

Mortality among People Experiencing Homelessness in Los Angeles County: One Year Before and After the Start of the COVID-19 Pandemic

April 2022



**LOS ANGELES COUNTY
BOARD OF SUPERVISORS**

Hilda L. Solis, First District

Holly Mitchell, Second District

Sheila Kuehl, Third District

Janice Hahn, Fourth District

Kathryn Barger, Fifth District

**LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC HEALTH**

Barbara Ferrer, PhD, MPH, MEd Director

Muntu Davis, MD, MPH, Health Officer

Megan McClaire, Chief Deputy Director

Paul Simon, MD, MPH, Chief Science Officer

CENTER FOR HEALTH IMPACT EVALUATION

Will Nicholas, PhD, MPH, Director

Lisa Greenwell, PhD, Research Analyst

Cristina Edwards, MPH, Research Analyst

Laura Stroud, MSW, Project Manager

ACKNOWLEDGEMENTS

We thank **Jonathan Lucas**, MD, the Los Angeles County Chief Medical Examiner-Coroner; **Louise Rollin-Alamillo** and **Alex (Yiuwah) Ho** of the Los Angeles County Department of Public Health's Office of Health Assessment and Epidemiology; **Stephanie Wolahan** of the Los Angeles Homeless Services Authority; and **Benjamin Henwood** and **Stephanie Kwack** of the University of Southern California for their contributions to this brief.

Suggested Citation: Los Angeles County Department of Public Health, Center for Health Impact Evaluation. Mortality Among People Experiencing Homelessness in Los Angeles County One Year Before and After the COVID-19 Pandemic. April 2022.

For additional information:

<http://publichealth.lacounty.gov/chie>

Executive Summary

This is the third annual report on mortality among people experiencing homelessness (PEH) in LA County. Due to the COVID-19 pandemic, LA County's annual point-in-time homeless count was not conducted in January of 2021. Thus, we did not have the population denominators required to update our annual data on PEH mortality *rates* per 100,000. Instead, we have used this report as an opportunity to compare numbers and characteristics of PEH deaths during the 12-month period before (4/01/19-3/31/20) and after (4/01/20-3/31/21) the first PEH COVID-19 death (referred to in the report as pre- and post-pandemic onset). In this way, we can begin to explore how the pandemic has both directly and indirectly impacted this already vulnerable population.

The overall number of PEH deaths increased from 1271 in the pre-pandemic year to 1988 in the post-pandemic onset year, a 56% increase (**Table 1**). This recent increase, while notably large, is consistent with a longer term trend in PEH mortality since 2014. (Figure A). All age and racial ethnic groups saw substantial increases in deaths during the post-pandemic onset year, but the overall trend was driven largely by increases among 18-29 (106%) and 30-49 (70%) year-olds and among Latinx (69%) and Black (58%) PEH. Increases in deaths were similar among men (56%) and women (59%). COVID-19 was a major factor in the increase in deaths, with 179 deaths in the post-pandemic onset year, but drug overdose (OD) was the primary driver of the increase, with 313 additional deaths in the post-pandemic onset year representing a 78% increase. Homicide (49%), traffic injury (33%) and coronary heart disease (CHD) (29%) deaths also saw sizable increases, with the total number of traffic injury deaths (150) approaching the number of COVID-19 deaths in the post-pandemic onset year.

A closer look at the OD deaths also reveals notable increase across all age and racial/ethnic groups, with the overall trend largely driven by increases among those aged 18-29 (112%), 30-49 (112%) and among Latinx (84%) and Black (74%) PEH (**Table 2**). The increase in OD deaths was slightly higher among men (80%) than women (71%).

CHD, the second leading cause of death among PEH, saw a greater increase from pre- to post-pandemic onset among women (40%) versus men (28%) (**Table 3**). Almost all CHD deaths occurred among PEH over age 50, although during both years, more CHD deaths occurred among those aged 50-64 (136;171) than among those aged 65+ (95; 125). The increase in CHD deaths was greater among Latinx (34%) and White (33%) PEH than among Black (22%) PEH.

During the first year of the pandemic, PEH who died from COVID-19 were younger than those who died from COVID-19 in the general population. 23% of PEH COVID-19 deaths were among people under age 50 and 40% were among people aged 50-64 (**Table 4**). In the general LA County population, 8% were among people under 50 and 21% were among people aged 50-64.

The only specific drug type that contributed to a notably greater percentage of OD deaths in the post- compared to the pre-pandemic year was fentanyl, whose contribution increased from 27% to 45% of OD deaths. Nevertheless, methamphetamine contributed to the highest percentage of OD deaths across both years (73% and 75%, respectively). Furthermore, while most OD deaths involved multiple drugs, methamphetamine was the sole cause of 31% of OD deaths in the pre-pandemic and 28% of deaths in the post-pandemic onset year. By contrast, no other drug type was the sole cause of more than 5% of deaths across both years.

In summary, the first year of the COVID-19 pandemic coincided with a steeper increase in PEH deaths than what we had seen in previous years in LA County, although we won't know if this reflects an equally large increase in the PEH mortality *rate* until we have results from the 2022 homeless mortality count. While COVID-19 became the third leading cause of death among PEH in the post-pandemic onset year, the overall increase was driven to an equal or larger degree by increases in OD, homicide, CHD, and traffic injury deaths. It appears the COVID-19 pandemic may have exacerbated stressors already present in the lives of PEH, leading to increases in other causes of death, even as we redoubled our COVID-19 prevention efforts in this population. Thus, as the pandemic subsides, disproportionately high mortality will likely persist among PEH unless we continue to implement a broad array of preventive measures including housing placements, substance use prevention and treatment, physical and mental health treatment, and enhanced safety measures in areas where PEH congregate.

Introduction

Homelessness has been steadily increasing in LA County over the past seven years. Health and homelessness are inextricably linked, as physical, mental, and behavioral health problems put people at increased risk of experiencing homelessness and are also exacerbated by the harsh conditions associated with life on the street. Mortality is a key health indicator and just as monitoring mortality trends in the general population has been used to guide efforts to promote prevention and health equity, monitoring these trends among people experiencing homelessness (PEH) can provide similar guidance to programs and policies targeting PEH.

This third annual report on mortality trends among PEH in LA County is more limited in scope than its predecessors¹ due to the impact of COVID-19 on the annual LA County Homeless Count. To mitigate the risks of COVID-19 spread during the winter surge, no homeless count was conducted in January 2021. We use the results of these annual counts as the denominators in our calculations of mortality *rates*. Thus, whereas last year we reported trends in numbers of deaths and mortality rates among PEH through 2019, this year we are only able to report numbers of deaths for 2020.

However, given the profound impact of COVID-19 on LA County, including PEH, this report departs from our usual reporting of calendar year estimates only. While we report the total number of PEH deaths in 2020, the bulk of the report consists of comparisons of numbers and percentages of PEH deaths during the 12 months before (4/1/19-3/31/20) and after (4/1/20-3/31/21) the pandemic began impacting PEH mortality. Although we can't compare mortality rates between these two time periods, we can compare the relative numbers and percentages of PEH deaths. By comparing patterns of PEH deaths by gender, age, race/ethnicity, cause of death, and drug type for overdose deaths, we can begin to shed light on the direct and indirect impacts of the COVID-19 pandemic on PEH mortality.

