New Mexico Substance Abuse Epidemiology Profile 2011

Presentation to:
Behavioral Health Collaborative
Adult/Substance Abuse Subcommittees
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Alcohol Epidemiologist
Epidemiology and Response Division
New Mexico Department of Health
What’s New Since Last Time?

- All reporting updated through 2009
- Mental health data added
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1. State Population by Age, Sex, Race/Ethnicity, and County, 2007

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Excessive Drinking and Related Outcomes

Binge drinking is, for men, five or more drinks on a single occasion; for women, four or more drinks on a single occasion (NIAAA)
Excessive Drinking and Related Outcomes

Heavy drinking is, for men, more than two drinks per day; for women, more than one drink per day (NIAAA)

- Motor Vehicle Crashes
- Interpersonal Violence
- HIV, STDs
- Unintended Pregnancy
- FAS, SIDS
- Alcohol Dependence
- Alcohol-Related Chronic Disease
Over the last 20 years NM rates have been stable or trending slightly upward while US rates have decreased.
A third of NM counties have rates more than twice the US rate.

Rio Arriba and McKinley counties have rates more than 3.5 times the US rate.
– More than a third of counties have rates more than twice the US rate

– Rio Arriba and McKinley counties have rates more than 3.5 times the US rate
Chart 1: Leading Causes of Alcohol-Related Chronic Disease Death, New Mexico, 2005-2009

Sources: NMDOH BVRHS death files and UNM-BBER population files; CDC ARDI; SAEP

** Rate per 100,000. Age-adjusted to the 2000 US standard population
* Rates reflect only alcohol-related portion of deaths from cause

<table>
<thead>
<tr>
<th>Cause</th>
<th>Rate **</th>
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</thead>
<tbody>
<tr>
<td>Stroke, hemorrhagic</td>
<td>13.4</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>5.4</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.6</td>
</tr>
<tr>
<td>Alcohol dependence</td>
<td>0.8</td>
</tr>
<tr>
<td>Chronic liver disease</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Alcohol-related deaths due to:

- AR-CLD death rate (13.4 per 100,000) is almost twice the next leading cause (falls injuries) in NM.
- AR-CLD is the leading cause of alcohol-related death in NM.
A third of NM counties have rates more than twice the US rate.

Rio Arriba and McKinley counties have rates more than 4 times the US rate.
More than 75% of AR-CLD deaths occur before age 65

The disparities in the burden of AR-CLD are enormous

American Indian and Hispanic male AR-CLD death rates are 2.5 to 6 times White male rates across the age range

American Indian female rates are 2 to 8 times White female rates across the age range

* Age-specific rates per 100,000

Sources: NMDOH BVRHS death files and UNM-BBER population files; CDC ARDI; SAEP
– Only one NM county has a rate less than the US rate

– More than a third of NM counties have rates more than twice the US rate

– Rio Arriba County’s rate is more than 3 times the US rate
The alcohol-impaired motor vehicle traffic crash fatality rate decreased almost 40% from 2004 to 2008.

Chart 1: Alcohol-Impaired MVTC Fatality Rates*, New Mexico and United States, 1982-2009

* Deaths in motor vehicle traffic crashes with highest driver blood alcohol content (BAC) >= 0.08; rates are crude rates per 100 million vehicle miles traveled (VMT)(NM and US); and per 100,000 population (NM); 2009 rates per 100M VMT not yet available at time of report

Source: National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS); NCHS (population)
Chart 1: Top 3 Leading Causes of Alcohol-Related Injury Death (from 2005-2009), New Mexico, 1981-2009

- Falls injuries emerged as the leading cause of alcohol-related injury death

* Rates reflect only alcohol-related portion of deaths from cause
** Rates are rolling 3-year average per 100,000, age-adjusted to the 2000 US standard population

Sources: NMDOH BVRHS death files and UNM-BBER population files; CDC ARDI; SAEP
Chart 1: Drug-Induced Death Rates* by Cause Category, New Mexico, 2000-2009

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

Sources: NMDOH BVRHS death files and UNM-BBER population files
DRUG-INDUCED DEATH

