

STRONG CHILDREN'S RESEARCH CENTER

Summer 2013 Research Scholar

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ABSTRACT

Title: *Trends in Adolescent Opioid Misuse by Race and Population Density*

Background: Opioid misuse has been cited as a significant public health problem for the general population, and for adolescents in the U.S. Recent research suggests that overall adolescent opioid misuse is trending downward. However, what is unknown is if this trend exists by race and population density over time.

Objective: To determine the prevalence rate of adolescent opioid misuse in the U.S., by race and population density.

Results: We used data from the National Survey of Drug Use and Health (NSDUH) in order to report the prevalence rates of past year opioid misuse among 12-21 year olds, from 2002-2011. Overall, the prevalence rate of past year misuse fell from 8.7% in 2002, to 7.0% in 2011 ($P < 0.001$). The prevalence rate was significantly different by race in 2011 ($P < 0.001$). The highest rate was seen in Non-Hispanic Multiracial adolescents at 9.7% and in Non-Hispanic Native Hawaiians/Other Pacific Islanders at 8.7%. The 2011 prevalence rate for Non-Hispanic Native Americans/Alaskan Natives was 8.4% and for Non-Hispanic Whites at 8.3%. The lowest 2011 prevalence rate occurred in Hispanics at 5.5%, in Non-Hispanic Blacks/African-Americans at 5.1%, and in Non-Hispanic Asians at 2.2%. Non-Hispanic Native Americans/Alaskan Natives had the largest decrease in prevalence rates of adolescent misuse from 15.2% in 2002 to 8.3% in 2011, for a total decrease of 45% ($P = 0.085$). Non-Hispanic Native Hawaiians/Other Pacific Islanders experienced an increase in prevalence rates of misuse from 6.6% in 2002 to 8.7% ($P = 0.67$). In the NSDUH data set, population density was represented by the Core Based Statistical Area (CBSA) variable. CBSA's as defined by the U.S. Office of Management and Budget, are regional units containing a minimum of one populous center of 10,000 or more people, and neighboring areas wherein the population is socioeconomically intertwined with the center. Downward trends in overall prevalence rates from 2002-2011 were observed across CBSA and non-CBSA population segments. From 2002 to 2011, the prevalence rate in CBSA segments with ≥ 1 million persons decreased from 7.9% to 6.3% ($P = 0.001$) and in CBSA segments with < 1 million persons decreased from 9.9% to 7.6% ($P = 0.001$). In non-CBSA population segments, the prevalence rate decreased from 8.3% in 2002 to 7.7% in 2011; ($P = 0.001$) however, there was a 19% ($P = 0.31$) increase from 2008 to 2011.

Conclusions: From 2002-2011, the prevalence of adolescent opioid misuse across race and population density trended downward. The highest reported prevalence rates in 2011 were found among Non-Hispanic Multiracial adolescents and Non-Hispanic Native Hawaiians/Other Pacific Islanders. This finding stands in contrast to previous findings that suggested that Non-Hispanic White adolescents were most at risk. In non-CBSA population segments, there was also a statistically insignificant increase in misuse from 2008-2011. Potential correlations could exist between race and population density, as they pertain to opioid misuse. Further studies are needed to explore trends exhibited by racial prevalence within specific geographical regions, which could have implications for primary care interventions to reduce adolescent opioid misuse.