The Role of Substance Use Epidemiology, New Mexico Department of Health

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Centers for Disease Control and Prevention
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History: Substance Abuse Epidemiology Section

- Substance Abuse Epidemiology Section formed in 1991 with money from the state behavioral health agency to evaluate substance abuse treatment
  - Initially three staff

- Three Center for Substance Abuse Treatment State Treatment Needs Assessment Program grants 1993-2005
  - Funding of $200,000-300,000 per year for nine years
  - Allowed increase in staffing to five staff

- State alcohol excise tax money for DWI programs provided for screening and tracking of DWI offenders – 1997

- Lack of funding in 2000 led to decrease in staff

- CDC funding for an alcohol epidemiologist position in 2002
Substance Abuse Epidemiology

Injury and Behavioral Epidemiology Bureau, Epidemiology & Response Division, Department of Health

The Bureau conducts surveillance of substance use, fatal and nonfatal injuries, and a wide variety of other health conditions and related behaviors in the NM population

- Addresses the $4.8 billion per year burden of injury in NM by promoting and implementing evidence-based injury prevention strategies

- Consists of 3 Sections: Survey, Injury Prevention and Substance Abuse
Substance Abuse Epidemiology, New Mexico Department of Health

Substance Abuse Epidemiology Section describes and monitors the burden of substance use and mental health conditions in NM, and provides policy recommendations as appropriate.

- Surveillance of substance use behaviors, mental health conditions, overdose death, and other drug- and alcohol-related mortality
- 3 Epidemiologists + 1 CSTE Fellow (2009)

- Surveillance, data analysis and dissemination
- Prevention activities, policy development, epidemiology consultation
- Special studies
Substance Abuse Epidemiology,
New Mexico Department of Health

• Surveillance, data analysis and dissemination
  – Develops, analyzes and interprets data related to substance use and mental health; responds to data requests
    • Develop indicators for Information Based Indicator System (IBIS)
  – Assesses the usefulness of datasets and collection processes
  – Linkage of data sources to produce analysis-ready datasets
  – Collaborates with stakeholders, strategic working groups, state, federal and community entities
Substance Abuse Epidemiology,  
New Mexico Department of Health

• Prevention activities/advocacy, policy development, epidemiology consultation
  
  – Supports the State Prevention Framework State Incentive Grant

  – Assists in evaluation of prevention and intervention initiatives (i.e., DWI)

  – Evaluates Department of Health performance measures; conducts legislative bill analyses related to substance use and mental health

  – Supports the Interagency Behavioral Health Collaborative and associated working groups/task forces
Substance Abuse Epidemiology,
New Mexico Department of Health

• Special studies and manuscripts
  – Pilot project of overdose surveillance in two hospital EDs
  – Drug overdose death
    • Methadone
    • Prescription drug death trends
    • Changing drug combinations causing death over time
    • Urbanization level
    • Differing trends among US-Mexico border and non-border counties
    • PMP linkage
  – Prevalence of alcohol dependence among excessive drinkers
  – Types of alcoholic beverages consumed by high school aged youth
  – Development of New Mexico specific AAFs
  – Description of depression among adults
Substance Abuse Epidemiology: Funding, Tasks and Deliverables

- **Strategic Prevention Framework State Incentive Grant**
  - Assist the Office of Substance Abuse Prevention/DOH
    - Consultation and technical assistance with all subrecipient communities, including tribes
  - Participate with the local State Epidemiology Work Group
    - State Epidemiology Outcome Workgroup
  - Generate State Epidemiology Profile
    - Used by evaluators, subrecipients, other stakeholders
Substance Abuse Epidemiology: Funding, Tasks and Deliverables

• Behavioral Health Services

  – Estimates for SA treatment need for the state and planning regions, demographics
    • Deliver assignments for the SAMHSA Substance Abuse, Prevention and Treatment Block Grant

  – Provide epi consultation and technical assistance re:
    • Examination of estimates for treatment need by other drug use indicators
    • Data quality improvement, data collection processes
    • State Methadone Authority

  – Estimates for mental health treatment need for the state and regions
    • Assignments for CMHS Mental Health Block Grant
Substance Abuse Epidemiology: Funding, Tasks and Deliverables

• Local DWI Programs
  – Assist the Local DWI programs to develop and evaluate data from local grant programs
    • Develop and implement a quality control process/provide professional evaluation guidance
  – Generate Annual Recidivism Report
    • Linkage of administrative databases
State-Level and Federal Collaborations

