

# **Data Report : Fentanyl Overdoses in Los Angeles County**

September 2023 (updated)



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## Executive Summary

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In 2021, methamphetamine and fentanyl were the most common drug types listed as a cause of death in accidental drug overdose deaths in Los Angeles County (LAC), accounting for 56% and 55%, respectively, of all alcohol and other drug overdose deaths. While methamphetamine is a significant contributor to accidental drug overdoses, there are also unique risks associated with one-time fentanyl exposure and interventions such as naloxone are available to address fentanyl overdoses that do not exist for methamphetamine. This explains the unique focus on and need to understand the fentanyl crisis amid broader drug overdose concerns to inform activities to reduce the impact of fentanyl overdoses in our communities.

This data report presents the numbers and rates of fentanyl overdose deaths, emergency department (ED) visits, and hospitalizations by sociodemographic and geographic groups from 2016, when routine testing for fentanyl began among overdose deaths.

Accidental fentanyl overdose deaths increased 1,280% from 109 in 2016 to 1,504 in 2021. From 2016 to 2021, fentanyl overdose ED visits increased 621% from 133 to 959, and fentanyl overdose hospitalizations increased 225% from 102 to 332 cases.

Adults aged 26-39 years had the highest rates of fentanyl overdose deaths (30.4), ED visits (23.8), and hospitalizations (6.5) per 100,000 population in 2021.

Males accounted for more fentanyl overdose deaths and had a rate per 100,000 population that was 3.9 times that of females (23.9 vs. 6.2) in 2021. Males also accounted for more fentanyl overdose ED visits and hospitalizations, and had rates per 100,000 population that were 3.5 and 4.5 times, respectively, of those for females (ED visits: 15.1 vs. 4.3; hospitalizations: 5.5 vs. 1.2) in 2021.

White residents accounted for the largest numbers of fentanyl overdose deaths, ED visits, and hospitalizations, followed by Latinx, Black, and Asian residents. However, after adjusting for differences in population size, Black residents had the highest rates per 100,000 population for fentanyl overdose deaths (31.8) and hospitalizations (4.3), and the second highest rate of ED visits (10.5) as compared to White residents (deaths: 23.3, ED visits: 14.8, hospitalizations: 4.1), and Latinx residents (deaths: 11.5, ED visits: 6.6, hospitalizations: 2.4), and Asian residents (deaths: 1.9, ED visits: 1.2, API hospitalizations: 0.8) in 2021.

Similarly, more affluent areas had higher numbers of fentanyl overdose deaths than less affluent areas, with nearly half (48%) of fentanyl overdose deaths occurring in the most affluent areas and 8% occurring in the least affluent areas in 2016-2021. However, the rate of fentanyl overdose deaths per 100,000 population in the least affluent areas were more than triple than those of the most affluent areas (39.6 vs. 12.4) of LAC in 2021.



Fentanyl overdoses are a significant and growing public health problem across the United States and in LAC, across sociodemographic groups and geographic areas. The increases among youth and the widening inequities between under-resourced and more affluent groups underscore the need to target prevention efforts to those at highest risk to decrease fentanyl overdoses and advance health equity in LAC.

## Introduction

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Fentanyl is a synthetic opioid 50 times more potent than heroin and 100 times more potent than morphine. Pharmaceutical-grade fentanyl can be effective in treating severe pain when taken as prescribed. However, misuse of fentanyl, or either known or unknown use of illicitly manufactured fentanyl (IMF) can lead to addiction and overdose.

Even a tiny amount of fentanyl can cause death, especially for those without high tolerance. In the United States, fentanyl and its analogues have been increasingly involved in overdose deaths since 2013 and are now the most common drugs involved in fatal overdoses, accounting for 66% of all overdose deaths in 2021 [CDC Wonder].

IMF is cheap and easy to make quickly and in large quantities. It has been found in nearly all forms of illegal street drugs and counterfeit pills, as drug traffickers intentionally add fentanyl to their drugs to reduce costs, to enhance the effect of an existing drug, and/or to make their drugs more addictive. Fentanyl can also be a contaminant when handling multiple drugs with the same equipment or in unclean environments. Thus, drugs containing IMF have variable and high potency, and can be more dangerous than often perceived, especially for youth who may experiment with drugs or pills [Community Needs Assessment].

IMF is widely available across the United States. In 2021, law enforcement seized enough fentanyl, mostly in the form of counterfeit pills, to provide a lethal dose to every American. An estimated 6 out of every 10 counterfeit pills with fentanyl contains a lethal dose. IMF can come in a variety of bright colors, shapes, and sizes to appeal to and drive addiction among youth and young adults, who are often targeted through social media platforms [DEA].

Given rising fentanyl overdoses in Los Angeles County (LAC), there is a need to better understand the extent of the problem and to identify high risk groups for fentanyl overdoses in LAC to inform prevention activities to reduce the impact of fentanyl in our communities.

## Methods

This report presents accidental fentanyl overdose death, emergency department (ED), and hospitalization data in LAC, with annual trends and sociodemographic and geographic breakdowns by Supervisorial District (SD) and regions of the County, including Service Planning Areas (SPA). In particular, these regions are organized as follows: Antelope Valley (SPA 1), San Fernando (SPA 2), San Gabriel (SPA 3), Metro (SPA 4), West (SPA 5), South (SPA 6), East (SPA 7), South Bay/Harbor (SPA 8).

Accidental fentanyl overdose deaths in 2016-2021 were identified by text-based analyses of coroner and toxicology reports using data as of May 2022 [Coroner]. Detected drugs were classified as contributing to accidental overdose deaths if they were listed as one of the causes of death. Overdose deaths can involve more than one drug, so the sum of deaths reported by type can add up to more than the total number of overdose deaths. All deaths by accidental drug overdose were included and suicides were excluded.

Fentanyl overdose ED visits and hospitalizations were identified using ICD codes for synthetic opioid poisoning, of which fentanyl accounts for the majority, and for poisoning by fentanyl or fentanyl analogues (available starting in 2020) from the California Department of Health Care Access and Information's [HCAI] 2016-2021 dataset.

SD and regional designations for each event reviewed were based on residential address or residential zip code. For death data, if residential address was missing, death location was used. Poverty estimates were defined based on the percentage of families living at or below the federal poverty level (FPL) in the census tract of each person's residence using data from the 2016-2020 American Community Survey [ACS]. Differences in population size were accounted for by calculating rates per 100,000 population using population estimates 2016-2021 from LAC Internal Services Division [ISD] as denominators.

## Results

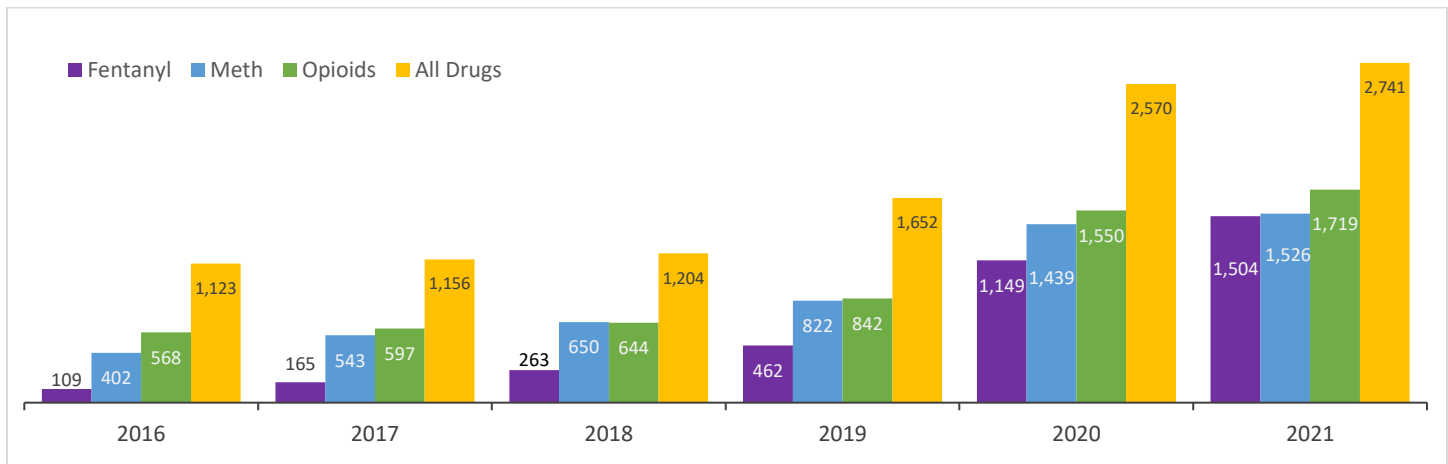
### Drug Overdose Deaths

Methamphetamine and fentanyl were the most common drug types listed as a cause of death in accidental drug overdose deaths in LAC, accounting for 56% and 55%, respectively, of all alcohol and other drug overdose deaths in 2021. Among youth (age 12-17) overdose deaths, 92% tested positive for fentanyl, which was higher than that for older age groups (80% among aged 18-25 years; 52% among aged 26+ years) in 2021.



**Figure 1** shows that the overall number of accidental fentanyl overdose deaths in LAC has been increasing every year since routine testing began in May 2016. From 2016-2021, fentanyl overdose deaths in LAC increased 1,280%. From 2019 to 2020, fentanyl overdose deaths increased 149% from 462 in 2019 to 1,149 in 2020, and then increased 31% to 1,504 in 2021.

**Figure 1. Drug Overdose Deaths by Drug, LAC, 2016-2021**



\*Notes: All drug overdose deaths in this report are due to accidental drug overdose, excluding intentional overdose such as suicide. Opioids refers to accidental overdose deaths involving all opioids, including fentanyl and heroin. Meth refers to methamphetamine. All drugs refer to all accidental overdose deaths involving alcohol and/or drugs, including fentanyl, meth, and opioids.

