



# **Alameda County 2018-2020 Homeless Mortality Report**

**Alameda County Health Care Services Agency  
Health Care for the Homeless Program  
Community Assessment, Planning, and Evaluation**





Alameda County  
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**Acknowledgements**

This report was produced by the Alameda County Health Care Services Agency's Health Care for the Homeless (HCH) program and Community Assessment, Planning and Evaluation (CAPE) unit. Matt Beyers and Yilak Fantaye, CAPE, provided epidemiological direction and guidance. David Modersbach, HCH, provided analysis, content, and writing. Special thanks to Wilma Lozada, HCH, for records review, and all of the community partners who supported this effort.

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Alameda County Health Care for the Homeless program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$4,064,392 and other non-federal funding sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit [www.HRSA.gov](http://www.HRSA.gov).

**Original Cover Art by: Inti Gonzalez** <http://intigonzaalez.com/>

This report is available online at

<https://www.achch.org/alameda-county-homeless-mortality.html>

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## Executive Summary

A responsible and just community must work to be closely aware of the deaths of all its members, strive to learn from those deaths, implement policies and practices to reduce preventable deaths, and work to reduce the harm that preventable deaths create for families, friends, caregivers, and the community. A just community will look at the places and moments of death and ensure that people who die do not die alone and experience death in as peaceful a manner as possible.

The Alameda County Health Care Services Agency's Health Care for the Homeless (HCH) program and Public Health Department Community Assessment, Planning, and Evaluation (CAPE) unit carried out Alameda County's first-ever homeless mortality report, a retrospective report on homeless deaths from 2018 to 2020.

This innovative report is based on identification of homeless deaths through data matching across homeless services utilization lists, community reporters and California Comprehensive Death File (CCDF) records in the California Vital Records Business Information System.

Because of the methods used, Alameda County's homeless death numbers will appear higher than those of other localities that rely solely on Medical Examiner/Coroner's reports of homeless deaths.

### Key Findings in the 2018-2020 Alameda County Homeless Mortality Report

Between 2018 and 2020, 809 people in Alameda County died while experiencing homelessness. The number of annual homeless deaths grew considerably larger between 2018 and 2020.

Year	Known to be homeless at time of death	Homeless within 5 years of death, but housed at time of death	Homeless within 5 years of death, but unknown housing status at death
2018	195	57	189
2019	246	91	198
2020	368	102	211
<b>Total</b>	<b>809</b>	<b>250</b>	<b>598</b>

**Unattended Deaths:** Fifty-seven percent (450 out of 809) of all homeless deaths took place outside of a medical setting (i.e., hospital or nursing facility), occurring on streets/sidewalks, outdoors, in vehicles, encampments, shelters, other's residences and other locations. Forty-two percent of deaths due to acute/chronic disease-related occurred in non-medical settings.

**Disparities in Ethnicity & Gender:** African American/Black persons represent 41% of total homeless deaths, compared to 19% of general population deaths. Men represent 76.9% of homeless deaths, compared to 51.4% of general population deaths.

**Death Rates by Cause of Death:** The age-adjusted mortality rate for people experiencing homelessness in Alameda County in 2018-2020 was 4.4 times higher than that of the general population of Alameda County, and most of the causes of death are many times higher for people experiencing homelessness than the general population.

### ***Causes of Death***

- **Overdose:** Twenty-five percent of homeless deaths between 2018 and 2020 (94) were directly due to drug overdose, with the number of overdoses among people experiencing homelessness rising sharply in 2020. Seventy percent of overdose deaths took place in outdoor settings.

<b>Drug Overdose Deaths 2018-2020</b>		
<b>Year</b>	<b>Count</b>	<b>Percentage</b>
2018	35	17.2%
2019	61	24.7%
2020	94	25.6%

- **Acute/chronic medical condition causes of death:** Half of the homeless deaths from 2018-2020 (403) were due to acute/chronic medical conditions, led by heart and cardiovascular disease, and followed by cancer, liver disease, cerebrovascular disease, respiratory disease, and others. 41.8% of these acute/chronic disease-related deaths occurred **outside of medical/clinical settings**.
- **Accidental injuries** accounted for 82 (10%) homeless deaths, the large majority being pedestrians and cyclists hit by automobiles, trains, and automobile transit-related deaths.
- **Homicide** accounted for 59 deaths of people experiencing homelessness, mostly due to shootings and stabbings taking place in street and outdoors.
- **Suicide:** Thirty-five people experiencing homelessness took their own lives between 2018 and 2020.
- **Shelter residents:** At least 61 persons residing in homeless shelters died between 2018-2020. Sixty percent died of acute/chronic diseases, 31% of overdoses, and 8% of suicide or accident.
- **Encampments:** At least 50 people died in homeless encampments between 2018 and 2020. Sixty-two percent died of drug overdoses, 24% of acute/chronic diseases, 10% of homicide, and 4% died of other causes including fire and exposure.
- **COVID:** COVID-19 was the cause of death for six persons experiencing homelessness in 2020. One shelter resident died of COVID in 2020, the remainder were unsheltered, living in hotels, or had an unknown housing status.

## **Next Steps**

This first Alameda County homeless mortality report focuses on data and accurately enumerates deaths among our unhoused communities. To advance this work, we plan to convene a Community Homeless Mortality Task Force to further analyze these data, inform the development of future mortality reports, and make recommendations to reduce preventable deaths among people experiencing homelessness. If you or your organization are interested in learning more, please reach out to [achch@acgov.org](mailto:achch@acgov.org).

## Introduction

The experience of homelessness has well-documented long-term consequences on people's health and well-being.

A responsible and just community must work to be closely aware of the deaths of all its members, strive to learn from those deaths, implement policies and practices to reduce preventable deaths, and work to reduce the harm that preventable deaths create for families, friends, caregivers, and the community. A just community will look at the places and moments of death and ensure that people who die do not die alone and experience death in as peaceful a manner as possible.

This review marks the first attempt by Alameda County to carry out an accurate reporting and review of the deaths of County residents experiencing homelessness. This initiative is joint work of the Alameda County Health Care Services Agency's Health Care for the Homeless program and Community Assessment, Planning, and Evaluation unit. It also reflects collaboration and partnership with numerous community, city, and County partners.

Our intention is that this first retrospective homeless mortality report, encompassing the years 2018-2020, will be followed by regular mortality reports and review processes that can grow to include the multiple agencies, as well as the community of providers and residents who support the health and wellbeing of people experiencing homelessness.

We plan to convene a Community Homeless Mortality Task Force to further analyze these data, inform the development of future mortality reports, and make recommendations to reduce preventable deaths among people experiencing homelessness.

Across the country, more and more localities are working to carry out homeless mortality reporting and review, to bring attention and analysis on a national level to the impacts of homelessness on health and mortality and improve health care interventions as well as end-of-life services for the most vulnerable in our society.

We are proud to be part of the National Health Care for the Homeless Council and the Homeless Mortality Working Group which has been instrumental in this effort, and you can review national efforts at [www.nhchc.org/homeless-mortality](http://www.nhchc.org/homeless-mortality).

## Methods

All local health jurisdictions across the country have systems for review and determination of death, generally reporting death data to their state health department. Generally, a county or local jurisdiction will have one of two structures for evaluating deaths:

1. **Medical Examiner:** County-appointed office led by a physician, carrying out a variety of mortality-related services including analysis and review of deaths in a community.
2. **Coroner's Office:** Law enforcement-based office, carrying out investigation of suspicious or unattended deaths under supervision of Sheriff, a position held or appointed by an elected Coroner/Sheriff, with no minimum medical training requirements.

Alameda County has a Coroner's Office, with the coroner appointed and supervised by the Alameda County Sheriff's Office. The Coroner's Office generally only investigates and reports deaths that are either unattended (taking place outside of a hospital or other clinical setting such as nursing facility) or suspicious in nature. Additionally, the Coroner may not have access to the records of homeless deaths by "natural" causes taking place in a hospital or medical facility. Most communities that carry out a homeless mortality review do so with death data provided through cooperation and efforts of their local Coroner or Medical Examiner. See the Appendix for a list of recent homeless mortality reports from neighboring jurisdictions.

Alameda County HCSA's approach to identifying homeless deaths utilizes a comprehensive range of data sources traditionally not used for mortality reviews. We used the state's California Comprehensive Death Files from Vital Records Business Information System (VRBIS) alongside multiple countywide sources of homelessness-related data and mortality reports to arrive at an accurate and comprehensive accounting of the deaths of county residents who have died in homelessness. By applying this approach, a higher number of homeless deaths are identified.

Our method of determining homeless deaths was based on cross-systems data matching to determine homelessness at time of death, evaluating cause of death, and comparing mortality rates across the Alameda County general population and people dying in homelessness. In the following pages, we break out total homeless deaths by geography and place, decedent demographics, and underlying health conditions and cause of death.

### Determining Homelessness at Time of Death

- **Data matching:** We used local homeless services utilization data to build a master list of people known to have experienced homelessness in the past five years.
  - Key data included:
    - **Homeless Management Information System (HMIS):** 30,000+ homeless services utilization records for past five years in Alameda County.
    - **Coordinated Entry System (CES) By-Name List:** 15,741 names of persons assessed for Alameda County Coordinated Entry System.
    - **Health Care for the Homeless utilization:** 28,751 utilizers of HCH services between 2017-2020.



- We compared these lists of people known to be experiencing homelessness against the California Comprehensive Death Files to find matches.
- **California Comprehensive Deaths Files (CCDF) review:** Staff reviewed state death records data for information on homeless status inputted by physicians, medical examiners/coroner, or funeral home staff. For example, the words “homeless,” “encampment,” “transient,” etc., may indicate homelessness. We support efforts underway at the California Department of Public Health to have homelessness status added as a field in death records.
- **Community reporters:** We received reports of homeless deaths from:
  - Coroner’s Office: 380 names of decedents labeled as transient (not all homeless).
  - UCSF HOPE/HOME study: 88 deaths registered in ongoing study of aging Oaklanders experiencing homelessness.
  - Community reporters: 112 deaths reported to ACHCH over past years through community reports and the [ACHCH Homeless Mortality Reporting](#) form.
  - Santa Rita Jail list of homeless deaths.
  - Project Roomkey reports of resident deaths in COVID isolation and Safer Ground housing 2020-2021.
  - Review of media reports of homeless deaths.
- **Determining homeless status:** ACHCH and CAPE staff carried out close analysis of each possible homeless death, including review of HMIS notes and records where possible, and used the HUD definition of “literally homeless” to determine housing status at time of death, producing the following categories:
  - **Homeless at time of death**
    - We used the [HUD definition of homelessness](#), and included persons known to be experiencing homelessness but who were hospitalized or in a nursing facility at time of death.
  - **Recent (less than 5 years) history of homelessness, but housed at time of death**
    - This includes persons known to be housed in permanent supportive housing or in other permanent housing at time of death.
  - **Recent (less than 5 years) history of homelessness, unknown housing status at time of death**
    - This includes persons who may have been doubled-up, precariously housed or permanently housed or even literally homeless at time of death, but not enough information was available to determine homeless status.

## Evaluating Cause of Death

- **Underlying cause of death**
  - Staff reviewed the ICD-10 codes, the Underlying Cause of Death diagnosis code, in the underlying cause of death field in the CCDF and categorized them.
- **Location of death**
  - Staff evaluated the CCDF information for location of injury or location of death and determined location of death for people experiencing homelessness, such as

streets, encampment, hospital, nursing facility, vehicle, another's residence, shelter, or outdoors, based on CCDF information.

- **Contributing causes of death**

- Staff reviewed CCDF data to analyze the contributing causes of death (such as alcohol, drug use, or mental illness) which may or may not have been input into the records via the state's Electronic Death Registration System as reflected in the CCDF.

