New Mexico Epidemiology

March 10, 2017 Volume 2017, Number 3

Drug Overdose Death in New Mexico

Lori Peterson, MPH, MS and Jim Davis, MA
Epidemiology and Response Division
New Mexico Department of Health

New Mexico and the United States are experiencing a drug overdose epidemic. NM is among the states with drug overdose death rates that are higher than national rates; it ranked eighth compared to the other 50 states in 2015. In 2014, 40% of the 47,055 fatal drug overdoses in the U.S. were due to prescription opioid drugs (e.g., oxycodone, hydrocodone, codeine, morphine, fentanyl) and 22% were related to heroin.[1] In 2015, 1,753,287 opioid prescriptions were written in NM, dispensing enough opioids for each adult in the state to have 800 morphine milligram equivalents (MME), or roughly 30 opioid doses. History of chronic pain is found in 50-80% of people that die of prescription opioid overdose.[2] The risk of overdose increases with increasing opioid dose.[3] In 2014, 1.9 million U.S. residents had a prescription opioid use disorder and 586,000 had a heroin use disorder.[4] Chronic opioid use (for over 3 months) is associated with increased rates of addiction, tolerance, anxiety, hospitalizations, pain (hyperalgesia), and overdose death.[5] Combinations of opioids and alcohol and/or other drugs such as sedatives (e.g., benzodiazepines) increase the risk of death.[6] The problem affects people of all races/ethnicities, genders, ages, and income levels. The objective of this report is to describe recent NM drug overdose death rates to help guide prevention efforts.

Methods

Mortality information was extracted from multiple cause of death files from the NM DOH Bureau of Vital Records and Health Statistics (BVRHS) and files from the NM Office of the Medical Investigator (OMI). International Classification of Diseases, 10th Revision (ICD-10) codes X40–44 (unintentional), X60–64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent) listed as an underlying cause of death were used to define numerators when calculating total drug overdose death rates. October 2016 population estimates from the University of New Mexico Geospatial and Population Studies Program were used as rate denominators. Total drug overdose death rates were per 100,000 population and age-adjusted to the US 2000 standard population. The drugs involved in deaths extracted from OMI files were determined using text fields that listed the drug type. Deaths listing multiple drugs were counted once in each drug type (*i.e.* drug type categorization is not mutually exclusive). US rates were obtained using CDC Wonder.

Results

Drug overdose death rates tripled between 1990 and 2015 in NM (Figure 1). The 2015 age-adjusted rate in NM was 24.8 deaths per 100,000 population compared to the 2015 national rate of 16.3 deaths per 100,000.

Males 25-54 years of age were at the highest risk for drug overdose death while for females the highest risk was among those aged 35-54 years (Figures 2a & 2b). Males had higher rates than females in most age and racial/ethnic groups, particularly among people under age 35 years. Hispanic males had the highest rates, followed by White males and White females (36.6, 25.6 and 22.1 deaths per 100,000, respectively). Among Hispanics and American Indians, males had rates that were roughly two times those of females. The difference between male and female rates was smaller among Blacks and even smaller among Whites.

The type of drug listed in 2015 OMI records showed that 72.5% of drug overdose deaths in NM involved opioids (Figure 3). Of the deaths that involved opioids, 50.4% involved prescription opioids, 43.3% involved heroin and 6.3% involved both. Fentanyl contributed to 5.4% of opioid-involved overdose deaths. In 2015, 23.8% of all overdose deaths involved methamphetamine, 23.6% involved benzodiazepines, 10.8% involved cocaine and 22.0% involved alcohol.

Seven NM counties had drug overdose death rates in 2011-2015 that were lower than the national rate (Figure 4). Fourteen counties had drug overdose death rates that were higher than the NM rate. Rio Arriba County had the highest death rate from drug overdose (85.8 deaths per 100,000) among NM counties. Based on the NCHS Urban-Rural classification scheme for counties, the rural counties had the highest rate of drug overdose death (30.5 deaths per 100,000) and accounted for 5.3% of all overdose deaths in 2011-2015. Other groups of counties are metropolitan (26.0/100,000, 47.4%) mixed rural/urban (24.3/100,000, 26.9%) and small metropolitan (22.1/100,000, 20.4%).