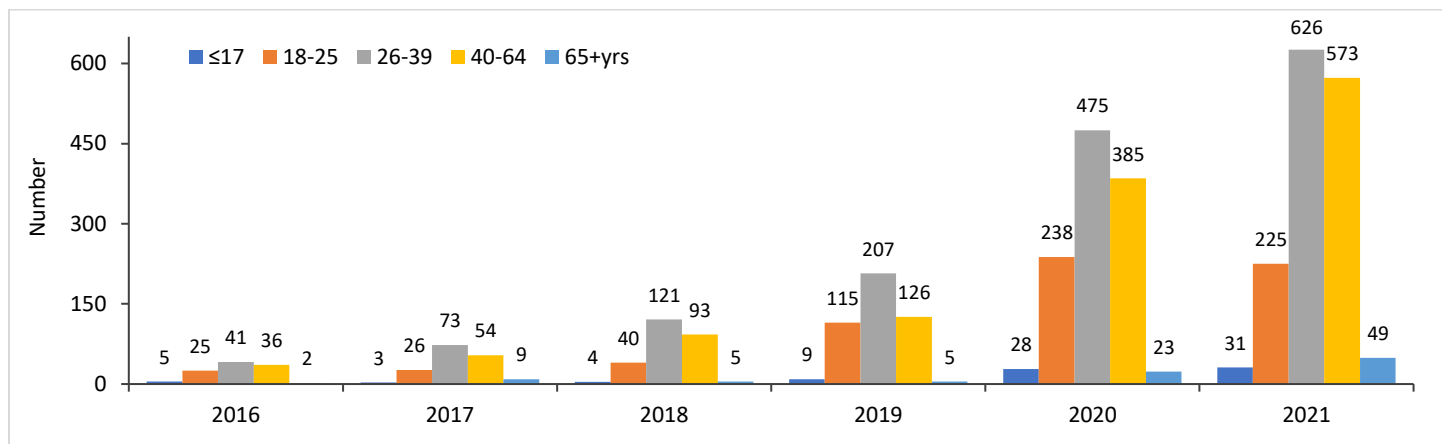
## Fentanyl Overdose Deaths by Age

**Figure 2** and **Table 1** show that there were large increases in fentanyl overdose deaths for all age groups from 2016-2021. In 2021, fentanyl overdose deaths occurred most often among adults aged 26-39 (42%) and adults aged 40-64 (38%) in LAC, followed by young adults aged 18-25 (15%), older adults aged 65+ (3%), and youth 17 and under (2%).

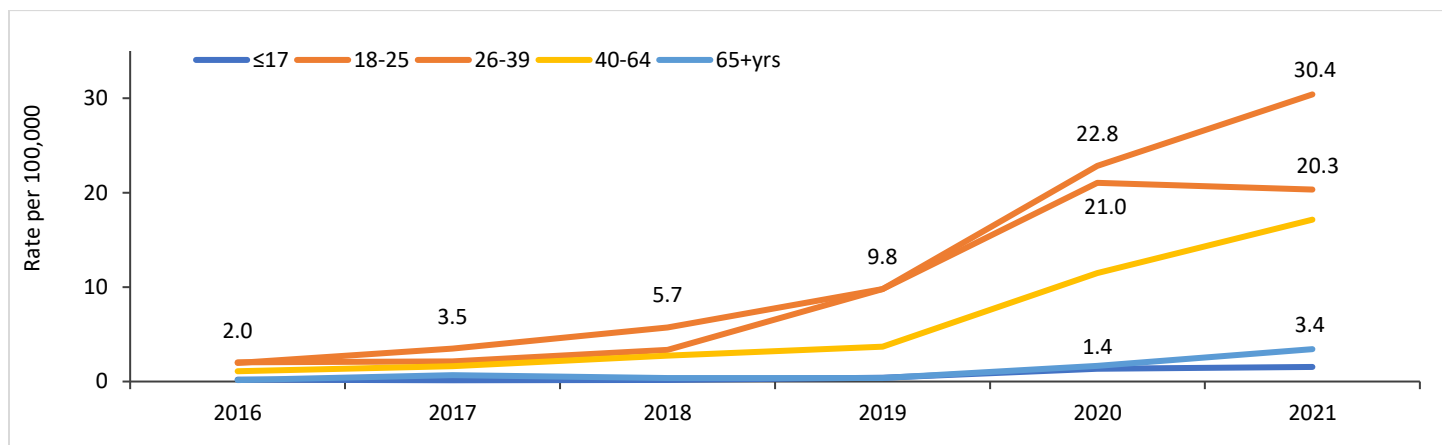
**Figure 3** shows that fentanyl overdose death rates per 100,000 population were highest for adults aged 26-39 (rate=30.4), followed by young adults aged 18-25 (rate=20.3), adults 40-64 (rate=17.1), older adults 65+ (rate=3.4), and youth 17 and under (rate=1.5) in 2021.



**Figure 2. Fentanyl Overdose Deaths by Age, LAC, 2016-2021**



**Figure 3. Rate of Fentanyl Overdose Deaths per 100,000 by Age, LAC, 2016-2021**







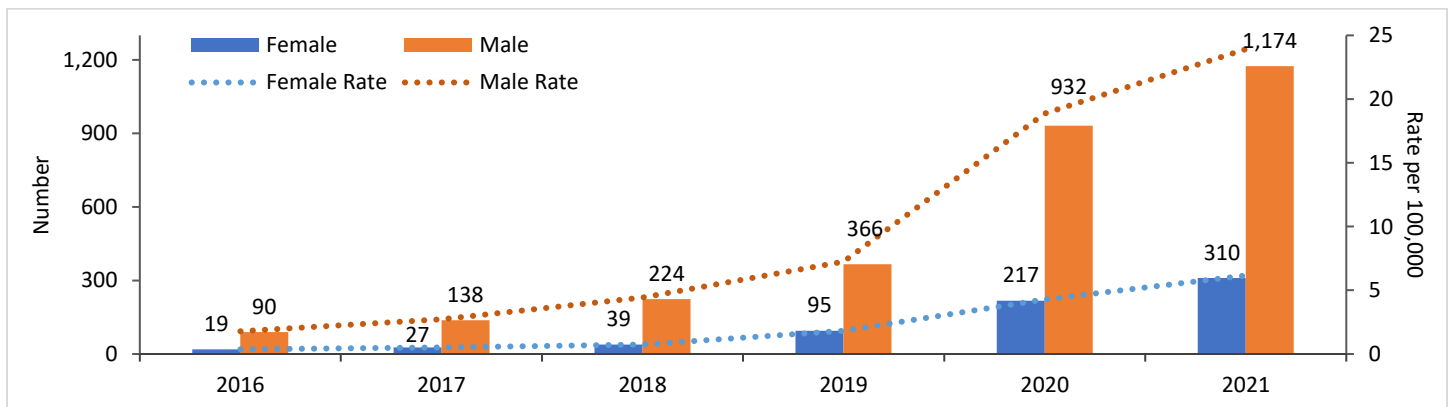
**Table 1. Fentanyl Overdose Deaths by Age, LAC, 2016-2021**

LAC							
Age	2016	2017	2018	2019	2020	2021	Total
<b>Number of Deaths</b>							
≤17	5	3	4	9	28	31	80
18-25	25	26	40	115	238	225	669
26-39	41	73	121	207	475	626	1,543
40-64	36	54	93	126	385	573	1,267
65+	2	9	5	5	23	49	93
<b>Total</b>	<b>109</b>	<b>165</b>	<b>263</b>	<b>462</b>	<b>1,149</b>	<b>1,504</b>	<b>3,652</b>
<b>Rate per 100,000 Population</b>							
≤17	0.2	0.1	0.2	0.4	1.4	1.5	0.6
18-25	2.0	2.1	3.3	9.8	21.0	20.3	9.5
26-39	2.0	3.5	5.7	9.8	22.8	30.4	12.3
40-64	1.1	1.6	2.7	3.7	11.5	17.1	6.3
65+	0.2	0.7	0.4	0.4	1.7	3.4	1.1
<b>Total</b>	<b>1.1</b>	<b>1.6</b>	<b>2.6</b>	<b>4.5</b>	<b>11.5</b>	<b>15.1</b>	<b>6.0</b>

**Fentanyl Overdose Deaths by Gender**

**Figure 4** shows that males accounted for more fentanyl overdose deaths than females. From 2016 to 2021, fentanyl overdose deaths increased by 1,204% for males (n=90 to 1,174), and by 1,532% for females (n=19 to 310). In 2021, the rate per 100,000 for males (rate=23.9) was 3.9 times that for females (rate=6.2).