¹ http://publichealth.lacounty.gov/chie/PA_Projects.htm

Methods

Enumeration of Deaths

As in previous years, our first step in enumerating PEH deaths was to include Medical Examiner-Coroner (MEC)-investigated deaths¹ coded as indigent/homeless. These deaths were augmented in number first through systematic text searches of remaining MEC case records. Cases with emergency shelter or interim/transitional housing addresses² in one or more address fields were added to the homeless death count. Cases with homelessness-related key words³ in any descriptive text field were independently reviewed by two analysts using Department of Housing and Urban Development (HUD) homelessness criteria.⁴ Cases meeting the criteria were also added to the count. Then, to identify homeless deaths not investigated by the MEC, state death records were matched to all MEC records for the time periods analyzed. State records with address field entries suggesting homelessness were also added to the count. These were either non-matching records (i.e., they had not been investigated by the MEC), or they had not already been classified as PEH deaths based on the MEC data.⁵

Special Note on the Enumeration of PEH Deaths During the COVID-19 Pandemic

With the advent of the COVID-19 pandemic in LA County, the Department of Public Health devoted specific resources to the investigation of potential COVID-19 cases and deaths among PEH. This report includes 112 deaths identified through these investigations that would not otherwise have been identified through the methods described above. We report 88 of those deaths as COVID-19 deaths and 24 as other causes of death because our criteria for determining cause of death (see below) differed from the criteria used by the Department's COVID-19 surveillance team.⁶

¹ The MEC investigates all violent, sudden, or unusual deaths; unattended deaths; and deaths where the deceased does not have a physician (Govt. Code, § 27491)

² Shelter and interim/transitional housing addresses were obtained from the latest HUD mandated Housing Inventory Counts from the Los Angeles, Long Beach, Pasadena, and Glendale homeless services authorities, and augmented with more recent data on facilities not included in those counts.

³ Key words included: homeless, transient, shelter, lives in van, lives in car, lives in vehicle, no fixed abode, no known residence, tent, encampment, indigent, skid row, vagrant, shed, Room Key, PEH, and "institution".

⁴ National Alliance to End Homelessness, Changes in HUD Definition of "homeless".

<http://endhomelessness.org/wp-content/uploads/2012/01/changes-in-hud-definition-homeless.pdf>

⁵ In addition to homeless key words and emergency shelter/interim/transitional housing addresses, state death records were also searched for location descriptions consistent with instructions provided by the state to local registrars on how to code residence addresses for homeless decedents.

⁶ DPH Surveillance definition of confirmed COVID-19-related deaths includes those resulting from non-traumatic, non-accidental causes within 60 days of the first confirmed positive SARS-CoV-2 molecular (PCR) test, or up to 90 days if intubated, or if COVID-19 was specifically listed as a confirmed cause of death on the death certificate and there was a confirmed positive molecular (PCR) test result.

Causes of Death

Causes of death were classified using International Classification of Disease (ICD-10) cause of death codes found in the underlying cause of death field on state death certificate records. These codes were captured for all homeless MEC cases that matched with state death records, and for all PEH deaths that were identified solely by evidence of homelessness in the state death record address field.

Time Periods of Comparison

For our 12-month pre-COVID-19 period we use April 1st, 2019, through March 31st, 2020. Our 12-month post-COVID-19 period is April 1st, 2020, through March 31st, 2021. While a few isolated cases of COVID-19 were identified among PEH during March 2020, the first recorded PEH COVID-19 death in LA County occurred on April 8th, 2020. Since this report is focused on mortality, we consider the first month of the COVID-19 impact on PEH mortality to be April 2020.

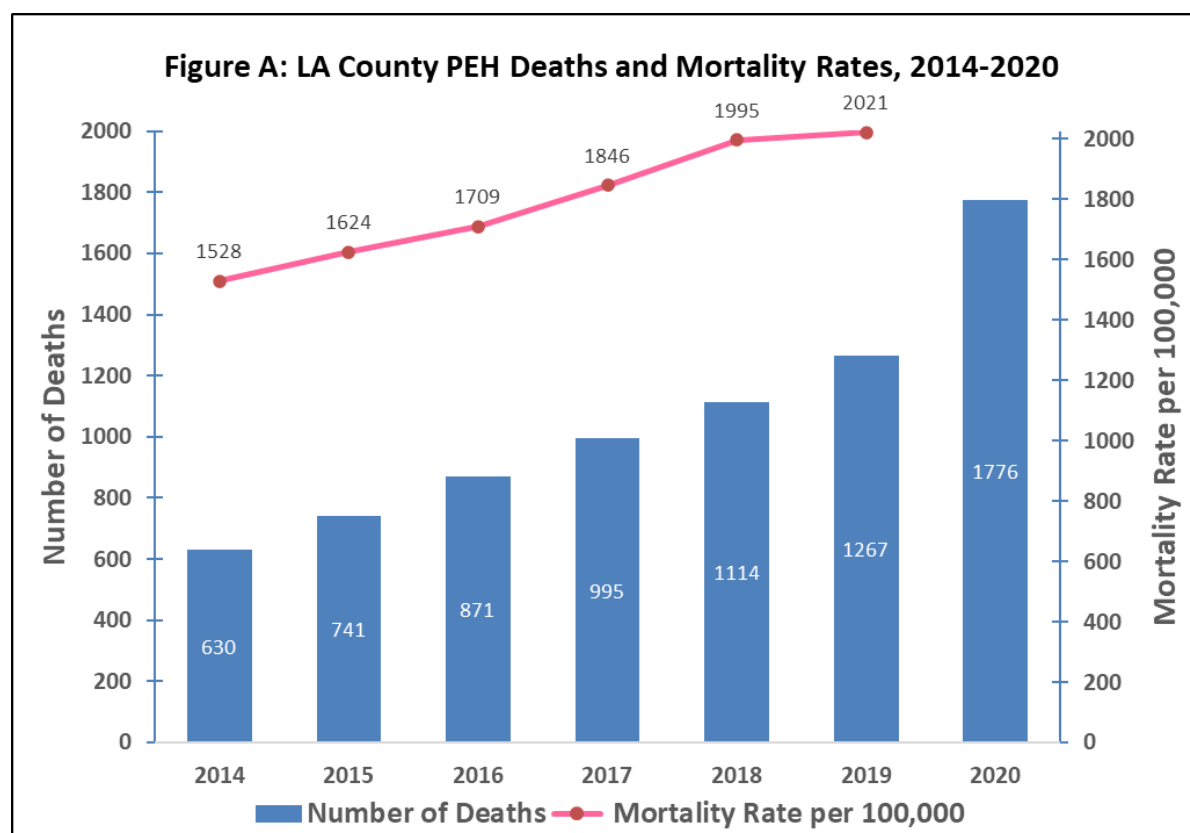
Drug Type Analysis for Overdose Deaths

Types of drugs contributing to overdose deaths were determined using a published methodology involving text-based analysis of death certificate cause of death fields for PEH whose ICD-10 underlying cause of death was drug/alcohol overdose.¹ Any type of drug mentioned as a primary or contributing cause of death was classified as a contributing cause of death. Multiple drugs could contribute to the same death. Each drug type was ranked according to the percentage of deaths to which it contributed.

¹ Trinidad J, et al. Using Literal Text from the Death Certificate to Enhance Mortality Statistics: Characterizing Drug Involvement in Deaths. *National Vital Statistics Reports*. 2016; 65 (9): 1-14.

