Using Epidemiological Data to Help Focus Alcohol-Related Prevention in New Mexico

CSTE Pre-Conference Workshop
June 9, 2013

Jim Roeber
Alcohol Epidemiologist
Substance Abuse Epidemiology Program
Epidemiology and Response Division
New Mexico Department of Health
Presentation overview

• **Broadening the focus:** using data to redefine the problem and broaden the focus of prevention efforts

• **Sharpening the focus:** using data to support effective prevention strategies
Broadening the focus of alcohol-related prevention in New Mexico
Broadening the focus of alcohol-related prevention

- Baseline focus of state prevention efforts:
  - Major alcohol-related problem: **DWI and motor vehicle crashes**
  - Major target population/behavior: **Underage drinking (UAD)**
  - Major form of “problem drinking”: **“Alcoholism”**
  - Major form of prevention: **Individual behavior change**
  - Major source of evidence: **“Brand of the month”**
Major alcohol-related problem... from DWI to all alcohol-related outcomes

The Human and Economic Cost of Alcohol Abuse in New Mexico, 2006

Highlights:
- Almost 1,000 deaths in New Mexico were related to alcohol in 2006, representing more than 27,000 years of potential life lost.
- The economic costs associated with alcohol abuse in New Mexico in 2006 amounted to an estimated $2.5 billion.
- These costs were 26 times greater than the $97 million in tax revenues collected from alcohol sales. Alcohol-related tax revenue covered less than 4% of the economic cost of alcohol abuse.
- The economic burden of alcohol abuse amounted to over $1,250 per person in the state.

Consequences of Alcohol Use:
- Alcohol use and misuse is the third leading cause of preventable death in the U.S.²
- Alcohol contributes to injuries resulting from motor vehicle crashes, fires, falls, and drowning. Alcohol also contributes to violence such as child abuse, homicide, suicide and personal assaults.
- Many chronic conditions are also attributable to alcohol use, including gastrointestinal diseases, certain cancers, mental disorders, and certain cardiovascular diseases.³
- In 2006, 993 deaths could be attributed to alcohol in New Mexico (see Figure 1) representing about 27,000 years of potential life lost (see Figure 2).
- About 90% of the burden of alcohol-related premature mortality falls on adults aged 21 and over. About 75% of the burden falls to males.⁴
- New Mexico has one of the highest alcohol-related death rates in the U.S. In 2006, New Mexico’s alcohol-related (A-R) death rate was 1.7 times the U.S. rate (1.6 times the U.S. rate for A-R injury and 1.9 times the U.S. rate for A-R chronic disease).⁵

Figure 1. Alcohol-attributable deaths by cause, New Mexico, 2006

- Motor vehicle traffic crashes: 148
- Poisoning (not alcohol): 97
- Fall injuries: 92
- Suicide: 78
- Homicide: 59
- Other injury: 51
- Other chronic disease: 78
- Alcohol-related chronic liver disease: 271
- Alcohol dependence: 118

Figure 2. Average annual alcohol-attributable potential life lost*, by cause, New Mexico.

* Years of potential life lost (YPLL) selects the mean age at which a person would have lived if he or she had not died prematurely. YPLL is not an estimate of the losses of measurement at the population.

Source: NMDOH BVRHS death file; CDC ARDI alcohol attributable fractions.
Major target population… from UAD to alcohol issues across the life span

Average Annual Alcohol-Attributable Deaths
By Age, New Mexico, 2006-2010

More than 90% of deaths

Source: d2006_2010_aaf23a_cat_gt0_re4_417, v 1.0.xlsx
Major target population…
from UAD to alcohol issues across the life span

Alcohol-Attributable Years of Potential Life Lost
By age group, New Mexico, 2007-2011

- Total: 30,912
- Males: 21,650
- Females: 9,262

Source: CDC ARDI

YPLL are average annual
Major form of “problem drinking”...
from “alcoholism” to binge drinking

Prevalence of Excessive Drinking by Category
Adults 18 and older, New Mexico, 2002

Source:
Major form of “problem drinking”… from “alcoholism” to binge drinking

Prevalence of Past-Year Alcohol Dependency
New Mexico, 2002

All Adults

- 2% Dependent
- 98% Non-Dependent

Binge Drinking Adults

- 8% Dependent
- 92% Non-Dependent

Source:
Major risk behavior… from binge prevalence to binge frequency/intensity

Past Month Binge Drinking Characteristics
Adults Age 18+, by Gender, New Mexico, 2005-2009

Prevalence

<table>
<thead>
<tr>
<th>Percent</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17.2</td>
<td>7.4</td>
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Frequency (episodes per month)

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<thead>
<tr>
<th>Episodes per Month</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.4</td>
<td>3.2</td>
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</table>

Intensity (most drinks consumed)

<table>
<thead>
<tr>
<th>Most drinks consumed</th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td></td>
<td>8.2</td>
<td>5.9</td>
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</table>

Source: BRFSS
Major risk behavior… from binge intensity to “high intensity” binge drinking.

