



History of Incarceration and Current Mental Health Outcomes: Findings from the 2011 Los Angeles County Health Survey

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BACKGROUND / PURPOSE

- In 2015 it was reported that 18.2% (or approximately 42.5 million) of U.S. adults suffered from Mental illness (1). Mental health disorders can lead to risky health behaviors and disrupted daily functioning, impaired relationships and premature death.
- The economic burden due to mental illness is an estimated \$193 billion, of which about two thirds is related to indirect costs such as loss of income resulting from unemployment, productivity loss and quality of life expenses (2).
- The U.S. has the highest incarceration rate of any country in the world. It is estimated that more than half of all prison and jail inmates, including 56% of state prisoners, 45% of federal prisoners and 64% of local jail inmates were found to have a mental health problem (3). Rates of incarceration have more than quadrupled and have increased more rapidly among women than among men (4). The post-release ramifications of the incarceration experience can amplify negative social determinants of health, resulting in adverse psychiatric health and socio-economic outcomes for individuals and entire communities (5).
- This study assesses the mental health of adults (18+ years old) in Los Angeles County and aims to determine whether or not there is any relationship between having a history of incarceration (HOI) and increased risk of having any current mental health outcome.

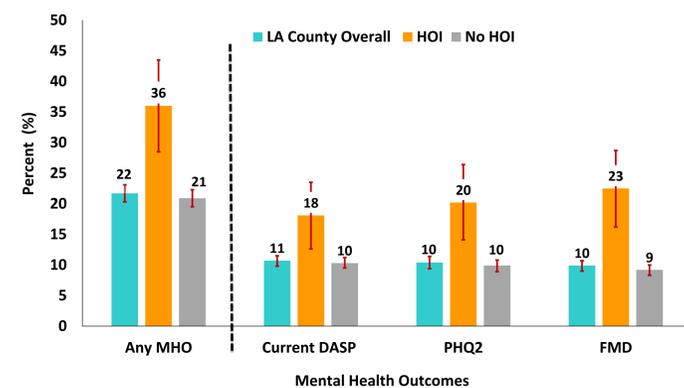
METHODS

- Data were from the 2011 Adult Los Angeles County Health Survey (LACHS) (n=7,679), a population-based, random-digit-dial phone survey that includes information on health conditions, health behaviors, healthcare access and other health related data from a representative sample of Los Angeles County residents.
- Respondents were asked targeted questions to determine the following:
 - Any Current Mental Health Outcomes (AnyMHO):** This variable was created as an inclusive measure that combined the following indicators to allow for improved statistical stability:
 - Respondents were asked if they had ever been diagnosed by a health care professional with depression or an anxiety disorder. To determine **current depression and/or current anxiety (CDASP)**, respondents were then asked whether they were currently being treated (taking medications and/or receiving counseling) or currently experiencing symptoms of their disorder.
 - Risk of Major Depressive Episode (PHQ2)** was determined by using two validated screening questions to inquire about the frequency of depressed mood over the past two weeks (6).
 - Frequent Mental Distress (FMD)** was determined among adults who reported stress, depression, or emotional problems for 14 or more days in the past month.
 - History of Incarceration (HOI):** "As an adult, have you spent more than 24 hours living in a detention center, jail or prison?"
- Descriptive analyses** were conducted to assess the variation in mental health outcomes among different socio-demographic groups including housing instability defined as not having your own place to live or sleep in the past five years.
- Logistic regression** analysis was done to determine if HOI is independently associated with current mental health (Any MHO) when controlling for age, gender, race/ethnicity, income (Federal Poverty Level -FPL), and housing instability.
- All analysis was done using SurveyMeans and SurveyLogistic procedures in SAS 9.3, Cary, NC.

RESULTS

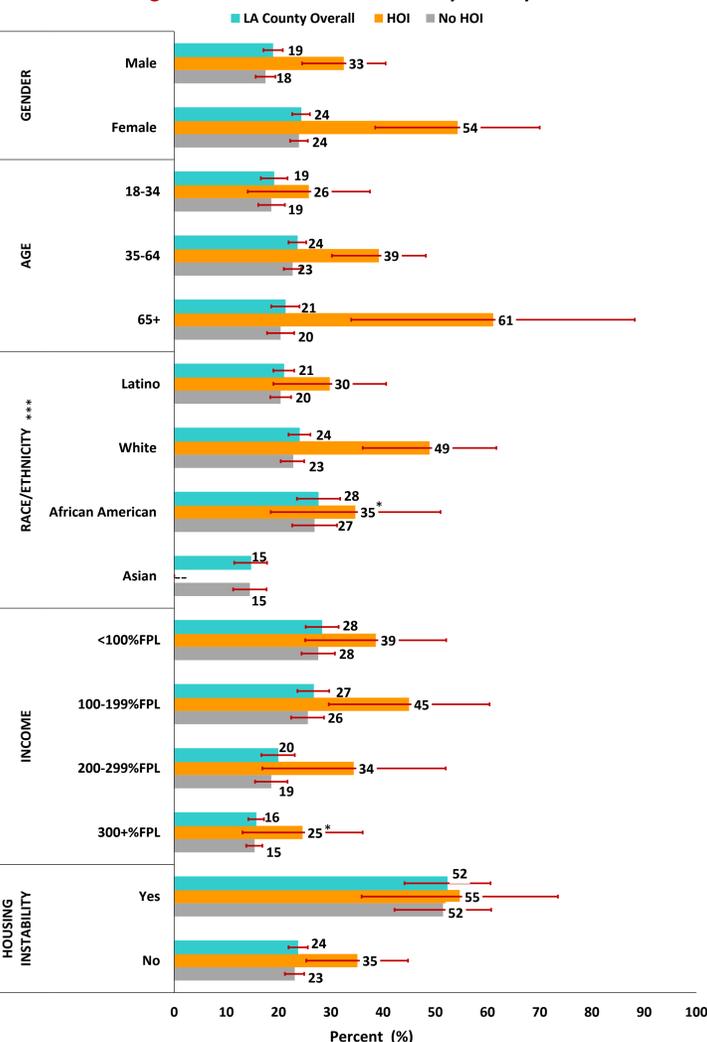
- Adults with HOI had significantly higher prevalence levels for mental health outcomes (Figure 1).