## **Death and Mortality Rates**

For this homeless mortality report, we used the same categories of underlying cause of death to calculate mortality rates among both those experiencing homelessness and the full Alameda County population. To accurately calculate the age-adjusted mortality rate, the population-years at risk is needed as a denominator. The population-years at risk can be thought of as the average number of people in the population over a specified period. To arrive at the average number of people experiencing homelessness between 2018 and 2020, we generated an unduplicated list of literally homeless persons who used County HMIS services in 2018-2020 and adjusted that number up to account for people experiencing homelessness who did not use homeless services. This estimated number of people experiencing homelessness on an average day between 2018 and 2020 – 9,100 persons – was used to generate overall and cause-specific mortality rates among people experiencing homelessness and to directly compare to the general population of Alameda County during that period. A mortality rate ratio divides the two age-adjusted rates.

## **What is Missing from This Report?**

By using data matching in future efforts, we can get a better idea of who is and isn't utilizing systems and learn more about mortality among certain segments of the population:

- **Additional Coroner's data:** We were not able to systematically access some Alameda County Coroner's Office data and notes (for example toxicology reports on overdoses) for deaths investigated by that office.
- **Additional homeless services utilization data:** It is critical to review utilization of various homelessness services to get a better idea of circumstances leading to death, and opportunities to prevent death. Examples of utilization data sources we want to incorporate in the future are itemized in Chapter 10.

Our goal is to continue to work to bring together the above providers and data systems to enable better homeless mortality reporting and utilization analysis in the future.

## All Deaths: Characteristics of Deaths

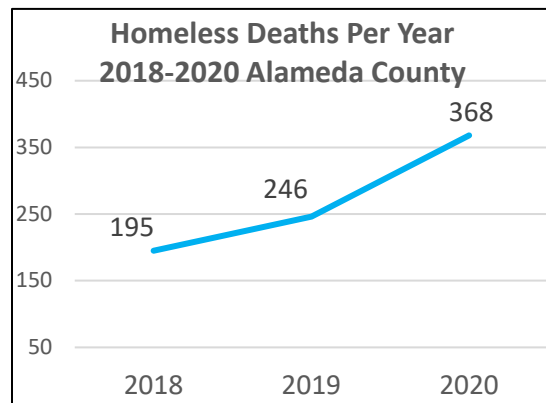
In 2018-2020, 809 people died while experiencing homelessness in Alameda County. An additional 250 persons known to be housed after the recent experience of homelessness died during this period. The analysis also revealed that some 598 persons with recent experience of homelessness, but with unknown housing status at the time of death, died.

Alameda County Homeless Mortality, 2018-2020	
809	People determined to have died while experiencing literal homelessness.
250	People with recent (<5 year) experience of homelessness but determined to be housed at the time of death.
598	Persons with recent (<5 year) experience of homelessness but with unknown housing status at time of death.
1,675	Total deaths of persons with immediate or recent experience of homelessness.

Most of the following analysis of homeless causes of death will be focused on the 809 persons who are known to have died in homelessness in Alameda County during 2018-2020.

The 809 deaths of Alameda County residents experiencing homelessness equal an age-adjusted homeless death rate of 2,366.1 per 100,000, compared to the general population of Alameda County (537.7/100,000). This means that persons experiencing homelessness have an age-adjusted **mortality rate ratio of 4.4 times that of the general population.**

The number of homeless deaths increased by 88.7% from 2018 to 2020.



	2018	2019	2020
Homeless Deaths	195	246	368

### Homeless Deaths by Region

Year	Berkeley/ Albany	Oakland/ Emeryville	Mid-County: Hayward, Alameda, San Leandro, San Lorenzo, Castro Valley	South County: Fremont, Newark, Union City	Tri-Valley: Dublin, Pleasanton, Livermore
2018	19	102	49	16	9
2019	18	141	55	18	14
2020	25	215	84	26	17
Total	62	458	188	60	40

## Homeless Deaths by City/Place

City/Place	Count	Percentage
Oakland	452	55.9%
Hayward	83	10.3%
Berkeley	60	7.4%
Fremont	46	5.7%
Castro Valley	44	5.4%
San Leandro	40	4.9%
Pleasanton	17	2.1%
Alameda	14	1.7%
Dublin	12	1.5%
Livermore	11	1.4%
Newark	8	1.0%
San Lorenzo	7	0.9%
Emeryville	7	0.9%
Union City	6	0.7%
Albany	2	0.2%
<b>Total</b>	<b>809</b>	<b>100.0%</b>

In addition to the 809 Alameda County homeless deaths, 42 Alameda County residents died in California counties outside of Alameda County. These deaths are evaluated in the [Deaths By Region](#) section of this report.

Homeless Deaths outside of Alameda County	Count
San Francisco	15
San Jose	3
Richmond	3
Walnut Creek	2
Modesto	2
16 California cities with one death each	17
<b>Total</b>	<b>42</b>

## General Causes of Death

Below are the general causes of death for the 809 persons who passed away while experiencing homelessness in Alameda County in 2018-2020. Each of these general causes of death will be discussed in further detail in later chapters:

Cause of Death	2018	2019	2020	2018-2020	Percentage
Acute/chronic disease	99	119	186	403	49.9%
Substance abuse and overdose	49	76	104	229	28.3%
Accidental injury	21	27	34	82	10.1%
Homicide	16	15	28	59	7.3%
Suicide	10	9	16	35	4.3%
<b>Total</b>	<b>195</b>	<b>246</b>	<b>368</b>	<b>809</b>	<b>100.0%</b>

### Underlying Causes of Death

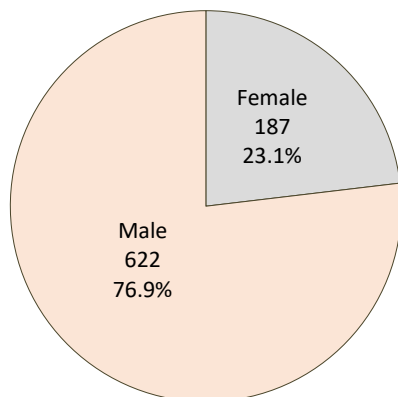
Underlying Cause of Death is a manner of classifying the specific cause of death type, including categories of disease and accident type. Below is the underlying cause of death for the 809 persons who passed away in homelessness 2018-2020:

Underlying Cause of Death	2018	2019	2020	2018-2020	Percentage
Unintentional overdose	35	61	95	191	23.6%
Heart disease	40	34	42	116	14.3%
All other diseases	17	24	43	83	10.4%
Homicide	16	15	28	59	7.3%
Cancer (malignant neoplasms)	15	18	16	49	6.1%
Chronic liver disease/cirrhosis	11	13	23	47	5.8%
Suicide	10	9	16	35	4.3%
All other unintentional injuries	9	11	14	24	4.2%
Unintentional or undetermined intent pedestrian or bike crash	7	11	15	33	4.1%
Cerebrovascular disease	4	7	13	24	3.0%
CLRD (chronic lower respiratory disease)	2	9	10	21	2.6%
Sequelae of drug abuse & dependence	5	8	5	18	2.2%
R99 (ill-defined and unknown cause of mortality)	4	5	8	17	2.1%
Other communicable diseases	1	4	11	16	2.0%
Unintentional or undetermined intent struck by train	4	4	4	12	1.5%
Alcohol overdose	5	4	3	12	1.5%
Diabetes, metabolic	3	1	7	11	1.4%
Sequelae of alcohol abuse/dependence	4	3	2	9	1.1%
Hypertensive renal disease/essential hypertension	1	3	3	7	0.9%
COVID			6	6	0.7%
HIV	1	1	3	5	0.6%
Exposure	1	1	1	3	0.4%
<b>Total</b>	<b>195</b>	<b>246</b>	<b>368</b>	<b>809</b>	<b>100.0%</b>



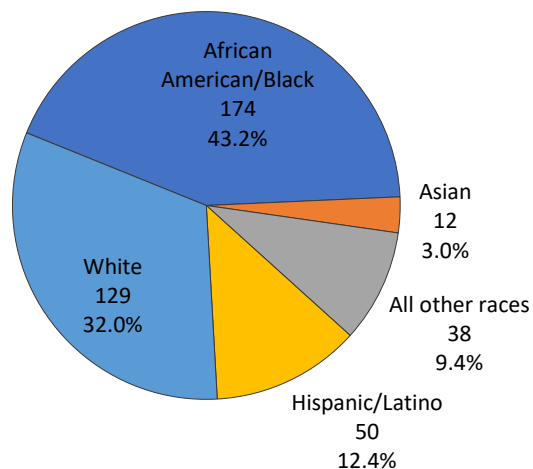
## Demographics of Homeless Deaths

**Sex of Homeless Deaths**



- The county population is 49% male and 51% female (2021).
- The population of people experiencing homelessness is 61% male and 35% female (2019 PITC).
- County deaths in 2018-2020 were 51% male, 49% female.

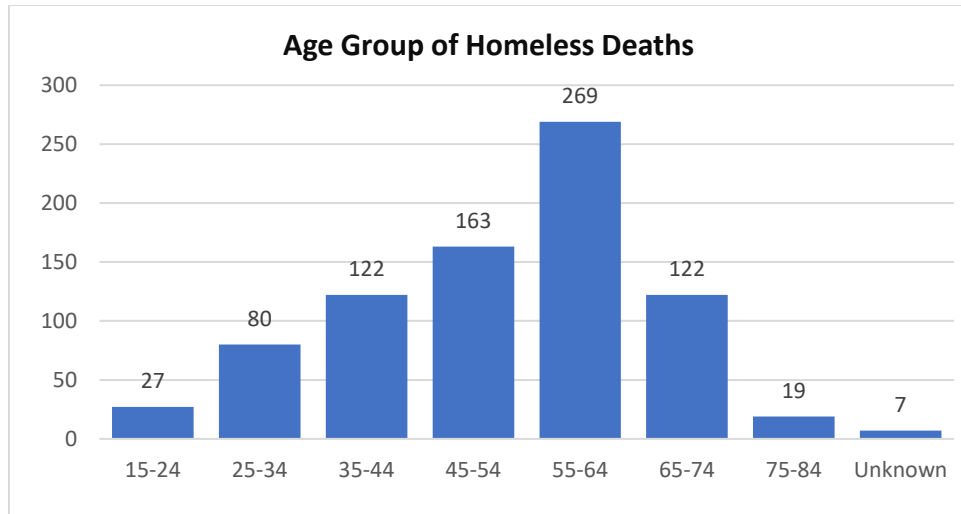
**Race/Ethnicity of Homeless Deaths**



- The county population is 10% African American/Black; 39% White; 32% Asian; 23% Hispanic/Latino; and 19% all other.
- The population of people experiencing homelessness is 47% African American/Black; 31% White; 17% Hispanic/Latino; 2% Asian, and 20% all other (2019 PITC).
- County deaths in 2018-2020 deaths were 10% African American/Black; 47% White; 19% Asian; 12% Hispanic/Latino; 3% all other.