<table>
<thead>
<tr>
<th>County</th>
<th># of deaths</th>
<th>% of statewide deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Arriba</td>
<td>112</td>
<td>5.1%</td>
</tr>
<tr>
<td>Eddy</td>
<td>70</td>
<td>3.2%</td>
</tr>
<tr>
<td>Torrance</td>
<td>26</td>
<td>1.2%</td>
</tr>
<tr>
<td>Chaves</td>
<td>82</td>
<td>3.7%</td>
</tr>
<tr>
<td>Bernalillo</td>
<td>882</td>
<td>40.1%</td>
</tr>
<tr>
<td>Valencia</td>
<td>96</td>
<td>4.4%</td>
</tr>
<tr>
<td>Taos</td>
<td>40</td>
<td>1.8%</td>
</tr>
<tr>
<td>Grant</td>
<td>37</td>
<td>1.7%</td>
</tr>
<tr>
<td>San Miguel</td>
<td>35</td>
<td>1.6%</td>
</tr>
<tr>
<td>Sierra</td>
<td>16</td>
<td>0.7%</td>
</tr>
<tr>
<td>Socorro</td>
<td>21</td>
<td>1.1%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>2199</td>
<td>100%</td>
</tr>
<tr>
<td>Quay</td>
<td>10</td>
<td>0.5%</td>
</tr>
<tr>
<td>Colfax</td>
<td>15</td>
<td>0.7%</td>
</tr>
<tr>
<td>Otero</td>
<td>63</td>
<td>2.9%</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>141</td>
<td>6.4%</td>
</tr>
<tr>
<td>Lincoln</td>
<td>20</td>
<td>0.9%</td>
</tr>
<tr>
<td>Lea</td>
<td>45</td>
<td>2.2%</td>
</tr>
<tr>
<td>Dona Ana</td>
<td>155</td>
<td>7.1%</td>
</tr>
<tr>
<td>Sandoval</td>
<td>93</td>
<td>4.2%</td>
</tr>
<tr>
<td>Cibola</td>
<td>21</td>
<td>1.1%</td>
</tr>
<tr>
<td>San Juan</td>
<td>90</td>
<td>4.1%</td>
</tr>
<tr>
<td>McKinley</td>
<td>47</td>
<td>2.1%</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>11</td>
<td>0.5%</td>
</tr>
<tr>
<td>Curry</td>
<td>26</td>
<td>1.2%</td>
</tr>
<tr>
<td>Luna</td>
<td>13</td>
<td>0.6%</td>
</tr>
<tr>
<td>United States</td>
<td>2000</td>
<td>100%</td>
</tr>
</tbody>
</table>

- Only two NM counties have rates less than the US rate
- Almost a third of NM counties have rates more than twice the US rate
- Rio Arriba County’s rate is more than 4 times the US rate
## Unintentional Drug Overdose Death Rates* by County and Drug Type, New Mexico, 2005-2009

### Table: Unintentional Drug Overdose Deaths by County and Drug Type

<table>
<thead>
<tr>
<th>County</th>
<th>Total Deaths</th>
<th>% of Statewide Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Mexico</td>
<td>1812</td>
<td>100%</td>
</tr>
<tr>
<td>Bernalillo</td>
<td>781</td>
<td>43.1%</td>
</tr>
<tr>
<td>Taos</td>
<td>36</td>
<td>2%</td>
</tr>
<tr>
<td>Socorro</td>
<td>20</td>
<td>1.1%</td>
</tr>
<tr>
<td>Valencia</td>
<td>77</td>
<td>4.3%</td>
</tr>
<tr>
<td>Dona Ana</td>
<td>108</td>
<td>6%</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>113</td>
<td>6.2%</td>
</tr>
<tr>
<td>Grant</td>
<td>27</td>
<td>1.5%</td>
</tr>
<tr>
<td>Otero</td>
<td>53</td>
<td>2.9%</td>
</tr>
<tr>
<td>Lea</td>
<td>42</td>
<td>2.3%</td>
</tr>
<tr>
<td>Eddy</td>
<td>51</td>
<td>2.8%</td>
</tr>
<tr>
<td>Socorro</td>
<td>20</td>
<td>1.1%</td>
</tr>
<tr>
<td>Taos</td>
<td>36</td>
<td>2%</td>
</tr>
<tr>
<td>Bernalillo</td>
<td>781</td>
<td>43.1%</td>
</tr>
<tr>
<td>Rio Arriba</td>
<td>105</td>
<td>5.8%</td>
</tr>
<tr>
<td>Sandoval</td>
<td>65</td>
<td>3.6%</td>
</tr>
<tr>
<td>McKinley</td>
<td>33</td>
<td>1.8%</td>
</tr>
<tr>
<td>San Juan</td>
<td>54</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Graph: By Age, Sex, and Primary Type of Overdose

- **Illicit**
- **Rx**

The graph illustrates the death rates by age and sex, with distinct peaks for different age groups and genders. The rates are categorized as illicit and Rx (prescription).
- In 2003-2007, only six NM counties had rates greater than the US rate.