Results

There were 1776 PEH deaths in calendar year 2020 (**Figure A**), representing a 40% increase from 2019.¹ From April 1st, 2019, to March 31st, 2020 (pre-pandemic year) there were 1271 PEH deaths. From April 1st, 2020, to March 31st, 2021 (post-pandemic onset year) there were 1988 PEH deaths, representing a 56% increase in the number of PEH deaths from the pre- to post-pandemic onset year (**Table 1**). Please note that since we do not have a homeless count for January 2021 to use in the calculation of a denominator for mortality rates, we do not know to what degree these increases in deaths also represent an increase in the mortality rates among PEH.



¹ Note: 40 of the 2020 PEH deaths were identified through our COVID-19 surveillance efforts and would not have otherwise been identified as PEH based on our methods alone. This inclusion of deaths based on a different methodology slightly inflates the upward trend in PEH deaths from 2019 to 2020 compared to the year-to-year trends in previous years.

Table 1 - Number and Characteristics of LA County Deaths among PEH, 12 Months Pre- and Post-Pandemic Onset

Characteristic	Pre-Pandemic Numbers 4/01/19-3/31/20	Post-Pandemic Numbers 4/1/20-3/31/21	Absolute Increase	% Increase
All deaths	1271	1988	717	56%
Gender				
Male	1037	1618	581	56%
Female	233	370	137	59%
Age				
18-29	85	175	90	106%
30-49	373	633	260	70%
50-64	585	842	257	44%
65+	228	338	110	48%
Race/Ethnicity				
Black/African American	325	515	190	58%
Asian	16	34	18	113%
Hispanic/Latinx	486	820	334	69%
White	426	592	166	39%
Other ¹	18	27	9	50%
Cause of Death				
Drug Overdose	402	715	313	78%
Coronary Heart Disease	239	309	70	29%
COVID-19	0	179	179	NA
Traffic Injury	113	150	37	33%
Homicide	70	104	34	49%
Suicide	55	64	9	16%
Other Unintentional Injuries	54	57	3	6%

¹ Includes American Indian/Alaska Native, Native Hawaiian/Pacific Islander, multiracial, and refused/unknown

Comparison of Pre- and Post-pandemic Onset PEH Deaths by Demographics and Cause of Death

Race/Ethnicity

The racial/ethnic group with the largest absolute increase in PEH deaths was Latinx, with 334 more deaths in the post-pandemic onset year, representing a 69% increase in the number of deaths in this group (**Table 1**). There were 190 more deaths among Black PEH in the post-pandemic onset year, representing a 58% increase. White PEH deaths increased by 39%, with 166 more deaths in the post-pandemic onset year. While there were only 18 more deaths among Asian PEH in the post-pandemic onset year, this 113% increase represented more than twice the number of deaths in this group compared to the pre-pandemic year.

Age Group

Deaths increased more among younger PEH than among older PEH. The number of deaths among those aged 18-29 more than doubled from 85 in the pre-pandemic to 175 in the post-pandemic onset year. Among 30-49 year-olds there were 260 more deaths in the post-pandemic onset year, representing a 70% increase. Both the absolute and relative increases in deaths among those aged 30-49 exceeded those among 50-64 year-olds and among those aged 65+.

Gender

Relative increases in deaths were similar among males (56%) and females (59%) although the absolute increase was much greater among males (581) than females (137). This can largely be attributed to the fact that the homeless population in LA County has historically consisted of approximately 2 males for every 1 female.

Cause of Death

In the pre-pandemic year the six leading causes of PEH deaths, in ranked order, were drug overdose (OD) (32%), coronary heart disease (CHD) (19%), traffic injury (9%), homicide (6%), suicide (4%), and other unintentional injuries (4%) (**Table 1**). In the post-pandemic onset year, these six causes maintained their relative rankings, but COVID-19 became the third leading cause of death, with 179 (9%) deaths. Among the other leading causes of death, OD saw the greatest relative increase of 78% from the pre- to post-pandemic onset year, followed by homicide (49%), traffic injury (33%), CHD (29%), suicide (16%) and other unintentional injuries (6%).

Comparison of Pre- and Post-pandemic Onset Drug Overdose Deaths by Demographics

Race/Ethnicity

The racial/ethnic group with the largest absolute increase in PEH OD deaths was Latinx, with 121 more deaths in the post-pandemic onset year, representing an 84% increase in the number of OD deaths in this group (**Table 2**). Black PEH had 79 more OD deaths in the post-pandemic onset year, representing a 74% increase. White PEH had 99 more OD deaths in the post-pandemic onset year, representing a 67% increase.

Age Group

OD deaths among those aged 19-29 and 30-49 more than doubled from the pre- to the post-pandemic onset year. The additional number OD deaths in the post-pandemic onset year among these younger age groups (205 combined) was also almost double the additional OD deaths in the older age groups (108 combined). For those aged 50-64 and 65+ OD deaths also increased substantially, by 50% and 43%, respectively.

Gender

There were 254 more OD deaths among male PEH in the post-pandemic onset year, representing an 80% increase. The 60 additional OD deaths among female PEH represents a 71% increase. As mentioned above, males have historically comprised approximately two-thirds of the homeless population in LA County, which largely accounts for this differential.

Table 2 - Number and Characteristics of LA County Overdose Deaths among PEH, 12 Months Pre- and Post-Pandemic Onset

Characteristic	Pre-Pandemic Numbers 4/01/19-3/31/20	Post-Pandemic Numbers 4/1/20-3/31/21	Absolute Increase	% Increase
All OD deaths	402	715	313	78%
Gender				
Male	317	571	254	80%
Female	84	144	60	71%
Age				
18-29	42	89	47	112%
30-49	141	299	158	112%
50-64	191	287	96	50%
65+	28	40	12	43%
Race/Ethnicity				
Black/African American	107	186	79	74%
Asian	†	†	NA	NA
Hispanic/Latinx	144	265	121	84%
White	148	247	99	67%

† Non-zero cell sizes of <10 deaths are suppressed to protect data confidentiality.

Comparison of Pre- and Post-pandemic Onset CHD Deaths by Demographics

Race/Ethnicity

White (33%) and Latinx (34%) PEH saw similar increases in CHD deaths from the pre- to post-pandemic onset year (**Table 3**). Black PEH had 15 more CHD deaths, representing a 22% increase.

Age Group

Almost all increases in CHD deaths from the pre- to post-pandemic onset year occurred among PEH over 50 years old, with similar increases among those aged 50-64 and those aged 65+. CHD deaths also increased among those aged 30-49, although the exact percentage cannot be reported due to data confidentiality rules.

Gender

While the absolute increase in CHD deaths from the pre- to post-pandemic onset year was greater among male PEH (60 vs. 10), female PEH had a notably higher relative increase (40% vs. 28%).

Table 3 - Number and Characteristics of LA County CHD Deaths among PEH, 12 Months Pre- and Post-Pandemic Onset

Characteristic	Pre-Pandemic Numbers 4/01/19-3/31/20	Post-Pandemic Numbers 4/1/20-3/31/21	Absolute Increase	% Increase
All CHD deaths	239	309	70	29%
Gender				
Male	214	274	60	28%
Female	25	35	10	40%
Age				
18-29	0	†	NA	NA
30-49	†	12	NA	NA
50-64	136	171	35	26%
65+	95	125	30	32%
Race/Ethnicity				
Black/African American	69	84	15	22%
Asian	†	†	NA	NA
Hispanic/Latinx	76	102	26	34%
White	86	114	28	33%

† Non-zero cell sizes of <10 deaths are suppressed to protect data confidentiality.