• Local Forums
  – *State Epidemiology Work Group (sponsored by NIDA)*
  – Substance Abuse Subcommittee (Multi-agency, Collaborative)
  – Meth and More Workgroup
  – New Mexico Multidisciplinary Drug and Alcohol Workgroup
  – Drug Enforcement Advisory Committee
  – State Epidemiology Workgroup (SPF-SIG)
  – DWI Leadership Team, DWI Grant Planning Council
  – Suicide Prevention Coalition
  – Injury Prevention Coalition, Injury Surveillance Alliance

• National Forums
  – Border Epidemiology Work Group (NIDA)
  – Community Epidemiology Work Group (NIDA)
  – SAMHSA assessments (methadone, fentanyl)
  – CDC Alcohol Team
How Can Substance Use Epidemiology Inform Policy?

• 1997 Harm Reduction Act
  – Statute established the state-funded Harm Reduction Program
  – Naloxone provided in August 2001
    • How can we expand naloxone availability to all opiate users, family members, friends?

• 2003: Drug overdose added to the NMAC notifiable condition list

• 2007 Legislative Session – HJ Memorial 64 Task Force (Alcohol advertising and youth)

• 2009 Legislative Session
  – Medication Assisted Treatment Task Force
  – Drug Policy Task Force
  – Treatment instead of incarceration for nonviolent drug offenders
  – Local option tax on alcohol
How Can Substance Use Epidemiology Inform Policy?

• The 911 Good Samaritan Law:
  – provides limited immunity from drug possession charges when a drug-related overdose victim or a witness to an overdose seeks medical assistance
  – helps to eliminate some of the fear when calling 911 for help during an overdose
  – protects witnesses from any potential police involvement/reprimand because of drug possession at the overdose location
    • does not protect people from prosecution for other offenses, including drug trafficking charges, and those with outstanding warrants
    • does not interfere with law enforcement protocols to secure the scene of an overdose
Drug Indicator Surveillance Data Sources

- The New Mexico Office of the Medical Investigator; Vital Records, DOH
- Drug Enforcement Administration
- Albuquerque Police Department
- New Mexico Investigative Support Center, HIDTA
- Prescription Drug Monitoring Program, NM Board of Pharmacy
- HIV and Hepatitis Epidemiology Program, DOH
- Harm Reduction Program, DOH
- Treatment data/TEDS, Behavioral Health Services Division
- Hospitalization Inpatient Discharge, Health Policy Commission
- Youth Risk and Resiliency Survey (Youth Risk Behavior Survey)
- National Survey on Drug Use and Health

Wish list:
- EMS run data, DOH
- Poison Control Center, UNM
- Medicaid
- BRFSS?
Drug-Induced Death Rates
New Mexico and US, 1990-2006

Data Sources: US: CDC Wonder; NM: Vital Records and Health Statistics, NMDOH
Rates are age-adjusted to the 2000 US Standard Population.
Unintentional Rx Opioid Poisoning Death Rates by Schedule, New Mexico, 1990-2007

Note: Specific drugs are not mutually exclusive
Data Source: The New Mexico Office of the Medical Investigator
Rates are age-adjusted to the 2000 US Standard Population.

NOTE: Death was caused by any Rx drug, either alone or in combination with other drugs.
Data Source: The New Mexico Office of the Medical Investigator
Rates are age-adjusted to the 2000 US Standard Population.
Number of Hospital Discharges by Primary Drug-Related Diagnosis, New Mexico 2003-2007

Data Source: Hospital Inpatient Discharge Dataset, NM Health Policy Commission, as of Dec 2008
Primary Substance of Abuse at Treatment Admission: New Mexico, 2007

- Alcohol: 49.0%
- Marijuana: 5.6%
- MA: 5.8%
- Heroin: 6.3%
- Cocaine/crack: 6.4%
- Other opiates: 2.5%
- Amphetamine: 2.3%
- Other drugs: 0.3%
- None reported: 21.8%

n=10,735

Source: Behavioral Health Services Division (TEDS), NM Human Services Department, as of Nov 2008
Persons 12 and older, NSDUH

Nonmedical use of pain relievers in past year

NM: 5.6% (4.7, 6.6)
US: 4.9% (4.75, 5.0)

Current Drug Use by Gender, Grades 9-12, 2007 NM Youth Risk and Resiliency Survey

