Increase in Prescription Drug Overdose Deaths in New Mexico, 2003
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Introduction

Recent news reports have highlighted the increasing number of persons who are overdosing on prescription drugs, particularly painkillers such as methadone, propoxyphene, oxycodone, hydrocodone, morphine and codeine. National data has confirmed this problem. In 2002, 7.1 million persons aged 12 and older reported dependence or abuse of illicit drugs in the past year (National Survey on Drug Use and Health, formerly the NHSDA). The number of persons dependent on prescription painkillers (1.5 million) was second only to persons who were dependent on or abused marijuana (4.3 million). Thirteen percent of persons aged 12 and over reported lifetime nonmedical use of prescription painkillers in 2002, and new nonmedical users of prescription painkillers increased from 600,000 in 1990 to more than 2 million in 2002.

Historically, illicit drugs have driven the unintentional drug overdose death rate in New Mexico and accounted for the vast majority of overdose deaths during the past 5 years; however, clarifying the contribution of prescription drugs is essential. Analysis of all unintentional drug overdose deaths from 2001-2003 was conducted to assess the relative contribution of prescription and illicit drugs to drug overdose death in New Mexico.

Methods

All drug overdose deaths that occurred in New Mexico and among New Mexico residents were identified from 2001 through 2003, using data provided by the Office of the Medical Investigator (OMI) and the Toxicology Bureau of the Scientific Laboratory Division (SLD), New Mexico Department of Health. The manner of death was determined by OMI forensic pathologists as unintentional, suicide, homicide or undetermined. This analysis included only unintentional drug overdose deaths.

Classification of drug(s) causing death was determined by the OMI and was more than a determination of the presence or absence of a drug in a toxicological screen. Accordingly, the OMI classified an unintentional drug overdose death as an illicit or prescription drug death and determined the drug(s) causing death based on the findings from a complete investigation and full autopsy. Note that an illicit drug may have been a contributory cause of death in a prescription drug overdose and a prescription drug may have been a contributory cause in an illicit drug overdose death.

The number of drug overdose deaths and rates were calculated for each year. Death rates were age-adjusted to the 2000 US standard population and expressed per 100,000 person years.

Results

The death rate due to unintentional drug overdose death continues to climb in New Mexico, increasing from 14.1 per 100,000 in 2002 to 17.0 per 100,000 in 2003. This represents a 21% increase from 253 drug overdose deaths in 2002 to 307 deaths in 2003. The death rate from prescription drugs increased from 3.8 deaths per 100,000 in 2002 to 5.9 per 100,000 in 2003. The illicit drug death rate increased slightly from 10.3 deaths per 100,000 in 2002 to 11.0 per 100,000 in 2003 (Figure 1).
In 2003, decedents from drug overdose had a median age of 42.1 years, 29% were female and 52% were Latino. Polydrug use was identified for 169 (61%) of the 279 decedents with data available for drug causing death in 2003. The five most common drugs causing death in 2003 were morphine/heroin, cocaine, alcohol, methadone and oxycodone. Only deaths due to hydrocodone and morphine/heroin decreased from 2002 to 2003 (Table 1).

Of the overall increase from 253 drug overdose deaths in 2002 to 307 in 2003, 41 of 54 (76%) deaths were due to prescription drugs. Most noteworthy is the 62% increase in the number of deaths due to prescription drugs from 66 in 2002 to 107 in 2003. Also, the proportion of prescription drug overdose death among all unintentional drug overdose deaths increased from 26% in 2002 to 35% in 2003. Decedents from prescription drugs were significantly older than decedents from illicit drugs (median age of 45.3 versus 40.5, Wilcoxon p<0.001). Among prescription drug overdose deaths, the most common drugs causing death in 2003 were methadone (n=20), oxycodone, alcohol, propoxyphene and morphine/heroin.

The number of illicit drug overdose deaths remained fairly stable, increasing 7% from 187 deaths in 2002 to 200 in 2003. There was actually a decrease in the number of illicit drug overdose deaths from 2002 to 2003 in Rio Arriba, McKinley, Quay, San Miguel, Taos, Socorro and Santa Fe Counties. Among illicit drug overdose deaths, the most common drugs causing death in 2003 were cocaine, morphine/heroin, alcohol, methamphetamine and methadone.