- In 2005-2009, the NM’s rate increased 11%, and 16 counties had rates greater than the US rate.

- White rates (both male and female) are higher than other race/ethnic groups, across the age range.
– The top 5 counties have rates more than 25% higher than US
-- NM has ranked in the top 5 for all but one year during this 29-year period

-- NM rates have been 1.5 to 1.9 times the US rate throughout this period

* Rate per 100,000, age-adjusted to the 2000 US standard population
Source: NMDOH BVRHS death files and UNM-BBER population files (NM); CDC Wonder (US)
Chart 2: Suicide Rates* by Age, Sex, and Race/Ethnicity, New Mexico, 2005-2009

- American Indian male rates are highest from ages 15-44
- White male rates are highest for ages 45+

* Age-specific rates per 100,000

Sources: NMDOH BVRHS death files and UNM-BBER population files; CDC ARDI; SAEP
In 2006, the BRFSS assessed current depression using Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criteria.

Eight questions from the Patient Health Questionnaire (PHQ-8) were used to establish a provisional depressive disorder diagnosis.
Current Depression definition: scored 10 or more on Patient Health Questionaire depression inventory (PHQ-8); this instrument can establish a provisional depressive disorder diagnosis using Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria.

Source: BRFSS; SAEP (NOTE: Brackets around reported rates are 95% confidence intervals)

Chart 4: Unhealthy Behaviors by Depression Status and Sex, New Mexico, 2006

BRFSS allows us to report depression rates
• By geography
• By demographic groups
• By other risk factors
BRFSS allows us to report depression rates:
- By geography
- By demographic groups
- By other risk factors

PHQ-8 drawbacks:
- Relatively high-cost (8 questions)
- Doesn’t support comparison to other states or US

Chart 5: Chronic Health Conditions by Depression Status and Sex, New Mexico, 2006

Source: BRFSS; SAEP
We also included a MH indicator called “Frequent Mental Distress” (FMD)

Single BRFSS question: “How many days during the past 30 days was your mental health not good?”

Respondents reporting “14 or more days in past 30” when MH was not good classified with FMD
Frequent Mental Distress definition: respondent reported 14 or more days in past 30 days when mental health was "not good"

Source: BRFSS; SAEP (NOTE: Brackets around reported rates are 95% confidence intervals)

Chart 1: Frequent Mental Distress (past 30 days)* by Selected Characteristics, Adults Aged 18+, New Mexico, 2006

- Health excellent/very good: 5.4%
- Income $50,000+: 6.4%
- College degree: 6.7%
- All New Mexico adults: 10.1%
- < High school education: 13.0%
- Obese (BMI >= 30): 13.7%
- < 150% Federal Poverty Level: 14.7%
- Diabetes (ever diagnosed): 16.4%
- Current asthma: 17.5%
- History of suicide attempt/no past-year suicidal ideation: 21.4%
- Income < $15,000: 23.8%
- Health fair/poor: 25.3%
- Anxiety (ever diagnosed): 31.3%
- Alcohol dependence or abuse (2007): 32.6%
- Past-year suicidal ideation/no history of suicide attempt: 37.2%
- Current depression: 54.3%
- Past-year suicidal ideation/history of suicide attempt: 63.5%

* Frequent Mental Distress definition: respondent reported 14 or more days in past 30 days when mental health was "not good"

Source: BRFSS; SAEP (NOTE: Brackets around reported rates are 95% confidence intervals)
Frequent Mental Distress (FMD) definition: respondent reported 14 or more days in past 30 days when mental health was "not good".

