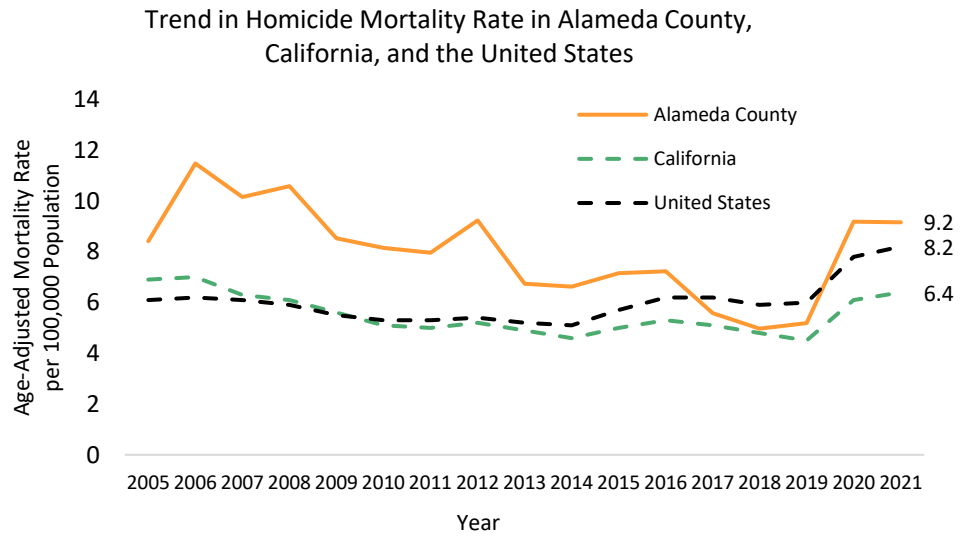


There are large racial and ethnic disparities in unintentional overdose mortality that increased in 2020-2021.



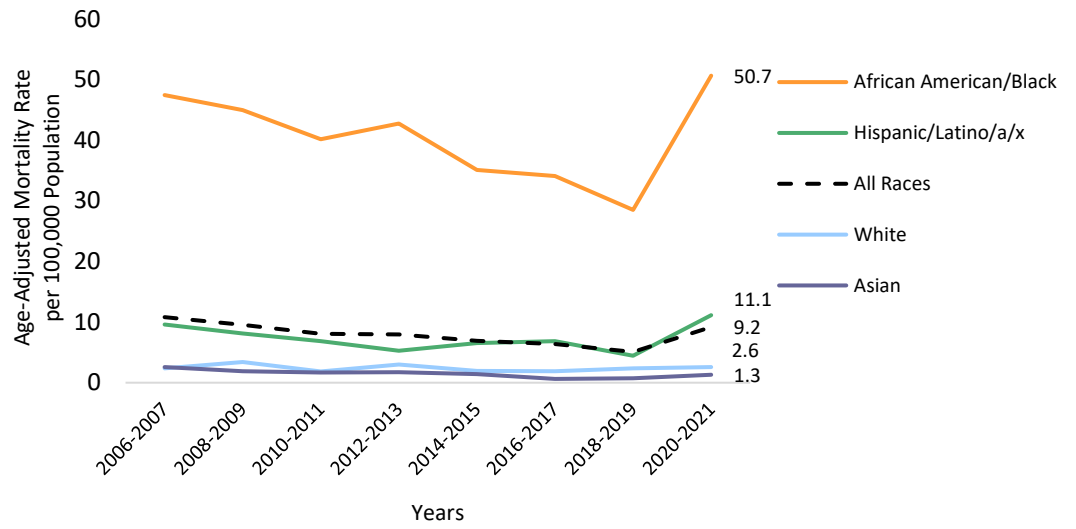
* Since there are few unintentional overdose deaths among Native Americans and Pacific Islanders, we had to aggregate eight years of data for each. For 2014-2021, the Native American rate was 28.5/100,000 and the Pacific Islander rate was 12.4/100,000.

Following a decline in homicide rates over time in Alameda County, from 11.5 deaths per 100,000 people in 2006 to 5.2 in 2019, homicide rates increased to 9.2 in both 2020 and 2021. The rise in homicides is consistent with a state and national rise in homicide rates in 2020-2021, but the relative increase in homicide rates was larger in Alameda County than in California and the United States.



There are very large racial and ethnic disparities in homicide mortality in Alameda County. After a steady decline in homicide mortality disparities from 2006-2007 to 2018-2019, racial and ethnic disparities in homicide increased dramatically in 2020-2021.

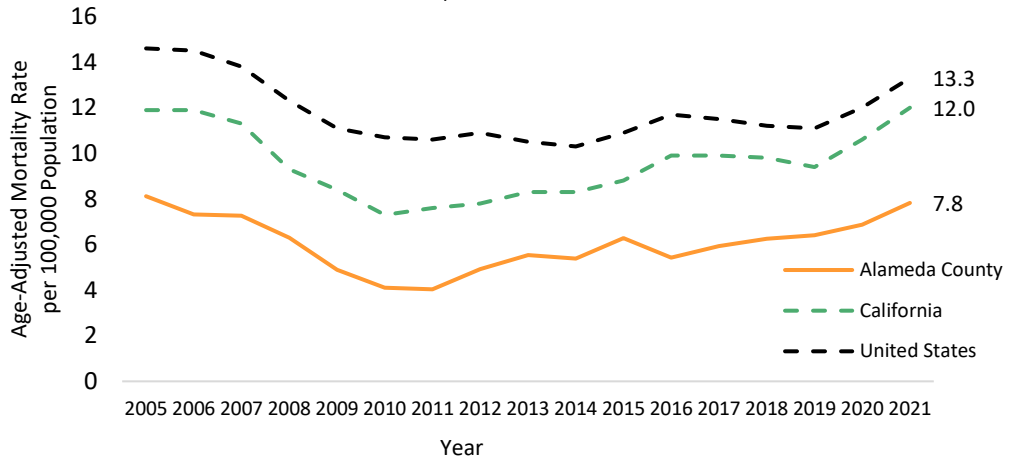
Trend in Homicide Mortality Rate by Race/Ethnicity



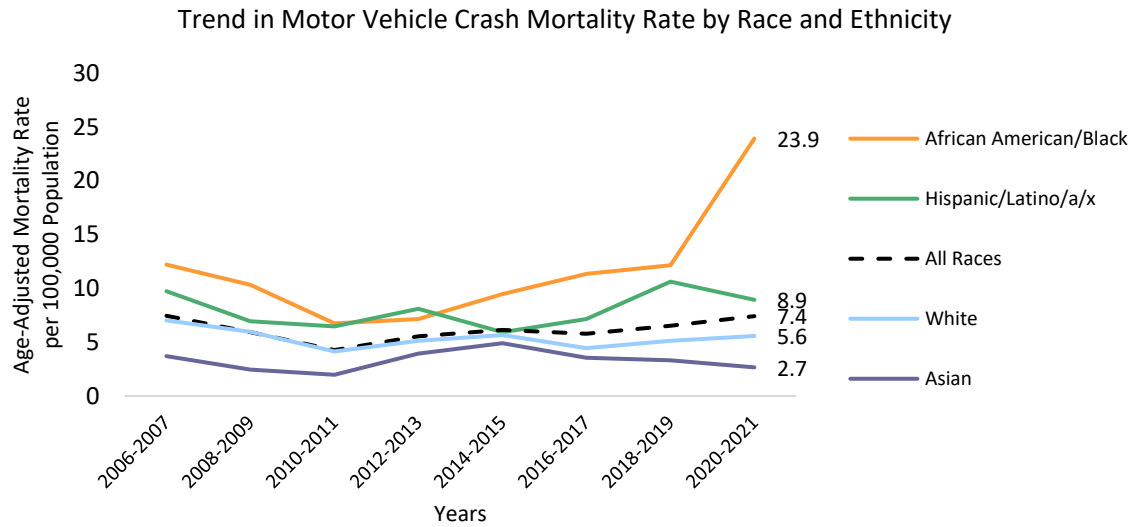
* Since there are few homicide deaths among Native Americans and Pacific Islanders, we had to aggregate eight years of data for each. For 2014-2021, the Native American rate was 16.2/100,000 and the Pacific Islander rate was 9.2/100,000.