**Figure 4. Fentanyl Overdose Death Counts and Rates per 100,000 by Gender, LAC, 2016-2021**



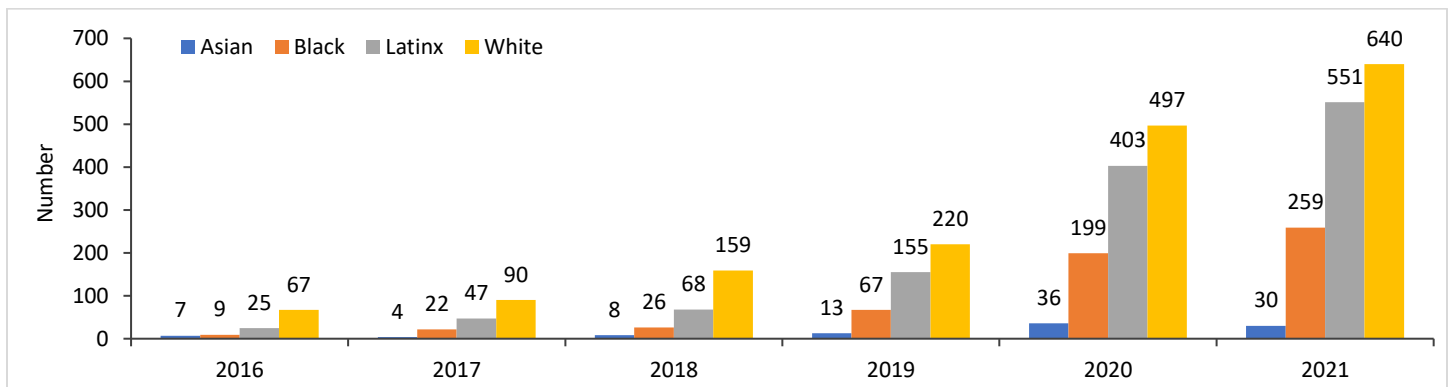


**Fentanyl Overdose Deaths by Race/Ethnicity**

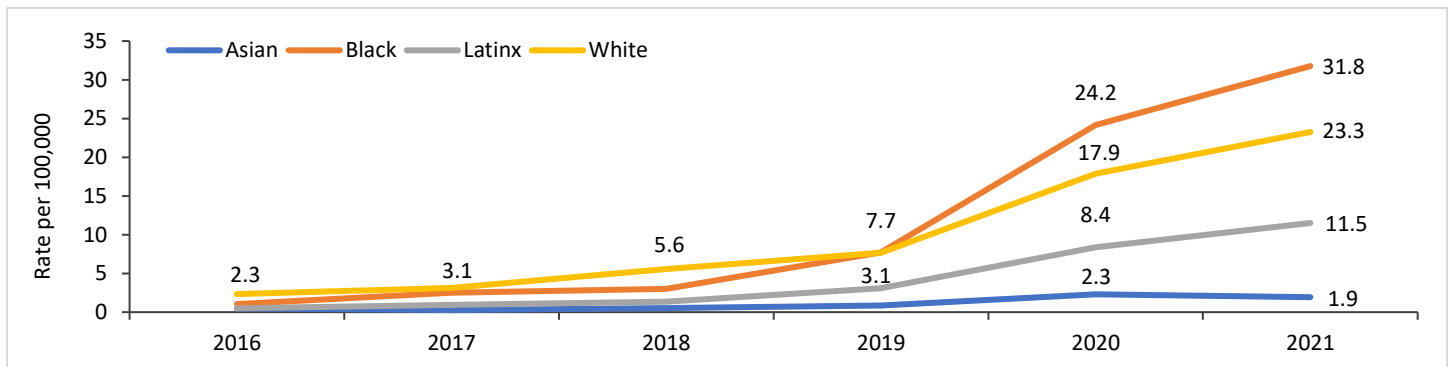
**Figure 5** shows that fentanyl overdose deaths increased for all race/ethnicities from 2016-2021. In 2021, Whites (n=640, 43%) and Latinxs (n=551, 37%) accounted for the largest proportions of fentanyl overdose deaths, followed by Blacks (n=259, 17%) and Asians (n=30, 2%).

**Figure 6** shows that the rates of fentanyl overdose deaths per 100,000 population in 2021 were highest for Blacks (rate=31.8), followed by Whites (rate=23.3), Latinxs (rate=11.5), and then Asians (rate=1.9) when accounting for different population sizes. From 2018-2021, the fentanyl overdose death rates increased by 964% among Blacks and increased by 748% among Latinxs, while fentanyl overdose deaths increased by 319% among Whites and by 259% among Asians. Other race/ethnic groups were not included due to data availability or very small numbers.

**Figure 5. Fentanyl Overdose Deaths by Race/Ethnicity, LAC, 2016-2021**



**Figure 6. Rate of Fentanyl Overdose Deaths by Race/Ethnicity per 100,000 Population, LAC, 2016-2021**





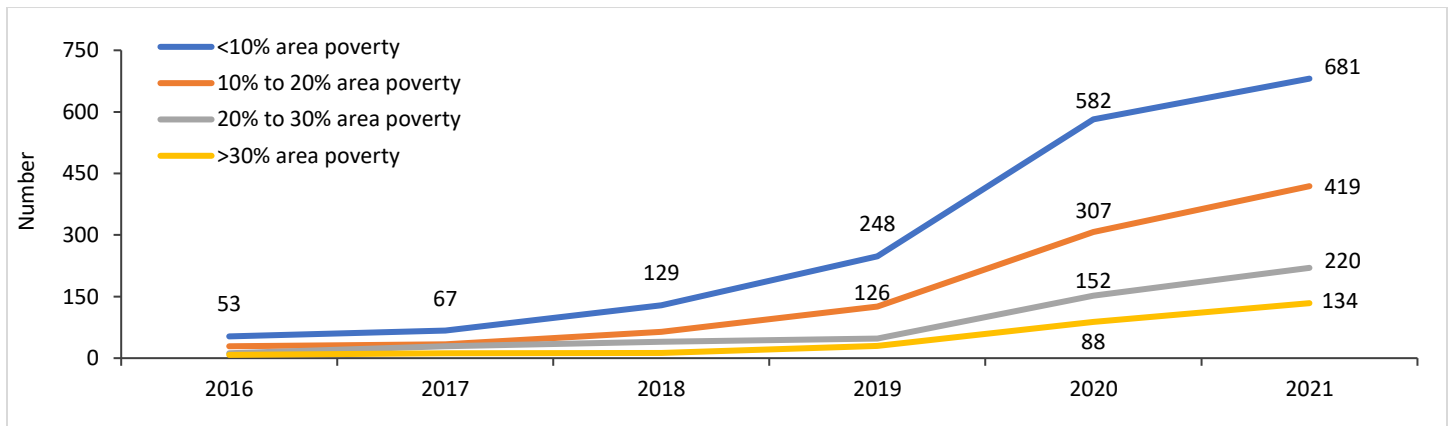
**Fentanyl Overdose Deaths by Area Poverty**

**Figure 7** shows that more affluent areas had higher numbers of fentanyl overdose deaths than poorer areas. Areas that had less than 10% of families living below the FPL accounted for nearly half (48%) of fentanyl overdose deaths in 2016-2021, while areas with more than 30% of families living below the FPL accounted for 8%.

However, **Figure 8** shows that the rates of fentanyl overdose deaths per 100,000 population were much higher in the poorest areas with more than 30% of families living below the FPL compared to the more affluent areas.

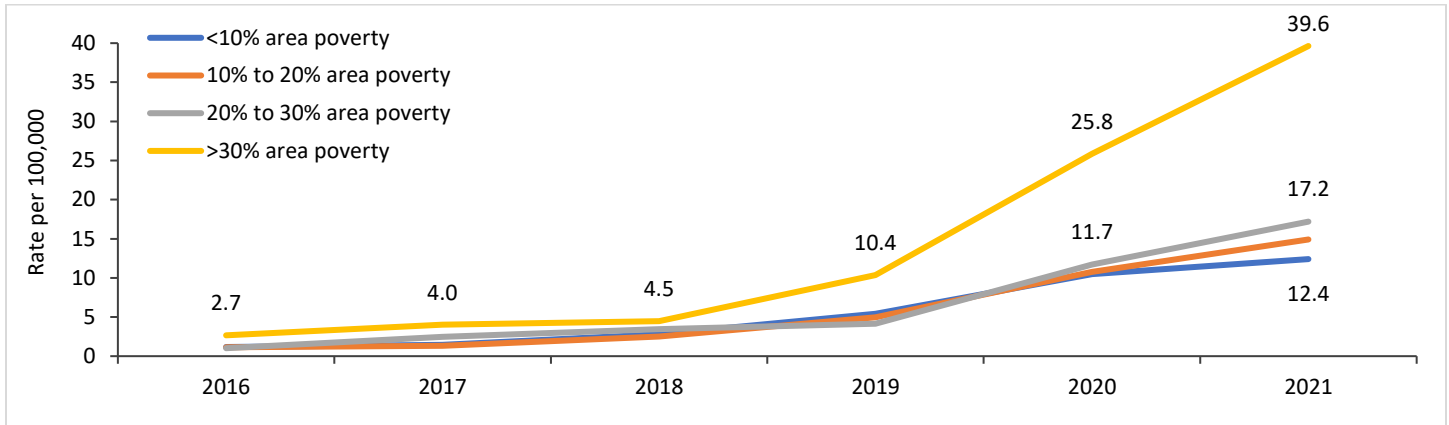
In 2021, the fentanyl overdose death rate for the poorest areas with more than 30% of families living below FPL (rate=39.6) was more than triple that of the most affluent areas with less than 10% of families living below FPL (rate=12.4).

**Figure 7. Fentanyl Overdose Deaths by Area Poverty, LAC, 2016-2021**





**Figure 8. Rate of Fentanyl Overdose Deaths by Area Poverty per 100,000 Population, LAC, 2016-2021**

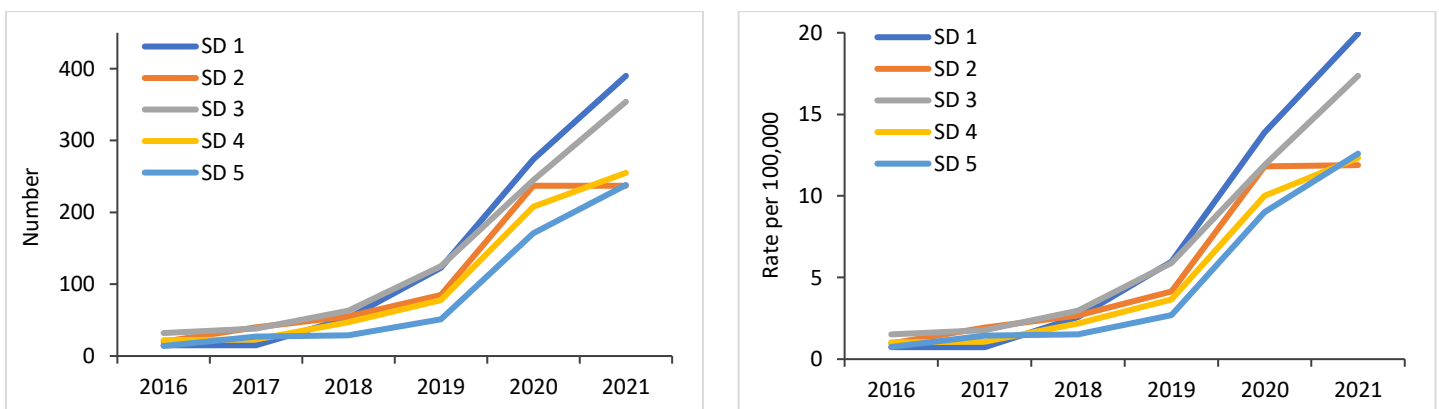


**Fentanyl Overdose Deaths by Supervisorial District (SD)**

**Figure 9** shows the fentanyl overdose death counts and rates per 100,000 population by SD during 2016-2021. There were annual increases for all SDs, except SD 2, which had the same number of deaths in 2020 and 2021. In 2021, SD 1 and SD 3 had the highest numbers and rates of fentanyl overdose deaths.