Alcohol-related death rate

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Rate (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>93.5</td>
</tr>
<tr>
<td>White, Hispanic</td>
<td>56.1</td>
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<tr>
<td>White, non-Hispanic</td>
<td>40.9</td>
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</table>

Binge drinking rate

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Rate (percent)</th>
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<td>American Indian</td>
<td>12.1</td>
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<tr>
<td>White, Hispanic</td>
<td>12.6</td>
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<tr>
<td>White, non-Hispanic</td>
<td>12.3</td>
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</tbody>
</table>

“…states with a lower prevalence of binge drinking might still include subgroups that binge drink…with high intensity.”

Source: NMDOH - 2012 Binge Drinking Vital Signs
Major risk behavior… from binge intensity to “high intensity” binge drinking

**Alcohol-related death rate**

- **American Indian**: 93.5 per 100,000
- **White, Hispanic**: 56.1 per 100,000
- **White, non-Hispanic**: 40.9 per 100,000

**Binge intensity > 10 drinks**

- **American Indian**: 26.8%
- **White, Hispanic**: 21.4%
- **White, Non Hispanic**: 14.5%

Source: NMDOH
Major focus of prevention activity… from behavior change to environmental change

Alcohol-Attributable Death Rates
By county, NM, 2007-2011, and US, 2009

Alcohol outlet density is an environmental factor that is limited by statute

Source: BVRHS, UNM-GPS
### Actual versus allowed number of liquor licenses

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</table>

[New Mexico Statute]

### 60-6A-18. LIMITATION ON NUMBER OF LICENSES

A. The **maximum** number of licenses to be issued...shall be as follows:

1. in incorporated municipalities, not more than one dispenser's or one retailer's license...for each two thousand inhabitants or major fraction thereof...
Actual versus allowed number of liquor licenses
Percent difference for Local Option Districts > 10,000 population
New Mexico, 2012

Source: LOD Liquor License Quotas for NM, 10-05-2012_JR.xlsx

[New Mexico Statute]
60-6A-18. LIMITATION ON NUMBER OF LICENSES

A. The maximum number of licenses to be issued...shall be as follows:

(1) in incorporated municipalities, not more than one dispenser's or one retailer's license...for each two thousand inhabitants or major fraction thereof...
Liquor Licenses -- Actual vs. Allowed
By Local Option District, NW region (detail), NM, 2012

Legend
- Number over allowed
- Percent difference from allowed:
  - >=100% over allowed
  - 50% to 99% over allowed
  - 0% to 49% over allowed
  - 0% to 49% under allowed
  - >= 50% under allowed
- Region
The major form of evidence…
from “brand of the month” to solid science
Sharpening the focus of alcohol-related prevention in New Mexico
“Easy to Get Alcohol”

Bernalillo County, 2009

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent</th>
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<tr>
<td>6th</td>
<td>18.8</td>
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<td>7th</td>
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<td>9th</td>
<td>56.7</td>
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<td>10th</td>
<td>64.7</td>
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<td>11th</td>
<td>71.3</td>
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<tr>
<td>12th</td>
<td>76.3</td>
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</table>

SOURCE: YRRS
Alcohol Source

Bernalillo County, 2009

Among current drinkers
q044. During the past 30 days, how did you usually get the alcohol you drank?

* Such as a liquor store, convenience store, supermarket, discount store, or gas station
** Such as a concert or sporting event

SOURCE: YRRS
Alcohol Source

Bernalillo County, 2009

Among current drinkers
q044. During the past 30 days, how did you usually get the alcohol you drank?

Enhanced enforcement of laws
prohibiting sales to minors

* Such as a liquor store, convenience store, supermarket, discount store, or gas station

** Such as a concert or sporting event

SOURCE: YRRS
What Can You Do?

- Enhanced enforcement of laws prohibiting sales to minors
  - Encourage local law enforcement...
    - to enforce minimum legal drinking age (MLDA) law
    - to conduct “party patrols”
  - Do “media advocacy” to maximize effect of law enforcement
    - Get stories in newspaper, on local radio

http://www.thecommunityguide.org/alcohol/lawsprohibitingsales.html

Law Enforcement + Public Awareness

- Increased perception of risk of sanction
- Reduced sales/provision to minors
Drinking Location

Bernalillo County, 2009

Among current drinkers
q044. During the past 30 days, where did you usually drink alcohol?