Demographic Characteristics of PEH COVID-19 Deaths during the First Year of the Pandemic

Race/Ethnicity

Of the 179 COVID-19 deaths identified among PEH during the post-pandemic onset year, 48% were Latinx, 27% were Black, and 17% were White (**Table 4**). According to the most recent point-in-time homeless count from January 2020, 25% of LA County PEH were White, 36% were Latinx, and 34% were Black. This suggests that, during the first year of the pandemic, Latinx PEH were overrepresented among COVID-19 deaths compared to their proportion of the PEH population. Conversely, Black and White PEH were underrepresented among COVID-19 deaths compared to their respective proportions of the PEH population. In the general LA County population, during the first year of the pandemic, Latinx were similarly overrepresented among COVID-19 deaths, but Black and White COVID-19 deaths were roughly proportional to their respective proportions of the general population.¹

Age Group

23% of PEH COVID-19 deaths occurred among those under age 50. This is almost three times greater than the 8% of COVID-19 deaths among those under age 50 in the general LA County population (excluding Long Beach and Pasadena) through March 31st, 2021.¹ Among PEH, 40%

¹ LA County Department of Public Health COVID-19 Surveillance Data:
http://dashboard.publichealth.lacounty.gov/covid19_surveillance_dashboard/

of COVID-19 deaths occurred among those aged 50-64 and 37% occurred among those aged 65+. In the general population, 21% occurred among those aged 50-64 and 72% occurred among those aged 65+.

Gender

88% of PEH COVID-19 deaths occurred among men. During the same period, 59% of COVID-19 deaths in the general population occurred among men. Given that men comprise about two-thirds of the homeless population (versus about one half of the general population) one would expect their proportion of COVID-19 deaths to be greater than that in the general population by a factor of about 1.33, which would yield an estimated 78% of PEH COVID deaths among men. Thus, during the first year of the pandemic, the preponderance of males among PEH COVID-19 deaths was even greater than among COVID-19 deaths in the general population. This may be attributable in part to the fact that the male PEH population is slightly older than the female PEH population.¹

Table 4 - Number and Characteristics of LA County COVID-19 Deaths among PEH, 12 Months Post-Pandemic Onset

Characteristic	Number	Percentage
Gender		
Male	157	88%
Female	22	12%
Age Group		
18-29	†	NA
30-49	39	22%
50-64	72	40%
65+	66	37%
Race/Ethnicity		
Black/African American	48	27%
Asian	†	NA
Hispanic/Latinx	86	48%
White	30	17%
Other ¹	10	6%

¹ Includes American Indian/Alaska Native, Native Hawaiian/Pacific Islander, multiracial, and refused/unknown

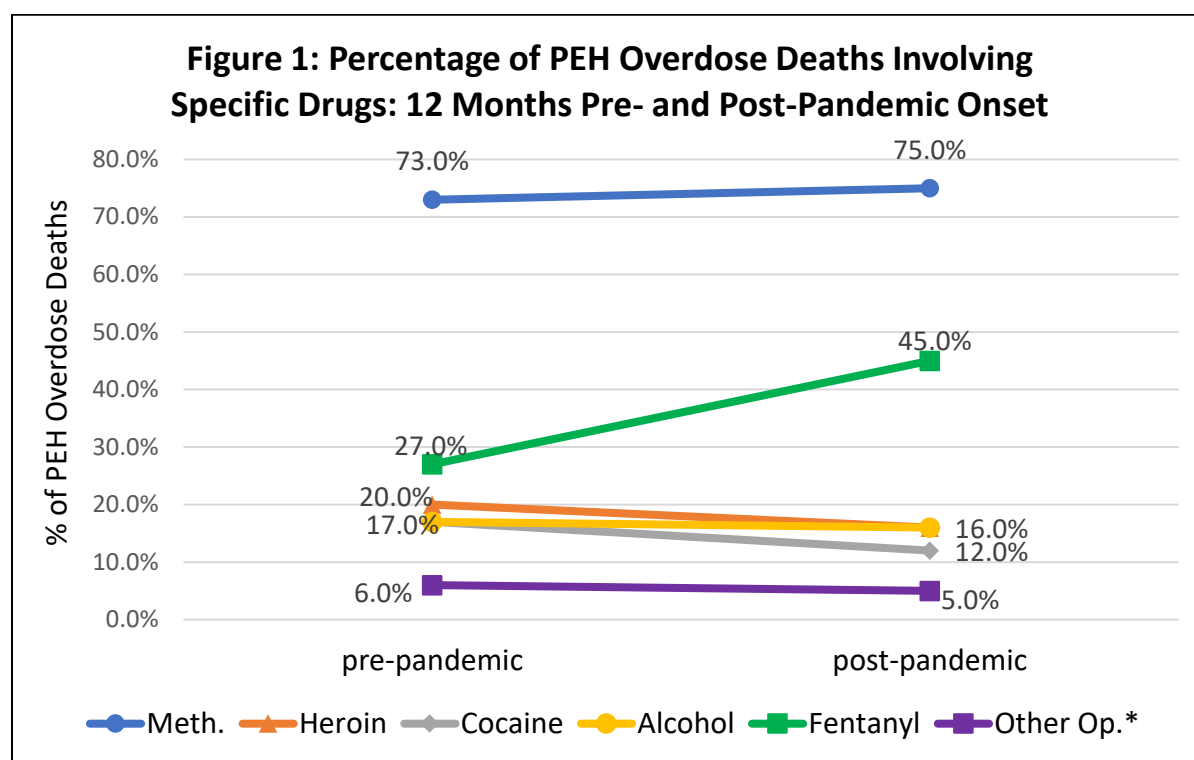
† Non-zero cell sizes of <10 deaths are suppressed to protect data confidentiality.

¹ LA County Point-in-Time Homeless Count Demographic Survey (special tabulation of gender by age group).

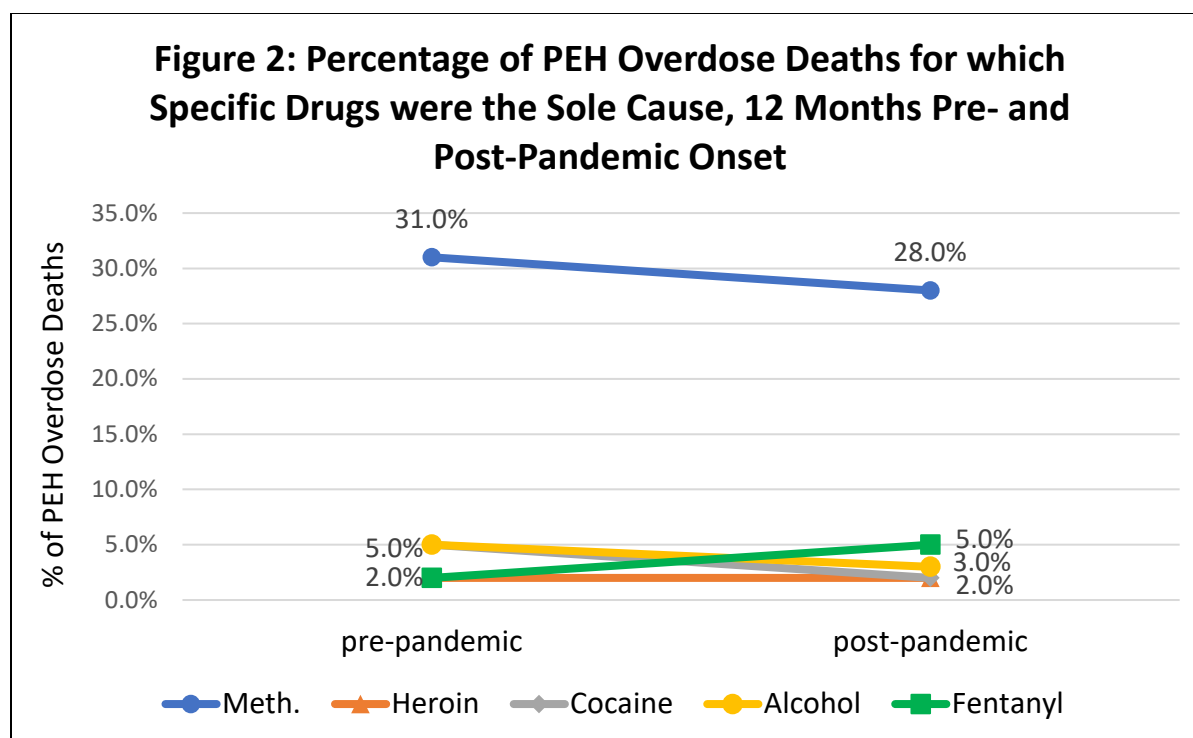
Comparison of Types of Drugs Involved in Overdose Deaths During Pre-and Post-pandemic Onset Year