**Drug Overdose Death Rates by County**

Total drug overdose death rates during 2001-2003 were highest in Rio Arriba (39.5 per 100,000), De Baca (29.5), Sandoval (24.4), Sierra (20.2), Bernalillo (20.0) and Chaves (19.4) counties. Valencia, Taos, Quay, Santa Fe, Eddy and Torrance counties also had rates greater than the state rate of 14.2 per 100,000 for total drug overdose death. The counties with the highest rates of illicit drug overdose were Rio Arriba (30.6 per 100,000), Sandoval (15.1), Taos (14.6), Chaves (14.4), Valencia (14.4) and Bernalillo (14.1) counties. The counties with the highest rates of prescription drug overdose were De Baca (29.5 per 100,000), Catron (11.4), Sandoval (9.2), Sierra (9.0), Rio Arriba (8.9) and Luna (8.4) counties (Figure 2).

**Discussion**

New Mexico experienced a dramatic increase in unintentional prescription drug overdose death in 2003. Although unintentional illicit drug death drives the drug overdose death rate in New Mexico, the 21% increase in drug overdose deaths from 2002 to 2003 was largely due to prescription drugs. The 62% increase in prescription drug overdose deaths, from 66 deaths in 2002 to 107 deaths in 2003, was unexpected.

The issue of prescription drug overdose death is complex. Decedents from prescription drugs can be described as: (1) persons using prescription drugs for legitimate medical need, or intended purpose, as prescribed by a physician, (2) persons using prescription drugs not as intended, though prescribed by a physician, and (3) persons who have obtained diverted prescription drugs that were not prescribed to them by a physician.

Decedents who obtained prescription drugs through a physician may have died as a result of polydrug use or not taking their drugs as directed by the physician. It is also known that persons with history of illicit drug use may suffer from chronic pain and other co-occurring disorders, which complicates patient treatment. This underscores the need to better train physicians in the pain management of patients with and without a history of drug use.

It is encouraging that illicit drug death rates were stable and even decreased from 2002 to 2003 in counties that historically have had high death rates, such as Rio Arriba, Santa Fe, Taos, Valencia and San Miguel counties. This is positive considering the efforts and resources
that have been directed to these communities, though further decreasing the number of illicit drug overdose deaths remains an important goal since rates are still very high.

It is estimated that there are roughly 23,800 injection drug users (IDU) living in New Mexico. Data from the National Survey of Substance Abuse Treatment Services indicated that as of March 2002, there were 2,063 clients enrolled in opioid treatment programs in New Mexico. This is less than 10% of the estimated IDU population in the state. Increasing the number of IDU in treatment in New Mexico by preparing more health care professionals to treat opiate dependence, thereby increasing the availability of treatment, should be a goal.

Given the growing contribution of prescription drug overdose death to total drug overdose death in New Mexico, intervention and prevention strategies for non-medical prescription drug use and better physician training in pain management are necessary, in addition to continued efforts to minimize the consequences of illicit drug use in New Mexico.

**Recommendations**

1. Begin exploring the establishment of a statewide prescription drug monitoring system to allow for tracking/linking patient and physician information on prescribing patterns.
2. Better train and educate physicians in treating pain among a diverse patient population where the history of drug abuse is prevalent; increase awareness of “doctor shopping”.
3. Increase access to and quality of opioid treatment programs. This includes improving existing methadone programs, increasing the availability of office-based treatment and increasing treatment options for patients.
4. Collect data through statewide emergency department surveillance to identify emerging trends in nonfatal drug overdose. A pilot program has been initiated at two hospitals in northern New Mexico.

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<th>2002**</th>
<th>2003**</th>
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<td>Rx drug overdose deaths</td>
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<td>Illicit drug overdose deaths</td>
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<tr>
<td>Morphine/heroin</td>
<td>133 (55%)</td>
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<td>Cocaine</td>
<td>94 (39%)</td>
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<td>78 (28%)</td>
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<td>34 (12%)</td>
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<td>16 (6%)</td>
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<tr>
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<td>Fentanyl</td>
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*Not mutually exclusive
** n=244 in 2002, n=278 in 2003 with data for drug causing death (38 decedents who were missing data for drug causing death were not included in individual drug frequencies)
Figure 2. Drug Overdose Death Rates by County, New Mexico, 2001-2003

Deaths per 100,000

*Less than 4 deaths in the county over 3 years
Age-adjusted to the 2000 US standard population
Source: The Office of the Medical Investigator
Figure 1. Rates of Drug Overdose Death in New Mexico, 1998-2003

Age-adjusted to the 2000 US standard population
Source: The Office of the Medical Investigator