**Table 2** shows the aggregated fentanyl overdose deaths by age for each SD in 2016-2021. The proportion of youth fentanyl overdose deaths were highest in SD 4 (3.9%).

**Figure 9. Fentanyl Overdose Death Counts and Rates per 100,000 by SD, LAC, 2016-2021**







**Table 2. Fentanyl Overdose Deaths by Age and SD, LAC, 2016-2021**

Age	SD 1	SD 2	SD 3	SD 4	SD 5	Missing SD	LAC
<b>Number of Deaths</b>							
≤17	16	15	13	25	10	1	80
18-25	123	119	164	136	102	25	669
26-39	335	288	388	275	216	41	1,543
40-64	370	232	280	183	184	18	1,267
65+	26	20	12	14	18	3	93
Total	870	674	857	633	530	88	3,652
<b>Rate per 100,000 Population</b>							
≤17	0.6	0.5	0.5	0.9	0.4	-	0.6
18-25	8.9	8.1	12.1	8.8	7.8	-	9.5
26-39	13.0	11.1	14.4	10.8	10.0	-	12.3
40-64	9.4	5.9	6.5	4.5	4.7	-	6.3
65+	1.6	1.4	0.7	0.9	1.1	-	1.1
Total	7.2	5.5	6.8	5.0	4.7	-	6.0

\*Missing SD refers to the records that were not designated to any SD due to missing address or zip code.

### Fentanyl Overdose Deaths by Region

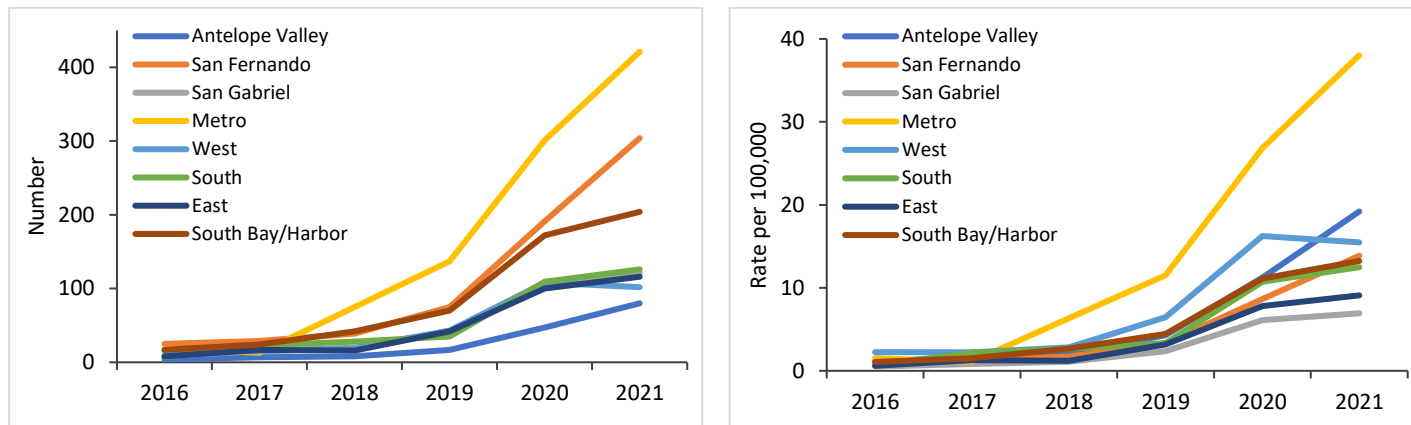
**Figure 10** shows the fentanyl overdose death counts and rates per 100,000 population by region in 2016-2021, with regions defined as:

- Antelope Valley (SPA 1)
- San Fernando (SPA 2)
- San Gabriel (SPA 3)
- Metro (SPA 4)
- West (SPA 5)
- South (SPA 6)
- East (SPA 7)
- South Bay/Harbor (SPA 8)

There were annual increases for all regions, except the West region, which had a slight decrease from 2020 to 2021. In 2021, the Metro region had the highest number and rate of fentanyl overdose deaths.

**Table 3** shows the aggregated fentanyl overdose deaths by age for each region in 2016-2021. The proportion of youth fentanyl overdose deaths were highest in the East region (5.4%).

**Figure 10 Fentanyl Overdose Death Counts and Rates per 100,000 by Region, LAC, 2016-2021**



**Table 3. Fentanyl Overdose Deaths by Age and Region, LAC, 2016-2021**

Age	Antelope Valley	San Fernando	San Gabriel	Metro	West	South	East	South Bay/Harbor	Missing Region	LAC
<b>Number of Deaths</b>										
≤17	3	14	13	8	3	11	16	11	1	80
18-25	28	139	79	106	48	64	77	103	25	669
26-39	69	271	125	417	152	107	128	233	41	1,543
40-64	52	224	94	406	95	135	74	169	18	1,267
65+	11	15	4	28	4	11	4	13	3	93
Total	163	663	315	965	302	328	299	529	88	3,652
<b>Rater per 100,000 Population</b>										
≤17	0.5	0.5	0.6	0.6	0.5	0.7	0.9	0.5	-	0.6
18-25	8.4	9.6	6.3	16.4	10.8	7.2	7.8	9.8	-	9.5
26-39	14.9	10.1	6.0	24.5	17.4	8.0	8.1	12.6	-	12.3
40-64	7.1	4.8	2.7	16.4	6.8	7.5	3.0	5.3	-	6.3
65+	4.2	0.8	0.2	3.1	0.6	2.0	0.4	1.0	-	1.1
Total	6.8	4.9	2.9	13.8	7.6	5.2	3.8	5.6	-	6.0

\*Missing region info refers to records that were not designated any regions due to missing addresses or zip codes.

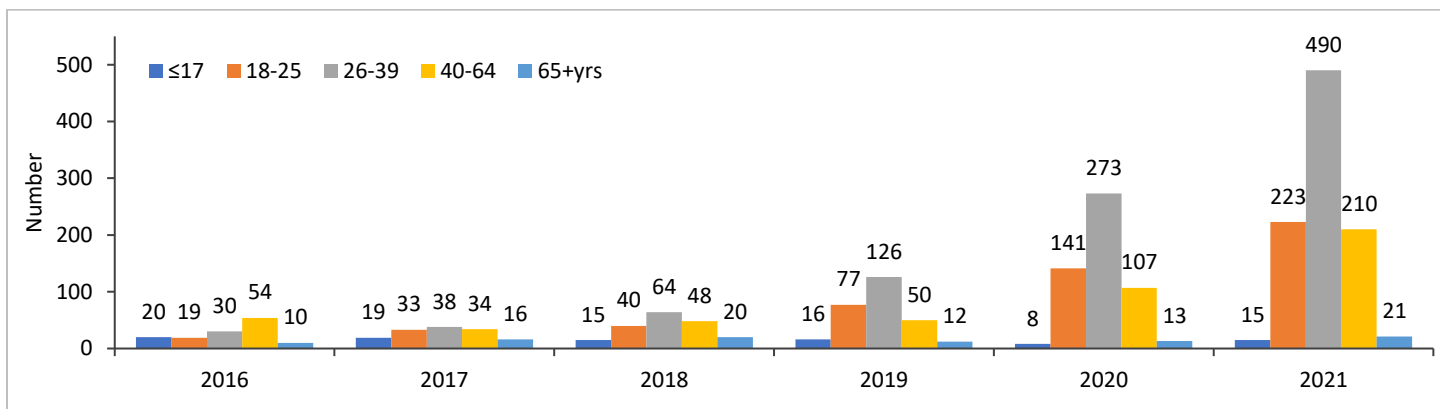


## Fentanyl Overdose ED Visits by Age

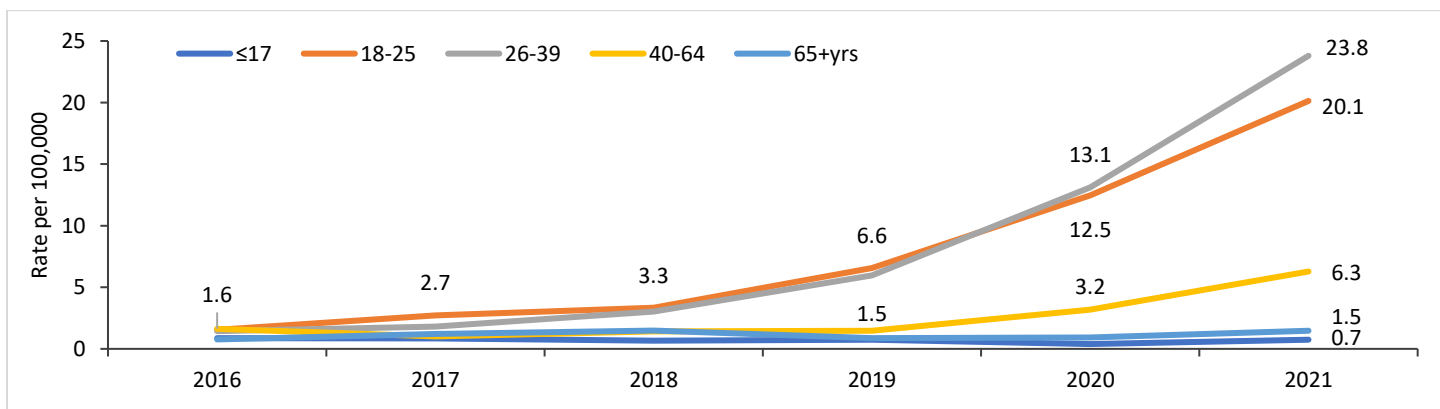
**Figure 11** shows that fentanyl overdose ED visits in LAC increased 621% from 133 in 2016 to 959 in 2021. In 2021, fentanyl overdose ED visits occurred most often among those aged 26-39 (51%), followed by young adults aged 18-25 (23%), adults 40-64 (22%), then older adults 65+ (2%), and youth 17 and under (2%).