Methamphetamine was the specific drug type involved in the greatest percentage of PEH OD deaths in the 12 months pre- and post-pandemic onset, contributing to about three quarters of all OD deaths in both years (**Figure 1**). Fentanyl was the second leading contributor to OD deaths in both years, but its contribution increased considerably from 27% of deaths in the pre-pandemic year to 45% of deaths in the post-pandemic onset year. Heroin was the third leading contributor to OD deaths in the pre-pandemic year (20%) although its contribution declined to 16% of deaths in the post-pandemic onset year, putting in on par with alcohol in the latter year. The contribution of cocaine to OD deaths declined from 17% in the pre-pandemic year to 12% in the post-pandemic onset year, making it the fifth leading contributor to OD deaths in the latter year. The contribution of cocaine to OD deaths declined from 17% in the pre-pandemic year to 12% in the post-pandemic onset year, making it the fifth leading contributor to OD deaths in the latter year.

Most PEH OD deaths involved multiple types of drugs. The only drug that was the sole contributor to more than 5% of OD deaths in either year was methamphetamine, which was the sole contributor to 31% of OD deaths in the pre-pandemic year and 28% of deaths in the post-pandemic onset year (**Figure 2**). The only drug with an increase in the percentage of OD deaths for which it was the sole contributor was fentanyl, which contributed exclusively to 2% of deaths in the pre-pandemic year and 5% of deaths in the post-pandemic onset year.



*Methadone, Morphine, Oxycodone, Hydrocodone, Oxymorphone, Tramadol, Codeine, Opiate



Comparison of Pre- and Post-pandemic Onset Drug Overdose Deaths Involving Fentanyl by Demographics

Contributions of fentanyl to OD deaths were similar across racial/ethnic groups during the pre- and post-pandemic onset years, although the increase across years appeared slightly less steep for Latinx PEH (**Figure 3**). During each year female OD deaths were 8-9% less likely to involve fentanyl than male OD deaths, but the increase in fentanyl involvement across years was similar for males and females (**Figure 4**). The contribution of fentanyl to OD deaths was greater among younger versus older age groups for both years, with 76% of OD deaths among those aged 18-29 involving fentanyl in the post-pandemic onset year (**Figure 5**). Nevertheless, the relative increase in the contribution of fentanyl was greater for the older age groups, with the percentage of OD deaths involving fentanyl doubling among those aged 50-64 and 65+ from the pre- to post-pandemic onset year.

Comparison of Pre- and Post-pandemic Onset Drug Overdose Deaths Involving Methamphetamine by Demographics

Across both years, methamphetamine was involved in a higher percentage of OD deaths among Whites compared to Blacks and Latinx, but the latter two groups saw a slight increase in the involvement of methamphetamine from the pre- to post-pandemic onset year, while Whites saw a slight decrease in methamphetamine involvement (**Figure 6**). The contributions of methamphetamine to OD deaths were similar for males and females across years (**Figure 7**).

The contribution of methamphetamine to OD deaths was lower in the youngest age group compared to those aged 30-49 and 50-64. However, 18-29 year-olds were the only age group to see a notable increase in methamphetamine involvement in OD deaths from the pre- to post-pandemic onset year (**Figure 8**).

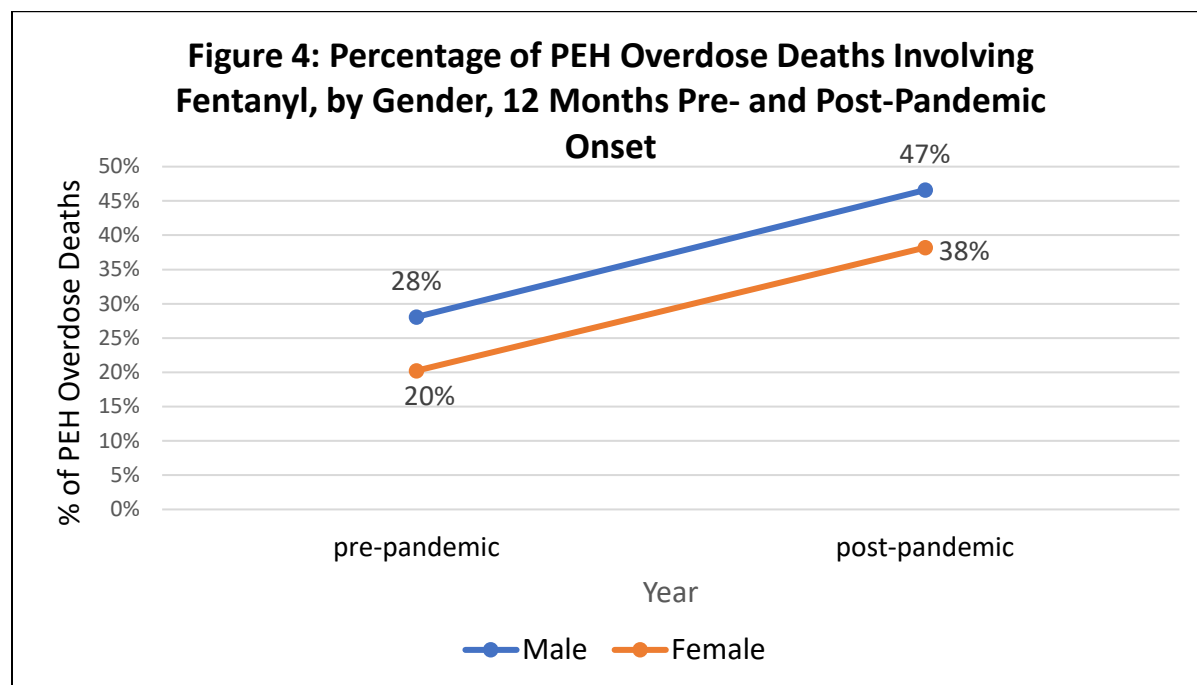
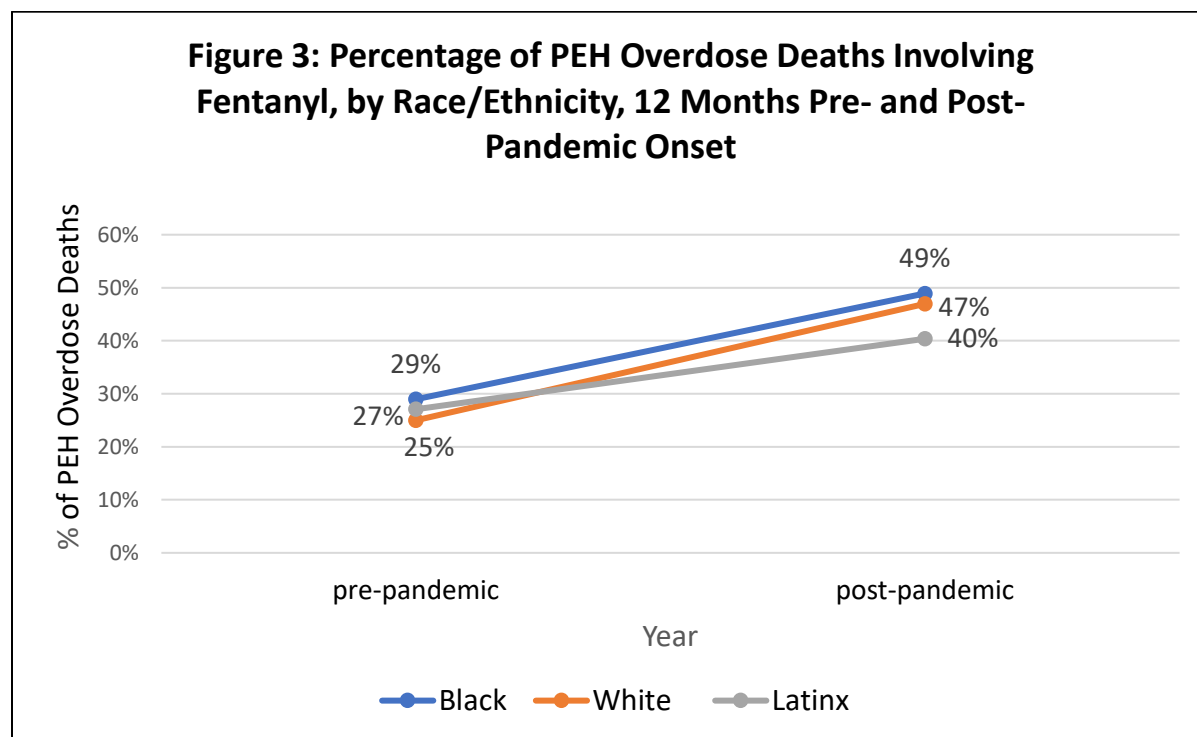