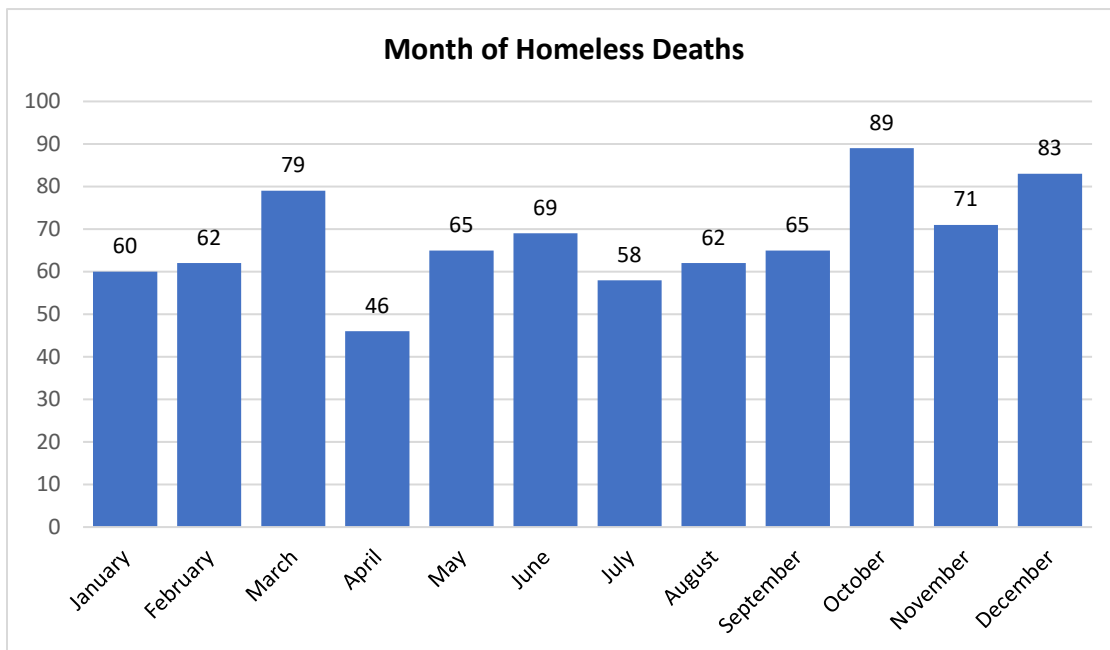
We were unable to categorize homeless deaths by sexual orientation or gender identity as this information is unavailable in death records.

The average age of death of people experiencing homelessness 2018-2020 was 52.3 years, as compared to the Alameda County general population average age of death of 75 years.



### Deaths by Month and Season

There does not appear to be a strong correlation between seasons and numbers of deaths. Almost exactly half of deaths occurred between November-April (401) and between May-October (408).



## Deaths by Region

### Berkeley/Albany

Between 2018 and 2020, 62 people experiencing homelessness died in Berkeley and Albany.

Homeless Deaths in Berkeley-Albany 2018-2020		Count	Percentage
City/place	Albany	2	3.2%
	Berkeley	60	96.8%
Year	2018	19	30.6%
	2019	18	29.0%
	2020	25	40.3%
Cause of death	Acute/chronic disease	27	43.5%
	Substance abuse and overdose	21	33.9%
	Accidental injury	10	16.1%
	Suicide	3	4.8%
	Homicide	1	1.6%
Gender	Female	19	30.6%
	Male	43	69.4%
Race/ethnicity	African American/Black	28	45.2%
	White	20	32.3%
	All other races	8	12.9%
	Hispanic/Latino	5	8.1%
	Asian	1	1.6%
Location of death/injury	Outdoors	16	25.8%
	Hospital	12	19.4%
	Street/sidewalk	9	14.5%
	Other's residence	5	8.1%
	Encampment	4	6.5%
	Railroad	4	6.5%
	Nursing facility	3	4.8%
	Vehicle	3	4.8%
	Unknown	3	4.8%
	Shelter	2	3.2%
	Public transit	1	1.6%
Total		62	100%

## Oakland/Emeryville

Between 2018 and 2020, 459 people experiencing homelessness died in Oakland and Emeryville.

Homeless Deaths in Oakland-Emeryville 2018-2020		Count	Percentage
City/place	Emeryville	7	1.5%
	Oakland	452	98.5%
Year	2018	102	22.3%
	2019	141	30.8%
	2020	216	46.9%
Cause of death	Acute/chronic disease	214	46.7%
	Substance abuse and overdose	146	31.7%
	Homicide	46	10.0%
	Accidental injury	39	8.5%
	Suicide	14	3.1%
Gender	Female	111	24.2%
	Male	348	75.8%
Race/ethnicity	African American/Black	253	55.2%
	White	97	21.2%
	Hispanic/Latino	59	12.9%
	All other races	40	8.5%
	Asian	10	2.2%
Location of death/injury	Hospital	120	26.2%
	Street/sidewalk	96	21.0%
	Vehicle	48	10.5%
	Outdoors	42	18.3%
	Other's residence	31	6.8%
	Shelter	28	6.1%
	Encampment	26	5.7%
	Nursing facility	18	3.9%
	Unknown	17	3.7%
	Motel	13	2.8%
	Public transit	9	1.7%
	Road accident	8	1.7%
	Railroad	3	0.7%

<b>Total</b>		<b>459</b>	<b>100.0%</b>
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### Mid-County (Hayward, Alameda, San Leandro, San Lorenzo, Castro Valley)

Between 2018 and 2020, 188 people experiencing homelessness died in Hayward, Alameda, San Leandro, San Lorenzo, and Castro Valley.

Homeless Deaths in Mid-County 2018-2020		Count	Percentage
City/place	Hayward	83	44.1%
	Castro Valley	44	23.4%
	San Leandro	40	21.3%
	Alameda	14	7.4%
	San Lorenzo	7	3.7%
Year	2018	49	26.1%
	2019	55	29.3%
	2020	84	44.7%
Cause of death	Acute/chronic disease	108	57.4%
	Substance abuse and overdose	41	21.8%
	Accidental injury	22	11.7%
	Homicide	10	5.3%
	Suicide	7	3.7%
Gender	Female	41	21.8%
	Male	147	78.2%
	Unknown	0	0.0%
Race/ethnicity	White	91	48.4%
	African American/Black	43	22.9%
	Hispanic/Latino	34	18.1%
	All other races	12	6.4%
	Asian	8	4.3%
Location of death/injury	Hospital	62	33.0%
	Street/sidewalk	24	12.8%
	Nursing facility	17	9.0%
	Encampment	13	6.9%
	Other's residence	12	6.4%
	Outdoors	12	6.4%
	Railroad	11	5.9%
	Motel	8	4.3%
	Vehicle	8	4.3%



	Unknown	8	4.3%
	Road accident	5	2.7%
	Jail	4	4.3%
	Public transit	2	1.1%
	Shelter	2	1.1%
<b>Total</b>		<b>188</b>	<b>100.0%</b>

### South County (Fremont, Newark, Union City)

Between 2018 and 2020, 60 people experiencing homelessness died in Fremont, Newark, and Union City.

Homeless Deaths in South County 2018-2020		Count	Percentage
City/place	Fremont	46	76.7%
	Newark	8	13.3%
	Union City	6	10.0%
Year	2018	16	26.7%
	2019	18	30.0%
	2020	26	43.3%
Cause of death	Acute/chronic disease	34	56.7%
	Substance abuse and overdose	13	21.7%
	Accidental injury	7	11.7%
	Suicide	6	10.0%
Gender	Female	10	16.7%
	Male	50	83.3%
Race/ethnicity	African American/Black	3	5.0%
	White	36	60.0%
	Hispanic/Latino	12	20.0%
	All other races	6	10.0%
	Asian	3	5.0%
Location of death/injury	Encampment	2	3.3%
	Hospital	19	31.7%
	Street/sidewalk	9	15.0%
	Other's residence	7	11.7%
	Motel	5	8.3%
	Outdoors	5	8.3%
	Vehicle	5	8.3%
	Public transit	3	5.0%
	Railroad	3	5.0%

	Nursing facility	1	1.7%
	Unknown	1	1.7%
<b>Total</b>		<b>60</b>	<b>100.0%</b>

### Tri-Valley (Dublin, Pleasanton, Livermore)

Between 2018 and 2020, 40 people experiencing homelessness died in Pleasanton, Livermore and Dublin. This includes 14 persons who died at Santa Rita Jail.

Homeless Deaths in Tri-Valley 2018-2020		Count	Percentage
City/place	Dublin	12	30.0%
	Livermore	11	27.5%
	Pleasanton	17	42.5%
Year	2018	9	22.5%
	2019	14	35.0%
	2020	17	42.5%
Cause of death	Acute/chronic disease	20	50.0%
	Substance abuse and overdose	9	22.5%
	Suicide	5	12.5%
	Accidental injury	4	10.0%
	Homicide	2	5.0%
Gender	Female	6	15.0%
	Male	34	85.0%
Race/ethnicity	White	23	57.5%
	Hispanic/Latino	8	20.0%
	African American/Black	6	15.0%
	Asian	2	5.0%
	All other races	1	2.5%
Location of death/injury	Jail	14	70.0%
	Outdoors	8	20.0%
	Encampment	4	10.0%
	Nursing facility	3	7.5%
	Street/sidewalk	3	7.5%
	Hospital	2	5.0%
	Other's residence	2	5.0%

	Public transit	1	2.5%
	Railroad	1	2.5%
	Vehicle	1	2.5%
	Unknown	1	2.5%
<b>Total</b>		<b>40</b>	<b>100.0%</b>

## Homeless Deaths Outside of Alameda County

By comparing homeless services utilization data from Alameda County against the CCDF data, we reviewed deaths of 42 people experiencing homelessness who were Alameda County residents, but who died, in homelessness, in other California counties between 2018 and 2020.

Homeless Deaths Outside of Alameda County 2018-2020		Count	Percentage
Location of death/injury	Streets/sidewalk	8	19.0%
	Hospital	7	16.7%
	Other's residence	6	14.3%
	Motel	5	11.9%
	Outdoors	5	11.9%
	Railroad	4	9.5%
	Jail	1	2.4%
	Public transit	1	2.4%
	Road accident	1	2.4%
	Shelter	1	2.4%
	Nursing facility	1	2.4%
	Vehicle	1	2.4%
	Unknown	1	2.4%
Year	2018	8	19.0%
	2019	14	33.3%
	2020	20	47.6%
Gender	Male	30	71.4%
	Female	12	28.6%
Race/ethnicity	White	16	38.1%
	African American/Black	16	38.1%
	Hispanic/Latino	5	11.9%
	All Other Races	5	11.9%
	Asian	0	0.0%

City	San Francisco	15	35.7%
	Richmond	3	7.1%
	San Jose	3	7.1%
	Modesto	2	4.8%
	Walnut Creek	2	4.8%
	Antioch, Chico, Concord, Daly City, Delano, Fairfield, Los Angeles, McKinleyville, Menlo Park, Milpitas, Rancho Cordova, Rio Vista, San Bernardino, San Pablo, Santa Cruz, Suisun City, Vallejo	16 (1 each)	2.4%
<b>Total</b>		<b>42</b>	<b>100.0%</b>

## Shelter and Encampment Deaths

### Shelter Residents

Analysis of CCDF records, HMIS notes, and community reports determined that 61 persons noted as living in homeless shelters or programs died in Alameda County between 2018 and 2020. Thirty-three of these deaths were determined to have taken place in a shelter or transitional housing program. Twenty-two of these deaths occurred in a hospital, and nine deaths of shelter residents took place outdoors (streets, park, vehicle, camp).

Cause of Death: Shelter Residents	Count	Percentage
Acute/chronic disease	37	60.7%
Substance abuse and overdose	19	31.1%
Suicide	3	4.9%
Accidental injury	2	3.3%
<b>Total</b>	<b>61</b>	<b>100.0%</b>

### Encampment Deaths

We were not able to determine mortality outcomes among those who were living in unsheltered/encampment settings as it was not feasible to determine people's exact homeless location at time of death. In CCDF notes, descriptors for unsheltered settings such as camp, tents, streets were used interchangeably, and encampments were rarely entered as a decedent's home address. However, we reviewed the deaths of 49 Alameda County residents who were specified in CCDF as having died at an encampment setting.

Cause of Death: Encampment Deaths	Count	Percentage
Substance abuse and overdose	31	63.3%
Acute/chronic disease	12	24.5%
Homicide	4	8.2%
Accidental injury	2	4.1%
<b>Total</b>	<b>49</b>	<b>100.0%</b>

## Unattended Deaths

Of the 809 deaths of people experiencing homelessness in Alameda County in 2018-2020, 359 people (44.3%) died in a hospital or nursing facility. This means that overall, 450 deaths (55.7%) occurred either unattended or with first responders in the case of traumatic death (accident, homicide, suicide, overdose). Below are unattended homeless deaths by cause of death.

