Community Prevention of Alcohol Problems: Science to Practice

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Building Capacity for Action
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Public Health Model of Prevention of Alcohol Abuse

Individual
  (drinker)

Environment
  (context)

Agent
  (alcohol)
Scientific Evidence about Prevention

What works at Community Level?
Problem Prevention Strategies: Solid Evidence

- Retail price of alcohol
- Minimum drinking/purchase age—retail compliance checks for alcohol
- Drinking/driving deterrence (RBT)
- Lower BAC limits for driving
- Density & location of alcohol outlets
- Form and style of retail sale, e.g., hours, days of retail sale, retail monopoly.
- Responsible Beverage Service—bars, clubs
As price increases, drinking declines

Heavy drinkers as well as youth are affected by price.

Youth who drink weekly up to daily are more affected by price.
Responsible Beverage Service

Goal:
Reduce alcohol intoxication in bars and restaurants

Actions:
- Server and manager training
- New alcohol serving policies (price promotions, serving sizes, non-alcoholic beverages and food)
- Enforcement of no service to underage and obviously intoxicated patrons
Unfortunately, there are some problems associated with alcohol outlets. Problems include:

- Pedestrian Injury Collisions
- Arrests for Drunken Driving
- Assaults
Alcohol Problem Prevention Strategies:
Promising – Replication needed

- Parent training and mobilization
- Auto ignition controls
- Curfew laws/Party Patrols
- Brief intervention in primary health care
- Alcohol container sizes & keg registration
  Restrictions on “sweet” mixed drinks
Latest Scientific Advance:
Mix of evidence-based prevention strategies at local level

Community Action Trials which use complimentary alcohol policy interventions
EXAMPLES OF COMMUNITY ACTION PROJECTS FROM AROUND THE WORLD

- Western Australia
- Israel
- Florence, Italy
- Lahti, Finland
- Stockholm, Sweden
- Massachusetts, USA
- South Carolina, USA
- Minnesota, USA
- California, USA
- Malmo, Sweden
- Ontario, Canada
- 6 Community Trial, Sweden
- PAKKA, Finland
- Lahti, Finland
- Florence, Italy
- Paulinia, Brazil
- Western Australia
- New Zealand
- Queensland
## Examples of International Community Action Projects for Alcohol Prevention

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>GOALS</th>
<th>STRATEGIES</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>Reduce alcohol problems</td>
<td>• Public education</td>
<td>➢ Low effects on problem indicators</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Primary health care screening</td>
<td>➢ Reduced male consumption and problems in (a) screening program and (b) general population</td>
</tr>
<tr>
<td>Malmö</td>
<td></td>
<td>• Reduce alcohol access</td>
<td>➢ Modest effect in medium strength beer sales to youth</td>
</tr>
<tr>
<td>Stockholm City--STAD</td>
<td>Reduce alcohol and drug problems</td>
<td>• Youth Program</td>
<td>➢ Reduction in sales to intoxicated patrons (5% to 47%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Secondary prevention in health care</td>
<td>➢ Violent crime down by 29%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Responsible Beverage Service</td>
<td></td>
</tr>
<tr>
<td>COUNTRY</td>
<td>GOALS</td>
<td>STRATEGIES</td>
<td>RESULTS</td>
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</tr>
<tr>
<td>New Zealand</td>
<td>Reduce drink/drive problems</td>
<td>• Public awareness using local news</td>
<td>➢ Fatal alcohol crashes reduced from 22 to 14%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Highly visible drink/drive enforcement</td>
<td>➢ Public perception of risk of being caught increased</td>
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<tr>
<td></td>
<td></td>
<td>• Investigation of on-license premises based upon “place of last drink” data</td>
<td>➢ Alcohol positive breath checks decreased.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>➢ Violent events:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>--original site from 9.8 to 4.7</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>--replication sites from 12.2 to 3.0</td>
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<tr>
<td>Waikata Rural Drink/ Drive Project</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Australia</td>
<td>Lower alcohol involved violence</td>
<td>• Community Forum &amp; alcohol safety audit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Model serving policies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased enforcement of alcohol licensed premises</td>
<td></td>
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</tbody>
</table>
Community Trial to Prevent Alcohol-involved Trauma

Modesto
Salinas
Orange
Oceanside
Florence
Sumter

Experimental Comparison
Alcohol-involved Trauma at the Community Level: Logic Model

Mobilization

- Responsible Beverage Service
  - Local News about Alcohol Problems & Enforcement
  - Local Law Enforcement
  - Social Access to Alcohol
  - Alcohol Serving and Sales Practices

Drinking and Driving

- Perceived Risk of Arrest
- Alcohol Intoxication or Impairment
- Non-Traffic Risk Activities
- Underage Drinking

Alcohol Access

- Retail Alcohol Availability (On and Off-premise)
- Alcohol-involved Injury

Underage Drinking

- Local Regulation of Alcohol (Density, Hours of Sale)
- Local News about Alcohol
  - Problems & Enforcement

Alcohol-involved Injury
“Mountain of Beer”
Underage Alcohol Purchase Survey
-Experimental and Comparison Communities-