**Figure 12** shows that in terms of rates, fentanyl overdose ED visit rates per 100,000 population were highest for adults 26-39 (rate=23.8), followed by young adults 18-25 (rate=20.1), adults 40-64 (rate=6.3), older adults 65+ (rate=1.5), and youth 17 and under (rate=0.7).

**Figure 11. Fentanyl Overdose ED Visits by Age, LAC, 2016-2021**



**Figure 12. Rate of Fentanyl Overdose ED Visits per 100,000 by Age, LAC, 2016-2021**

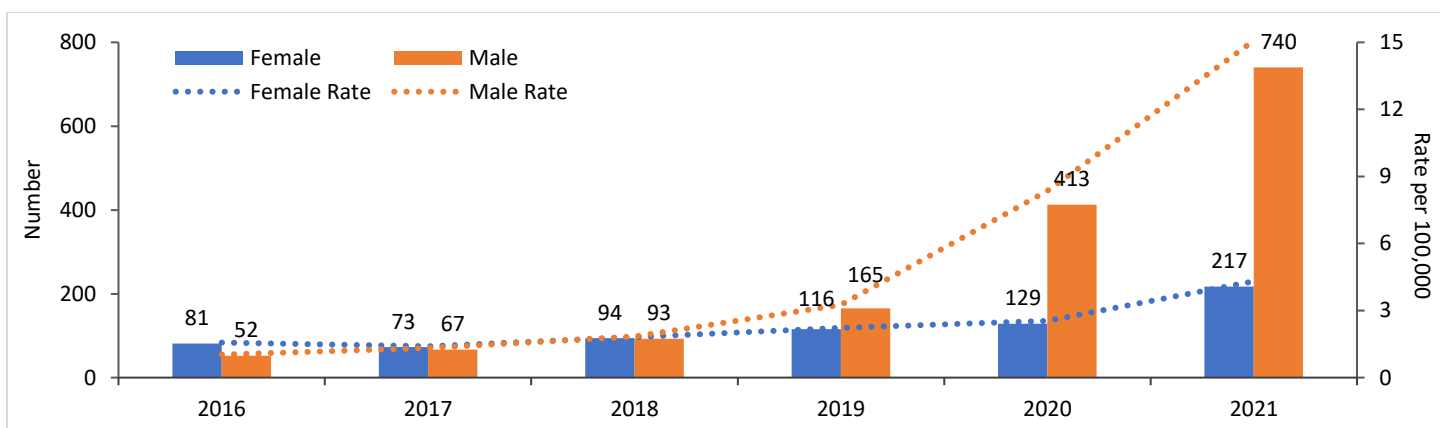




### Fentanyl Overdose ED Visits by Gender

**Figure 13** shows that fentanyl overdose ED visits increased for both males and females but rose much more rapidly among males. From 2016 to 2021, fentanyl overdose ED visits increased by 1,323% for males (n=52 to 740) and by 168% for females (n=81 to 217). Males accounted for 39% of fentanyl overdose ED visits in 2016 and accounted for 77% in 2021.

**Figure 13. Fentanyl Overdose ED Visit Counts and Rates per 100,000 Population by Gender, LAC, 2016-2021**



### Fentanyl Overdose ED Visits by Race/Ethnicity

**Figure 14** shows that fentanyl overdose ED visits increased for all race/ethnicities from 2016-2021. In 2021, Whites (n=408, 43%) accounted for the largest proportion of fentanyl overdose ED visits, followed by Latinxs (n=318, 33%), Blacks (n=86, 9%), and Asians (n=19, 2%). From 2016 to 2021, fentanyl overdose ED visits increased by 629% for Whites, by 533% for Asians, by 512% for Latinxs, and by 473% for Blacks.

**Figure 15** shows that in 2021, Whites (rate=14.8) also had the highest rate of fentanyl overdose ED visits, followed by Blacks (rate=10.5), Latinxs (rate=6.6), and Asians (rate=1.2). Other race/ethnic groups were not included due to data availability or very small numbers.



Figure 14. Fentanyl Overdose ED Visits by Race/Ethnicity, LAC, 2016-2021

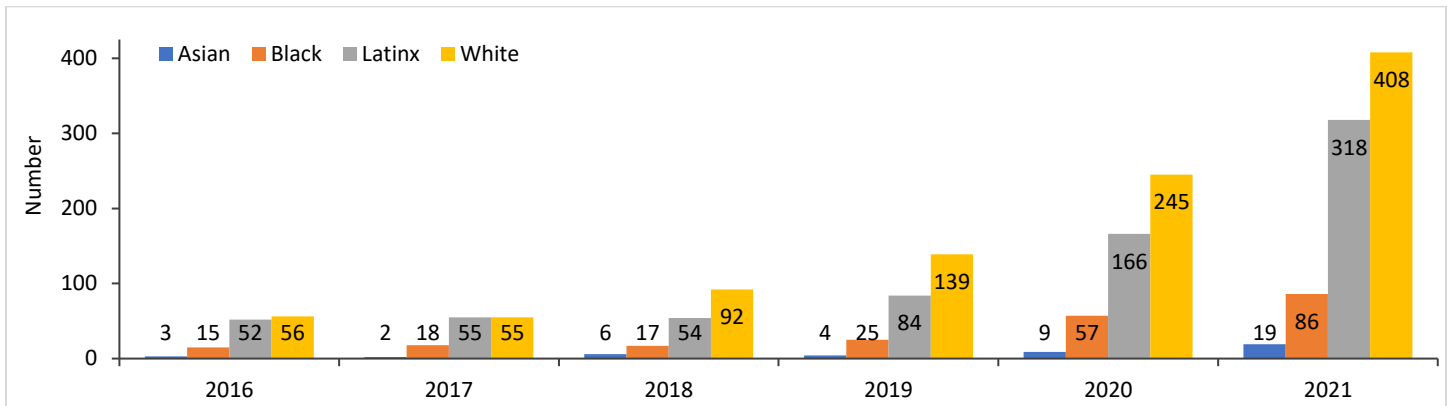
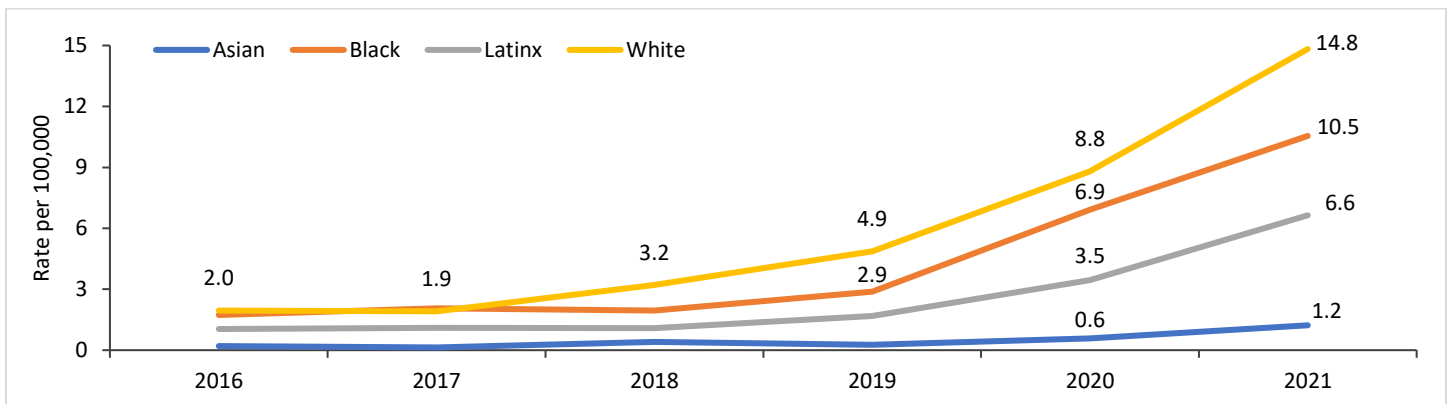


Figure 15. Rate of Fentanyl Overdose ED Visits by Race/Ethnicity per 100,000 Population, LAC, 2016-2021

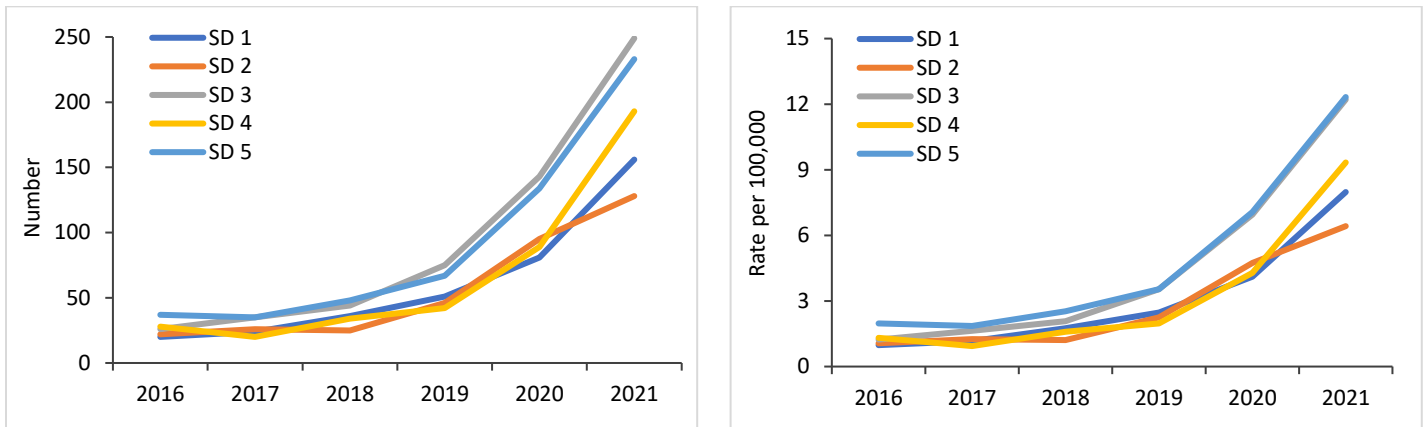


### Fentanyl Overdose ED Visits by Supervisorial District (SD)

Figure 16 shows that fentanyl overdose ED visits increased for all SDs from 2016-2021. In 2021, SD 5 (rate=12.3) and SD 3 (rate=12.2) had the highest rates of fentanyl overdose ED visits per 100,000 population. Table 4 shows the aggregated fentanyl overdose ED visits from 2016-2021 by age for each SD. The proportion of youth fentanyl overdose ED visits was highest in SD 4 (5.4%).