Cause of Death: Unattended Homeless Deaths	Count	Percentage
Unintentional overdose	190	34.4%
Heart disease	65	11.8%



Homicide	59	10.7%
Suicide	35	6.3%
Unintentional or undetermined intent pedestrian or bike crash	33	6.0%
All other unintentional injuries	29	5.3%
All other diseases	24	4.3%
Chronic liver disease/cirrhosis	22	4.0%
R99 (Ill-defined and unknown cause of mortality)	17	3.1%
CLRD (chronic lower respiratory disease)	12	2.2%
Unintentional or undetermined intent struck by train	12	2.2%
Alcohol overdose	12	2.2%
Sequelae of alcohol abuse & dependence	8	1.4%
Cerebrovascular disease	7	1.3%
Cancer (malignant neoplasms)	6	1.1%
Sequelae of drug abuse & dependence	6	1.1%
Diabetes, metabolic diseases	6	1.1%
All other injuries	5	0.9%
Exposure	3	0.5%
Hypertensive renal disease/essential hypertension	1	0.2%
<b>Total</b>	<b>552</b>	<b>100.0%</b>

Note: The above chart includes 102 deaths by injury, homicide/suicide, or overdose that occurred in the field, but were pronounced dead at emergency departments or hospitals.

#### Location of Unattended Homeless Deaths by General Cause of Death

Death Location Type	Count	Percentage	Substance Abuse and Overdose	Acute Chronic Disease	Accident	Homicide	Suicide
Streets/sidewalk	141	25.5%	29.1%	17.0%	24.8%	24.1%	5.0%
Outdoors	83	15.0%	34.9%	41.0%	10.8%	10.8%	2.4%
Vehicle	65	11.8%	44.6%	43.1%	7.7%	1.5%	3.1%
Other's residence	57	10.3%	45.6%	36.8%	3.5%	3.5%	10.5%
Encampment	49	8.9%	63.3%	24.5%	4.1%	8.2%	0.0%
Shelter	32	5.8%	40.6%	53.1%	3.1%	0.0%	3.1%
Unknown	30	5.4%	86.7%	10.0%	3.3%	0.0%	0.0%
Motel	26	4.7%	38.5%	42.3%	0.0%	3.8%	15.4%
Railroad	22	4.0%	4.5%	0.0%	68.2%	9.1%	18.2%
Jail	18	3.3%	16.7%	33.3%	5.6%	16.7%	27.8%
Public transit	16	2.9%	37.5%	25.0%	0.0%	12.5%	25.0%
Road accident	13	2.4%	7.7%	0.0%	84.6%	7.7%	0.0%
<b>Total</b>	<b>552</b>	<b>100.0%</b>	<b>39.1%</b>	<b>29.0%</b>	<b>14.9%</b>	<b>10.7%</b>	<b>6.3%</b>

### City/Place of Unattended Homeless Deaths

City/Place: Unattended Deaths	Count	Percentage
Oakland	314	56.9%
Hayward	50	9.1%
Berkeley	45	8.2%
San Leandro	28	5.1%
Fremont	26	4.7%
Castro Valley	18	3.3%
Pleasanton	15	2.7%
Dublin	12	2.2%
Newark	8	1.4%
Livermore	8	1.4%
San Lorenzo	7	1.3%
Emeryville	7	1.3%
Alameda	6	1.1%
Union City	6	1.1%
Albany	2	0.4%
<b>Total</b>	<b>552</b>	<b>100.0%</b>

### Demographics of Unattended Homeless Deaths

Of the literally homeless who died in an unattended setting (not within a medical facility, hospital, or nursing center):

- **Sex:** 81% were men, 19% were women.
- **Race:** African American/Black 40%, White 34%, Hispanic/Latino 16%; Asian 3%; other 7%.
- **Age:** Average age of death is 50 years. 17% under age 35; 20% 35-54 years; 11% 55 years or older.

### Unattended Deaths: Acute/Chronic Disease

Where cause of death was acute/chronic disease, 41.8% of these deaths were unattended. In 2018-2020, 173 people experiencing homelessness died of acute/chronic disease in unattended settings. Among unattended acute/chronic disease deaths, 80% were men, average age was 57 years.

Cause of Death: Unattended Acute/Chronic Deaths	Count	Percentage
Heart disease	65	37.6%
All other diseases	24	13.9%
Chronic liver disease/cirrhosis	22	12.7%
R99 (ill-defined and unknown cause of mortality)	17	9.8%
CLRD (chronic lower respiratory disease)	12	6.9%

Sequelae of alcohol abuse & dependence	7	4.0%
Cerebrovascular disease	7	4.0%
Sequelae of drug abuse & dependence	6	3.5%
Cancer (malignant neoplasms)	6	3.5%
Diabetes, metabolic	6	3.5%
Hypertensive renal disease/essential hypertension	1	0.6%
<b>Total</b>	<b>173</b>	<b>100.0%</b>

<b>Location of Death: Unattended Acute/Chronic Deaths</b>	<b>Count</b>	<b>Percentage</b>
Outdoors	36	20.8%
Vehicle	32	18.5%
Streets/sidewalk	27	15.6%
Other's residence	21	12.1%
Shelter	19	11.0%
Encampment	13	7.5%
Motel	11	6.4%
Jail	7	4.0%
Public transit	4	2.3%
Unknown	3	1.7%
<b>Total</b>	<b>173</b>	<b>100.0%</b>

## Causes of Death

<b>Cause of Death</b>	<b>2018</b>	<b>2019</b>	<b>2010</b>	<b>2018-2020</b>	<b>Percentage</b>
Acute/chronic disease	99	119	186	403	49.9%
Substance abuse and overdose	49	76	104	229	28.3%
Accidental injury	21	27	34	82	10.1%
Homicide	16	15	28	59	7.3%
Suicide	10	9	16	35	4.3%
<b>Total</b>	<b>195</b>	<b>246</b>	<b>368</b>	<b>809</b>	<b>100.0%</b>

In the following pages, we will more closely review deaths of people experiencing homelessness by general cause of death.

### Underlying Cause of Death: Drug Overdose and Alcohol Overdose

**Drug overdose is the single leading cause of death among people experiencing homelessness in Alameda County between 2018 and 2020 and increased greatly through that time.**

**What is drug overdose?** Drug overdose is one of the fastest-growing causes of death in the country and in Alameda County. Drug overdose deaths are most frequently due to opiates

(mainly synthetic opiates such as fentanyl and fentanyl compounds), heroin, and increasingly due to psychostimulants such as methamphetamine. Many persons are not aware of the presence of fentanyl-laced compound drugs in their drug supply or the powerful potency of fentanyl.

Most drug overdoses can be reversed— and death prevented — by rapid action by nearby persons calling 911 and/or administering naloxone (Narcan) before death occurs.

You can learn more about statewide analysis of overdose deaths in a [2022 California Overdose Crisis Policy Brief from](#) the State of California.

**What is alcohol overdose?** Alcohol poisoning is caused by drinking large quantities of alcohol in a short period of time. Very high levels of alcohol in the body can shut down critical areas of the brain that control breathing, heart rate, and body temperature, resulting in death. Between 2018 and 2020, 12 people experiencing homelessness died of an alcohol overdose in Alameda County at an average age of 49, and with an age-adjusted death rate of 36.4/100,000, a rate 72.9 times that of the general population.

### **Drug Overdose and Homeless Mortality**

In Alameda County between 2018 and 2020, 203 persons experiencing homelessness died because of acute drug or alcohol overdose. This represents 25.1% of all homeless deaths. Of these deaths, 191 were drug overdoses for an age-adjusted death rate of 555.0/100,000, 43.0 times that of the general population.

The average age of overdose death for homeless persons is 48 years, as compared to the average for the general population of 45 years.

### **Location of Overdose Deaths**

Overdose deaths almost happened in an unattended setting; 25 deaths were pronounced at a hospital after transport from unknown locations.

Here are the locations in which people experiencing homelessness died by overdose as reported in CCDF:

<b>Location of Homeless Overdose Deaths</b>	<b>Count</b>	<b>Percentage</b>
Streets/sidewalk	35	18.3%
Encampment	30	15.7%
Unknown	25	13.1%
Other's residence	25	13.1%
Vehicle	24	12.6%
Outdoors	24	12.6%
Motel	10	5.2%
Shelter	8	4.2%
Public transit	6	3.1%
Jail	2	1.0%

Hospital	1	0.5%
Railroad	1	0.5%
<b>Total</b>	<b>191</b>	<b>100.0%</b>

## Demographics

Homeless Overdose Deaths 2018-2020			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	35	5	12
2019	61	11	12
2020	95	11	10
<b>Total</b>	<b>191</b>	<b>16</b>	<b>34</b>

Of the literally homeless who died of drug overdose:

- **Sex:** 81% were men; 19% women
- **Race:** African American/Black 40%; White 38%; Hispanic/Latino 12%; Asian 2%; Other 8%
- **Age:** Average age of death 48 years; 15% under age 35; 46% between 35-54 years; 37% 55 years or older; 1.6% unknown.
- **Geography:** Homeless overdose deaths were reported in the following cities:

City/Place of Overdose Death	Count	Percentage
Oakland	121	63.4%
Hayward	19	9.9%
Berkeley	15	7.9%
San Leandro	8	4.2%
Fremont	6	3.1%
Pleasanton	5	2.6%
Castro Valley	4	2.1%
Alameda	2	1.0%
Emeryville	2	1.0%
Dublin	2	1.0%
San Lorenzo	2	1.0%
Union City	2	1.0%
Newark	2	1.0%
<b>Total</b>	<b>191</b>	<b>100.0%</b>



## Co-factors in Overdose Deaths

- We did not get toxicology reports from the Coroner's Office. Examination of toxicology reports should enable a better ability to track fentanyl- and methamphetamine-involved fatal overdoses.
- We are also unable to precisely map the exact locations where fatal overdoses occurred, analyze if/when naloxone was administered, nor determine if an overdose was alone or with other persons. All of these are important in analyzing overdose fatalities.

## Cause of Death: Sequelae of Chronic Alcohol and Drug Use

### What are Sequelae of Chronic Alcohol and Drug Use?

Sequelae (or results) of chronic alcohol and drug use refers to deaths that are attributed by a doctor as resulting directly from the impact of excessive long-term drug or alcohol use. These deaths are different from *overdose* deaths, which are directly caused by immediate excessive ingestion of alcohol or drugs.

**Excessive alcohol use:** Most deaths that are caused by the health effects of drinking excessive alcohol over time are directly attributed to acute/chronic diseases such as cardiovascular disease, cancers, stroke, and liver disease. In CCDF, notations of excessive alcohol use are indicated as a secondary factor, if reported. Between 2018 and 2020, nine deaths were indicated as having been directly caused by chronic excessive alcohol use. This small sample gives us a mortality rate among people experiencing homelessness of 26.8/100,000, or 20.6 times the rate of the general population rate of death due to chronic excessive alcohol use. The average age of death is 61 years, older than the county general population average of 58 years. Eighty-nine percent of chronic alcohol abuse-related deaths took place in an unattended setting, in vehicles, a shelter, on the street, or in an encampment.

**Excessive drug use:** Most deaths caused by the effects of long-term excessive drug use are generally directly attributed by physicians to the acute/chronic disease-causing death, such as cancers, liver disease, kidney disease, heart disease, hypertension, and diabetes. Incidence of these acute/chronic disease deaths are higher among people excessively using drugs over time. However, between 2018 and 2020, 18 homeless deaths were directly attributed to the long-term excessive drug use. This represents a homeless mortality rate of 53.5/100,000, 53.5 times that of the general population. The average age of death was 52 among homeless persons and 54 among the general population. Sixty-seven percent of these deaths took place in medical facilities and 33% on streets, outdoors or vehicle.