* Such as a park, beach, or parking lot
** Such as a concert or sporting even
Drinking Location

Social Host Liability

Bernalillo County, 2009

Among current drinkers the past 30 days, where did you usually drink alcohol?

<table>
<thead>
<tr>
<th>Location</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
</tr>
</thead>
<tbody>
<tr>
<td>My home</td>
<td>29.0</td>
<td>25.1</td>
<td>20.1</td>
</tr>
<tr>
<td>Another person's home</td>
<td>54.6</td>
<td>59.3</td>
<td>65.4</td>
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<tr>
<td>While riding in or driving a car</td>
<td>4.1</td>
<td>1.4</td>
<td>0.0</td>
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<tr>
<td>Restaurant, bar, or club</td>
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<td>2.2</td>
<td>1.5</td>
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<tr>
<td>Public place *</td>
<td>4.9</td>
<td>4.6</td>
<td>3.4</td>
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<td>Public event **</td>
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<td>2.3</td>
<td>2.1</td>
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<tr>
<td>On school property</td>
<td>3.5</td>
<td>2.6</td>
<td>3.0</td>
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</table>

* Such as a park, beach, or parking lot
** Such as a concert or sporting event

SOURCE: YRRS
What Can You Do?

- **Pass social host liability ordinance**
  - Learn about strategy
    - e.g., Jim Mosher
    - Talk with other communities (Espanola, Moriarty, Santa Fe)
  - Plan a campaign
  - Once the ordinance is passed, enforce and publicize

http://www.alcoholpolicyconsultations.com/storage/Social%20host%20workshop%203%206%202012.pdf
Increasing the price of tobacco reduces youth smoking


- Youth Smoking Prevalence
- Cigarette Pack Price (in 2007 dollars)

Increasing the price of alcohol reduces alcohol-related chronic disease deaths


“Increases in alcohol excise tax rates were associated with immediate and sustained reductions in alcohol-related disease mortality in Alaska”

What Can You Do?

- **Increase the price of alcohol**
  - Learn about local liquor tax option from other communities (e.g., McKinley County)
  - Learn about state alcohol excise tax initiatives from other coalitions (e.g., Santa Fe Underage Drinking Prevention Alliance)
  - Partner with other state and local coalitions

http://www.thecommunityguide.org/alcohol/increasingtaxes.html
2011 DWI Hotspot Map*

* Red dot indicates > 26.5% of crashes were alcohol-involved; size indicates 9-228 wrecks

Source: DWI Resource Center

# 1 DWI hotspot: Louisiana and Central

Based on crashes occurring between 7 pm and 5 am, Sunday to Saturday, 1998-2005
2011 DWI Hotspot Map*

Based on crashes occurring between 7 pm and 5 am, Sunday to Saturday, 1998-2005

* Red dot indicates > 26.5% of crashes were alcohol-involved; size indicates 9-228 wrecks

#1 DWI hotspot: Louisiana and Central Ave

Source: DWI Resource Center
What Can You Do?

- **Regulate alcohol outlet density**
  - Learn more, e.g.,
    - CAMY resources; Michael Sparks/CADCA
    - Learn NM statutes and your own local ordinances
  - Talk with communities that have done this (e.g., ABQ)
  - Identify alcohol outlet density issues in your community
  - Determine and pursue best available approach

Center on Alcohol Marketing and Youth (CAMY) resources:
http://www.camy.org/action/outlet_density

Michael Sparks presentation:

http://www.thecommunityguide.org/alcohol/outletdensity.html
Neighborhood wins liquor license fight

At Wednesday night's City Council meeting, councilors approved an appeal by the La Mesa Community Improvement Association to reject any approval for a liquor license at the new CVS Pharmacy near Central and Louisiana.

KOB, Eyewitness News 4 01/20/2010
Conclusions

- Epidemiological data can help broaden the focus of alcohol-related prevention, at the state and local level.

- In New Mexico, such data have been used to promote a broader focus on:
  - All alcohol-related problems (vs. DWI)
  - Across the life span (vs. underage only)
  - Excessive consumption (vs. alcohol dependence)
  - Drinking patterns (e.g., binge intensity) and their implications for prevention

- Epidemiological data and “prevention science” findings can help sharpen the focus of alcohol-related prevention efforts, by suggesting effective state and local strategies for alcohol-related prevention.
Acknowledgements

• **NMDOH**: Michael Landen, Toby Rosenblatt, Dan Green

• **CDC**: Bob Brewer, Dafna Kanny
Thank You!

Any Questions?

Jim Roeber
Jim.Roeber@state.nm.us
505-476-1757