**Figure 16. Fentanyl Overdose ED Visit Counts and Rates per 100,000 population by SD, LAC, 2016-2021**



**Table 4. Fentanyl Overdose ED Visits by Age and SD, LAC, 2016-2021**

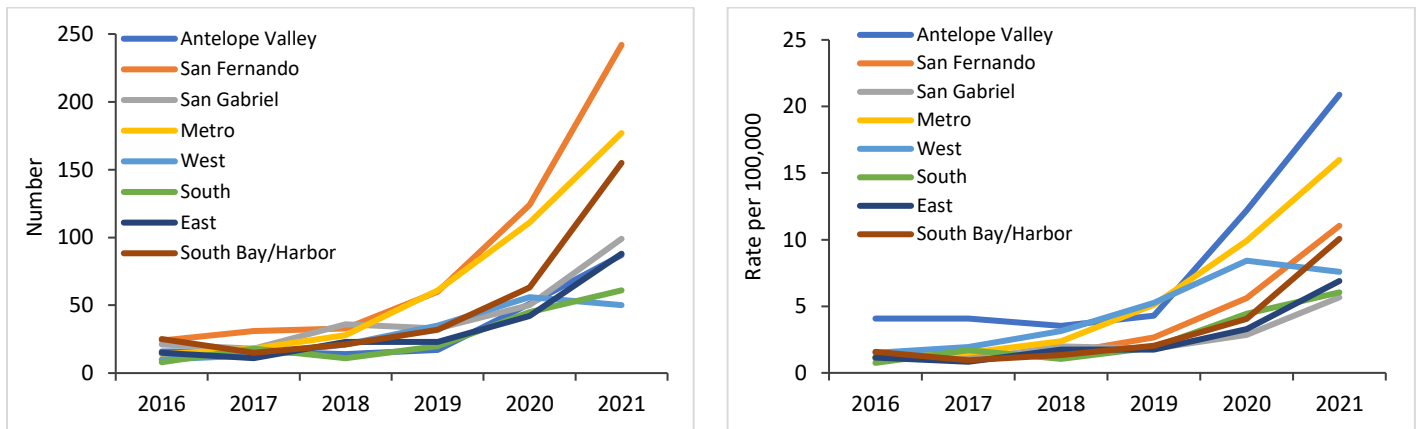
Age	SD 1	SD 2	SD 3	SD 4	SD 5	LAC
<b>Number of ED Visits</b>						
≤17	9	14	22	22	26	93
18-25	74	77	149	98	135	533
26-39	171	152	263	179	256	1,021
40-64	99	85	111	95	113	503
65+	15	14	27	12	24	92
Total	368	342	572	406	554	2,242
<b>Rate per 100,000 Population</b>						
≤17	0.4	0.5	0.9	0.8	1.1	0.7
18-25	5.3	5.2	11.0	6.3	10.4	7.5
26-39	6.6	5.9	9.8	7.1	11.9	8.1
40-64	2.5	2.2	2.6	2.3	2.9	2.5
65+	0.9	1.0	1.5	0.7	1.4	1.1
Total	3.0	2.8	4.5	3.2	4.9	3.7

**Fentanyl Overdose ED Visits by Region**

**Figure 17** shows that fentanyl overdose ED visits increased for all regions from 2016-2021. In 2021, the Antelope Valley region had the highest rate of fentanyl overdose ED visits per 100,000 population.

**Table 5** shows the aggregated fentanyl overdose ED visits from 2016-2021 by age for each region. The proportion of youth fentanyl overdose ED visits was highest in the East region (6.9%).

**Figure 17. Fentanyl Overdose ED Visit Counts and Rates per 100,000 population by Region, LAC, 2016-2021**



**Table 5. Fentanyl Overdose ED Visits by Age and Region, LAC, 2016-2021**

Age	Antelope Valley	San Fernando	San Gabriel	Metro	West	South	East	South Bay/Harbor	LAC
<b>Number of ED Visits</b>									
≤17	9	19	14	7	8	9	14	13	93
18-25	36	135	76	71	57	30	50	78	533
26-39	95	233	104	214	80	78	86	131	1,021
40-64	53	102	48	103	35	37	47	78	503
65+	8	25	15	14	5	9	5	11	92
Total	201	514	257	409	185	163	202	311	2,242
<b>Rate per 100,000 Population</b>									
≤17	1.4	0.7	0.6	0.6	1.3	0.5	0.8	0.6	0.7
18-25	10.8	9.3	6.0	11.0	12.8	3.4	5.1	7.4	7.5
26-39	20.5	8.7	5.0	12.6	9.2	5.9	5.4	7.1	8.1
40-64	7.2	2.2	1.4	4.2	2.5	2.1	1.9	2.5	2.5
65+	3.1	1.3	0.9	1.6	0.8	1.6	0.5	0.9	1.1
Total	8.3	3.8	2.4	5.9	4.6	2.6	2.6	3.3	3.7

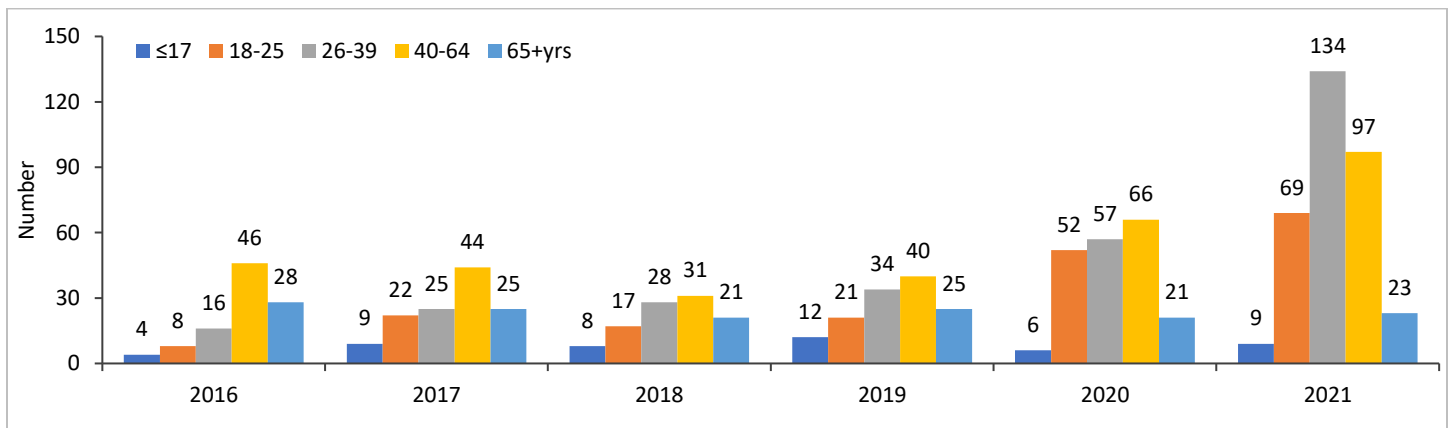


**Fentanyl Overdose Hospitalizations by Age**

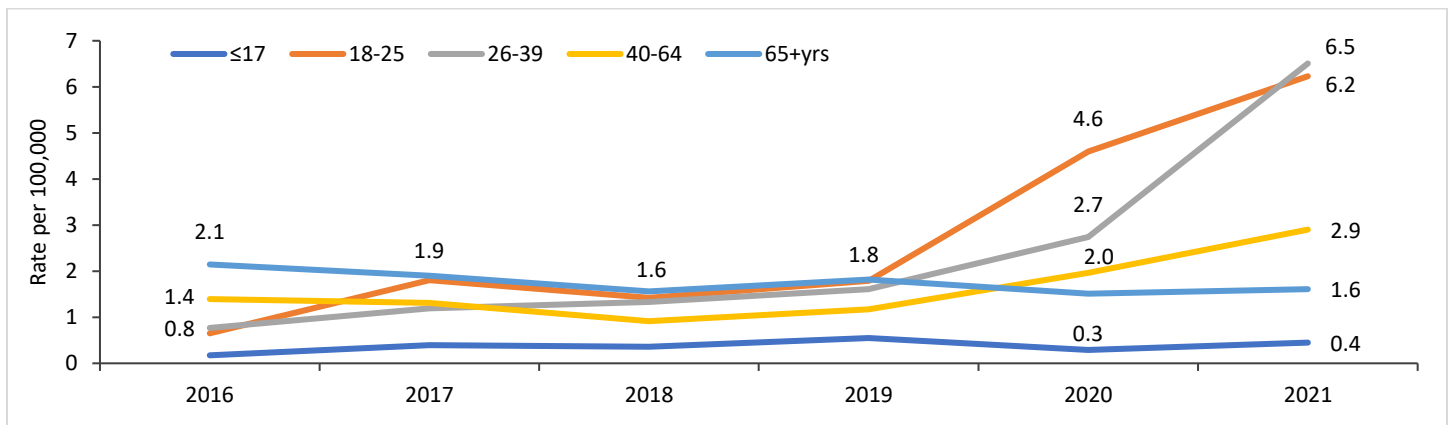
**Figure 18** shows that fentanyl overdose hospitalizations in LAC increased 225% from 102 in 2016 to 332 in 2021. In 2021, fentanyl overdose hospitalizations were highest among adults aged 26-39 (40%), followed by adults aged 40-64 (29%), young adults aged 18-25 (21%), older adults aged 65+ (7%), and youth 17 and under (3%).