Figure 5: Percentage of PEH Overdose Deaths Involving Fentanyl, by Age Group, 12 Months Pre- and Post-Pandemic Onset

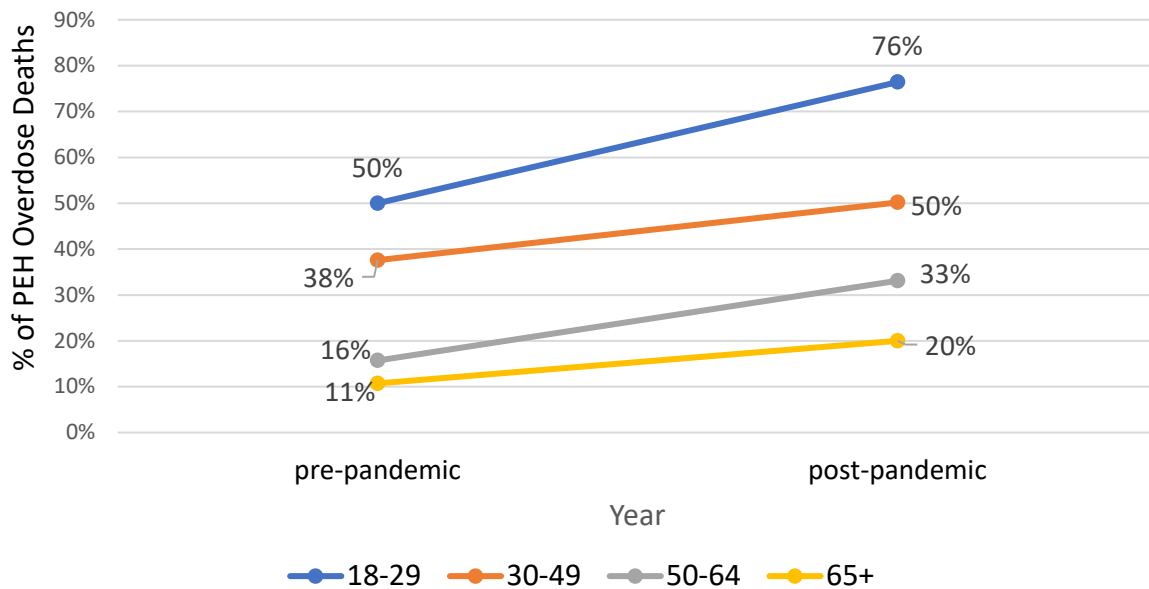


Figure 6: Percentage of PEH Overdose Deaths Involving Methamphetamine, by Race/Ethnicity, 12 Months Pre- and Post-Pandemic Onset

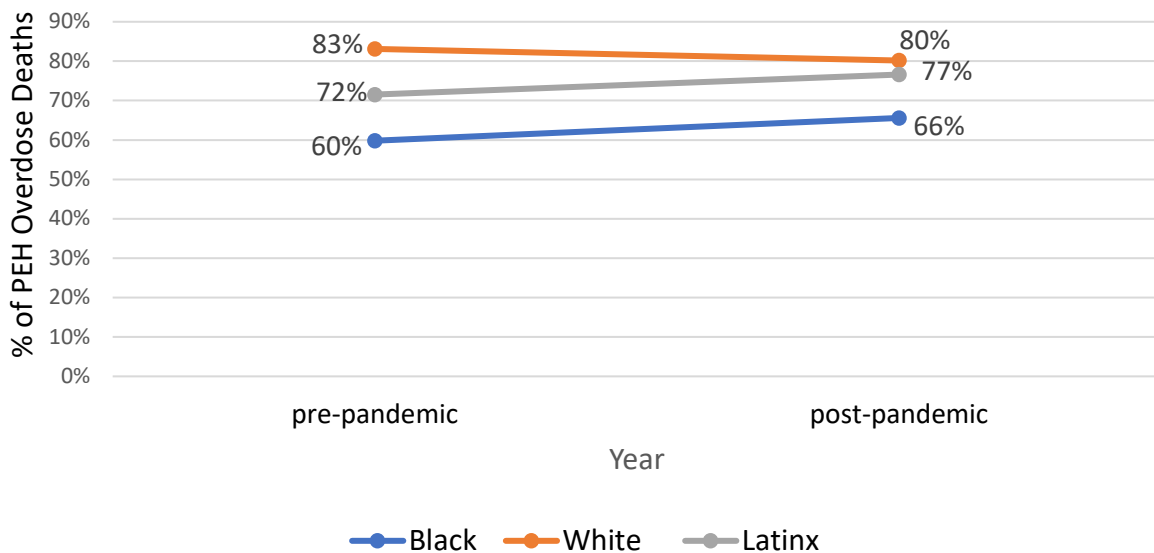


Figure 7: Percentage of PEH Overdose Deaths Involving Methamphetamine, by Gender, 12 Months Pre- and Post-Pandemic Onset