Unintentional motor vehicle crash death rates are lower in Alameda County than in California and the United States, but steadily increased by 95% between 2011 and 2021, from 4.0 deaths per 100,000 people in 2011 to 7.8 in 2021. The rise in motor vehicle deaths is consistent with a nationwide rise between 2011 and 2021.

Trend in Motor Vehicle Crash Mortality Rate in Alameda County, California, and the United States

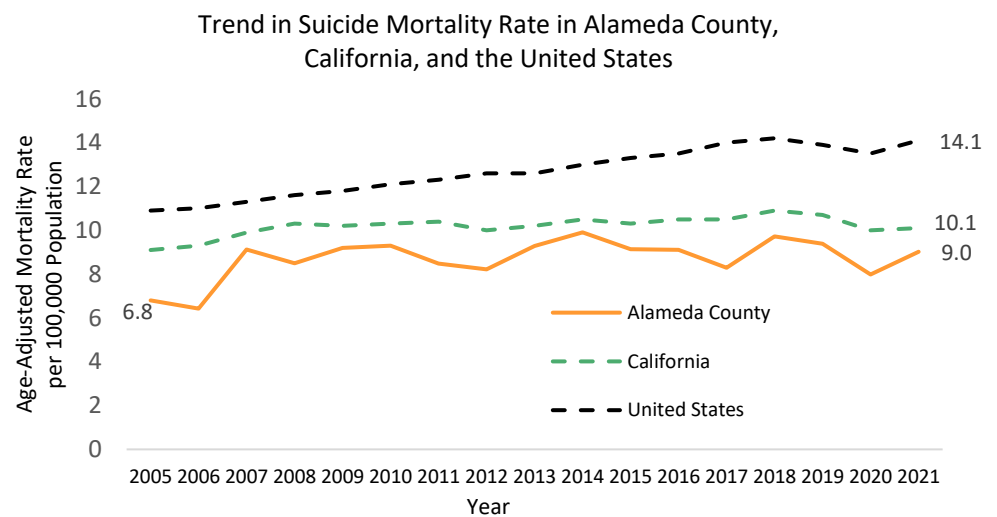


There are large racial and ethnic disparities in unintentional motor vehicle crash mortality in Alameda County that increased in 2020-2021.



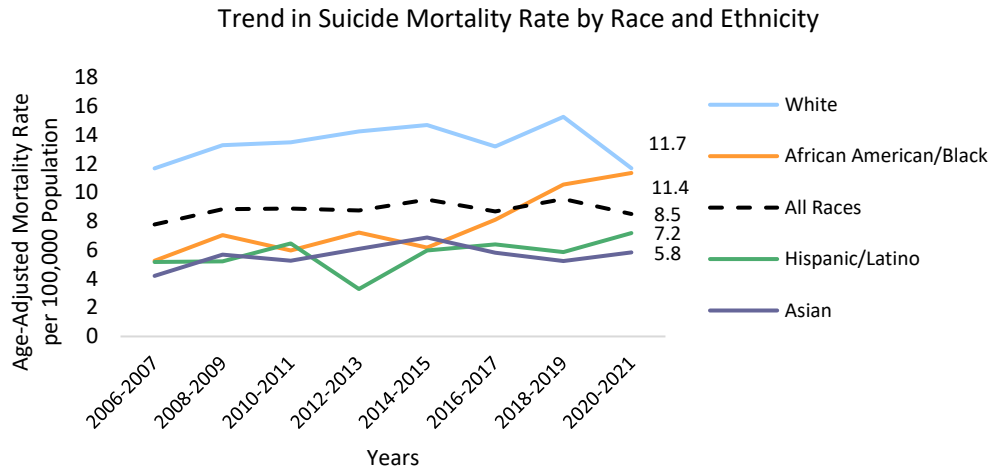
* Since there are few MVC deaths among Native Americans and Pacific Islanders, we had to aggregate eight years for Pacific Islander and suppress Native American deaths for confidentiality. For 2014-2021, the Pacific Islander rate was 18.4/100,000.

Suicide remains a leading cause of death at young ages in Alameda County, California, and the United States. The suicide rate in Alameda County is lower than the suicide rate in California and the United States and has remained relatively constant since 2007. At the same time, the suicide rate has risen in the United States. Although sexual orientation and gender identity are not collected or reported for mortality data including suicide, representative survey data indicate that people who are gay, lesbian, bisexual, unsure of their sexual orientation, and transgender report large disparities in suicide attempts, especially at young ages.



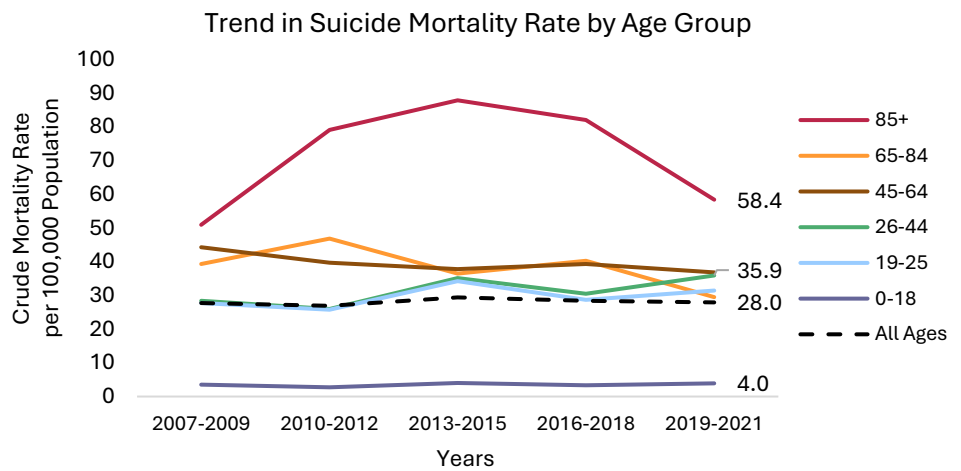
* Since there are few MVC deaths among Native Americans and Pacific Islanders, we had to aggregate eight years for Pacific Islander and suppress Native American deaths for confidentiality. For 2014-2021, the Pacific Islander rate was 18.4/100,000.

White people have been more likely to die of suicide relative to people of other races and ethnicities in Alameda County. There is a trend of increasing suicide mortality among African American/Black people in Alameda County since 2014-2015.

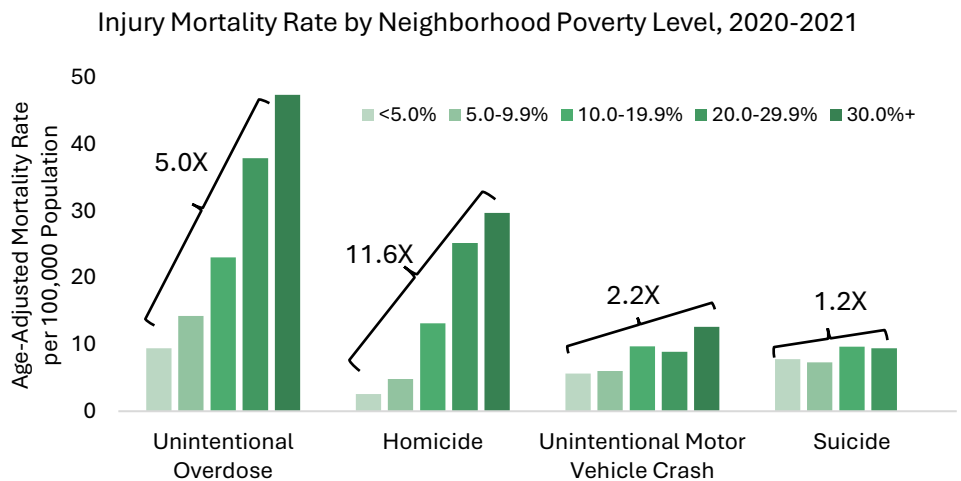


* Since there are few suicide deaths among Native Americans and Pacific Islanders, we had to suppress them for confidentiality.