**Figure 19** shows that in terms of rates, fentanyl overdose hospitalization rates per 100,000 population were highest for adults aged 26-39 (rate=6.5) and young adults aged 18-25 (rate=6.2), followed by adults aged 40-64 (rate=2.9), older adults aged 65+ (rate=1.6), and youth 17 and under (rate=0.4).

**Figure 18. Fentanyl Overdose Hospitalizations by Age, LAC, 2016-2021**



**Figure 19. Rate of Fentanyl Overdose Hospitalizations per 100,000 by Age, LAC, 2016-2021**



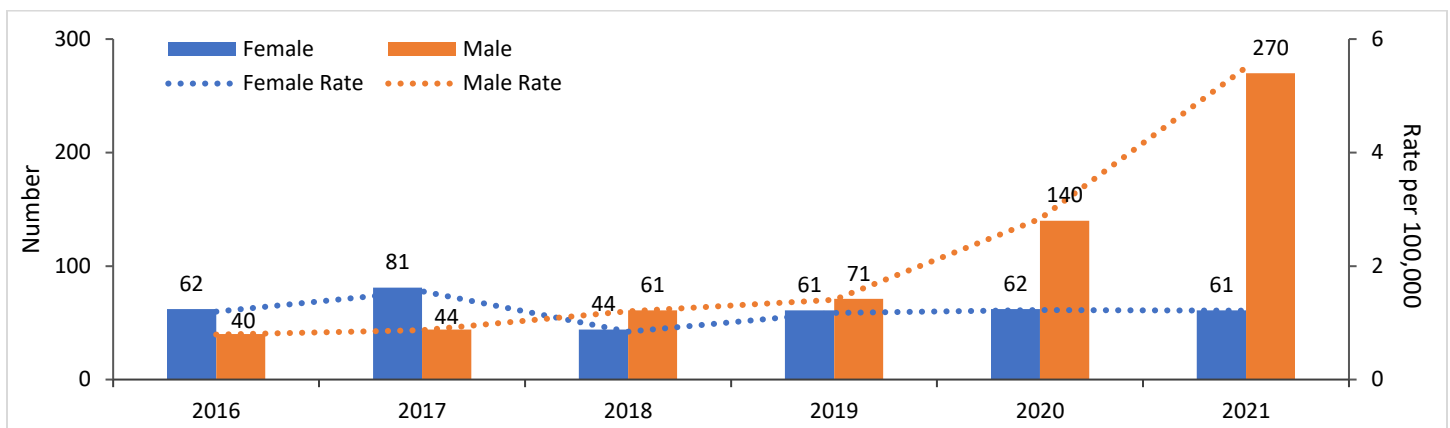




### Fentanyl Overdose Hospitalizations by Gender

**Figure 20** shows that fentanyl overdose hospitalizations in LAC increased by 575% for males from 40 in 2016 to 270 in 2021, while they remained relatively stable during the period for females. Males accounted for 39% of fentanyl overdose hospitalizations in 2016 and accounted for 82% in 2021.

**Figure 20. Fentanyl Overdose Hospitalization Counts and Rates per 100,000 Population by Gender, LAC, 2016-2021**

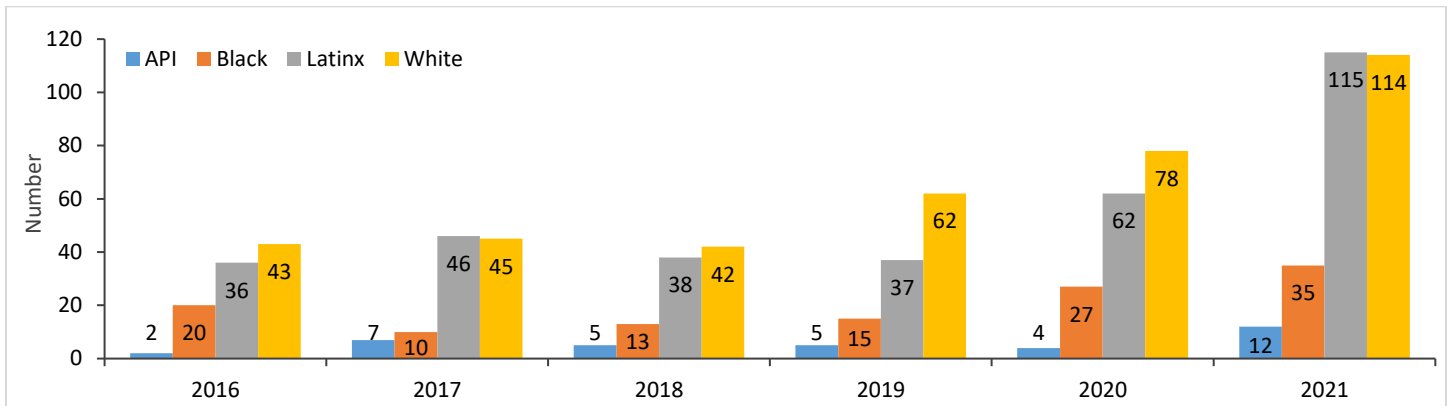


### Fentanyl Overdose Hospitalizations by Race/Ethnicity

**Figure 21** shows that fentanyl overdose hospitalizations increased from 2018-2021 for all race/ethnic groups. In 2021, Latinxs (n=115, 35%) and Whites (n=114, 34%) accounted for the largest proportions of fentanyl overdose hospitalizations, followed by Blacks (n=35, 11%), and Asians/Pacific Islanders (API, n=12, 4%).

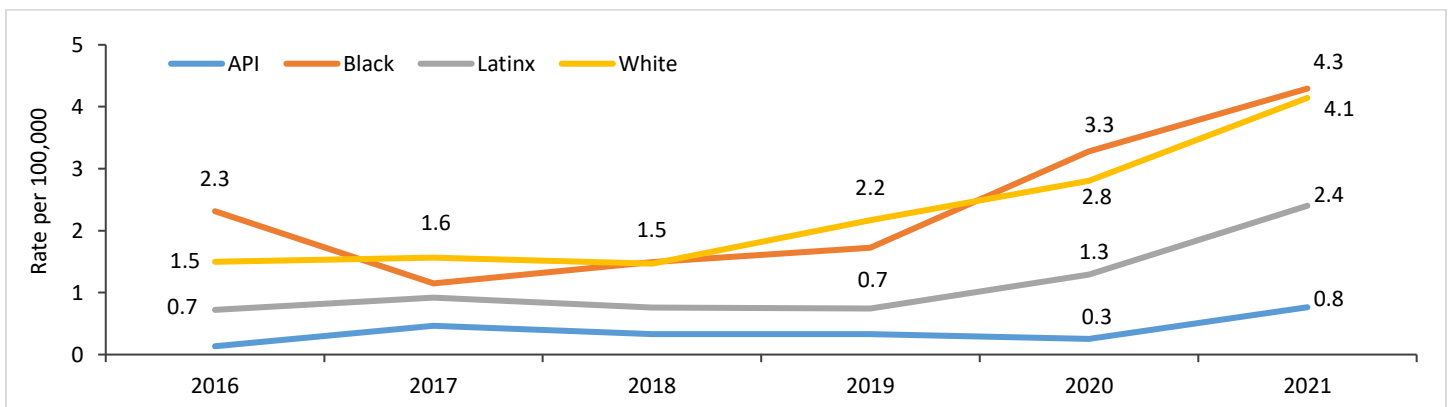
However, **Figure 22** shows that Blacks had the highest rate of fentanyl overdose hospitalizations per 100,000 population in 2021 (rate=4.3), followed by Whites (rate=4.1), Latinxs (rate=2.4), and API (rate=0.8). Other race/ethnic groups were not included due to data availability or very small numbers.

**Figure 21. Fentanyl Overdose Hospitalizations by Race/Ethnicity, LAC, 2016-2021**



\*Data for Asians and Pacific Islanders were combined in 2016-2018 and available separately starting 2019. In 2019-2020, all API cases were Asian. In 2021, 1 API case was Pacific Islander.

**Figure 22. Rate of Fentanyl Overdose Hospitalizations by Race/Ethnicity per 100,000 Population, LAC, 2016-2021**



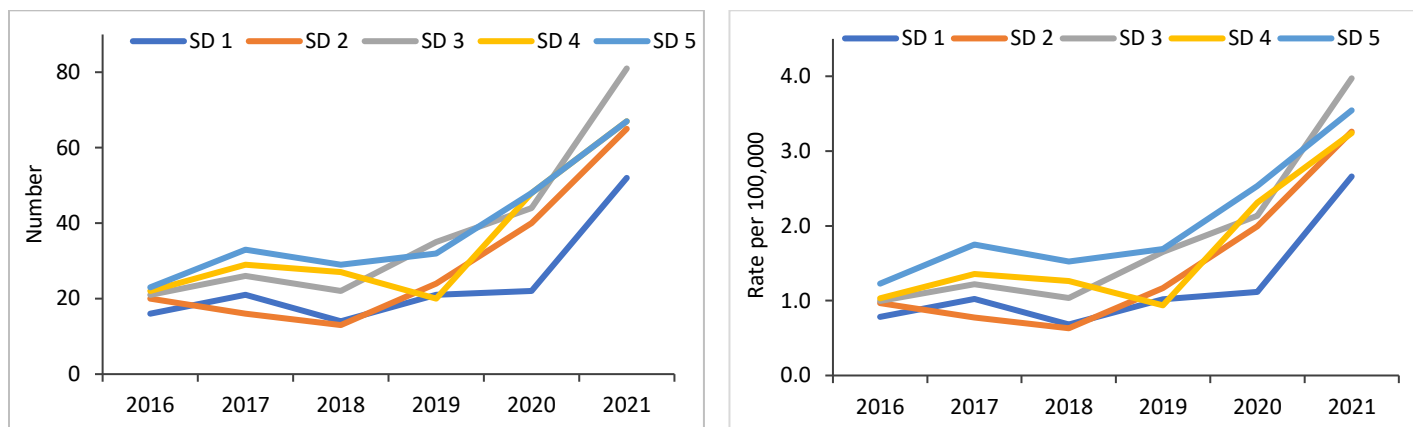
**Fentanyl Overdose Hospitalizations by Supervisorial District (SD)**

**Figure 23** shows that fentanyl overdose hospitalizations fluctuated from 2016-2019 but had increases in 2020 and 2021 for all SDs. SD 3 had the highest rate of fentanyl overdose hospitalizations per 100,000 population in 2021.

