

Sheltered Individuals Who Experience Homelessness in Los Angeles County (2023)

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(Source: Homelessness in Los Angeles (<https://la.curbed.com/2020/6/12/21288028/homeless-population-number-los-angeles>))

Introduction:

Understanding the demographics of homelessness in Los Angeles is crucial for specialized interventions and equitable resource allocation. It allows policymakers to create solutions to specific needs, especially for vulnerable populations. Beyond policy considerations, this understanding fosters empathy and informs careful decision-making, contributing to holistic and sustainable efforts to eradicate homelessness in Los Angeles County.

Research Questions:

The research questions aim to explore the intersection of domestic abuse and substance abuse, stratified by age, race, and gender. By examining age-specific trends, racial variations, and gender variations, we seek to inform targeted interventions that address the unique challenges faced by different subpopulations. This research is essential for the development of inclusive support systems at the intersection of domestic and substance abuse for those who experience homelessness.

❖ Domestic Abuse and Homelessness:

- How are differences in age, race and gender dynamics linked to variations in experiences of domestic abuse among sheltered individuals in Los Angeles County, highlighting potential disparities in demographics and location?

❖ Substance Abuse and Homelessness:

- How are differences in age, race, and gender dynamics linked to variations in experiences of substance abuse among sheltered individuals in Los Angeles County, highlighting potential disparities in demographics and location?

Data Sources:

The 2023 dataset from LAHSA exclusively focuses on sheltered individuals in Los Angeles County, comprising 10,000 to 14,000 records from the Homeless Management Information System (HMIS). Distinct patterns in the sheltered population, including larger shares of women, children, and newly homeless individuals, are revealed. Presented in household and individual formats, UCLA's Paul Beeman has standardized the records for enhanced consistency. The dataset, available in its original, de-identified form, along with a questionnaire and standardized version codebook, provides a focused resource for exploring the attributes and experiences of sheltered individuals during 2023.

- [Los Angeles Country CSV Data \(csv\)](#)
- [Los Angeles Country SPA Data \(shp\)](#)
- [Survey of Sheltered Individuals Living in Los Angeles County \(2023\)](#)

Data Collection and Cleaning:

The full data cleaning procedure can be found in source(*raw_data.R*).

Data Cleaning Process

- [Los Angeles Country CSV Data](#)
 - Imported the data using `read_csv()`
 - Selected columns: SPA_NAME, ABBV, Shape_length, Shape_area
- [Survey of Sheltered Individuals Living in Los Angeles County \(2023\)](#)
 - Imported the data using `read_csv()`
 - Selected important columns from over 1,000 columns.
 - Recoded columns
 - Male: yes/no
 - DomViol: yes/no/na
 - SubsAbuse_type: none/alcohol/drugs/both
 - SPA: South/ South Bay/ San Fernando/ San Gabriel/ Metro/ East/ West/ Antelope Valley
 - Hispanic: yes/no/na
 - Race_nofa: White/ Black/ Asian/ Indigenous/ Pacific Islander/ Two or more Races/Other/na
 - transgender : yes/no
 - Straight: yes/no
 - Gay: yes/no
 - Bisexual: yes/no
 - Renamed column names to match during the merging process.
- [Los Angeles Country SPA Data \(shp\)](#)
 - Imported the data using `st_read()`

Final Data Sets:

- Shapefile_and_data
- Merged_data

Challenges:

I ran into problems with exceeding github's repository. This required me to start a new file. I would also recommend creating new variable names. When files are loaded, it can confuse R. Loading shapefiles require computational power.

Data Exploration :

The full data exploration and graphs can be found in *about_the_data.qmd*.

- What are the dimensions of the data?:
 - There are 19 columns and 15674 observations.
- How many families reported their data?
 - There are 12225 reported households that have 1 person.
- What is the average household size?
 - The average household size is 1.171 people.
- What is the youngest age?
 - 0 years old
- What is the oldest age?
 - 99 years old
- What is the distribution of gender?
 - The gender distribution indicates that 43.3% of respondents identify as female, 52.4% as male, and 4.3% did not provide a response.
- What is the race distribution?
 - For those who reported their race, 48% of the surveyed individuals are White. Similarly, 44.8% of the survey individuals are Black. About 3.7% of the data are represented by other racial groups.
- What is the gender distribution?
 - Among individuals who provided information about their gender, approximately 54% identified as male, while 45.3% identified as female.
- What is the proportion of substance abuse?
 - Approximately 79.8% of the individuals surveyed indicated that they refrain from substance abuse. About 8.4% reported engaging in the abuse of both drugs and alcohol, while 4.6% experience alcohol abuse and 7.2% experience drug abuse.