Discussion

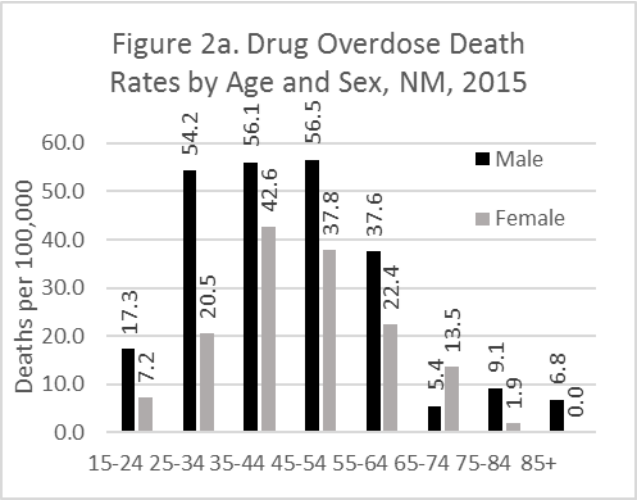
This report provides insight into the burden of drug overdose in NM using drug overdose death information. The findings provide a limited view of the impact of drug abuse in NM. Total overdose deaths include deaths due to opioids (prescription opioids and heroin) and other classes of drugs (e.g., methamphetamines and cocaine). Benzodiazepines and alcohol make an under-appreciated contribution to drug overdose deaths. Drug overdose deaths may involve more than one drug, so categories are not mutually exclusive. Despite the limitations, drug overdose mortality can be used to estimate which groups and geographical areas have higher rates for allocation of treatment and prevention resources.

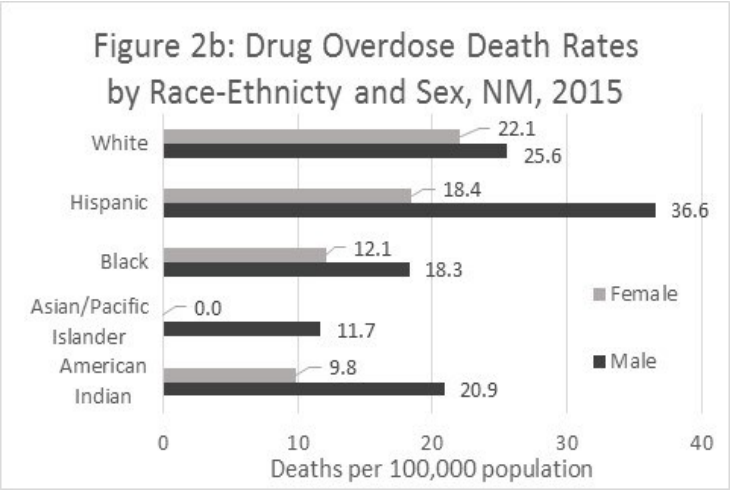
NM's drug overdose death rate has been high compared to the national rate; NM had the second rate in 2014, but showed improvement to the eighth highest rate in 2015 by declining by 7.5%. Implementation of federal and state guidelines, regulations, and laws, along with education and various medical strategies are intended to reduce drug overdose death rates. Examples include US Centers for Disease Control and Prevention Guidelines for prescribing opioids for chronic, non-cancer pain, prescription monitoring programs (PMPs) such as the NM PMP (http://nmpmp.org/), safer opioid prescribing practices by health care providers, broader access to medication assisted treatment (MAT) such as buprenorphine/naloxone and methadone, and increased distribution of naloxone (opioid antagonist that can be used as a nasal spray to prevent overdose deaths).

Prevention strategies may be different depending on the age group involved and whether people use opioids medically or non-medically. Medical users, such as those who take opioids for pain, might be best educated through their healthcare providers, including physicians, insurance companies, and pharmacists.

Prevention and treatment programs should increase awareness of:

1. Prescription drug use, misuse, overuse, and abuse among New Mexicans;
2. Safe prescribing practices such as PMP use that will reduce high risk activities such as: long-term and/or high-dose opioid use, overlapping opioid prescriptions from multiple prescribers, and opioids used in combination with alcohol and/or other drugs such as benzodiazepines;
3. Harm reduction services, mental health, and overdose prevention programs;
4. Availability of naloxone from outpatient pharmacies, law enforcement carry-and-administer nalox-





one, and detention center naloxone-upon release programs;
5. Use of medication assisted treatment (MAT) for persons with opioid use disorder;
6. Alternative approaches to pain management including non-pharmacologic and pharmacologic treatments.

Acknowledgements
The authors would like to acknowledge Toby Rosenblatt, Brianna Harrand, and Christopher Trujillo for assistance with editing.