There are also disparities in suicide mortality by age group. The 85+ population is more likely to die of suicide than other age groups, in Alameda County. This group is much smaller in number than the other groups, so the number of suicides is low, but the resulting rate is higher. The 0-18 age group is the least likely to die by suicide.



There are disparities in mortality due to unintentional overdose, homicide, suicide, and motor vehicle crash fatalities by neighborhood poverty in Alameda County. There are especially large disparities in homicide mortality. Homicide mortality rates in the highest poverty neighborhoods (30.0% or more households in poverty) were 11.6 times those of the lowest poverty neighborhoods (<5.0% of households in poverty).



Chronic Disease

Cancer is the leading cause of death and heart disease is the second-leading cause of death for those 45 to 84 years in Alameda County. Cancer and heart disease are also leading causes of death those 35 to 44 years and 85 years or older. Diabetes was a leading cause of death for those 55 to 74 years and stroke was a leading cause of death for those 65 years or older.

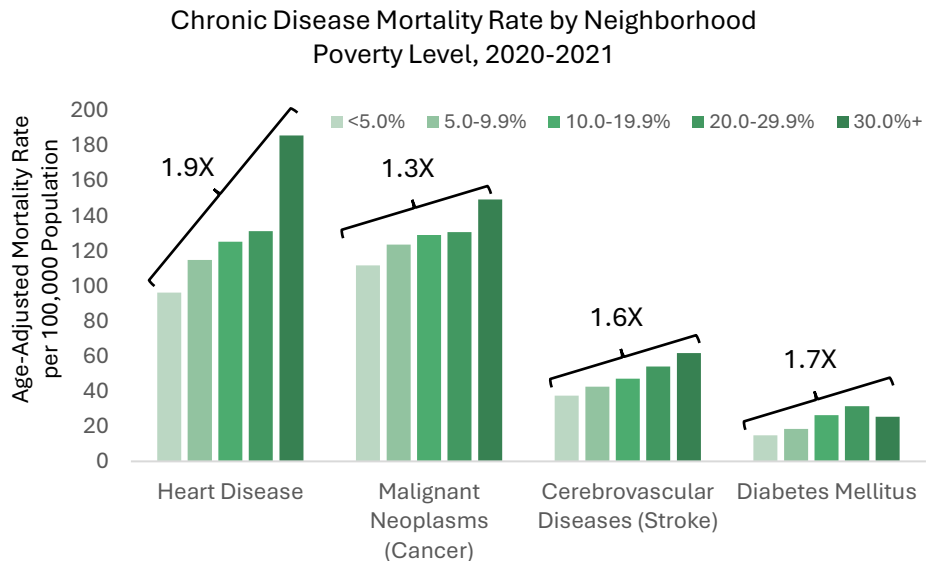
Average Number of Deaths per Year by Age Group, Five Leading Causes, 2020-2021

Rank	<18	18-34	35-44	45-54	55-64	65-74	75-84	85+	All Ages
1	Perinatal complications	Unintentional overdose	Unintentional overdose	Cancer	Cancer	Cancer	Cancer	Heart disease	Cancer
	30	101	70	148	358	621	622	828	2,277
2	Congenital conditions	Homicide	Cancer	Heart disease	Heart disease	Heart disease	Heart disease	Cancer	Heart disease
	15	70	41	102	252	392	479	458	2,111
3	Abnormal clinical findings ^a	Motor vehicle crash	Heart disease	Unintentional overdose	COVID-19	COVID-19	Stroke	Alzheimer's disease	Stroke
	11	48	36	68	99	152	196	429	786
4	Homicide	Suicide	Homicide	COVID-19	Unintentional overdose	Stroke	COVID-19	Stroke	COVID-19
	<10	38	36	47	75	111	164	378	725
5	Cancer	Other injury ^b	Suicide	Chronic liver disease & cirrhosis	Diabetes	Diabetes	Alzheimer's disease	COVID-19	Alzheimer's disease
	<10	24	28	39	74	88	121	236	578

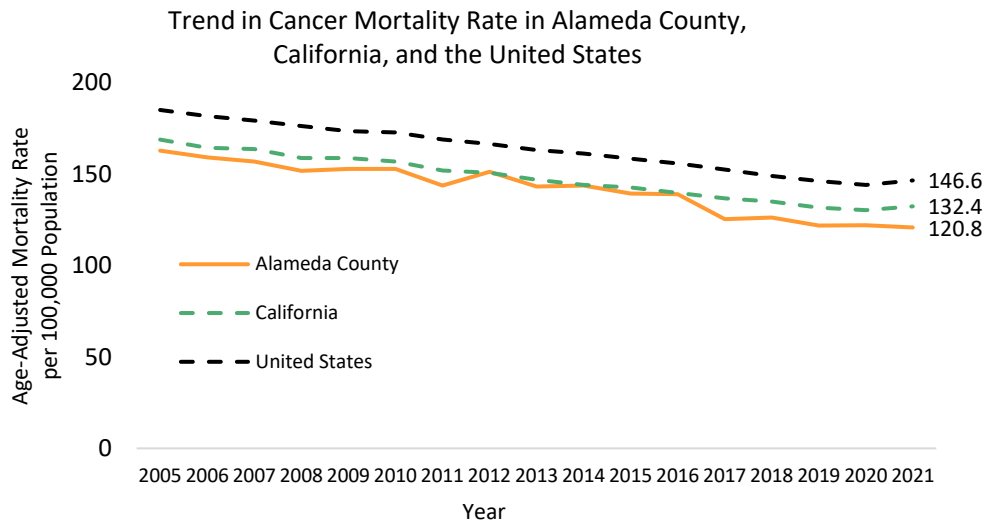
a. Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS).

b. Injury other than homicide, suicide, unintentional motor vehicle crash, and unintentional overdose.

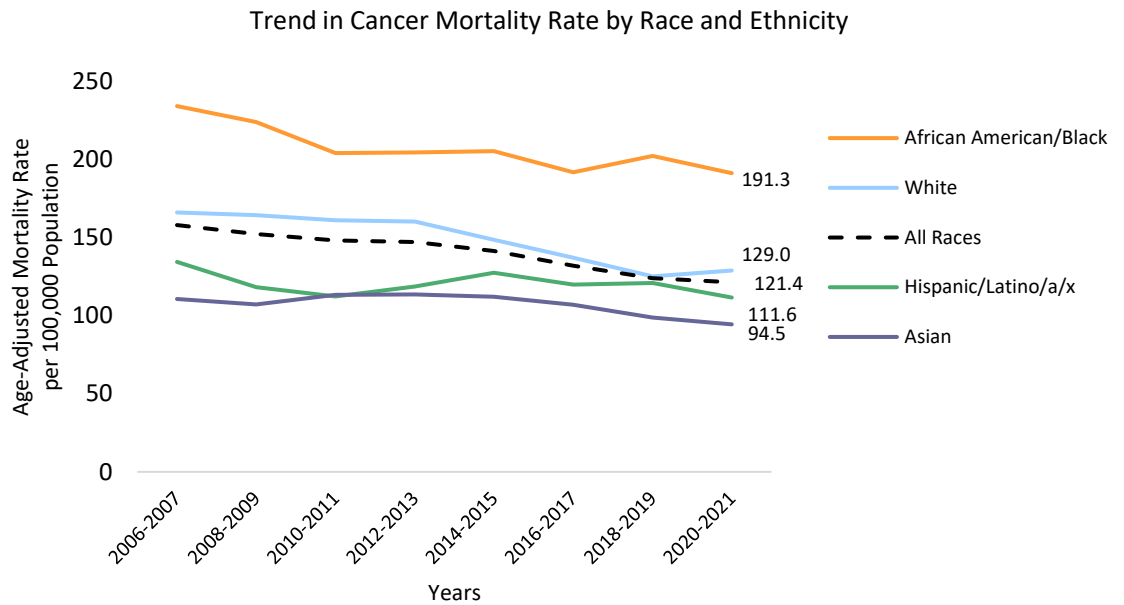
Mortality rates due to chronic diseases are higher in Alameda County neighborhoods in which more households are in poverty.



