Prescription Drug Overdose Deaths in New Mexico

Michael Landen, MD, MPH
State Epidemiologist
New Mexico Department of Health
Drug Overdose Death Rates, New Mexico and United States, 1990-2011

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New Mexico</td>
<td>22.4</td>
</tr>
<tr>
<td>2</td>
<td>Oklahoma</td>
<td>20.9</td>
</tr>
<tr>
<td>3</td>
<td>Nevada</td>
<td>20.6</td>
</tr>
<tr>
<td>4</td>
<td>Utah</td>
<td>18.7</td>
</tr>
<tr>
<td>5</td>
<td>Alaska</td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>US</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Sources: CDC Vital Signs
Rates are age-adjusted to the 2000 US Standard Population.
Drug Overdose Death Rates by Manner
New Mexico and U.S., 2001-2011

Source: New Mexico Vital Records and Health Statistics; CDC Wonder.
Leading Causes of Unintentional Injury Death, New Mexico, 2001-2011

Poisoning
Motor Vehicle, Traffic
Falls

Source: New Mexico Vital Records and Health Statistics.
Unintentional Overdose Death Rates by Type of Drug, New Mexico, 1990-2010

Note: Groups are not mutually exclusive
Data Source: The New Mexico Office of the Medical Investigator
Rates are age-adjusted to the 2000 US Standard Population.
## Most Common Drugs Causing Unintentional Drug Overdose Death, New Mexico, 2008-2010

<table>
<thead>
<tr>
<th></th>
<th>2008 AA Rate</th>
<th>2009 AA Rate</th>
<th>2010* AA Rate</th>
<th>2010 AA Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>7.8</td>
<td>6.1</td>
<td>Unspecified</td>
<td>5.7</td>
</tr>
<tr>
<td>Cocaine</td>
<td>5.3</td>
<td>4.6</td>
<td>Heroin</td>
<td>3.8</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>3.1</td>
<td>3.9</td>
<td>Cocaine</td>
<td>2.8</td>
</tr>
<tr>
<td>Methadone</td>
<td>2.8</td>
<td>2.9</td>
<td>Oxycodone</td>
<td>2.7</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>2.2</td>
<td>2.3</td>
<td>Morphine</td>
<td>1.6</td>
</tr>
<tr>
<td>Diazepam</td>
<td>2.2</td>
<td>2.1</td>
<td>Methadone</td>
<td>1.5</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>2.2</td>
<td>1.8</td>
<td>Alprazolam</td>
<td>1.5</td>
</tr>
<tr>
<td>Unspecified</td>
<td>1.7</td>
<td>1.8</td>
<td>MA</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*2010 rate declines by drug type are partly a function of decreases in specificity of drug type coding.

Source: The New Mexico Office of the Medical Investigator

Notes: Rates are not mutually exclusive. Rates are age-adjusted to the 2000 US Standard Population.
Drug Overdose Death Rates by County, New Mexico, 2007-2011 and U.S., 2009

Age-adjusted rates per 100,000 persons

Source: BVRHS; CDC Wonder.
Drug Overdose Death Rates by Age, Sex, and Race, New Mexico, 2007-2011

Source: BVRHS.
Prescription Opioid Drug Sales by Weight (Grams) in the DEA* Database, New Mexico, 2002-2011

* Drug Enforcement Administration, U.S. Dept. of Justice.
Prescription Opioid Drug Sales by Weight (Grams) in the DEA* Database, New Mexico, 2002-2011

* Drug Enforcement Administration, U.S. Dept. of Justice.
Oxycodone Sales Rate by 3-Digit Zip Codes
New Mexico, 2011

State Rate: 2.6

- 2.9 – 4.5
- 2.0 – 2.8
- 1.3 – 2.0
- 0.9 – 1.2

Kg/10,000 population

Source: Data-Drug Enforcement Administration, U.S. Dept. of Justice. Pop-U.S. Census Bureau.
Oxycodone Sales Rate by 3-Digit Zip Codes
New Mexico, 2011

Source: DEA, U.S. Dept. of Justice; U.S. Census Bureau.
Prescription Total Opioid and Oxycodone Sales Ratios
United States and New Mexico, 2001-2011

* 2011 NM ratio based on 2010 population estimate.

SOURCE: Sales data: DEA, U.S. Dept. of Justice; Pop estimates from BBER, UNM and U.S. Census Bureau.
Drug Overdose Death Rate and OPR Sales Rate
New Mexico, 2001-2011

Source: BVRHS, NMDOH; ARCOS, DEA.
## Drug Overdose Death with Numbers of Prescribers and Pharmacies

<table>
<thead>
<tr>
<th>Number of</th>
<th>Case Mean</th>
<th>Control Mean</th>
<th>Odds Ratio for increase of one</th>
<th>95% CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribers</td>
<td>3.0</td>
<td>1.4</td>
<td>1.7</td>
<td>1.6-1.9</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>2.4</td>
<td>1.2</td>
<td>2.3</td>
<td>2.0-2.5</td>
</tr>
</tbody>
</table>