### Sequelae of Chronic Alcohol and Drug Use and Homeless Mortality

In Alameda County between 2018 and 2020, 27 people experiencing homelessness died of sequelae of chronic alcohol and drug use, or 3.3% of all homeless deaths.

The average age of death for homeless persons dying from chronic alcohol or drug use is 56 years, as compared to the average for the general population of 58 years.

Forty percent of homeless persons who died from chronic alcohol or drug use were engaged in the HMIS system of care.

### Location of Death of Sequelae of Chronic Alcohol and Drug Use

Between 2018 and 2020, 48% of the homeless persons who died from chronic alcohol and drug use died within a medical facility. Fifty-two percent died unattended, in vehicles, on the streets, in a shelter, or in an encampment.

### Demographics

Homeless Deaths Attributed to Sequelae of Chronic Alcohol or Drug Use			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	8	1	4
2019	11	2	6
2020	7	1	2
<b>Total</b>	<b>26</b>	<b>4</b>	<b>12</b>

Of the 27 persons homeless at time of death who died from chronic drug or alcohol use in 2018-2020:

- **Sex:** 70% were men; 30% women.
- **Race:** 37% African American/Black; 37% White; 15% Hispanic/Latino; 11% other.
- **Age:** Average age of death 56 years. Five occurred in persons less than 45 years of age, and 15 deaths (56%) of deaths were among persons over 55 years of age.
- **Geography:** 52% of homeless chronic alcohol and drug use deaths occurred in Oakland; 15% in in Berkeley, followed by Alameda, Castro Valley, and Hayward.

### Cause of Death: Acute and Chronic Medical Conditions

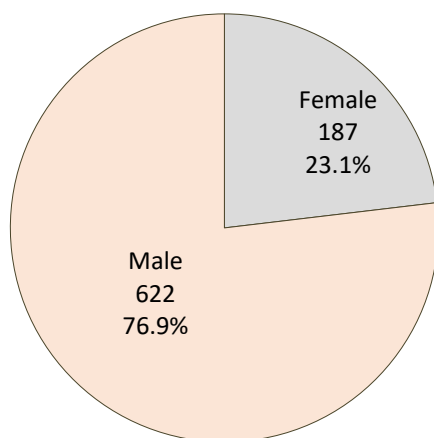
In Alameda County between 2018 and 2020, 403 deaths (or 50%) of people experiencing homelessness were due to acute or chronic medical conditions, also known as *natural causes*. Epidemiologists categorize these deaths into categories by the Underlying Cause of Death diagnosis code (ICD-10 code) determined by the coroner, pathologist or treating physician. These are the following categories of underlying cause of death for people experiencing homelessness who died between 2018 and 2020:

Underlying Cause of Death: Acute/ Chronic Disease Homeless Deaths	2018	2019	2020	2018-2020	Percentage
Heart disease	40	34	42	116	28.8%
All other diseases	17	24	43	84	20.8%

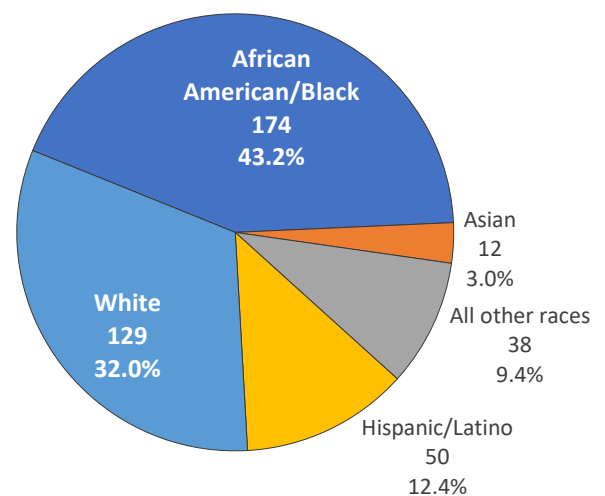
Cancer (malignant neoplasms)	15	18	16	49	12.2%
Chronic liver disease/cirrhosis	11	13	23	47	11.7%
Cerebrovascular disease	4	7	13	24	6.0%
CLRD (chronic lower respiratory disease)	2	9	10	21	5.2%
R99 (ill-defined and unknown cause of mortality)	4	5	8	17	4.2%
Other communicable diseases	1	4	11	16	4.0%
Diabetes, metabolic	3	1	7	11	2.7%
Hypertensive renal disease/essential hypertension	1	3	3	7	1.7%
COVID			6	6	1.5%
HIV	1	1	3	5	1.2%
<b>Total</b>	<b>99</b>	<b>119</b>	<b>185</b>	<b>403</b>	<b>100.0%</b>

### Demographics of People Experiencing Homelessness Who Died of Acute/Chronic Diseases

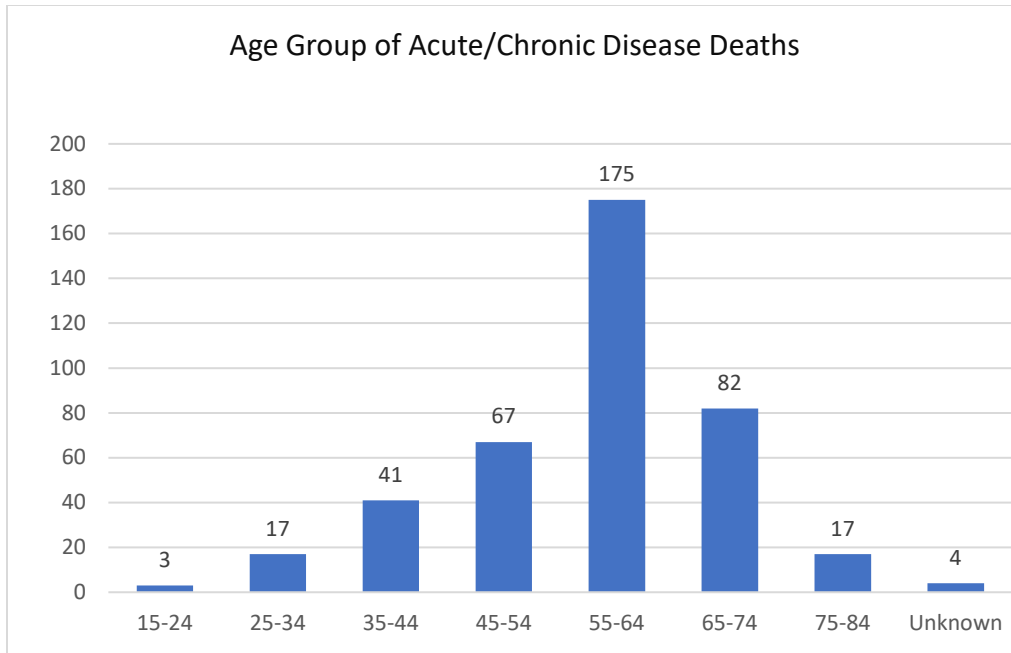
Sex of Homeless Acute/Chronic Disease Deaths



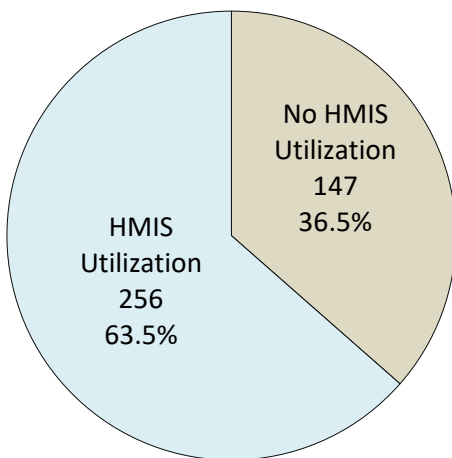
Race/Ethnicity of Acute/Chronic Disease Deaths



**Age:** Average age at death: 52.7 years. The average age of death of the Alameda County general population by acute/chronic is 77 years.



**Homeless Services Utilization, Acute/Chronic Disease Deaths**



Location of Death	Count	%
Hospital	203	50.4%
Nursing facility	40	9.9%
Outdoors	34	8.4%
Vehicle	28	6.9%
Streets/sidewalk	24	6.0%
Other's residence	21	5.2%
Shelter	17	4.2%
Encampment	12	3.0%
Motel	11	2.7%
Jail	6	1.5%
Public transit	4	1.0%
Unknown	3	0.7%
<b>Total</b>	<b>403</b>	<b>100.0%</b>

## Geography of Acute/Chronic Disease Deaths

City/Place of Death	Count	Percentage
Oakland	211	52.4%
Hayward	49	12.2%
Fremont	29	7.2%
Castro valley	26	6.5%
Berkeley	26	6.5%
San Leandro	20	5.0%
Alameda	10	2.5%
Pleasanton	8	2.0%
Livermore	6	1.5%
Dublin	6	1.5%
Emeryville	3	0.7%
Union City	3	0.7%
San Lorenzo	3	0.7%
Newark	2	0.5%
Albany	1	0.2%
<b>Total</b>	<b>403</b>	<b>100.0%</b>

In 2018-2020, 15 acute/chronic disease deaths in other California counties of Alameda County residents experiencing homelessness were reported.

City of Death	Count	Percentage
San Francisco	9	60.0%
San Jose	2	13.3%
Walnut Creek	1	6.7%
Menlo Park	1	6.7%
Concord	1	6.7%
Modesto	1	6.7%
<b>Total</b>	<b>15</b>	<b>100.0%</b>

## Unattended Acute/Chronic Disease Deaths

Of the 403 homeless acute/chronic disease deaths, 173 (42%) occurred outside of a medical facility (hospital or nursing facility).

Location of Death	Count	Percentage
Outdoors	36	20.7%
Vehicle	32	18.4%
Streets/sidewalk	27	15.5%
Other's residence	21	12.1%
Shelter	19	10.9%
Encampment	13	7.5%
Motel	11	6.3%
Jail	7	4.0%
Public transit	4	2.3%
Unknown	3	1.7%
<b>Total</b>	<b>173</b>	<b>100.0%</b>

The leading cause of death among unattended deaths was heart disease.

**Unattended Deaths by Acute/Chronic Disease by City/Location**

Cause of Death	Count	Percentage
Heart disease	65	37.4%
All other diseases	24	13.8%
Chronic liver disease/cirrhosis	22	12.6%
R99 (ill-defined and unknown cause of mortality)	17	9.8%
CLRD (chronic lower respiratory disease)	12	6.9%
Sequelae of alcohol abuse & dependence	8	4.6%
Cerebrovascular disease	7	4.0%
Sequelae of drug abuse & dependence	6	3.4%
Cancer (malignant neoplasms)	6	3.4%
Diabetes, metabolic	6	3.4%
Hypertensive renal disease/essential hypertension	1	0.6%
<b>Total</b>	<b>173</b>	<b>100.0%</b>

City/Place of Death	Count	Percentage
Oakland	87	50.0%
Hayward	18	10.3%
Berkeley	15	8.6%
Fremont	11	6.3%
San Leandro	9	5.2%
Pleasanton	7	4.0%
Dublin	6	3.4%
Alameda	4	2.3%
Union City	3	1.7%
San Lorenzo	3	1.7%
Emeryville	3	1.7%
Livermore	3	1.7%
Newark	2	1.1%
Castro Valley	2	1.1%
Albany	1	0.6%
<b>Total</b>	<b>173</b>	<b>100.0%</b>

**Outside of County**

In 2018-2020, eight unattended deaths in other California Counties by Acute/Chronic Disease of Alameda County residents experiencing homelessness were reported:

City of Death	Deaths	%
San Francisco	5	62.5%
San Jose	1	12.5%
Menlo Park	1	12.5%
Modesto	1	12.5%
<b>Total</b>	<b>8</b>	<b>100.0%</b>

**Unattended Deaths by Acute/Chronic Disease Demographics**

- **Sex:** 81% were men; 19% women
- **Race:** 41% African American/Black; 36% White; 13% Hispanic/Latino; 7% other; 3% Asian.