Cancer mortality rates steadily declined from 162.9 deaths per 100,000 people in 2005 to 120.8 in 2021. Cancer mortality is lower in Alameda County than in the United States. The declining trend in cancer mortality in Alameda County (26%) is consistent with the 20% decline in cancer mortality across the United States from 2005 to 2021.

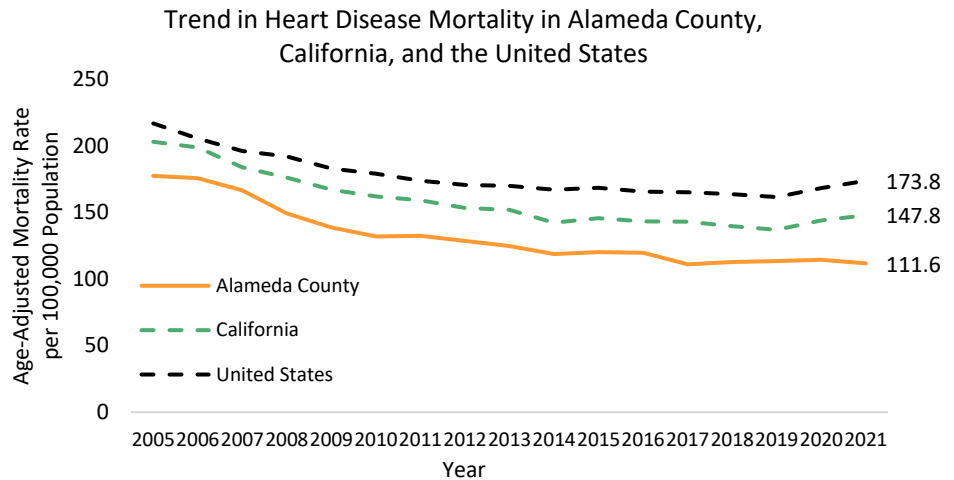


There are racial and ethnic disparities in cancer mortality in Alameda County that have remained relatively consistent over time.

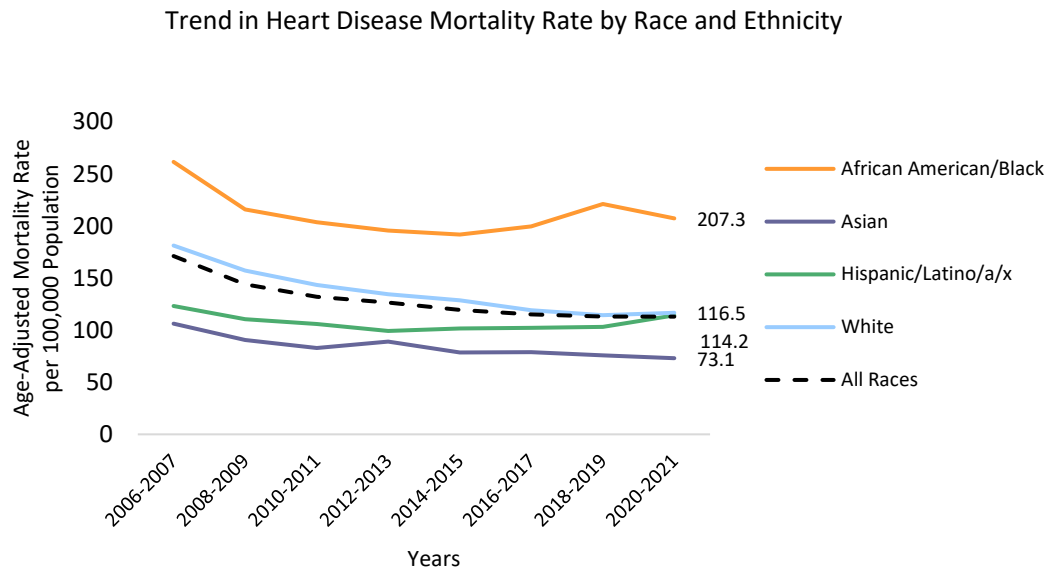


* Since there are few cancer deaths among Native Americans and Pacific Islanders, we had to aggregate eight years of data for each. For 2014-2021, the Native American rate was 123.4/100,000 and the Pacific Islander rate was 192.7/100,000.

Heart disease mortality rates remained consistent from 2017 to 2021 in Alameda County, following a decline from 2006 to 2017. Heart disease mortality rates are lower in Alameda County than in the United States, and the heart disease mortality increased over time from 2017 to 2021 in the United States following a decline from 2006 to 2017.

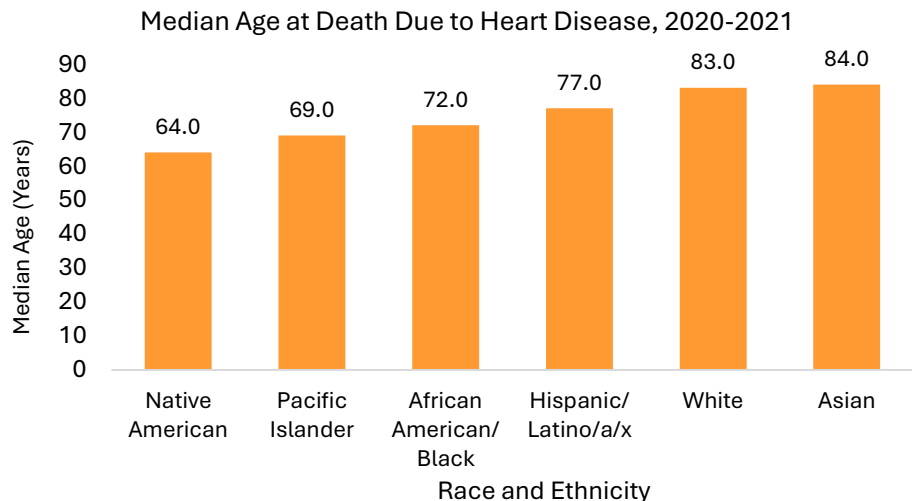


Pacific Islander, African American/Black, and Native American people have disproportionately high rates of heart disease mortality.