Paulozzi LJ, Kilbourne EM, Shah NG, Nolte KB, Desai HA, Landen MG, Harvey W, Loring LD.  
A history of being prescribed controlled substances and risk of drug overdose death.  
Paulozzi LJ, Kilbourne EM, Shah NG, Nolte KB, Desai HA, Landen MG, Harvey W, Loring LD.
A history of being prescribed controlled substances and risk of drug
intentional overdose death.
Past 30-day Painkiller Use to Get High Grades 9-12, NM, 2007-2011

Source: NM Youth Risk and Resiliency Survey (YRRS), NM DOH and PED
Ever Used a Prescription Drug without a Doctor's Prescription
Grades 9-12, NM and US, 2011

Source: NM Youth Risk and Resiliency Survey (YRRS), NM DOH and PED

Only one year of data available
Nonmedical Use of Pain Relievers in Past Year by Age, NM and US, 2008-2009

Source: NSDUH
Drug Overdose Hospital Inpatient Discharge Rates by Sex, New Mexico, 2001-2010

NOTE: Drug overdose deaths based on the following external ICD-9 codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5. Data include hospital discharges from in-state, non-federal hospitals (IHS not included). SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.
Drug Overdose Hospital Inpatient Discharge Rates by County, New Mexico, 2008-2010 Average

NOTE: Rates are age-adjusted based of the following external ICD-9 codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5. Data include hospital discharges from in-state, non-federal hospitals (IHS not included). SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.
Rates were calculated based on the following ICD-9 external cause codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5.

NOTES: Data are submitted by individual hospital emergency departments which have varied databases, capacities to extract data and file formats that are produced. Coding within the dataset may not be uniform. Currently limited quality control or assurance efforts are in place. Data submitted have been examined for internal consistency and to determine whether they have conformed to the NMDOH request guidelines.
Drug Withdrawal Syndrome in Newborns
New Mexico, 2000-2011

NOTE: Data include hospital discharges from in-state, non-federal hospitals (IHS not included) for both primary and secondary diagnoses.
SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.
NM DOH Activities

- Advisory Council
- Surveillance
- Community Overdose Prevention
- Buprenorphine
- Inpatient Treatment
Advisory Council

- Established by SB 215
- Chaired by Secretary of Health
- Appointed by Governor
- Includes licensing board, professional association, pain management, and consumer representatives
- Focusing on recommendations to reduce prescription drug overdose and improve pain management
Cumulative Number of States Authorizing Prescription Drug Abuse-related Laws by Type of Law, United States, 1970-2010

Source: CDC.
Surveillance

- Deaths
- Hospitalizations
- Emergency Department Visits
- Neonatal Drug Withdrawal
- Opioid Sales
- Prescriptions
- Special studies
  - Falls
  - Diversion
One evidence-based approach DOH is working with communities to establish modified pilots across the state.

Project Lazarus: Community-Based Overdose Prevention in Rural North Carolina

Su Albert, MD, MPH,*† Fred W. Brason II, Chaplain,*† Catherine K. Sanford, MSPH,* Nabarun Dasgupta, MPH,*† Jim Graham,*† and Beth Lovette, MPH*†

Results. Preliminary unadjusted data for Wilkes County revealed that the overdose death rate dropped from 46.6 per 100,000 in 2009 to 29.0 per 100,000 in 2010. There was a decrease in the number of victims who received prescriptions for the substance implicated in their fatal overdose from a
Community Overdose Prevention

DOH is working with groups in these communities to implement Project Lazarus style interventions:

- Albuquerque
- Taos
- Truth or Consequences
- Santa Fe
- Gallup
- Roswell
- Alamogordo
Buprenorphine

- DOH provides $240,000 to support 3 projects
  - Albuquerque – 111 patients
  - Santa Fe – 25 patients
  - Las Cruces – 293 patients

- Most patients do not complete the 6-month program
Inpatient Treatment

- Turquoise Lodge in Albuquerque
  - Currently 34 adult beds – medically managed withdrawal and 30 days intensive inpatient rehabilitation – 635 patients
  - Planned 20 adolescent beds – tentative start February 2013

- Other
  - Roswell Rehabilitation – 28 beds, 298 patients
  - Fort Bayard (Yucca Lodge) – 18 beds, 110 pts
Conclusions

- NM drug overdose death rate highest in nation
- Prescription drug overdose deaths are now more common than illicit drug overdose deaths
- High rates are now more distributed throughout NM
- Prescription opioid sales in NM now greater than in U.S.
Recommendations

- Use PMP data to track and reduce misuse and inappropriate prescribing
- Licensing boards should strengthen rules
- Increase community overdose prevention by providing naloxone with opioid prescriptions
- Have Council provide overdose prevention recommendations by end of year
- Assess and address treatment need
Thanks to the following individuals working in Substance Abuse Epidemiology at DOH for their efforts:

Brad Whorton
Jim Davis
Melissa Heinz
Jim Roeber