- **Age:** Average age of death 57 years. 3.4% aged 15-34; 16% 35-54; 45-54; 37% 55-64; and 28% aged 65 and over

## Cause of Death: Heart Disease

### What is Heart Disease?

Heart disease is the second-leading cause of death in Alameda County, and the leading cause of death nationwide. Risk factors of heart disease include unhealthy diet, physical inactivity, tobacco use, harmful use of alcohol and genetics. These result in raised blood pressure, high blood glucose, high cholesterol, and overweight/obesity. In turn, these conditions can lead to chronic congestive heart failure, valve and artery blockage, and acute heart attacks.

### Heart Disease and Homeless Mortality

In Alameda County between 2018 and 2020, 116 people experiencing homelessness died of heart disease. This represents 14.3% of all homeless deaths, and an age-adjusted homeless death rate of 347.2/100,000, 3.3 times that of the general population.

The average age of death for homeless persons with heart disease is 59 years as compared to the average for the general population of 78 years.

### Location of Death of Heart Disease

Fifty-six percent of people experiencing homelessness who died of heart disease passed away on the streets, in a vehicle, in a shelter, in another's residence, outdoors, in a motel, or in an encampment. Forty-four percent died within a medical facility.

### Demographics

Homeless Deaths Attributed to Heart Disease			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	40	16	41
2019	34	19	46
2020	42	23	37
<b>Total</b>	<b>116</b>	<b>58</b>	<b>124</b>

Of the 116 persons homeless at time of death who died of heart disease:

- **Sex:** 82% were men; 18% women
- **Race:** 49% African American/Black; 32% White; 8% Hispanic/Latino; 5% Asian; 6% other.
- **Age:** Average age of death 59 years. 2% under age 35; 10% 35-54; 29% aged 55-64; 53% 65 years or over.

- **Geography:** 53% of homeless heart disease deaths occurred in Oakland; 15% in Hayward, 9% Fremont; 6% San Leandro; 5% Berkeley, 13% rest of county. Five homeless heart disease deaths occurred out of the County.
- **Homeless services:** 36% of deaths occurred among persons who had not utilized HMIS services.

### **Co-factors in Homeless Heart Disease Deaths**

- Forty-two percent of homeless heart disease deaths included alcohol or drug use as a significant co-condition.
- Tobacco use is much higher in the population of people experiencing homelessness, but decedent smoking status was not available for analysis in this report.
- Eighty-seven of the 414 (21%) of all homeless chronic or acute disease deaths contained reference to diabetes as other significant condition.

### **Related Cause of Death**

- **Hypertensive diseases** (essential hypertension and hypertensive renal disease): In 2018-2020, seven persons experiencing homelessness died of hypertensive diseases. Hypertension (high blood pressure) if untreated can lead to many other causes of death, including heart disease, strokes, and other causes. A death directly attributed to kidney failure due to hypertension it is classified this way. People experiencing homelessness died at 1.5 times the rate of the general population.

## **Other Acute/Chronic Disease Causes of Death**

In 2018-2020 there were a total of 117 deaths whose records note other causes of death attributed as Other Diseases, Other Communicable Diseases, or an Undefined (ICD-10 code R99) cause of death.

### **All Other Diseases Including Other Communicable Diseases**

These categories include 61 different listed acute/chronic disease causes of death. These causes of death can include both specific causes, such as hepatitis C, causes of death (sepsis, pneumonia, kidney failure) linked to other conditions or diseases, internal hemorrhage, thrombosis, and many other medical conditions.

- In 2018-2020, 84 people experiencing homelessness died of All Other Diseases, with an average age of 56, compared to the Alameda County general population average of 78 years. The mortality rate was 2.2 times that of the general population.
- In 2018-2020, 16 people experiencing homelessness died of Other Communicable Diseases at an average age of 55 vs. the Alameda County general population average age of 72. The homeless death rate is 37.1/100,000 or 4.1 times the rate of the general population. These deaths included five deaths directly attributed to Hepatitis C disease.

### **Location of Death**



Between 2018 and 2020, 75% of people experiencing homelessness who died of all other diseases including other infectious diseases died in a medical facility. The remaining 25% died on the streets, outdoors, in a vehicle, in jail, in a motel, in an encampment, in another's residence, and on public transit.

## Demographics

Homeless Deaths Attributed to Other Diseases, Other Communicable Diseases or Ill-defined/Unknown Cause:			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	22	7	34
2019	33	19	43
2020	62	18	41
<b>Total</b>	<b>117</b>	<b>44</b>	<b>118</b>

Of the 117 persons homeless at time of death who died of other diseases including other communicable diseases:

- **Sex:** 80% were men; 20% women
- **Race:** 43% African American/Black; 32% White; 12% Hispanic/Latino; 11% other; 1% Asian.
- **Age:** Average age of death 56 years. One death aged 12-24; seven aged 25-34; 11 35-44; 14 45-54; 43 55-64; and 23 deaths aged 65-74
- **Geography:** 56% of homeless deaths occurred in Oakland; 9% in Hayward; 7% Castro Valley; 6% Berkeley; 5% Tri-Valley and 17% in other locations in County. Two additional homeless Alameda County residents died in other cities in California.

## Ill-Defined and Unknown Causes of Death (ICD-10 code R99)

17 homeless deaths in 2018-2020 were classified as ill-defined or unknown causes of death. This includes eight persons found decomposed or skeletal for whom homicide was not suspected and a natural cause of death could not be determined. These also include cases of probable cause of death including three probable drug overdoses and one probable death by hypothermia. An additional five had cases pending at the time of this report. All the R99 deaths were persons who passed away outdoors in an unattended setting.

## Cause of Death: Cancer

### What is Cancer?

Cancer includes malignant tumors and neoplasms creating abnormal cells which grow and invade other parts of the body, leading to metastasis which is the primary cause of cancer death. Cancer is a leading cause of death in Alameda County, and risk factors for cancer include tobacco use, alcohol use, unhealthy diet, physical inactivity, and pollution.

### Cancer and Homeless Mortality

- In Alameda County between 2018 and 2020, 49 people experiencing homelessness died of cancer. This represents 5.2% of all homeless deaths, and an age-adjusted homeless death rate of 130.4/100,000, a rate slightly higher (MRR=1.1) than that of the general population. Unlike other diseases such as heart disease, cancer is more likely to go unreported as a cause of death if it is not diagnosed before death. Those who die while experiencing homelessness may be less likely to receive the full autopsy necessary to identify undiagnosed cancer

The primary types of cancer deaths among people experiencing homelessness include prostate, lung, liver, colon, and uterine.

The average age of death for homeless persons with cancer is 60.4 years, as compared to the average for the general population of 71.8 years.

### Location of Death of Cancer

Eighty-eight percent of people experiencing homelessness who died of cancer died within a medical facility. The remaining 12% died outdoors or in someone else's residence.

### Demographics

Homeless Deaths Attributed to Cancer			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	15	11	38
2019	18	13	42
2020	16	15	45
<b>Total</b>	<b>49</b>	<b>39</b>	<b>125</b>

Of the 49 persons homeless at time of death who died of cancer in 2018-2020:

- **Sex:** 69% were men; 31% women
- **Race:** African American/Black 45%; White 35%; Hispanic/Latino 12%; Multirace 6%; Asian 2%
- **Age:** Average age of death 60.4 years. 2% under age 35, 10% 35-54 years; 82% 55 years or older.

- **Geography:** 47% of Alameda County homeless Cancer deaths occurred in Oakland, followed by Castro Valley 24.5%, Hayward 10%, Berkeley 6%, and others 8%.

### **Co-factors in Homeless Cancer Deaths 2018-2020**

- Tobacco use is much higher in the population of people experiencing homelessness, but decedent smoking status was not available for analysis in this report.
- Thirty-one percent of cancer deaths included alcohol/substance use as other significant conditions.
- Hepatitis C infection was a significant co-condition, listed in 19% of cancer deaths.

## **Cause of Death: Chronic Liver Disease**

### **What is Chronic Liver Disease?**

Chronic liver disease (CLD) is ongoing damage and deterioration of liver function, which can lead to scarring (fibrosis), severe fibrosis (cirrhosis), liver failure, and death. Causes of liver disease can be largely divided into:

1. Viral (hepatitis A, B, C).
2. Alcoholic (caused by long-term alcohol use).
3. Non-alcoholic metabolic (causes include obesity, diabetes, and other factors).

### **Chronic Liver Disease and Homeless Mortality**

In Alameda County between 2018 and 2020, 47 people experiencing homelessness died of chronic liver disease. This represents 5.8% of all homeless deaths, and an age-adjusted homeless death rate of 126.8/100,000, 13.5 times that of the general population.

The average age of death for homeless persons with CLD is 51.8 years, as compared to the average for the general population of 60 years.

### **Location of Death of Chronic Liver Disease**

Forty-seven percent of people experiencing homelessness died of chronic liver disease outside of medical facility (outdoors, on streets, in a vehicle or encampment, or in a shelter). The remaining 53% died in hospital or a nursing facility.

## Demographics Chronic Liver Disease

Homeless Deaths Attributed to Chronic Liver Disease			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	11	3	11
2019	13	3	7
2020	23	6	9
<b>Total</b>	<b>47</b>	<b>12</b>	<b>27</b>

Of the literally homeless at time of death (47) who died of chronic liver disease:

- **Sex:** 70% were men; 30% women
- **Race:** African American/Black 40%; White 34%; Hispanic/Latino 15%; Multiracial 4%; Native American 2%; Asian 2%
- **Age:** Average age of death 51.8 years. 7% under age 35; 26% 35-54 years; 68% 55 years or older.
- **Geography:** 55% of Alameda County Homeless CLD deaths occurred in Oakland, followed by Fremont (13%), Hayward (11%), Tri-Valley (9%), Berkeley (4%) and others (9%).

### Co-factors in Chronic Liver Disease Deaths

- Alcoholic liver disease including cirrhosis was specifically noted in 75% of CLD deaths, and alcohol or drug use noted in 82% of all CLD deaths.
- The six homeless deaths due to acute/chronic Hepatitis B-C infection were classified under Other Communicable Disease.
- Nearly all deaths of chronic liver disease are preventable – especially if attributable to alcohol, drug use, or hepatitis C. Additionally, the root causes of non-alcoholic liver disease include obesity and poorly managed diabetes.

## Cause of Death: Cerebrovascular Disease

### What is Cerebrovascular Disease?

Cerebrovascular diseases include stroke, transient ischemic attack (TIA), aneurysm, and vascular malformation. In the Alameda County, cerebrovascular disease is the fifth-most common cause of death. Anyone with symptoms of a cerebrovascular attack (FAST: Face drooping; Arm weakness; Speech difficulty; Time to call 911) needs urgent medical care to prevent death or long-term damage.

### Cerebrovascular Disease and Homeless Mortality

In Alameda County between 2018 and 2020, 24 people experiencing homelessness died of Cerebrovascular Disease. This represents 3% of all homeless deaths, and an age-adjusted homeless death rate of 62.4/100,000, or 1.7 times that of the general population.

The average age of death for homeless persons with cerebrovascular disease is 57 years, as compared to the average for the general population of 81 years.

### Location of Death of Cerebrovascular Disease

Seventy-one percent of people experiencing homelessness who died of cerebrovascular disease died within a medical facility. The remaining 29% died outdoors, in someone else's residence, or in a vehicle.