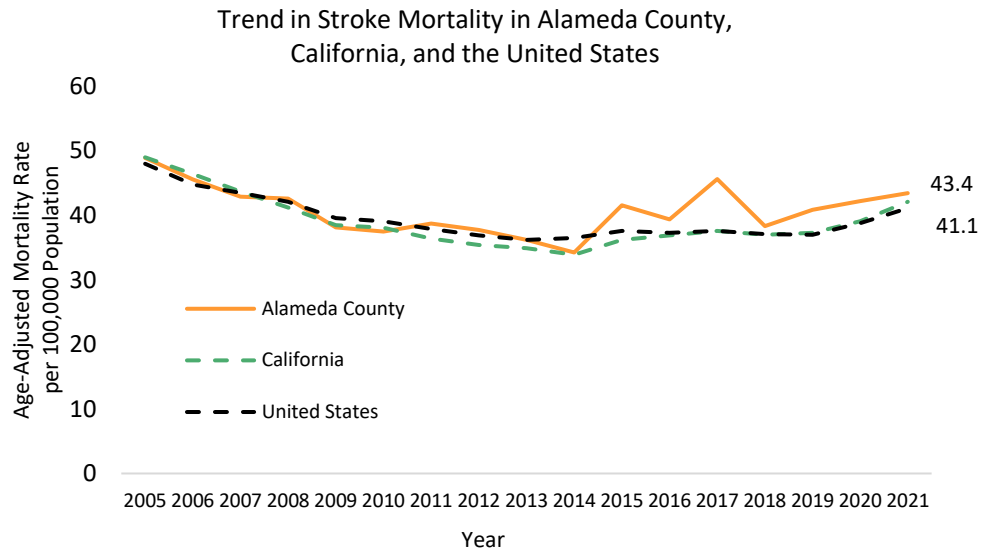


* Since there are few heart disease deaths among Native Americans and Pacific Islanders, we had to aggregate eight years of data for each. For 2014-2021, the Native American rate was 178.8/100,000 and the Pacific Islander rate was 242.5/100,000.

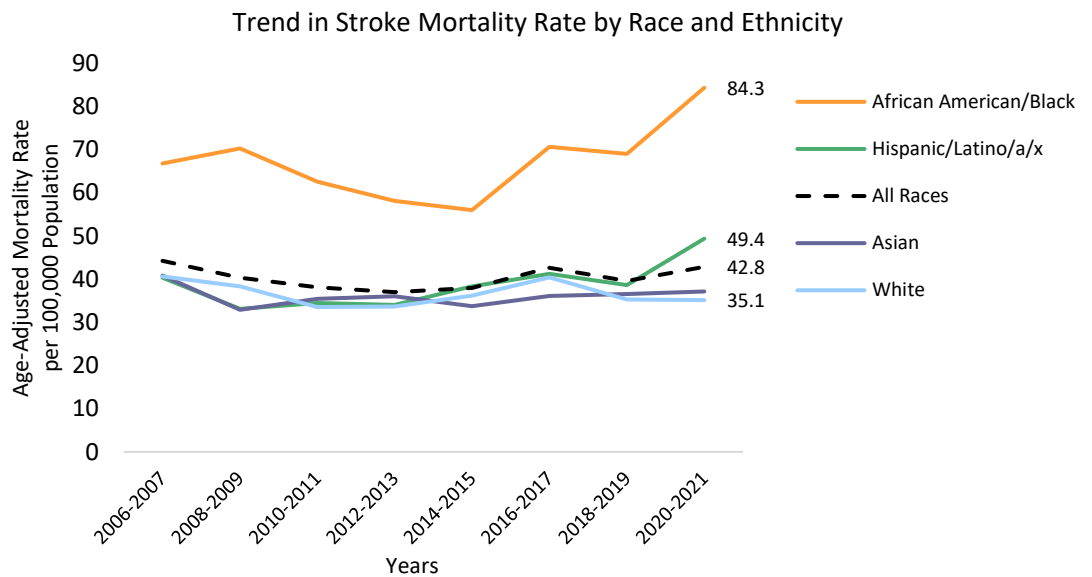
There are large racial and ethnic disparities in median age of death due to heart disease. People who are Native American are dying of heart disease at a median age 20.0 years younger than people who are Asian.



Following a decline in stroke mortality in Alameda County from 2005 to 2014, it increased 27% from 34.2 deaths per 100,000 people in 2014 to 43.4 in 2021. Stroke mortality rates are slightly higher in Alameda County than in the United States, and Alameda County trends were like those of California and the United States.



Pacific Islander and African American/Black people have disproportionately high rates of stroke mortality.

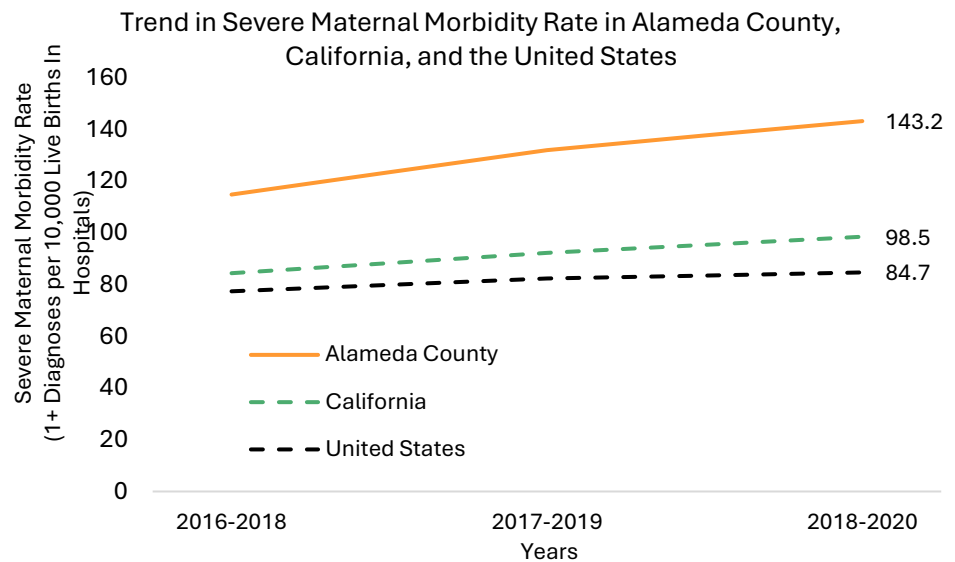


* Since there are few stroke deaths among Native Americans and Pacific Islanders, we had to aggregate eight years of data for each. For 2014-2021, the Native American rate was 31.6/100,000 and the Pacific Islander rate was 79.0/100,000.

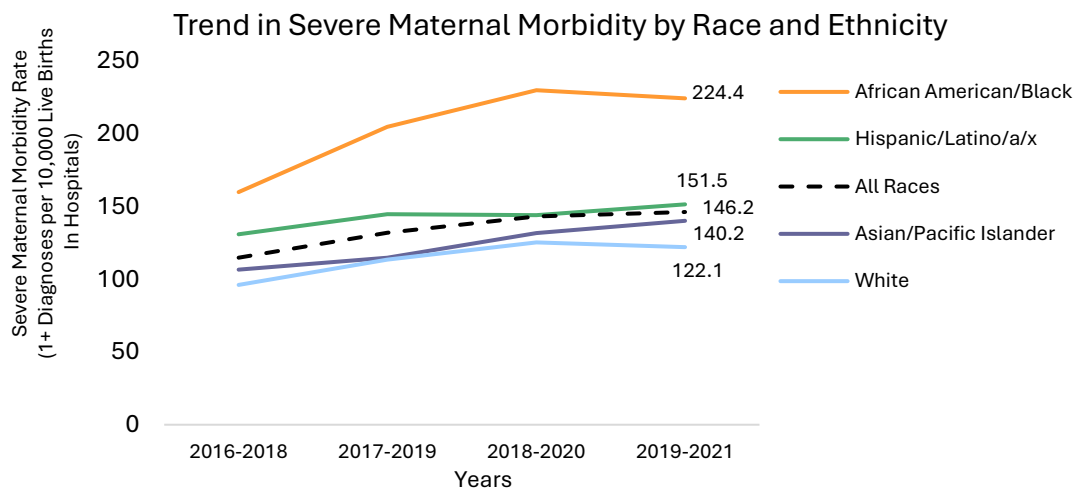
Maternal, Pregnant Person, and Child Health

While maternal mortality is a rare outcome in Alameda County, rates of maternal mortality in the United States increased from 17.4 per 100,000 live births in 2018 to 32.9 deaths per 100,000 live births—an 89% increase. Rates of maternal mortality in the United States far exceeded rates in other high-income countries throughout this period. In the United States, African American/Black people are disproportionately affected by maternal mortality, with rates more than double that of the full population. Since maternal mortality is a relatively rare outcome, we present rates of severe maternal morbidity in this section.

