



## RACIAL/ETHNIC AND INCOME DISPARITIES FOR OPIOID USE IN CALIFORNIA

The current opioid abuse patterns appear to be affecting low income white communities the most. However, previous drug epidemics in the United States have disproportionately affected nonwhite communities. The current pattern of opioid abuse has been linked to “poverty and lack of economic opportunity among increasingly downwardly mobile sectors of working class America”. In addition, the opioid epidemic has also been caused by changes in the healthcare system that have allowed for increased availability of prescription opioid products. This issue of *CLIPs* summarizes a study that quantified the race/ethnicity-income gradient in exposure to opioids by the California health system using the Prescription Drug Monitoring Program data. If you need further information, please contact the Center for Healthcare Innovation and Patient Outcomes Research (CHIPOR) at [chipor@samford.edu](mailto:chipor@samford.edu).

**Assessment of racial/ethnic and income disparities in the prescription of opioids and other controlled medications in California. *JAMA Intern Med.* 2019; doi:[10.1001/jamainternmed.2018.6721](https://doi.org/10.1001/jamainternmed.2018.6721).**

### Introduction

- Previous evaluations of quantification of population-level opioid use has focused on total volume of opioid prescriptions (e.g., consumption of 102.7 prescription for opioids per 1000 residents in Louisiana).
- The human impact of previous studies is difficult to interpret.
- The current study sought to determine the percentage of individuals who received at least 1 prescription for an opioid each year.
- Stimulate and benzodiazepine use was compared, as well.
- Race/ethnicity-income gradients were determined for prescription opioid use to those of other controlled substances.

### Methods

- The percentage of the population of California receiving a prescription for an opioid, benzodiazepine or stimulant (e.g., prescription prevalence rate) was calculated.
- The numerator consisted of the number of people receiving at least 1 prescription and the denominator was the number of people in the population (calculated by zip code tabulation area [ZCTA] from 2011-2015).
- Patients who received prescriptions for controlled substances were identified from California’s Controlled Substance Utilization Review and Evaluation System (CURES) database.
- Each drug was classified as an opioid, benzodiazepine, stimulant or other based on National Drug Codes.
- Medications to treat opioid addiction were not included.
- Sociodemographic information was obtained via the American Community Survey data. Prescription counts were combined with population counts from this survey to create estimates of prevalence.
- Trends in racial/ethnic and income patterns were evaluated for residents who self-identified as non-Hispanic white and nonwhite.

### Results

- The CURES database contains records for 29.7 million patients who received a prescription for a scheduled, prescription drug during the time period.
- The mean age of the patients was 46.5 years and 57% were female.
- A total of 9534 opioid overdose deaths were reported in California.
- Deaths were more common in lower-income and mostly white areas.
- A 10-fold difference in overdose rates were observed across the race/ethnicity-income gradient in California.
- Per 1000,000 people in age-standardized rates, there were 9.6 opioid overdose deaths each year in the highest proportion-white/lowest-income quintile of ACTAs compared to 1.3 in the lowest proportion-white/highest income quintile.

### **Results (continued)**

- Approximately 23.6% of all individuals 15 years or older received a prescription for an opioid medication during the study period.
- The mean annual prevalence of opioid prescriptions among individuals 15 years or older was 44.2% in the highest proportion-white/lowest-income quintile of ZCTAs compared with 16.1% for the lowest proportion-white/highest-income quintile.
- The use of benzodiazepine was lower at 10.2% per year for individuals who were 15 years or older during the study period.
- In individuals older than 15 years, the prevalence of benzodiazepine use among the highest proportion-white quintile of ZCTAs was 15.7% vs. 7.0% among individuals in the lowest proportion-white quintile.
- Areas from Malibu through Beverly Hills showed an elevated rate of stimulant prescription prevalence related to the rest of the county and higher levels of benzodiazepine and opioid prescription prevalence.
- South Central Los Angeles, which is composed of mainly lower-income, mostly nonwhite ZCTAs, showed lower levels of prescription prevalence rates across all drug classes and low levels of stimulant prescriptions.

### **Discussion**

- In California, it appears that white individuals have a higher level of exposure than nonwhite individuals to opioid prescriptions on a per capita basis through the healthcare system.
- Much higher rates of opioid prescriptions were observed in areas with the lowest income and highest proportion of white residents.
- One reason for the reduced use of opioid prescriptions in ethnic minorities is the implicit bias and reduced access to healthcare for this group.
- Prescriptions for stimulant medications and benzodiazepines were also prescribed at higher rates to those who lived in areas with a higher income/higher proportion-white populations.
- Little variation in benzodiazepine prescriptions were observed among income categories, presumably due to the other indications for benzodiazepine use (e.g., epilepsy, anxiety, mental health disorders).
- One limitation of the current study is that evaluations were made on a population level and not an individual level.
- Prescription drug use in California may not mirror the entire US population.

### **Conclusions**

- Race and ethnicity is often excluded from the discussion of the opioid epidemic.
- Previous evaluations have determined that there are population-level differences in prescription prevalence rates.
- Race/ethnicity and income represent key factors that may explain variations in prescription prevalence of opioid use.
- As a result, there may be disparities in untreated pain, anxiety, and ADHD in minority communities.

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