### Demographics

Homeless Deaths Attributed to Cerebrovascular Disease			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	4	2	11
2019	7	3	10
2020	13	5	7
<b>Total</b>	<b>24</b>	<b>10</b>	<b>28</b>

Of the 24 persons homeless at time of death who died of cerebrovascular disease 2018-2020:

- **Sex:** 43% were men; 57% women
- **Race:** African American/Black 68%; White 18%; Hispanic/Latino 11%; Asian 4%
- **Age:** Average age of death 59 years; 4% under age 35 4%; 35-54 years 25%; 71% 55 years or older.
- **Geography:** 43% of Alameda County Homeless Cerebrovascular Disease deaths occurred in Oakland, followed by Berkeley 21%, Castro Valley 21%, San Leandro, and Alameda 14%. Four Alameda County homeless residents died in other counties 2018-2020.

### Co-factors in Homeless Cerebrovascular Disease Deaths 2018-2020

- 24% of homeless cerebrovascular disease deaths included alcohol or drug use as a significant condition.
- Hepatitis C infection was a significant co-condition in two cerebrovascular disease deaths.
- HIV infection was a co-condition in one cerebrovascular disease deaths.

## Cause of Death: Chronic Lower Respiratory Disease

## What is Chronic Lower Respiratory Disease (CLRD)?

Chronic lower respiratory disease (CLRD) includes chronic bronchitis, emphysema, and asthma. CLRD is the sixth-most common cause of death in Alameda County. CLRD is progressive, getting worse with age. Tobacco use is by far the most important risk factor for CLRD, as well as environmental exposures and genetic influences.

## CLRD and Homeless Mortality

In Alameda County between 2018 and 2020, 21 people experiencing homelessness died of CLRD. This represents 2.6% of all homeless deaths, and an age-adjusted homeless death rate of 59.4/100,000, or 2.9 times that of the general population.

The average age of death for homeless persons with CLRD is 59 years, as compared to the average for the general population of 78 years.

## Location of Death of CLRD

Fifty-seven percent of people experiencing homelessness who died of CLRD passed away in vehicles, others residence, streets, encampments, motels, or a shelter; 45% died within a medical facility.

## Demographics

Homeless Deaths Attributed to CLRD			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	2	7	13
2019	9	4	7
2020	10	5	8
<b>Total</b>	<b>21</b>	<b>16</b>	<b>28</b>

Of the 21 persons homeless at time of death who died of CLRD 2018-2020:

- **Sex:** 67% were men; 33% women
- **Race:** 48% African American/Black; 43% White; 5% Hispanic/Latino; 5% other.
- **Age:** Average age of death 59 years. 29% aged 35-54; 71% 55 years or over.
- **Geography:** 52% of homeless CLRD deaths occurred in Oakland, followed by Berkeley 19%, Hayward 19%; San Leandro and Livermore 10%.

## Co-factors in Homeless CLRD Deaths

- Twenty-four percent of homeless CLRD deaths included alcohol or drug use as a significant co-condition.
- Tobacco use is much higher in the population of people experiencing homelessness, but decedent smoking status was not available for analysis in this report.

## Cause of Death: Diabetes

### What is Diabetes?

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Uncontrolled diabetes over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels. Exercise, healthy diet, and weight control are ways to prevent or delay the onset of diabetes, and diabetes can be treated with diet, exercise, medication, and regular care to avoid complications and death. Diabetes is the seventh leading cause of death in Alameda County.

### Diabetes and Homeless Mortality

In Alameda County between 2018 and 2020, 11 people experiencing homelessness died of diabetes. This represents 1.4% of all homeless deaths, and an age-adjusted homeless death rate of 29.0/100,000. This means that in Alameda County, people experiencing homelessness die of diabetes at a rate 1.6 times that of the general population.

The average age of death for homeless persons with diabetes is 56 years, as compared to the average for the general population of 72 years.

### Location of Death of Diabetes

Fifty-five percent of people experiencing homelessness who died of diabetes passed away in shelters, outdoors, or other's residence; 45% died within a medical facility.

### Demographics

Homeless Deaths Attributed to Diabetes 2018-2020			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	3	2	7
2019	1	7	6
2020	7	5	8
<b>Total</b>	<b>11</b>	<b>14</b>	<b>21</b>

Of the 11 persons homeless at time of death who died of diabetes 2018-2020:

- **Sex:** 73% were men; 27% women
- **Race:** 91% African American/Black; 9% White.
- **Age:** Average age of death 56 years. 29% aged 35-54; 71% 55 years or over.
- **Geography:** 82% of homeless diabetes deaths occurred in Oakland, one death in Fremont. One death took place out of the county.

## Co-factors in Homeless Diabetes Deaths

- Twenty-four percent of homeless diabetes deaths included alcohol or drug use as a significant co-condition.
- Tobacco use is much higher in the population of people experiencing homelessness, but decedent smoking status was not available for analysis in this report.
- Eighty-seven of the 414 (21%) of all homeless chronic or acute disease deaths contained reference to diabetes as other significant condition.

## Cause of Death: COVID-19

### What is COVID-19?

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus experience mild to moderate respiratory illness and recover without requiring special treatment. However, some become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness or die. In 2020, COVID-19 was the fifth-leading cause of death among the Alameda County population.

### COVID-19 and Homeless Mortality

In Alameda County between 2018 and 2020, six people experiencing homelessness died of COVID-19. This represents 0.7% of all homeless deaths, and an age-adjusted homeless death rate of 14.3/100,000, or 1.3 times the rate of the general population.

The average age of death for homeless persons with COVID-19 is 58 years, as compared to the average for the general population of 77 years.

### Location of Death of COVID-19

All of the people experiencing homelessness who died of COVID-19 passed away in a medical facility. Only one person known to be living in a congregate homeless shelter in Alameda County died of COVID-19 in 2020.

### Demographics

Homeless Deaths Attributed to COVID-19			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2020	6	4	7

Of the six persons homeless at time of death who died of COVID-19 in 2018-2020:

- **Sex:** 83% were men; 17% women



- **Race:** 50% were Hispanic/Latino; 17% African American/Black; 17% White; 15% other.
- **Age:** Average age of death 58 years. one aged 35-54; four aged 55-64; one aged 65+.
- **Geography:** One homeless COVID-19 death occurred in Oakland; two in Castro Valley, two in Hayward, one in San Leandro.

### Co-factors in Homeless COVID-19 Deaths

- An additional four homeless deaths by other causes in 2020 included references to COVID-19 co-infection.
- COVID-19 deaths can be greatly prevented through full vaccination and rapid detection, isolation, and treatment of cases.

## Cause of Death: HIV

### What is HIV?

HIV deaths have fallen dramatically in the general population since the mid-1990's due to successful treatments. However, deaths directly attributable to HIV infection (AIDS) continue among those who are not able to access or carry out HIV treatment.

### HIV and Homeless Mortality

In Alameda County between 2018 and 2020, five people experiencing homelessness died of HIV. This represents 0.6% of all homeless deaths, and an age-adjusted homeless death rate of 11.9/100,000, or 9.2 times that of the general population.

The average age of death for homeless persons with HIV is 56 years, as compared to the average for the general population of 58 years.

### Location of Death

Between 2018 and 2020 all people experiencing homelessness who died of HIV passed away within a medical facility.

### Demographics

Homeless Deaths Attributed to HIV			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	1	1	4
2019	1	3	0
2020	3	2	3
<b>Total</b>	<b>5</b>	<b>6</b>	<b>7</b>

Of the five persons homeless at time of death who died of HIV 2018-2020:

- **Sex:** 80% were men; 20% women
- **Race:** 60% African American/Black; 20% White; 20% other.
- **Age:** Average age of death 56 years. One death occurred in person less than 45 years of age.
- **Geography:** 60% of homeless HIV deaths occurred in Oakland; 40% in San Leandro.

For more information about HIV in Alameda County, please refer to [HIV in Alameda County 2016-2018](#).

## Underlying Cause of Death: Accidental Death

### Accidental Deaths and Homeless Mortality

In Alameda County between 2018 and 2020, 82 persons experiencing homelessness died by traumatic accidental death. This number does not include accidental drug or alcohol overdose. Included in the category of accidental deaths are the following causes of death:

Cause of Death: Homeless Accidental Deaths	2018	2019	2020	2018-2020	Percentage
Pedestrian or bicyclist hit by vehicle	9	11	13	33	40.2%
Struck by train	4	4	4	12	14.6%
Passenger or driver of vehicle in crash	1	3	9	13	15.9%
Fall	1	3	2	6	7.3%
Drowning	2	3	0	5	6.1%
Fire or smoke inhalation	1	2	1	4	4.9%
Unknown/other	1	2	1	4	4.9%
Hypothermia	2	1	0	3	3.7%
Carbon monoxide poisoning in tent/car	0	0	2	2	2.4%
<b>Total</b>	<b>21</b>	<b>29</b>	<b>32</b>	<b>82</b>	<b>100.0%</b>

10.1% of all homeless deaths were due to accidental death. By far, pedestrian deaths are the most frequent (non-drug overdose) accidental cause of death among people experiencing homelessness. In Alameda County people experiencing homelessness have a pedestrian death rate 44.9 times higher than the general population, 104 times the rate of being struck by a train, and 7.7 times the rate of dying by other unintentional injuries.

The average age of accidental death for homeless persons is 47 years, as compared to the average for the general population of 59 years.

### Location of Accidental Deaths

Most accidental deaths do not take place in hospitals or facilities and are thus unattended except by emergency responders. Here are the locations in which people experiencing homelessness died by homicide as reported in CCDF:

Setting/Location of Injury: Homeless Accidental Deaths	Count	Percentage
Streets/sidewalk	35	42.7%
Railroad	15	18.3%
Traffic accident	11	13.4%
Outdoors	9	11.0%
Vehicle	5	6.1%
Other's residence	2	2.4%
Encampment	2	2.4%

Jail	1	1.2%
Unknown	1	1.2%
Shelter	1	1.2%
<b>Total</b>	<b>82</b>	<b>100.0%</b>

## Demographics

Homeless Accidental Injury Deaths 2018-2020			
	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	21	0	5
2019	27	1	5
2020	34	5	6
<b>Total</b>	<b>82</b>	<b>6</b>	<b>16</b>

Of the literally homeless who died due to accidental injury:

- **Sex:** 84% were men; 16% women
- **Race:** African American/Black 35%; White 33%; Hispanic/Latino 21%; Asian 5%; Other 6%
- **Age:** Average age of death 47 years. 13% under age 35; 39% 35-54 years; 35% 55 years or older.
- **Geography:** 44% of accidental deaths occurred in Oakland; 14% in Hayward, 12% in Berkeley; 11% in San Leandro; 6% Fremont; 5% Tri-Valley and 8% other cities.

## Underlying Cause of Death: Homicide

### Homicide and Homeless Mortality

In Alameda County between 2018 and 2020, 59 persons experiencing homelessness died by homicide. This represents 7.3% of all homeless deaths, and an age-adjusted death rate of 196.1/100,000, or 33.8 times that of the general population.

The average age of homicide death for homeless persons is 41 years, as compared to the average for the general population of 35 years.

Homicide deaths were most frequently due to gunshot (70%), stabbing (12%), and drowning, fire, and other means.

### Location of Homicide Deaths

Here are the locations in which people experiencing homelessness died by homicide as reported in CCDF:

Homeless Homicides	Count	Percentage
Streets/sidewalk	34	57.6%
Outdoors	9	15.3%
Encampment	4	6.8%
Jail	3	5.1%
Railroad	2	3.4%
Other's residence	2	3.4%
Public transit	2	3.4%
Road accident	1	1.7%
Vehicle	1	1.7%
Motel	1	1.7%
<b>Total</b>	<b>59</b>	<b>100.0%</b>

### Demographics

Homeless Deaths Attributed to Homicide			
Year	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	16	2	2
2019	15	2	4
2020	28	1	11
<b>Total</b>	<b>59</b>	<b>5</b>	<b>17</b>

Of the literally homeless who died due to homicide:

- **Sex:** 85% were men; 15% women

- **Race:** African American/Black 59%; White 14%; Hispanic/Latino 22%; Other 5%
- **Age:** Average age of death 41 years. 37% under age 35; 44% 35-54 years; 19% 55 years or older.
- **Geography:** 69% of homicide deaths occurred in Oakland, followed by Hayward (9%), Tri-Valley (7%), San Leandro (5%), Berkeley (4%), and others (6%).