Severe maternal morbidity⁷ can increase the risk of maternal mortality. Severe maternal morbidity is higher in Alameda County than in California and the United States.



There are large and increasing racial and ethnic disparities in severe maternal morbidity. In Alameda County, the rate of severe maternal morbidity for African American/Black people was more than 50% higher than for the full population (146.2 per 10,000 live births) in 2019-2021.

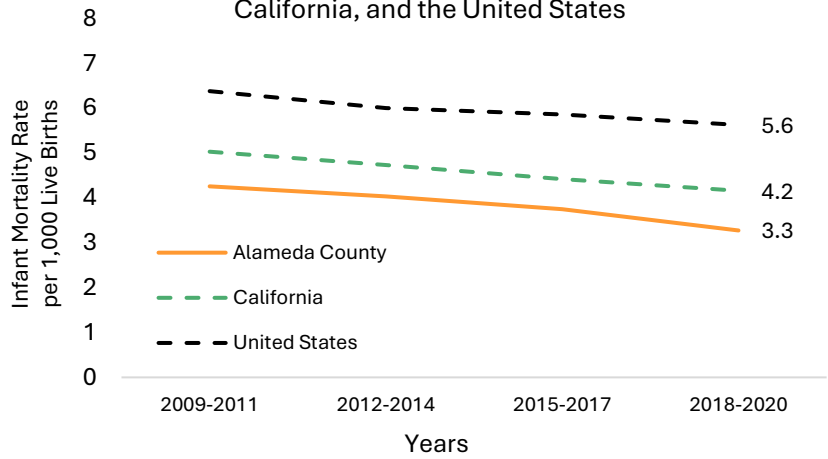


* The source data from CDPH has data for Asians and Pacific Islanders combined. Also, Native American data was suppressed for confidentiality

⁷ Number of unexpected and potentially life-threatening complications from labor and delivery that result in significant short- or long-term health consequences. SMM includes 20 indicators that represent either serious complications of pregnancy or delivery (such as sepsis or acute renal failure) or procedures used to manage serious conditions (such as ventilation or hysterectomy). The SMM rate is the number of conditions or complications per 10,000 live births in a hospital.

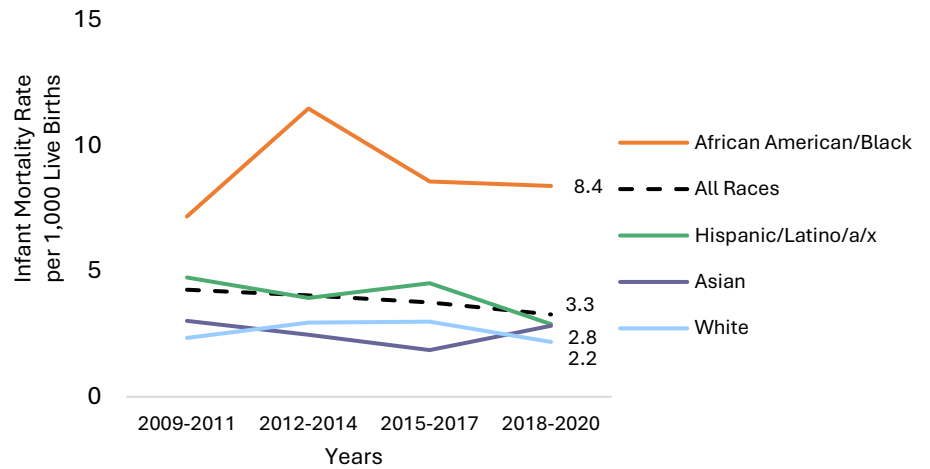
Overall, infant mortality has declined, from a high of 4.3 in 2008-2010 to a low of 3.3 in 2018-2020, a 23.6% decline.

Trend in Infant Mortality Rate in Alameda County, California, and the United States



There are persistent racial and ethnic disparities in infant mortality in Alameda County. In 2018-2020, the African American/Black infant mortality rate was over twice the Alameda County rate and over 3.8 times the White infant mortality rate.

Trend in Infant Mortality Rate by Race/Ethnicity



* Since there are few infant deaths among Native Americans and Pacific Islanders, we had to suppress them for confidentiality.

Discussion

Overall, Alameda County residents benefit from higher life expectancy and lower mortality relative to residents of California and the United States. However, disaggregating data reveals substantial racial and ethnic inequities in life expectancy and mortality. There are also large mortality gaps by neighborhood poverty level, especially for leading causes of death at young ages. The pattern of inequities associated with racial, ethnic, and neighborhood poverty persists across multiple causes of mortality and has been present for generations in our county. Available evidence suggests that these inequities are structural in nature, driven by historical and modern-day policies of intentional discrimination, “race-blind” policies that disparately and negatively impact communities of color, and the ongoing lack of repair of the harms caused by those approaches. For African American/Black, Pacific Islander, Native Americans, and Latino/a/x people in particular, the systemic deprivation of wealth due to slavery, colonialization, immigration law, and subsequent policies drives the access to housing, education, and childhood wellbeing. Alameda County has identified economic security, access to health care, and communities free from violence as priorities for improving health.

The Alameda County Public Health Department (ACPHD) implements multiple programs designed to improve health and reduce mortality. Using an approach of targeted universalism, everyone in the county is served and there are additional services provided for populations disproportionately affected by morbidity and mortality. For example, Nutrition Services and Women, Infants, and Children (WIC) programs support healthy eating and physical activity that provide broad prevention strategies for many chronic diseases. The Healthy Living for Life program serves mainly CalFresh-eligible residents and supports nutrition and physical activity throughout the life course, from childhood to older adults. The Healthy Retail Program supports more than 20 retail stores throughout the county in stocking healthy foods in areas that may otherwise be food deserts. Through the ACPHD’s award-winning Asthma Program, social workers assess homes for asthma triggers and provide remediation supplies (like HEPA air filters and mattress covers) and support minor home repairs that improve indoor air quality. Alameda County has one of the oldest Comprehensive Perinatal Services Programs in the state, with 22 clinics. Pregnant people who are eligible for Medi-Cal can enroll in the Comprehensive Perinatal Services Program, which includes prenatal medical care, plus health education, nutrition education, and support for issues like jobs, emotions, relationships, and housing. The BElovedBIRTH Black Centering is group prenatal care created by and for Black people, who are affected by worse pregnancy outcomes in Alameda County. BElovedBIRTH Black Centering patients are also offered doulas, lactation consultants, mental health supports, and nutritional supports.

Alameda County experienced less of an increase in mortality from 2018-2019 to 2020-2021 than the United States and California. Alameda County also had lower rates of COVID-19 mortality relative to the United States and California. Evidence indicates that high vaccination coverage,^{xxii} mask policies^{xxiii, xxiv, xxv}, and equitable prevention and treatment approaches^{xxvi, xxvii} were associated with reduced COVID-19 deaths in the United States. Alameda County prioritized equity through hyperlocal community engagement with African American/Black and Hispanic/Latino/a/x communities disproportionately affected by COVID-19, working to improve access to COVID-19 testing, vaccination, and treatment in these communities. Vaccine equity efforts included door-to-door outreach in 60 census tracts with the lowest vaccination rates, partnering with grassroots community groups whose members lived in the selected census tracts. Canvassing in high-density corridors and pop-up events complemented door-knocking efforts. Continuing to deliver up to date COVID-19 vaccinations and other vaccinations with a focus on equity remains important for reducing mortality and mortality inequities in the years ahead.