**Table 6** shows the aggregated fentanyl overdose hospitalizations by age group by SD in 2016-2021. The proportion of youth fentanyl overdose hospitalizations was highest in SD 5 (6.9%).



**Figure 23. Fentanyl Overdose Hospitalization Counts and Rates per 100,000 by SD, LAC, 2016-2021**



**Table 6. Fentanyl Overdose Hospitalizations by Age and by SD, LAC, 2016-2021**

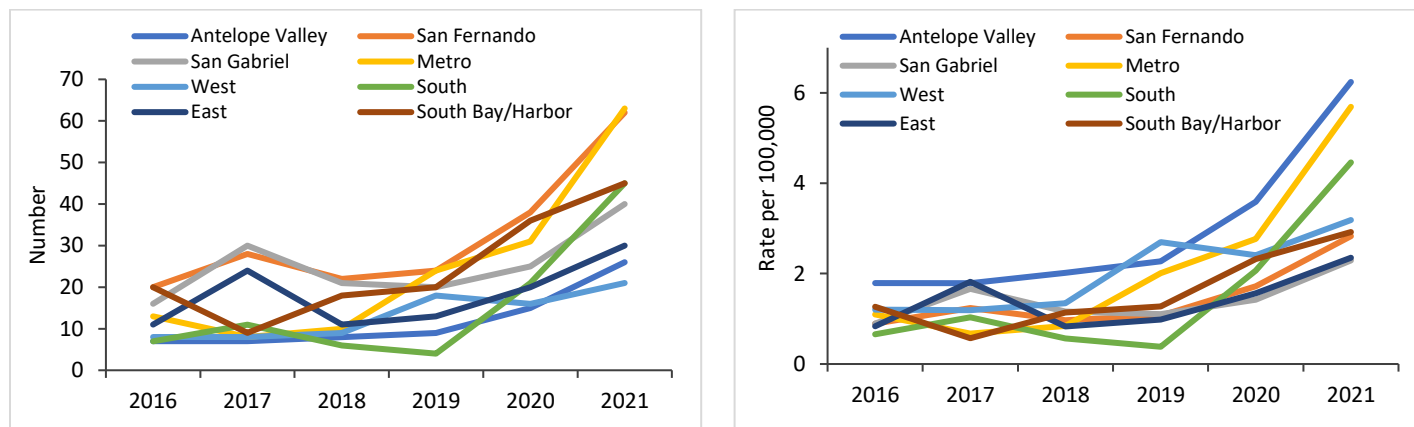
Age	SD 1	SD 2	SD 3	SD 4	SD 5	LAC
<b>Number of Hospitalizations</b>						
≤17	5	8	11	8	16	48
18-25	23	31	53	36	46	189
26-39	46	54	68	55	71	294
40-64	52	58	61	84	69	324
65+	20	27	36	30	30	143
Total	146	178	229	213	232	998
<b>Rate per 100,000 Population</b>						
≤17	0.2	0.3	0.5	0.3	0.7	0.4
18-25	1.7	2.1	3.9	2.3	3.5	2.7
26-39	1.8	2.1	2.5	2.2	3.3	2.3
40-64	1.3	1.5	1.4	2.1	1.8	1.6
65+	1.2	1.9	2.0	1.8	1.8	1.8
Total	1.2	1.5	1.8	1.7	2.0	1.6

**Fentanyl Overdose Hospitalizations by Region**

**Figure 24** shows that fentanyl overdose hospitalizations fluctuated from 2016-2019 but had large increases in 2020 and 2021 for all regions in the County. In 2021, the Antelope Valley region had the highest rate of fentanyl overdose hospitalizations per 100,000 population.

**Table 7** shows the aggregated fentanyl overdose hospitalizations by age group by region in 2016-2021. The proportion of youth fentanyl overdose hospitalizations was highest in the Antelope Valley region (6.9%).

**Figure 24. Fentanyl Overdose Hospitalization Counts and Rates per 100,000 by Region, LAC, 2016-2021**



**Table 7. Fentanyl Overdose Hospitalizations by Age and by Region, LAC, 2016-2021**

Age	Antelope Valley	San Fernando	San Gabriel	Metro	West	South	East	South Bay/Harbor	LAC
<b>Number of Hospitalizations</b>									
≤17	5	12	10	5	3	2	6	5	48
18-25	12	53	22	23	18	16	16	29	189
26-39	31	43	39	55	31	31	29	35	294
40-64	19	60	50	54	17	29	43	52	324
65+	5	26	31	12	11	16	15	27	143
Total	72	194	152	149	80	94	109	148	998
<b>Rate per 100,000 Population</b>									
≤17	0.8	0.4	0.5	0.4	0.5	0.1	0.3	0.2	0.4
18-25	3.6	3.6	1.8	3.6	4.0	1.8	1.6	2.8	2.7
26-39	6.7	1.6	1.9	3.2	3.6	2.3	1.8	1.9	2.3
40-64	2.6	1.3	1.4	2.2	1.2	1.6	1.8	1.6	1.6
65+	1.9	1.4	1.9	1.3	1.7	2.8	1.5	2.1	1.8
Total	3.0	1.4	1.4	2.1	2.0	1.5	1.4	1.6	1.6



## Discussion

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Fentanyl overdoses are a significant and growing public health problem across the United States and in LAC across sociodemographic groups and geographic areas. This is complicated by the fact that many overdoses associated with fentanyl are related to poisonings among individuals ingesting fentanyl unknowingly. The increases among youth who are being targeted by drug traffickers, and the widening disparities among marginalized groups are particularly concerning.

Important disparities may be obscured when assessing frequencies alone rather than adjusting for differences in the population sizes of subgroups in rate calculations. For example, data indicate that fentanyl overdose death rates were much higher among Blacks than among other race/ethnicity groups and in high poverty neighborhoods compared to more affluent areas even though the numbers of deaths among these high-risk groups are lower. In the case of race/ethnicity, Black people account for 8% of the LAC population, and disproportionately accounted for 17% of fentanyl overdose deaths in 2021.

Drug overdose is preventable, and a variety of evidence-based tools are known to be effective. The existing sociodemographic and geographic disparities in fentanyl overdose deaths and healthcare utilization shown in this report underscore the need to identify and address economic, structural, and cultural factors that increase the risk for overdose and prevent certain groups from getting treatment and staying in recovery. Tailored prevention, harm reduction, and treatment efforts for these groups can help to address structural barriers and advance health equity in LAC.

Targeted approaches need to recognize that most illicit drugs and pills acquired outside of healthcare settings can be contaminated with fentanyl. Primary prevention will need to communicate both the inherent dangers associated with illicit drug use and the high probability of poisoning. Harm reduction strategies are essential to help save lives, including increasing access to naloxone (Narcan), fentanyl test strips, and safer consumption sites. Finally, enhancing access to treatment will allow many to receive help for substance use disorders and focus on recovery.

## References

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Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 1999-2021 on CDC WONDER Online Database. <http://wonder.cdc.gov/mcd-icd10.html>

County of Los Angeles, Internal Services Department (ISD), Information Technology Service, Urban Research-GIS Section, Population and Poverty Estimates of Los Angeles County Tract-City Splits by Age, Sex and Race-Ethnicity for July 1, 2021, Los Angeles, CA, October 2022.

Department of Health Care Access and Information (HCAI; previously OSHPD). Emergency Department and Inpatient Discharge Data Set 2016-2021. California Dept of Public Health.

Los Angeles County Medical Examiner/Coroner's Office. Coroner and Toxicology data. Data as of May 2022.

Prescription Medication Misuse and Public Perceptions in Los Angeles County: Findings from the 2017 Community Needs Assessment (CNA). Health Outcomes and Data Analytics, Substance Abuse Prevention and Control, Los Angeles County Department of Public Health, March 2019.

<http://ph.lacounty.gov/sapc/MDU/SpecialReport/Opioid/PrescriptionMisusePublicPerception.pdf>

United States Census Bureau. American Community Survey (ACS). Poverty Status in the Past 12 Months of Families. 2016-2020 5-Year Estimates. Table S1702.

<https://data.census.gov/cedsci/table?q=S1702&tid=ACSSST5Y2020.S1702>

United States Drug Enforcement Administration (DEA). Public Safety Alert: DEA Laboratory Testing Reveals that 6 out of 10 Fentanyl-Laced Fake Prescription Pills Now Contain a Potentially Lethal Dose of Fentanyl. 2023. <https://www.dea.gov/alert/dea-laboratory-testing-reveals-6-out-of-10-fentanyl-laced-fake-prescription-pills-now-contain>

United States Drug Enforcement Administration (DEA). DEA Warns of Brightly-Colored Fentanyl Used to Target Young Americans Press Release. 2022. <https://www.dea.gov/press-releases/2022/08/30/dea-warns-brightly-colored-fentanyl-used-target-young-americans>