## Underlying Cause of Death: Suicide

### Suicide and Homeless Mortality

In Alameda County between 2018 and 2020, 35 persons experiencing homelessness died by suicide. This represents 4.3% of all homeless deaths, and an age-adjusted death rate of 116.9/100,000, or 14.1 times that of the general population.

The average age of suicide death for homeless persons is 42 years, as compared to the average for the general population of 48 years.

The most common method of suicide was hanging/suffocation, followed by jumping in front of traffic or train, gunshot, drug, and others.

### Location of Suicide Deaths

Here are the locations in which people experiencing homelessness died by suicide:

Location of Suicide	Count	Percentage
Streets/sidewalk	7	20.0%
Other's residence	6	17.1%
Jail	5	14.3%
Railroad	4	11.4%
Motel	4	11.4%
Public transit	4	11.4%
Vehicle	2	5.7%
Outdoors	2	5.7%
Shelter	1	2.9%
<b>Total</b>	<b>35</b>	<b>100.0%</b>

### Demographics

Homeless Suicide Deaths			
Year	Literally homeless at time of death	Recently homeless but housed at death	Recently homeless; unknown housing status at death
2018	10	0	1
2019	9	3	4

2020	16	1	0
<b>Total</b>	<b>35</b>	<b>4</b>	<b>5</b>

Of the literally homeless who died by suicide:

- **Sex:** 74% were men; 26% women
- **Race:** African American/Black 17%; White 46%; Hispanic/Latino 23%; Asian 9%; Other 6%
- **Age:** Average age of death 42 years. 35% under age 35; 43% 35-54 years; 14% 55 years or older.
- **Geography:** 37% of suicide deaths occurred in Oakland, followed by Tri-Valley (17%), Berkeley (9%), Newark (9%), Fremont (9%), Hayward (9%), and others (12%).

## Mortality Rates and Comparisons to the Alameda County General Population

### Age-Adjusted Mortality Rate for the Alameda County General Population Compared to Persons Experiencing Homelessness with Mortality Rate Ratio

The overall age-adjusted mortality rate for people experiencing homelessness is 2,266 deaths per 100,000 persons. This is compared to the age-adjusted mortality rate for the Alameda County general population of 538 per 100,000 persons. The Mortality Rate Ratio (MRR) for persons experiencing homelessness is 4.4, meaning that people experiencing homelessness in Alameda County die at a rate 4.4 times that of the general population.

The mortality rate for persons experiencing homelessness is based on a denominator of 9,100 people experiencing homelessness in Alameda County per day in 2018-2020. This number was arrived at through HMIS utilization for 2018-2020 and adjusting that number upwards based on the number of homeless decedents who died with no records of HMIS or Health Care for the Homeless utilization.

A mortality rate ratio (MRR) of 1.0 indicates equal rates in the two groups. An MRR ratio greater than 1.0 indicates an increased risk for the group in the numerator, and a rate ratio less than 1.0 indicates a decreased risk for the group in the numerator. For example, in 2018-2020, people experiencing homelessness died of unintentional drug overdoses at a rate 43.0 times that of the general Alameda County population.

Cause of Death	Deaths 2018-2020		Age-Adjusted Mortality Rate		Mortality Rate Ratio
	Homeless	General Population	Homeless	General Population	
All causes	809	30,309	2,366.1	537.7	4.4
Unintentional overdose	191	677	555.0	12.9	43.0
Heart disease	116	5969	347.2	104.9	3.3
All other diseases	83	4579	228.1	81.3	2.8
Homicide	59	288	196.1	5.8	33.8
Cancer (malignant neoplasms)	49	6549	130.4	114.4	1.1
Chronic liver disease/cirrhosis	47	530	126.8	9.4	13.5
Suicide	35	437	116.9	8.3	14.1
Unintentional or undetermined pedestrian or bike crash	33	123	100.9	2.3	43.9
All other unintentional injuries	29	617	87.8	11.4	7.7
Cerebrovascular disease	24	2,101	62.4	37.2	1.7
CLRD	21	1,177	59.4	20.7	2.9
Sequelae of drug abuse & dependence	18	58	53.5	1	53.5
R99 (ill-defined and unknown cause of mortality)	17	59	48.1	1.1	43.7



Other communicable diseases	16	519	46.4	9.1	5.1
Unintentional or undetermined intent struck by train	12	21	41.4	0.4	103.6
Alcohol overdose	12	28	36.4	0.5	72.9
Diabetes, metabolic	11	1,023	29.0	17.8	1.6
Sequelae of alcohol abuse & dependence	9	77	26.8	1.3	20.6
Hypertensive renal disease/essential hypertension	7	747	20.3	13.1	1.5
All other injuries	5	58	16.3	1	16.3
COVID	6	632	14.3	11.1	1.3
HIV	5	73	11.9	1.3	9.2
Exposure	3	9	8.6	0.2	42.8

### Cause of Death Comparison between People Experiencing Homelessness and Alameda County General Population

Cause of Death	Count		Percentage	
	Homeless	General Population	Homeless	General Population
Acute/chronic disease	403	27,904	49.8%	92.1%
Accident	82	828	10.1%	2.7%
Homicide	59	288	7.3%	1.0%
Suicide	35	437	4.3%	1.4%
Substance abuse and overdose	230	840	28.4%	2.8%
<b>Total</b>	<b>809</b>	<b>30,311</b>	<b>100.0%</b>	<b>100.0%</b>

### Deaths by Ethnicity Comparison between People Experiencing Homelessness and Alameda County General Population

Race/Ethnicity	Count		Percentage	
	Homeless	General Population	Homeless	General Population
White	267	14,114	33.0%	47.0%
African American/Black	333	5,695	41.0%	19.0%
Asian	24	5,909	3.0%	19.0%
Hispanic/Latino	118	3,735	15.0%	12.0%
All other races	67	858	8.0%	3.0%
<b>Total</b>	<b>809</b>	<b>30,311</b>	<b>100.0%</b>	<b>100.0%</b>

**Deaths by Gender Comparison between People Experiencing Homelessness and Alameda County General Population**

Gender	Count		Percentage	
	Homeless	General Population	Homeless	General Population
Male	622	15,565	76.9%	51.4%
Female	187	14,745	23.1%	48.6%
<b>Total</b>	<b>809</b>	<b>30,311</b>	<b>100.0%</b>	<b>100.0%</b>

**Mean Age of Death Comparison between People Experiencing Homelessness and Alameda County General Population**

Cause	Mean Age	
	Homeless (Years)	General Population (years)
All causes	52 years	75 years
Homicide	41	35
Suicide	42	48
Accident	47	59
Substance abuse and overdose	49	47
Acute/chronic disease	57	77

## Services Utilization

A key element of analyzing and learning from homeless mortality is to review the utilization of homeless, health care and other services among people experiencing homelessness who have died. Services used by people experiencing homelessness can include:

- Primary care clinics and providers
- Hospitalization and emergency department
- Housing services (emergency shelter and housing services)
- Outreach services
- Behavioral health services (mental health and substance use disorder)
- Harm reduction services
- Criminal justice system involvement
- Social services utilization
- Veteran status and services utilization
- Foster care system utilization

In this 2018-2020 report, we were not able to fully “connect the pieces” between people experiencing homelessness and the services they utilized – or didn’t utilize – in the times leading to their deaths. This type of data analysis is a strong goal for future Alameda County homeless mortality efforts. A good example of services utilization reporting is carried out by San Francisco: <https://nhchc.org/wp-content/uploads/2020/12/San-Francisco-2019-Homeless-Mortality-Health-Commission.pdf>

### **Homeless Services Utilization: Homeless Management Information System (HMIS)**

In this report, we were able to evaluate how many of the people experiencing homelessness who died between 2018 and 2020 had utilized Alameda County Homeless Management Information System (HMIS) which is the system used to track users of HUD-funded homeless shelter and services in Alameda County. We also matched decedents to the Alameda County Health Care for the Homeless (ACHCH) program data of people who had received health care at ACHCH mobile or clinic sites.

Through this data matching, we found that 69% of the 809 persons deemed to be literally homeless at time of death between 2018 and 2020 had a history of services utilization with the HMIS system or the ACHCH program. Of the 248 persons without history of HMIS or ACHCH contact, 164 were deaths reported by the Coroner’s Office as “transient”.

We hope in future reports to evaluate much more closely utilization of homeless services and the above services to gain a better understanding of the relationships between homeless services and mortality.

## Homelessness System Implications and Next Steps

This 2018-2020 report is a **data report** for review and analysis, which will be useful in informing policy and practice across the homelessness system of care, including health care, government and community partners.

Next steps for our County and partners include:

- **Regular homeless mortality reporting.** HCSA will regularly update and improve this report, ideally on an annual basis.
- Establishment of **Countywide Homeless Mortality Task Force.** HCSA's homelessness programs are considering bringing together leads from varied County and city departments, and community organizations to meet regularly to review and analyze homeless mortality data, trends, cases, and best practices, and provide policy and practical recommendations and feedback to homeless health care and services providers.
- **Continuous data quality improvement.**
  - HCSA's team will continue to partner with the Alameda County Coroner's Office to access and integrate more robust data, especially regarding overdose data and associated toxicology reporting.
  - HCSA's team will continue to leverage service utilization data from touchpoints across the homelessness system of care, including housing, health clinics, hospitals, emergency room, behavioral health, social services, outreach, and criminal justice.
- **Provider-based Mortality Review** is the process by which health and services providers review the circumstances of deaths of individuals that they have treated or served, to explore root causes and identify interventions to prevent future deaths. When carried out systematically by providers such as health clinics, outreach providers and homeless shelters, mortality review can improve care and future health outcomes among people experiencing homelessness. A key element of provider mortality review also includes responding to the trauma and effects of mortality upon services providers themselves. For more information about clinic or site-based mortality review, please go to: <https://nhchc.org/wp-content/uploads/2020/12/Section-4-Toolkit.pdf>

If you are interested in providing input or guidance to the Alameda County Health Care for the Homeless program around the issues of homeless mortality, please reach out to [achch@acgov.org](mailto:achch@acgov.org).

The Alameda County Health Care for the Homeless program also maintains a webpage with homeless mortality information and a form for submitting the names and some data around people known by community providers to have died in homelessness. These community reports help us carry out a more accurate and effective homeless mortality reporting:

<https://www.achch.org/alameda-county-homeless-mortality.html>

## Appendix

### Other California/Regional Homeless Mortality Reports

Location	Type of Report	Homeless Deaths	Notes/Links:
Los Angeles	Analysis of medical examiner reported deaths	1,267 deaths in 2019	<a href="#">Link</a> ; LA County BOS-created Countywide Advisory Group to make recommendations.
Santa Clara	Medical examiner-produced report	1,100 since 2011; 180 in 2020	<a href="#">Link</a> ; 2011-2016 retrospective report. Working on a mortality map project ( <a href="#">Link</a> ).
San Francisco	Medical examiner-reported deaths	135 deaths in 2019; 331 deaths between 3/2020 and 3/2021	<a href="#">2019 Link</a> ; excellent utilization analysis; deaths only for literally homeless who died in streets or shelters. 2022 <a href="#">review link</a> .
Sacramento	Coroner's Office report	137 deaths 2020; 1,307 since 2002	<a href="#">Link</a> ; produced by Sacramento Coalition to End Homelessness with help from Coroner's Office.
Contra Costa	Review of death records data	762 deaths 2012-2018	Internal review; produced by county and HCH program.
Santa Barbara	Coroner's death reports	41 deaths in 2018	<a href="#">Link</a> ; carried out by SB County Homeless Deaths Review Team led by PHD/HCH.