Alameda County prioritizes communities free from violence and recognizes violence as a public health issue – impacting not only the individuals and families at the center of an incident, but also presenting hardships for the surrounding neighborhoods and communities subjected to the presence of violence. ACPHD has established an Office of Violence Prevention to investigate, understand, and address violence that touches the lives of Alameda County residents. The Office of Violence Prevention works to reduce violence across the county by taking a cross-sector approach to promoting positive child and youth development, ensuring supported and functioning families, fostering safe and vibrant neighborhoods, and ensuring program and government effectiveness. The office will focus on upstream policy change, empathy training, and neighborhood reclamation, midstream hospital-based violence intervention and trauma-informed care, and downstream restorative justice programming and community healing practices. In line with direct feedback obtained from community residents during the 2021 Community Health Needs Assessment, ACPHD will initially promote prevention and intervention of three types of violence: Firearm Violence, Hate-Motivated Violence, and Intimate Partner Violence. The office will provide funding opportunities through a pair of forthcoming Requests for Proposals (2024) that seek to provide financial supports to community-based intervention and prevention programs promoting services to communities disproportionately affected by the presence of violence.

In addition to ACPHD programs, broader policies and actions that impact the social determinants of health—by addressing historical injustices; improving economic security, especially in childhood; improving housing quality, access, and affordability; increasing education and job opportunities; improving access to nutritious foods; and reducing pollution—are critical interventions for decreasing premature death and health inequities.

The following principles should guide policies and actions to eliminate inequities in Alameda County, as aligned with priorities of improving economic security, improving access to health care, and supporting communities free from violence:

- Acknowledge and address specific historical and present-day harms to communities and seek to concretely address them. Examples range from restoring land rights, compensation for losses (including reparations^{xxviii, xxix} and baby bonds^{xxx}), providing universal basic income for people or children with low resources, and using restorative justice to work toward instilling trust in public systems.
- Work across government and society sectors to develop shared analysis of root causes of health challenges and disparities and to co-develop cross-cutting solutions. An example of this is investments in early childhood such as expanded child tax credits, which have been associated with reduced child poverty and food insufficiency.^{xxxi-xxxvi}
- Collect and use disaggregated data to identify gaps by race, ethnicity, sexual orientation, gender identity, and other characteristics and prioritize where and to whom to direct services and resources based on health inequities. This approach to policy making and structural change, known as targeted universalism, sets universal goals while targeting strategies and processes to achieve those goals.
- Engage and partner with communities that are most affected by inequities and center their experience and ideas in the formation of solutions.
- Support additional policies that are critical in the long term to decrease premature death and mortality inequities. These include improving housing access and quality, increasing education and job opportunities, decreasing food insecurity, reducing pollution and exposure to environmental hazards, improving immigration policy, working more closely with community leaders, tribal leaders, and councils, and addressing discrimination.
- Support continued access to culturally affirming health care that is accessible in language, provider type, cost, and time, and that supports both physical and psychosocial needs

In addition to approaches to improving structural equity in Alameda County, policies and programs targeting specific causes of mortality can make a difference. Alameda County experienced a substantial decline in homicide in the decades prior to the COVID-19 pandemic. Resuming or continuing the investments in programs that were successful before the pandemic could continue that decline. Similarly, support for harm reduction programs—that evidence indicates are associated with reduced overdose mortality—may reduce deaths due to unintentional overdose, and improvements to road safety may reduce motor vehicle crash fatalities. Programs to improve screening and management of hypertension, high cholesterol, diabetes, and cancer may also help reduce racial and ethnic disparities in earlier median age of deaths due to heart disease, diabetes, and cancer.

Conclusion

Large disparities in life expectancy and mortality in Alameda County worsened during the COVID-19 pandemic and economic crisis. Many of these persistent disparities reflect historical and continuing policies, laws, and practices. The immediate impact of these disparities illustrated in this report can be partially mitigated by well designed, equity-focused programs and interventions, but these programs should be complemented with policies that seek to address the underlying, root causes of health inequities.

Appendix: Mortality Data Sources and Limitations

There are four data sources for the data included in this report. For Alameda County data, the first data source is the California Department of Public Health (CDPH) Vital Records Business Intelligence System (VRBIS). This gives local health jurisdictions access to their jurisdiction's data on births and deaths that occurred in the state of California. The second source for Alameda County data is births and deaths of Alameda County residents that occurred in other states other and the District of Columbia. This is a more limited set of variables that is supplied through a national system of data exchange. Births and deaths of Alameda County residents that happened outside the country are not included. The third data source is CDC Wonder for mortality in California and the United States from the Centers for Disease Control and Prevention (CDC). The fourth data source is the California Department of Health Care Access and Information (HCAI) patient discharge data files. The California Department of Public Health uses medical diagnoses and billing codes that signify severe maternal morbidity.

We present mutually exclusive categories of race and ethnicity in this report. The data used in this report are collected through a two-question model used by the Census Bureau and separately inquiring about race and ethnicity. We combined these questions to make Hispanic/Latino/a/x a mutually exclusive group and to constrain African American/Black, White, Asian, Pacific Islander, and Native American populations to non-Hispanic/Latino/a/x.

There are limitations to the disaggregation in the data, especially by race and ethnicity. First, the Native American and Pacific Islander populations in Alameda County are relatively small, 4,131 and 13,209 respectively according to Census 2020. To preserve confidentiality and ensure stable rates, it is necessary to combine more years of data for these populations. When there are fewer than ten deaths due to certain causes, we are not able to include these data in the report to maintain confidentiality.

Second, the mortality datasets used in the report do not include racial and ethnic subgroups. There may be differences in overall or cause-specific mortality rates that are impossible to detect without these data. Improving subgroup data collection can help improve detection of disparities to improve population health and equity.

Finally, sexual orientation or gender identity (SO/GI) information is not collected as part of the mortality data used in this report. Similarly, the Census Bureau decennial census data, and all other population datasets built on these data, do not collect SO/GI information. While this is changing, and entities are starting to collect SO/GI data, we do not yet have data on all-cause or cause-specific mortality in these populations. The lack of SO/GI data precludes us from detecting disparities in overall or cause-specific mortality rates relevant to improving population health and equity by SO/GI.