Repository: (view [README](#).md for more information)

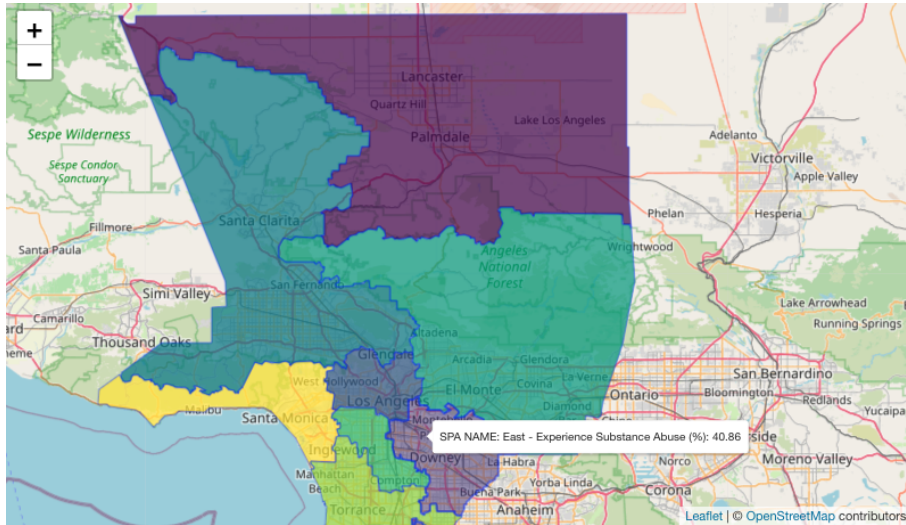
- Folder: data
 - [WORKING]2023-HMIS-Records-of_Sheltered-Individuals
 - Better.geojson
 - LA_County_Service_Planning_Area_(2012).csv
 - LA_County_Service_Planning_Area_(2012).shp
- Folder: docs :
- Folder: images
- .gitignore
- .DS_store
- _quarto.yml
- about_the_data.qmd
- domestic_violence.qmd
- index.qmd
- Index.markdown
- raw_data.R
- Styles.css
- substance_abuse.qmd

Data Visualization :

Substance Abuse and Homelessness

The percentage of those who abuse substances by Service Planning Agencies (SPA).

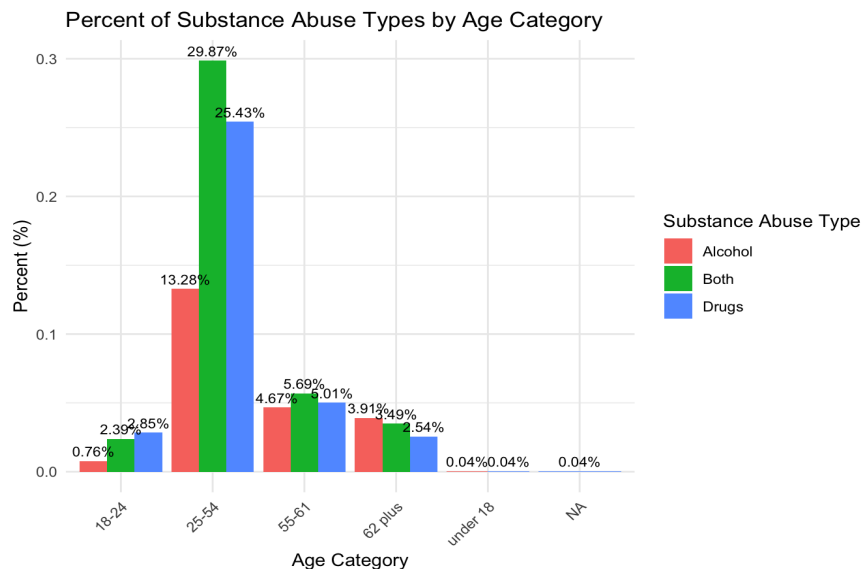
Fig 1. [Interactive Map]



Findings: Analyzing substance abuse percentages across Service Planning Agencies (SPA) shows distinct rates. SPA East reports the highest percentage, with 40.86% experiencing some form of substance abuse. In SPA Metro, which includes downtown LA, the second-highest percentage of 21.56% experiencing substance abuse. On the contrary, San Gabriel SPA has the lowest rate at 7.53%. These disparities underscore the need for targeted interventions and specialized support systems within each SPA.