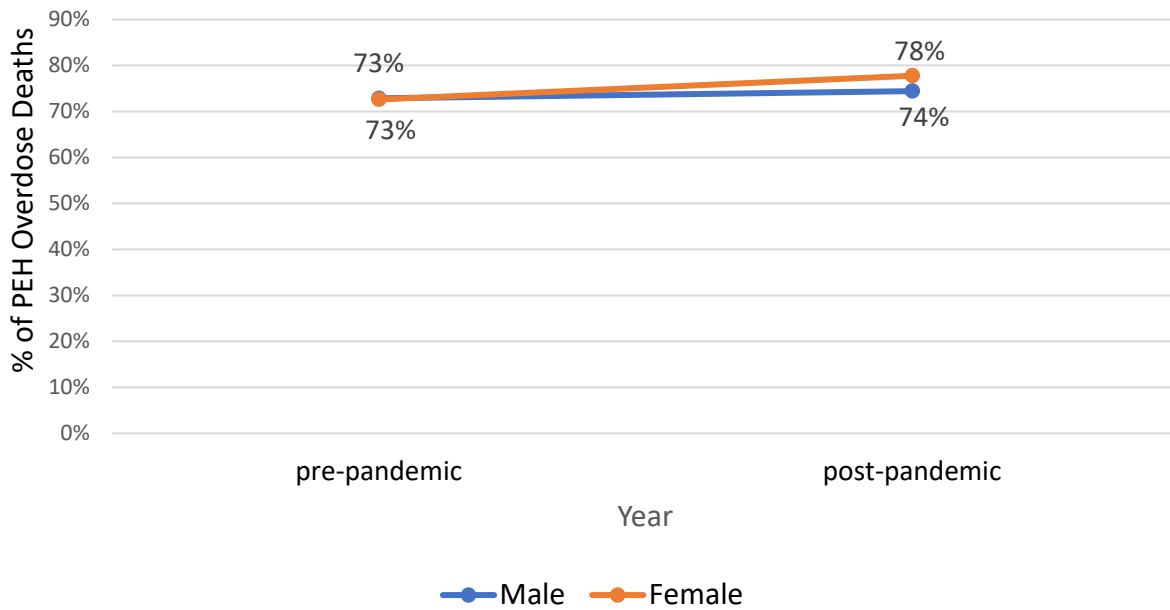
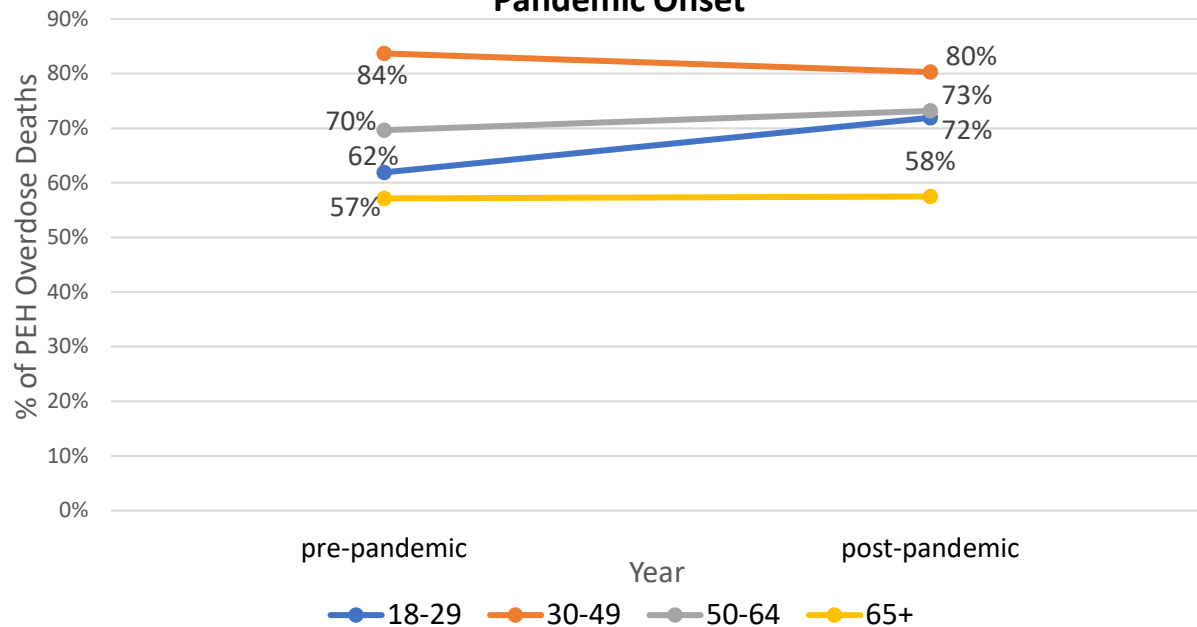


Figure 8: Percentage of PEH Overdose Deaths Involving Methamphetamine, by Age Group, 12 Months Pre- and Post-Pandemic Onset



Conclusions

While PEH deaths have been on the rise for a number of years in LA County, our comparison of PEH deaths during the 12 months before and after the beginning of the COVID-19 pandemic shows a particularly sharp increase of 56%, from 1271 to 1988. A portion of this increase can be attributed to the Department's additional efforts to identify the housing status of COVID-19 cases as part of its surveillance activities (see Methods). These efforts yielded an additional 112 PEH deaths that we would otherwise not have identified. However, over three quarters of those additional deaths were attributed to COVID-19,¹ so our observed increases in other causes of death cannot be solely attributed to improved detection of homelessness among those who died of COVID-19 during the post pandemic year. In fact, if one excludes the 179 COVID-19 deaths, there is still a 42% increase in deaths from the pre- to post-pandemic onset year.

By far the greatest contributor to the increase in PEH deaths was drug overdoses, which increased by 78% from the pre- to post- pandemic year. These OD deaths increased the most among those aged 18-29 and 30-49 and among Latinx and Black PEH, although increases were also considerable among White PEH. The increase in OD deaths was slightly greater among men than among women. The drug type with the greatest increase in OD death involvement was fentanyl which rose from 27% to 45% from the pre-to post-pandemic onset year. This increase in fentanyl-involved deaths was relatively similar across all racial/ethnic groups, among both men and women, and across all age groups. Despite this large increase in fentanyl involved deaths, there was no decrease in deaths involving methamphetamine, which contributed to about three quarters of all deaths across both years. Methamphetamine involvement in OD deaths differed somewhat by race/ethnicity, with the highest percentages among White PEH and the lowest among Black PEH. Notably, 18-29 year-olds were the demographic group with the greatest increase in methamphetamine-involved deaths.

Also of concern were the 49% increase in homicide deaths and 33% increase in traffic injury deaths among PEH from the pre- to post-pandemic onset years. These findings warrant further investigation into the manner and circumstances of violent deaths and the geographic locations of traffic injury deaths. The Department is collaborating with researchers who have identified similar recent increases in violent deaths among PEH in cities across the country to raise awareness of the issue and identify potential preventive interventions. A geographic analysis of traffic injury deaths is also underway.

¹ A small portion had ICD-10 codes for underlying causes other than COVID-19 on the death certificate, and this is the indicator we used to assign cause of death in our analyses.

Deaths from CHD, which has consistently been the second leading cause of death among PEH in LA County, also increased considerably. While it would be difficult to ascertain whether these additional CHD deaths in the post-pandemic onset year were the result of reduced access to hospital care due to the COVID-19 pandemic, we do know that the general LA County population experienced excess mortality from heart disease and other chronic conditions during the pandemic, and it is reasonable to infer that this phenomenon was also experienced by PEH. Female PEH appear to have been particularly affected by this, as evidenced by their 40% increase in CHD deaths compared to 28% among male PEH.