Endnotes

- ⁱ Hill, L., Ndugga, N. , and Artiga, S. (2023, March 15). Key Data on Health and Health Care by Race and Ethnicity. *The Kaiser Family Foundation*. Retrieved from <https://www.kff.org/racial-equity-and-health-policy/report/key-data-on-health-and-health-care-by-race-and-ethnicity/>.
- ⁱⁱ Haro-Ramos, A. Y., & Bacong, A. M. (2023). Disparities in unmet needed paid leave across race, ethnicity and citizenship status among employed Californians: a cross-sectional study. *Public Health*, 221, 97–105. Retrieved from <https://doi.org/10.1016/j.puhe.2023.06.013>.
- ⁱⁱⁱ Bay Area Equity Atlas. *Housing Burden: Nine County Bay Area by Race and Ethnicity*. Retrieved October 30, 2023 from <https://bayareaequityatlas.org/indicators/housing-burden?breakdown=by-race-ethnicity>
- ^{iv} Denney, C. (2021, February 26). Roots of Hunger: A look at current food insecurity in historically redlined neighborhoods *Alameda County Community Food Bank*. Retrieved from <https://www.accfb.org/redlining/>.
- ^v *California Healthy Places Index, Indicator: Neighborhood: Park Access percentile*. Public Health Alliance of Southern California. Retrieved October 30, 2023 from <https://map.healthyplacesindex.org/>.
- ^{vi} Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. (2021). *Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Scores*. Retrieved from <https://oehha.ca.gov/media/downloads/calenviroscreen/document/calenviroscreen40raceanalysisf2021.pdf>.
- ^{vii} Sheats, K. J., Irving, S. M., Mercy, J. A., Simon, T. R., Crosby, A. E., Ford, D. C., Merrick, M. T., Annor, F. B., & Morgan, R. E. (2018). Violence-related disparities experienced by black youth and young adults: Opportunities for prevention. *American Journal of Preventive Medicine*, 55(4), 462–469.
- ^{viii} Kang, S. (2016). Inequality and crime revisited: Effects of local inequality and economic segregation on crime. *Journal of Population Economics*, 29(2), 593–626.
- ^{ix} Alameda County Public Health Department. (2013). *How Place, Racism, and Poverty Matter for Health in Alameda County*. Retrieved from <https://acphd-web-media.s3-us-west-2.amazonaws.com/media/data-reports/fact-sheets-presentations/docs/healthequity.pdf>
- ^x Williams, E. *Capitalism and Slavery*. (1944). The University of North Carolina Press.
- ^{xi} Mintz, S. *Historical Context: Was Slavery the Engine of American Economic Growth?* Gilder Lehrman Institute. Retrieved October 30, 2023 <https://www.gilderlehrman.org/history-resources/teaching-resource/historical-context-was-slavery-engine-american-economic-growth>
- ^{xii} Pfaelzer, J. (2023). *California, a Slave State*. Yale University Press
- ^{xiii} Library of Congress. *Removing Native Americans from their Land* Retrieved October 30, 2023 from <https://www.loc.gov/classroom-materials/immigration/native-american/removing-native-americans-from-their-land/>
- ^{xiv} Brown, D. (1970). *Bury My Heart at Wounded Knee*. Holt, Rinehart & Winston.
- ^{xv} National Archives, Milestone Documents. *Treaty of Guadalupe Hidalgo (1848)*. Retrieved October 30, 2023 from <https://www.archives.gov/milestone-documents/treaty-of-guadalupe-hidalgo>.
- ^{xvi} Equal Justice Initiative. *Lynching In America: Confronting The Legacy Of Racial Terror*. Retrieved October 30, 2023 from <https://lynchinginamerica.eji.org/report/>.
- ^{xvii} Self, R. O. (2005). *American Babylon: Race and the Struggle for Postwar Oakland*. Princeton University Press.
- ^{xviii} Moore, E. Montojo, N. and Mauri, N. (2019, October). *Roots Race and Place: A History of Racially Exclusionary Housing in the San Francisco Bay Area*. Haas Institute for a Fair and Inclusive Society, University of California, Berkeley. Retrieved from https://belonging.berkeley.edu/sites/default/files/haasinstitute_rootsraceplace_oct2019_publish.pdf.

-
- ^{xix} Public Library, City of San Leandro. History of redlining and housing discrimination history in San Leandro. Retrieved from: <https://www.sanleandro.org/1088/What-is-Redlining>
- ^{xx} UC Berkeley's Urban Displacement Project and the California Housing Partnership. (2017). *Rising Housing Costs and Re-Segregation in Alameda County*. Retrieved from https://www.urbandisplacement.org/wp-content/uploads/2021/08/alameda_final.pdf
- ^{xxi} Applied Survey Research. (2022). *2022 Alameda County Homeless Count and Survey Comprehensive Report*. Retrieved from https://homelessness.acgov.org/homelessness-assets/docs/reports/2022-Alameda-County-PIT-Report_9.22.22-FINAL-3.pdf
- ^{xxii} Suthar, A.B., Wang, J., Seffren, V., Wiegand, R.E., Griffing, S., & Zell, E. (2022). Public health impact of COVID-19 vaccines in the US: observational study. *The BMJ*, 377.
- ^{xxiii} Lyu, W. & Wehby, G.L. (2020). Community use of face masks and COVID-19: evidence from a natural experiment of state mandates in the US. *Health Affairs*, 39(8), 1419-1425.
- ^{xxiv} Guy Jr, G. P., Lee, F. C., Sunshine, G., McCord, R., Howard-Williams, M., Kompaniyets, L., Dunphy, C., Gakh, M., Weber, R., Sauber-Schatz, E., Omura, J.D., Massetti, G., and CDC COVID-19 Response Team, Mitigation Policy Analysis Unit, and the CDC Public Health Law Program. (2021). Association of state-issued mask mandates and allowing on-premises restaurant dining with county-level COVID-19 case and death growth rates—United States, March 1–December 31, 2020. *Morbidity and Mortality Weekly Report*, 70(10), 350.
- ^{xxv} Cowger, T. L., Murray, E. J., Clarke, J., Bassett, M. T., Ojikutu, B. O., Sánchez, S. M., Linos, N., & Hall, K. T. (2022). Lifting universal masking in schools—COVID-19 incidence among students and staff. *New England Journal of Medicine*, 387(21), 1935-1946.
- ^{xxvi} Goto, R., Kawachi, I., Kondo, N., & Inoue, K. (2023). Contribution of vaccinations to reducing socioeconomic disparities in COVID-19 deaths across US counties. *Annals of Epidemiology*, 86, 65-71.
- ^{xxvii} Boehmer, T. K., Koumans, E. H., Skillen, E. L., Kappelman, M. D., Carton, T. W., Patel, A., August, E.M., Bernstein, R., Denson, J.L., Draper, C., & Block, J. P. (2022). Racial and ethnic disparities in outpatient treatment of COVID-19—United States, January–July 2022. *Morbidity and Mortality Weekly Report*, 71(43), 1359.
- ^{xxviii} Bassett, Mary T., and Sandro Galea. (2020). "Reparations as a public health priority—a strategy for ending black–white health disparities." *New England Journal of Medicine* 383.22 (2020): 2101-2103.
- ^{xxix} California Reparations Task Force (2023). California Task Force to Study and Develop Reparation Proposals for African Americans. Available at: [Full Report - The California Reparations Report - Final Report - AB 3121 - California Department of Justice](#).
- ^{xxx} Hamilton, D., & Darity Jr, W. (2010). Can 'baby bonds' eliminate the racial wealth gap in putative post-racial America?. *The Review of Black Political Economy*, 37(3-4), 207-216.
- ^{xxxi} Zachary Parolin, Sophie Collyer, and Megan A. Curran. (2022). "Sixth Child Tax Credit Payment Kept 3.7 Million Children Out of Poverty in December." Poverty and Social Policy Brief. Vol. 6, No.1. Center on Poverty and Social Policy, Columbia University. Available at: <https://www.povertycenter.columbia.edu/publication/monthly-poverty-december-2021>
- ^{xxxii} Shafer, P. R., Gutiérrez, K. M., De Cuba, S. E., Bovell-Ammon, A., & Raifman, J. (2022). Association of the implementation of child tax credit advance payments with food insufficiency in US households. *JAMA network open*, 5(1), e2143296-e2143296.
- ^{xxxiii} Bovell-Ammon, A., McCann, N. C., Mulugeta, M., de Cuba, S. E., Raifman, J., & Shafer, P. (2022). Association of the expiration of child tax credit advance payments with food insufficiency in US households. *JAMA Network Open*, 5(10), e2234438-e2234438.
- ^{xxxiv} Ruffini, K. (2023). Does Unconditional Cash during Pregnancy Affect Infant Health?. Available at SSRN 4404319.

^{xxxv} Karpman, M., Maag, E., Kenney, G. M., & Wissoker, D. A. (2021). Who Has Received Advance Child Tax Credit Payments, and How Were the Payments Used?. *Washington, DC: Urban Institute*.

^{xxxvi} Garfinkel, I., Sariscsany, L., Ananat, E., Collyer, S. M., Hartley, R. P., Wang, B., & Wimer, C. (2022). *The Benefits and Costs of a US Child Allowance* (No. w29854). National Bureau of Economic Research.