Age: Are there age-related differences in the prevalence of substance abuse among homeless individuals?

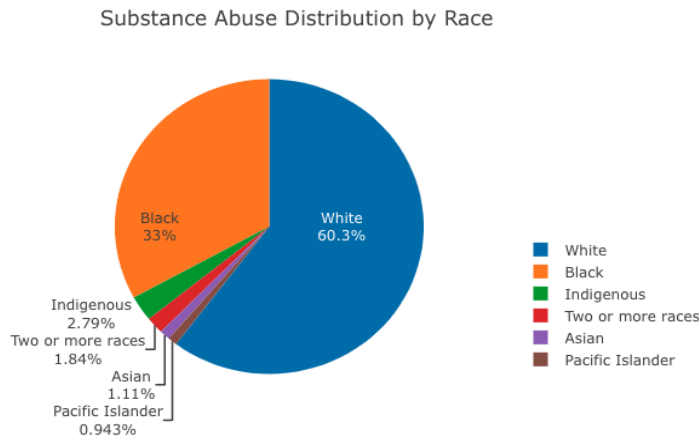
Fig 2. [Bar Chart]



Findings: Among those aged 18-24, drug abuse is the highest, overall substance abuse is the lowest in this age group. For individuals between the ages of 25-54, nearly 30% report the concurrent abuse of drugs and alcohol, while approximately 25.4% specifically report drug abuse. In the 55-61 age category, the percent abuse of both substances is 5.7% among those disclosing substance abuse. In the oldest category (62+), alcohol abuse is the most common type of substance abuse. Those who are under 18 and report that they abuse substances, but not specify what type are graphed to the right of the plot.

Race: How does the presence of substance abuse differ among various racial groups?

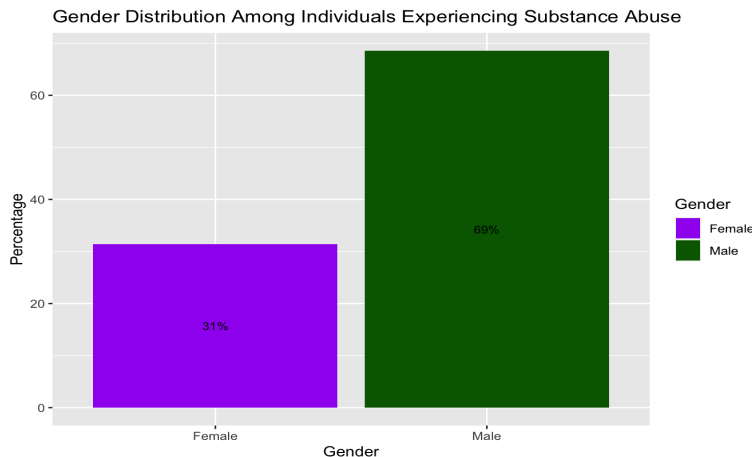
Fig 3. [Interactive Pie Chart]



Findings: The analysis of substance abuse prevalence among sheltered individuals in Los Angeles County reveals significant racial disparities. Approximately 60.3% of Whites report experiencing some form of substance abuse, indicating a substantial impact within this racial group. In comparison, 33% of Blacks also report substance abuse.

Gender: How does gender influence the experiences of homelessness and the impact of domestic abuse?

Fig 4. [Bar Chart]



The analysis of substance abuse among sheltered individuals in Los Angeles County shows a gender disparity. Of those experiencing substance abuse, 69% identify as male, while 31% identify as female.