While Asians have typically comprised a relatively small proportion of PEH in LA County, the disproportionally large relative increases in multiple causes of death in this population are also of concern. It will be important to partner with community organizations serving this population to better understand and address the factors contributing to these increases.

Finally, the much higher proportion of PEH COVID-19 deaths among those under 65 compared to the general population highlights the unique health-related vulnerabilities of PEH and the importance of interventions like Project Roomkey, designed to help protect this population from exposures that may exacerbate and further spread infection. The Department is collaborating with local universities on a study of the impact of housing-related interventions on COVID-19 and other health-related outcomes among PEH.

In summary, the first year of the COVID-19 pandemic coincided with a steeper increase in PEH deaths than had been seen in previous years in LA County, although we won't know if this reflects an equally large increase in the PEH mortality *rate* until we have results from the 2022 homeless mortality count. While COVID-19 became the third leading cause of death among PEH in the post-pandemic onset year, the overall increase was driven to a large degree by increases in OD, homicide, CHD, and traffic injury deaths. It appears the COVID-19 pandemic may have exacerbated stressors already present in the lives of PEH, leading to increases in other causes of death, even as we redoubled our COVID-19 prevention efforts in this population. Thus, as the pandemic subsides, disproportionally high mortality will likely persist among PEH unless we continue to implement a broad array of preventive measures including housing placements, substance use prevention and treatment emphasizing harm reduction, physical and mental health treatment, and enhanced safety measures in areas where PEH congregate.

Recommendations

Enhance and Expand Field-Based Substance Use Disorder (SUD) and other Health Care Treatment and Related Housing Services for PEH, with an Explicit Focus on Reaching Black and Latinx PEH

1. Leverage Care First Community Investment (CFCI) funds to expand staffing and capacity of field-based multidisciplinary teams to provide harm reduction services to PEH with particular attention to Black and Latinx PEH. Use these teams to reduce participant barriers to Medications for Addiction Treatment (MAT), implement Contingency Management programming, and increase peer support and engagement. Target services to overdose hotspots in SPAs 4, 6, and 8.
2. Leverage CFCI funds to expand and enhance harm reduction services through Engagement and Overdose Prevention (EOP) Hubs including syringe exchange, naloxone and fentanyl test strip distribution and education, and screening and referral for SUD and other physical and mental health service needs.
3. Expand use of mobile clinic units to improve the health and wellbeing of people experiencing unsheltered homelessness, create a pipeline for training practitioners dedicated to field-based services and reducing health disparities, and capture payments for delivery of non-traditional health care to patients otherwise not accessing care within county outpatient settings.
4. Expand use of multidisciplinary Homeless Outreach and Mobile Engagement (HOME) teams to provide specialty mental health care and co-occurring SUD treatment, including MAT when deemed appropriate.

Expand and Improve SUD Services for PEH, with an Explicit Focus on Reaching Black and Latinx PEH

5. Expand and improve SUD services for permanent supportive housing residents and for PEH served through mainstream service integration and homeless encampment outreach projects, by serving additional locations and incorporating recommendations from the Ad Hoc Committee on Black People Experiencing Homeless.
6. Expand and enhance training of service providers on “At-Risk Services for Prevention and Early Intervention”, an intervention model for adults at risk of SUD and provide intervention workshops at permanent supportive housing and interim housing sites serving current and former PEH.
7. Expand and enhance Client Engagement and Navigation Services (CENS), including outreach and engagement, agency education, harm reduction services, Medi-Cal enrollment, and SUD treatment navigation services, to current and former PEH at interim and permanent supportive housing locations across the county.

Increase Distribution of Naloxone to PEH in Street Settings and Shelter/Interim Housing Settings, and PEH Exiting Correctional Facilities

8. Engage emergency departments around offering naloxone for patients who present with overdoses, including but not limited to PEH.
9. Continue to expand the distribution of overdose prevention kits, including but not limited to naloxone, among people being treated within the specialty SUD treatment system and among PEH on the streets.
10. Expand the Overdose Education and Naloxone Distribution (OEND) program to support opioid overdose prevention among PEH by distributing naloxone doses and training service providers and PEH in the administration of naloxone. Make naloxone available to those at risk of opioid overdose through jail-based vending machines and street-based outreach.
11. Leverage CFCI to increase funding for fentanyl test strip and naloxone doses not currently covered by Medi-Cal so that these resources can be more readily integrated into harm reduction services for PEH.

Expand Peer-Based Outreach to PEH through Street-Based Syringe Exchange and Overdose Prevention Education

12. Revise and modernize syringe exchange policies and procedures to permit mobile exchanges and solicit new contracts for harm reduction services with EOP Hubs that offer syringe exchange as part of their peer-based overdose prevention services.

Expand and Enhance County-Contracted SUD Provider Utilization of Homeless Management Information System (HMIS) to Improve Coordination of Care and Housing-Focused Case Management for PEH with SUDs

13. Maintain HMIS licenses and train all SUD providers on the HMIS VI-SPDAT tool to assess and prioritize vulnerability of PEH clients for housing services. Leverage new uncapped care coordination benefit to provide care coordination services for PEH with SUDs to improve housing and other social service outcomes.

Increase Investments in Recovery Bridge Housing (RBH) to Ensure PEH, including those Exiting Jails, Receive Outpatient SUD Treatment Services and Permanent Housing Placements

14. Leverage Measure H, CFCI and federal Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) funds to support expansion of RBH beds for PEH in need of SUD services and abstinence-focused, peer-supported housing.
15. Ensure that additional RBH beds are available to PEH who exit jails after receiving in-custody SUD treatment services, and train RBH providers on LAHSA's rehousing system to facilitate permanent housing placements.

Implement Infectious Disease Protocols in Shelters, Encampments, and Other Congregate Settings Where PEH Live

16. Leverage American Rescue Plan Act (ARPA) funding to assist shelters with implementation of infectious disease protocols, including facility-level protocols around cleaning, disinfection and ventilation, and person-level protocols such as symptom and temperature screening, testing, cohorting within shelters, referrals to isolation and quarantine, and return to work guidance.
17. Leverage ARPA funding to provide shelters with rapid antigen test kits to facilitate appropriate isolation and quarantine, KN95 masks to assist with infection control for omicron variants and potential future surges, and technical assistance on the use rapid testing kits, general infection prevention and control, and wellness checks.

Continue Annual Surveillance of Mortality among PEH in LA County including a Geographic Analysis of Traffic Injury and Homicide Deaths, and Review a Subset of Deaths in More Depth

18. Produce an annual PEH Surveillance Report in early 2023 that estimates recent trends in mortality rates using 2022 point-in-time homeless count data, compares mortality rates by causes of deaths and by race/ethnicity, and includes a geographic analysis traffic injury and homicide deaths as well a drug overdose deaths.
19. Conduct an in-depth case review of a sub-set of all PEH deaths to develop a more comprehensive understanding of the circumstances surrounding these deaths and inform prevention efforts.

Conduct Analyses of Administrative Data Records of Deceased PEH in Coordination with County Departments and Academic Partners, to Reduce Homeless Mortality

20. Pilot test the County Chief Information Office's (CIO) new analytics platform with a longitudinal analysis of County services used by PEH prior to their deaths. For this pilot analysis, leverage Public Health's identification of recent PEH deaths in LA County linked to the multi-department individual-level County service record integration system (called InfoHub).