<table>
<thead>
<tr>
<th>Drug</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>23.8</td>
<td>26.2</td>
</tr>
<tr>
<td>Cocaine</td>
<td>4.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Inhalants</td>
<td>7.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Heroin</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>3.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>2.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Pain killers to get high</td>
<td>10.8</td>
<td>12.2</td>
</tr>
</tbody>
</table>

The chart shows the percentage of students using various drugs by gender. The table below provides the exact percentages for each gender.
Mode of Exposure among Living HIV/AIDS Cases in New Mexico*

<table>
<thead>
<tr>
<th>Exposure Risk</th>
<th>% of Living HIV/AIDS Cases in NM</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total cases</strong></td>
<td></td>
<td>n=3,153</td>
<td>n=429</td>
<td>n=3,582</td>
</tr>
<tr>
<td>MSM</td>
<td></td>
<td>68.9%</td>
<td>---</td>
<td>60.6%</td>
</tr>
<tr>
<td>IDU</td>
<td></td>
<td>7.6%</td>
<td>26.1%</td>
<td>9.9%</td>
</tr>
<tr>
<td>MSM/IDU</td>
<td></td>
<td>12.0%</td>
<td>---</td>
<td>10.6%</td>
</tr>
<tr>
<td>Heterosexual</td>
<td></td>
<td>3.6%</td>
<td>52.2%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>0.3%</td>
<td>1.9%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Pediatric</td>
<td></td>
<td>0.4%</td>
<td>2.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>No identified risk</td>
<td></td>
<td>7.2%</td>
<td>17.7%</td>
<td>8.4%</td>
</tr>
</tbody>
</table>

* Data as of September 2008; data are subject to reporting delay.

Source: NMDOH, HIV & Hepatitis Epidemiology Program
Drug Abuse Patterns and Trends in New Mexico

September 2004
Proceedings of the New Mexico State Epidemiology Work Group

New Mexico DWI Offender Characteristics and Recidivism Report 2000 - 2003

Substance Abuse Epidemiology Unit
Injury and Behavioral Epidemiology Bureau
Epidemiology and Response Division

Publication Date: January 2005
New Mexico Epidemiology
September 26, 2008
Volume 2008, Number 7

Changing Trends in Drug Overdose Deaths
New Mexico, 2006-07

New Mexico had the second highest drug-induced death rate in the nation in 2005, 20.9 deaths per 100,000 persons compared to the U.S. rate of 11.2 per 100,000. Two New Mexico counties were among the top 25 U.S. counties for drug-induced poisoning death.

In the U.S., from 1999 to 2005, the age-adjusted death that was drug-caused, either alone or in combination with other substances. This analysis included only unintentional drug poisoning deaths and therefore is not comparable to drug-caused death statistics as reported...
Problem Statement

The consequences of alcohol abuse are severe in New Mexico, which has consistently had the second highest death rate (after Alaska) from alcohol-related causes, among the states. The devastation caused by alcohol abuse in New Mexico is not limited to death, but can also be linked to domestic violence, crime, poverty, and unemployment, as well as chronic liver disease, motor vehicle crash and assault injuries, mental illness, and a variety of other medical problems.

Chart 1 shows the two principle components of alcohol-related death: deaths due to chronic diseases (such as chronic liver disease) that are strongly associated with chronic alcohol abuse; and deaths due to alcohol-related injuries, which are strongly associated with acute alcohol abuse. Each of these categories will be considered in more detail in a later section of this report. Chart 1 shows that the rates in both categories have increased slightly over the most recent 5-year period (1999-2003), and that New Mexico's total Alcohol-Related death rate has increased almost 10% during this period. This is in contrast to the U.S. and other state's rates, which have continued a gradual and ongoing decline during this period.

Chart 1: Alcohol-Related Death Rates by High-Level Cause, New Mexico, 1999-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
</tbody>
</table>

* Rate per 100,000, age-adjusted to the 2000 US population

Table 1: Alcohol-Related Deaths and Rates by Age, Sex, and Race/Ethnicity, New Mexico, 1999-2003

<table>
<thead>
<tr>
<th>Age</th>
<th>Deaths</th>
<th>Rates*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ages 0-24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ages 25-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ages 65+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Age-specific rates (e.g., Ages 0-24) are per 100,000; all ages rate is per 100,000, age-adjusted to the 2000 US population