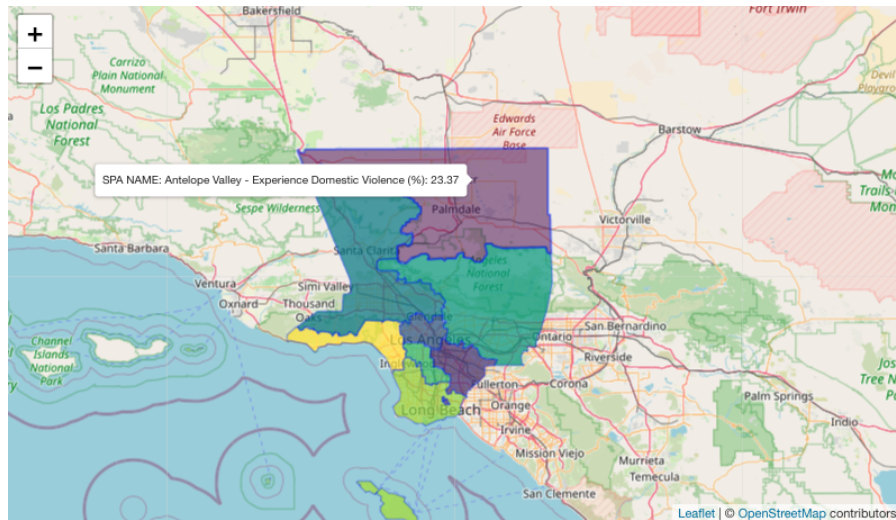
Conclusion:

Substance abuse often makes it harder for homeless individuals to find stable housing, creating a tough situation that's difficult to break out of. It is important to identify which populations are most affected and to create a plan to solve this public health issue. Our findings suggest that those who are in the age range 25-54 experience are at a higher risk of abusing substances. Among those who experience substance abuse, 60.3% are white, 69% are male. East SPA (ex. City of Commerce, Bell Garden, Cerritos, etc.) has the highest percentage (40.86%) of individuals living in that SPA experiencing substance abuse. Understanding the demographics can help provide policy makers, nonprofits, the general public and more to create substance abuse prevention plans for different subpopulations.

Domestic Violence and Homelessness

The percentage of those experiencing domestic violence by Service Planning Agencies (SPA).

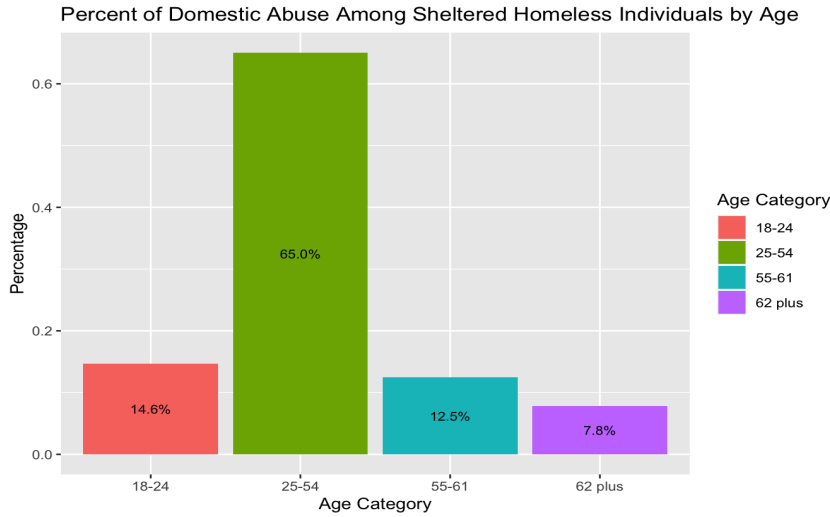
Fig 5. [Interactive Map]



Findings: This map presents the percentage of individuals experiencing domestic violence in different Service Planning Agencies (SPA). About 23.4% of surveyed individuals residing in SPA Antelope Valley, including cities such as Lancaster and Palmdale report experiencing domestic violence. The second highest percentage of experiencing domestic abuse is SPA West. About 22.9% of surveyed individuals residing in SPA West, including cities such as Santa Monica, Venice, and Malibu, report experiencing domestic violence. SPA Gabriel has the lowest percentage, at around 10.1% of individuals living in this area report experiencing domestic abuse.

Age: Are there age-related differences in the prevalence of domestic abuse among homeless individuals?