Source: BRFSS; SAEP (NOTE: Brackets around reported rates are 95% confidence intervals)

Chart 1: Frequent Mental Distress (past 30 days)* by Selected Characteristics, Adults Aged 18+, New Mexico, 2006

- Health excellent/very good
- Income $50,000+
- College degree
- All New Mexico adults
- < High school education
- Obese (BMI >= 30)
- < 150% Federal Poverty Level
- Diabetes (ever diagnosed)
- Current asthma
- History of suicide attempt/no past-year suicidal ideation
- Income < $15,000
- Health fair/poor
- Anxiety (ever diagnosed)
- Alcohol dependence or abuse (2007)
- Past-year suicidal ideation/no history of suicide attempt
- Current depression
- Past-year suicidal ideation/history of suicide attempt

* Frequent Mental Distress definition: respondent reported 14 or more days in past 30 days when mental health was "not good"

Source: BRFSS; SAEP (NOTE: Brackets around reported rates are 95% confidence intervals)

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FMD is a community MH indicator
- Collected annually
- Low-cost (one question)
- Can be compared to other states and US
- Strongly associated with serious psychological morbidity
- Can be associated with other risk factors (e.g., chronic diseases, poverty)
Chart 1. Persistent Sadness or Hopelessness*, Grades 9-12, New Mexico and US, 2001-2009

Chart 1. Seriously Considered Suicide (past 12 months), Grades 9-12, New Mexico and US, 2001-2009

Chart 1. Attempted Suicide (past 12 months), Grades 9-12, New Mexico and US, 2001-2009

Source: YRRS (NM); CDC YRBS (US); NMDOH Survey Section (NOTE: Brackets around reported rates are 95% confidence intervals)
Students were less likely to attempt suicide if they had high levels of
- Caring and supportive relationships in the family
- Positive peer influence
- High expectations in the community
- Caring and supportive relationships in the school
- Behavioral boundaries in the school.
- Involvement in school activities.

*Attempted suicide at least once in the past 12 months*
Section 2

Consumption
## Appendix 2. Substance Abuse and Mental Health by Region, Age 12+, 2006-2008 (NSDUH)

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>Health Region</th>
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<tbody>
<tr>
<td></td>
<td>NY</td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
</tr>
<tr>
<td>Percentage of current drinkers</td>
<td>60.0 (59.5-60.4)</td>
</tr>
<tr>
<td>Percentage of current drinkers who binge drink</td>
<td>60.0 (59.5-60.4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug Use</th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Past Year Marijuana Use (Age 12+)</td>
<td>2.0 (1.9-2.1)</td>
<td>2.0 (1.9-2.1)</td>
<td>2.0 (1.9-2.1)</td>
<td>2.0 (1.9-2.1)</td>
<td>2.0 (1.9-2.1)</td>
<td>2.0 (1.9-2.1)</td>
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### PAST YEAR DEPENDENCE, ABUSE, AND TREATMENT

<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Heroin Dependence (Age 12+)</td>
<td>0.6 (0.5-0.7)</td>
<td>0.5 (0.4-0.6)</td>
<td>0.6 (0.5-0.7)</td>
<td>0.6 (0.5-0.7)</td>
<td>0.6 (0.5-0.7)</td>
<td>0.6 (0.5-0.7)</td>
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</tbody>
</table>

### SERIOUS PSYCHOLOGICAL DISTRESS

<table>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Having at least one major depressive episode (Age 12+)</td>
<td>2.6 (2.4-2.8)</td>
<td>2.6 (2.4-2.8)</td>
<td>2.6 (2.4-2.8)</td>
<td>2.6 (2.4-2.8)</td>
<td>2.6 (2.4-2.8)</td>
<td>2.6 (2.4-2.8)</td>
</tr>
</tbody>
</table>

### MENTAL HEALTH TREATMENT OR COUNSELING

<table>
<thead>
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<th>Drug Use</th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Past year received mental health treatment or counseling (Age 12+)</td>
<td>15.0 (14.6-15.3)</td>
<td>15.0 (14.6-15.3)</td>
<td>15.0 (14.6-15.3)</td>
<td>15.0 (14.6-15.3)</td>
<td>15.0 (14.6-15.3)</td>
<td>15.0 (14.6-15.3)</td>
</tr>
</tbody>
</table>

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* All figures are percent prevalence rates; figures in parentheses are 95% confidence intervals.
* Numbers do not add to 100 due to rounding.
* Low precision; no estimate reported.
Acknowledgements

- HSD/BHSD/OSAP
- State Epidemiological Outcomes Workgroup
- Dan Green, NMDOH
- Tierney Murphy, NMDOH