References

1. CDC NCHS, NVSS, Mortality File. (2015). Number and Age-Adjusted Rates of Drug-poisoning … US, 2000–2014. http://www.cdc.gov/nchs/data/health_policy/AADR_drug_poisoning_involving_OA_Heroin_US_2000-2014.pdf , Accessed 10/25/2016.
2. CDC Prescription Drug Report https://www.cdc.gov/drugoverdose/pdf/hhs_prescription_drug_abuse_report_09.2013.pdf, accessed 12/13/2016
3. Bohnert AS, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. JAMA. 2011;305(13):1315-21.
4. SAMHSA, CBHSQ (2015). Behavioral health trends…. www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf, Accessed 10/25/2106
5. CDC, Guideline for Prescribing Opioids for Chronic Pain. US, 2016. https://www.cdc.gov/media/modules/dpk/2016/dpk-pod/rr6501e1er-ebook.pdf
6. JA Gudin et al. Risks, Management, and Monitoring of Combination Opioid, Benzodiazepines, and/or Alcohol Use. Postgrad Med. 2013 July; 125(4): 115–130.

Figure 3. Percentage of Drug Overdose Deaths by Type of Drug, NM, 2015

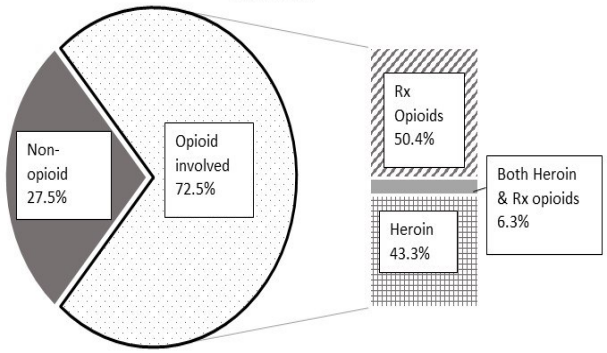
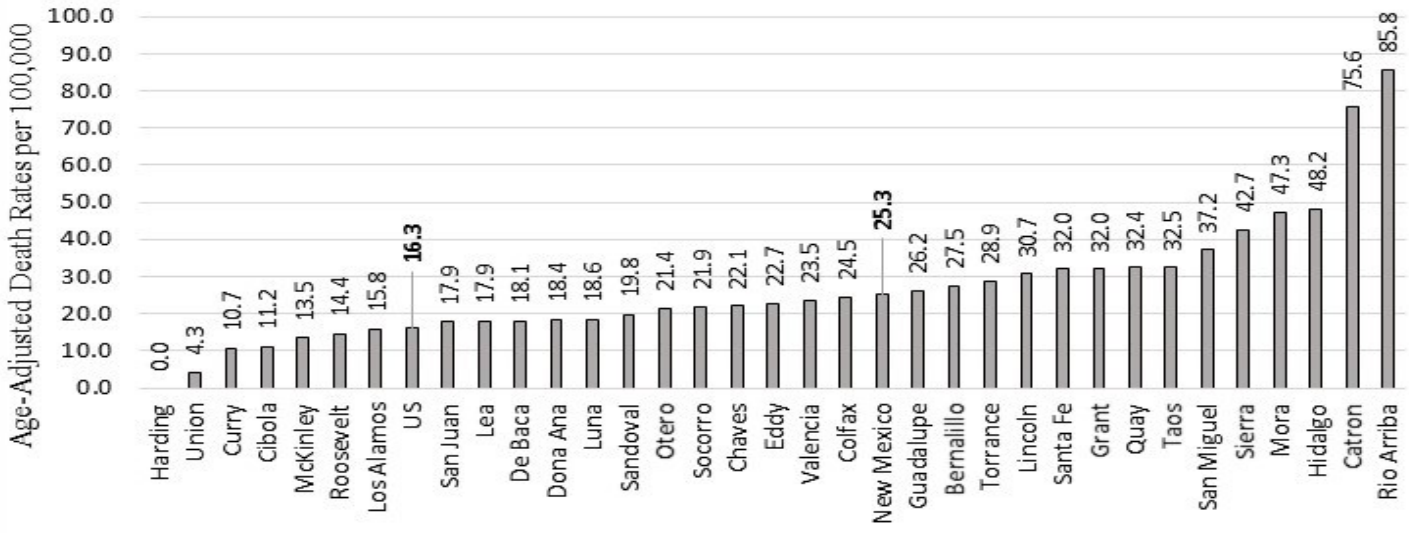


Figure 4. Drug Overdose Death Rates by County, NM, 2011-2015



The New Mexico Epidemiology Report

Michael G. Landen, M.D., M.P.H.
State Epidemiologist & Editor

The New Mexico Epidemiology Report
(ISSN No. 87504642) is published monthly
by the
Epidemiology and Response Division
New Mexico Department of Health
1190 St. Francis Dr.
P.O. Box 26110, Santa Fe, NM 87502

24-Hour Emergency Number:
(505) 827-0006
www.health.state.nm.us