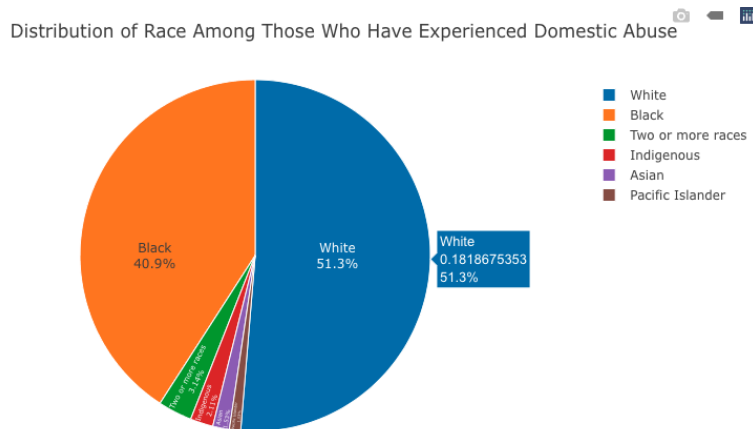
Fig 6. [Bar Graph]



Findings: This graph shows age-related differences in the percentage of domestic abuse among homeless individuals. The youngest age group (18-24) reports a relatively lower percentage of domestic abuse at approximately 14.6%. In the 55-61 age category, the percentage slightly decreases to 12.5%. The majority of those experiencing domestic abuse fall within the age range of 25-54 (65%). The lowest reported percentage, at 7.8%, is observed in the 62 years and older age group.

Race: How does the presence of domestic abuse differ among various racial groups?

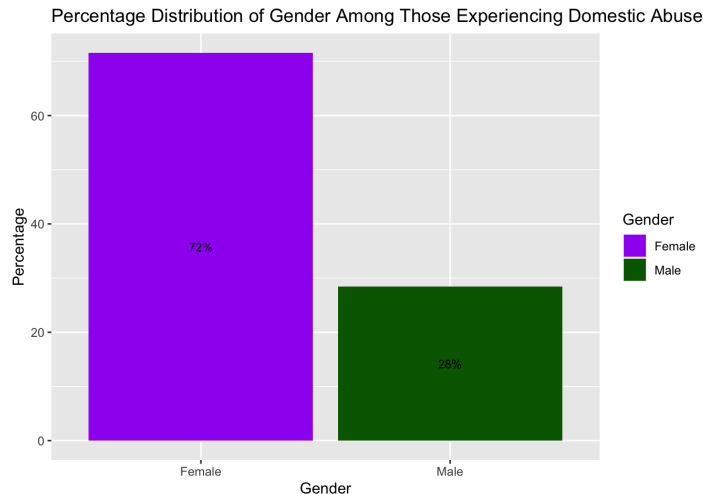
Fig 7. [Interactive Pie Chart]



Findings: The analysis of domestic abuse prevalence among sheltered individuals in Los Angeles County reveals distinct racial disparities. Approximately 40.9% of Blacks and 51.3% of Whites report experiencing domestic abuse. The remaining racial and ethnic groups represent less than 10.4% of those experiencing domestic abuse.

Gender: How does gender influence the experiences of homelessness and the impact of domestic abuse?

Fig 8 : [Bar Chart]



Findings: The bar graph provides a representation of the gender distribution among those facing domestic abuse. The majority of individuals experiencing domestic abuse in the survey for shelter individuals identify as female (72%). In contrast, males make up 28% of the population experiencing domestic abuse.

Conclusion:

Homelessness and domestic violence can intersect, as individuals feeling abusive homes may find themselves without shelter, making it difficult to escape violence. Also, those who face homelessness may be at highest risk of domestic violence. Among those who experience domestic violence, 72% are females, 40.9% are black, 51.3% are white, and 65% are between the ages of 25 and 54. SPA Antelope Valley (ex. Palmdale and Lancaster, etc.) has the highest percentage (23.4%) of individuals living in that SPA experiencing domestic violence abuse. Understanding the demographics can help provide policy makers, nonprofits, the general public and more to create domestic violence intervention plans for different subpopulations.

Further Considerations:

In the future, I would conduct additional statistical analyses to understand how the presence of substance abuse correlates with experiences of domestic abuse among sheltered individuals in Los Angeles County. Additionally, I would explore the variations in this relationship based on demographic factors such as age, race, and gender.