Figure 1: Percent of Adults with Mental Health Outcomes by History of Incarceration (HOI)



- Descriptive analyses show disparities in adults with any current mental health outcomes among those with HOI when stratified by socio-demographic groups (Figure 2). While women are incarcerated in smaller numbers, they report significantly higher prevalence of Current mental health outcomes based on HOI compared to men.

Figure 2: Percent of Adults with AnyMHO by HOI

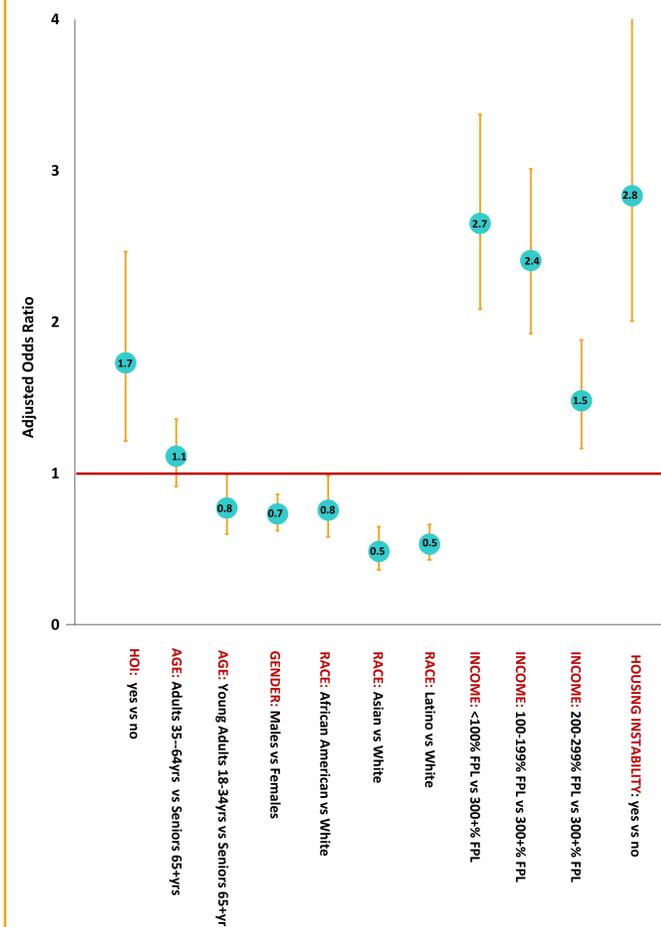


*** Native Hawaiian Other Pacific Islander group were excluded from analysis due to small sample size and data instability
* Data estimate is statistically unstable (relative standard error >=23%)
-- results with cell size <5 are not reported for confidentiality reasons

RESULTS (Continued)

- Logistic regression model results show that adults with HOI had almost twice the odds [OR=1.7 (1.2-2.5)] of having AnyMHO (figure 3).
- Income level was a significant factor in explaining "AnyMHO" since the model shows a consistent reduction in odds as income levels increased. Compared to adults at or above 300%FPL, low income adults <100% FPL [OR=2.7 (2.1-3.4)], 100-199% FPL [OR=2.4 (1.9-3.0)], and 200-299%FPL [OR=1.5 (1.2-1.9)], had significantly higher odds of having a current mental health outcome.
- Those with housing instability in the past five years had the highest odds of having AnyMHO [OR=2.8 (2.0-4.0)]
- We also found that Asians [OR=0.5 (0.4-0.6)] and Latinos [OR=0.5 (0.4-0.7)] had significantly lower odds of having AnyMHO compared to whites.
- Males [OR=0.7 (0.6-0.9)] had significantly lower odds compared to Females.

Figure 3: Adjusted Odds Ratios for AnyMHO in Association with HOI and Other Socio-demographic Factors



DISCUSSION

- Though causation cannot be established using cross-sectional data, this study found that there is an association between HOI, gender, income, past housing instability, and mental health outcomes of adults in Los Angeles County.
- Reintegration policies should incorporate mental health screening and provide resources to those formerly incarcerated and experiencing housing instability (7).
- More research would be needed to determine if mental health outcomes contributed to their incarceration or was a result of experiencing incarceration.

LIMITATIONS

- This study is based on **self-reported data** which may result in underreporting of mental health issues and HOI, particularly due to sensitivity and stigma surrounding these issues.
- Temporal ambiguity** is a limitation due to the nature of cross-sectional studies.
- LACHS data is also not representative of persons living in jails or prisons at the time of the survey.

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