PRETEST

<table>
<thead>
<tr>
<th>Group</th>
<th>Comparison</th>
<th>Experimental No Training</th>
<th>Experimental Training</th>
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<tr>
<td>Percent Selling</td>
<td>47</td>
<td>53</td>
<td>45</td>
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POSTTEST

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<tr>
<th>Group</th>
<th>Comparison</th>
<th>Experimental No Training</th>
<th>Experimental Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Selling</td>
<td>35</td>
<td>19</td>
<td>16</td>
</tr>
</tbody>
</table>
Community Trials Hospitalized Assault Cases
Trend of Experimental vs. Comparison Sites

LOG RELATIVE RATES

MONTH-YEAR

Project Begins
Implementation Completed
Community Trials Final Results

- Total Consumption (+2%)
- Heavy Drinking (-6%)
- Driving after “Too much to drink” (- 49%)
- BAC Positive Drivers (- 44%)
- Nighttime Injury Crashes (-10%)
- Assaults
  -- Hospital Cases (-2%)
  -- Emergency Room Cases (- 43%)

Community Action and Prevention
Lessons from International Studies

Community Mobilization
--create working group
--partnership with researchers

--inform population about goals
--be cautious of “self appointed experts”
--Involve police in detailed planning
--inform and involve alcohol retailers
Community Action and Prevention
Lessons from International Projects

- Community Mobilization
- Science-based interventions are essential

*Environmental strategies are most effective for community level to have public health effects.*
Community Action and Prevention
Principles for Success

- Community Mobilization
- Science-based interventions are essential
- Include & Inform Key Community Leaders
  *Elected officials want to be associated with a success & their support is essential.*
- Generate early success—show results
  *Drinking and driving responds quickly to effective and consistent enforcement and local news coverage*
Community Action and Prevention
Principles for Success

- Community Mobilization
- Science-based interventions are essential
- Include & Inform Key Community Leaders
- Generate early success—show results
- Utilize Local News—inform people & policy makers
Media Advocacy

Media Advocacy is the strategic use of mass media to advance a social or public policy initiative.
Lake City police officer Don Carraway shows Sniffer to State Trooper Allen Cusack

Lake City police get new tool to make alcohol cases

The Lake City police were among law enforcement agencies in Florence County who received Passive Alcohol Sensors from the Florence County Coalition for Alcohol and Other Drug Abuse Prevention last week.

The P.A.S. III-model which was presented to the departments is a police-grade flashlight that has a micro-miniature alcohol detector built in. It is known as a “Sniffer.”

The device has been used a great deal around the country, and the donors say it has proved effective.

They cost about $800 each, but officers who have used them say they are an effective tool to guide officers in deciding whether or not to make a DUI charge.

Lake City Police Chief Mickey Brumbles said the Sniffers are proving to be a valuable tool in law enforcement.

cohol content, but it is sensitive enough to pick up alcohol inside a vehicle and alert police that open containers are probably to be found in the vehicle.

Brummes' said they have led to several DUI cases.

The device has a small pump inside which can measure alcohol on a person’s breath. It does not require the cooperation of the person, and it is not intrusive, they say. The devices have been ruled legal by the courts.

Recently sniffers under the program were the Florence, Timmonsville, Lake City, Scranton, Johnstonville and Olanta police departments and the Highway Patrol.

The Florence County Coalition for Alcohol and Other Drug Abuse Prevention said that 66 percent of nationally, it was less than 49.6 percent.

Fifty-two percent of emergency room patients in Florence were admitted for illnesses or accidents involving alcohol.

There were 56 DUI arrests for every 10,000 people in the county in 1992.

The coalition said a survey found that 42 percent of drinkers in the county who drive have driven within the past six months within four hours of consuming alcohol.

Nearly 10 percent said they had driven after they “probably had too much to drink and drive safely.”

Cap. James Caulder, district commander of the Highway Patrol, said the Sniffers are a great timesaver for troopers on the roads.

He also said his troopers had told them they had made at least three DUI cases because of information.
Community Action and Prevention
Principles for Success

- Community Mobilization
- Science-based interventions are essential
- Include & Inform Key Community Leaders
- Generate early success—show results
- Utilize Local News—inform community
- Evaluate project—*determine effects*

“Good science and good politics”
Evaluation = Determine if prevention had an effect on targeted community problems

Did it work? Why? — process evaluation

--determine effects -> outcome evaluation

--Improve/learn for future

--avoid mistakes

--Good politics (obtains local support)
Elements in Effective Local Alcohol Prevention: The top 10

1. Courage & Passion
2. Evidence based strategies
3. Local information (evaluation)
4. Central government supporting local action
5. Community Leadership and Responsibility
6. Partnership of local & nation/state
7. Enforcement in local action
8. Media Advocacy (local news)
9. Community as a System
10. Cultural Values
Appendices

Web Reference for Community Guides to Underage Drinking Prevention:


Reference:


Chapter 16: Alcohol Policies: A Consumer’s Guide
# Scientific Evidence

## Drinking & Driving Countermeasures

<table>
<thead>
<tr>
<th>Countermeasure</th>
<th>Effectiveness</th>
<th>Cross Cultural Testing</th>
<th>Cost/Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random Breath Testing RBT</td>
<td>***</td>
<td>**</td>
<td>**</td>
<td>Requires consistent enforcement</td>
</tr>
<tr>
<td>Sobriety Checkpoints</td>
<td>*</td>
<td>***</td>
<td>**</td>
<td>Selective/targeted enforcement</td>
</tr>
<tr>
<td>Lower BAC Levels</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>Population effect, requires enforcement</td>
</tr>
<tr>
<td>Administrative License Suspension</td>
<td>***</td>
<td>**</td>
<td>**</td>
<td>Effective, requires enforcement</td>
</tr>
<tr>
<td>Graduated Driver Licensing</td>
<td>**</td>
<td>**</td>
<td>***</td>
<td>Reduces overall crashes</td>
</tr>
<tr>
<td>Lower BAC level for youth “Zero Tolerance”</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>Effects depend upon enforcement</td>
</tr>
<tr>
<td>Designated Driver and Ride Services</td>
<td>0</td>
<td>*</td>
<td>0</td>
<td>Little evidence of sustained effect</td>
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## Scientific Evidence
### Alcohol Availability

<table>
<thead>
<tr>
<th>Policy</th>
<th>Effectiveness</th>
<th>Cross Cultural Testing</th>
<th>Cost/Effectiveness</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Total Ban--Prohibition</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>Has associated problems</td>
</tr>
<tr>
<td>Minimum drinking/purchase age</td>
<td>***</td>
<td>*</td>
<td>**</td>
<td>Effectiveness linked to enforcement</td>
</tr>
<tr>
<td>Rationing</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>Specific to one country</td>
</tr>
<tr>
<td>Government Retail Monopoly</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>Politically challenging</td>
</tr>
<tr>
<td>Hours/Days of Sale</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>Option available to communities</td>
</tr>
<tr>
<td>Density of alcohol outlets</td>
<td>**</td>
<td>*</td>
<td>***</td>
<td>Option available to communities</td>
</tr>
<tr>
<td>Server Liability</td>
<td>***</td>
<td>*</td>
<td>***</td>
<td>Requires publicity of risk</td>
</tr>
<tr>
<td>Low Strength Alcohol</td>
<td>**</td>
<td>**</td>
<td>***</td>
<td>Effective IF price difference</td>
</tr>
<tr>
<td>Alcohol Price/Taxes</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>Strongest evidence, politically challenging</td>
</tr>
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</table>

## Scientific Evidence

### Altering the Drinking Context & Promotion

<table>
<thead>
<tr>
<th></th>
<th>Effectiveness</th>
<th>Cross Cultural Testing</th>
<th>Cost/Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Training to reduce over serving</td>
<td>***</td>
<td>***</td>
<td>**</td>
<td>Related to compliance</td>
</tr>
<tr>
<td>Server Training to prevention violence &amp; Aggression</td>
<td>*</td>
<td>*</td>
<td>**</td>
<td>Effectiveness linked to enforcement</td>
</tr>
<tr>
<td>Voluntary codes of bar practice</td>
<td>0</td>
<td>*</td>
<td>0</td>
<td>Little effect w/o enforcement</td>
</tr>
<tr>
<td>Enforcement of on-premise regulations</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>Essential for regulations to be effective</td>
</tr>
<tr>
<td>Safer bar environment &amp; containers</td>
<td>?</td>
<td>*</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Alcohol Advertising Bans</td>
<td>*</td>
<td>*</td>
<td>***</td>
<td>Mixed results on total advertising bans</td>
</tr>
<tr>
<td>Advertising content regulations</td>
<td>?</td>
<td>0</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Alcohol Free Activities</td>
<td>0</td>
<td>**</td>
<td>0</td>
<td>No evidence of effects</td>
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## Scientific Evidence
### Public Education & Treatment

<table>
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<tr>
<th>Method</th>
<th>Effectiveness</th>
<th>Cross Cultural Testing</th>
<th>Cost/Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Education in Schools</td>
<td>*</td>
<td>**</td>
<td>*</td>
<td>Mixed results, only associated with research</td>
</tr>
<tr>
<td>College Student Education “Social Marketing”</td>
<td>0</td>
<td>*</td>
<td>0</td>
<td>Education alone is not sufficient</td>
</tr>
<tr>
<td>Public Campaigns, Public Service Advertisements</td>
<td>0</td>
<td>*</td>
<td>0</td>
<td>Little effect on behavior</td>
</tr>
<tr>
<td>Warning Labels about Risk of Drinking</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Increased information but little behavioral effect</td>
</tr>
<tr>
<td>Brief Intervention with Heavy Drinkers</td>
<td>**</td>
<td>***</td>
<td>**</td>
<td>Modest effect, targeted</td>
</tr>
<tr>
<td>Alcoholism Treatment</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Related to level of resources</td>
</tr>
<tr>
<td>Mutual Help/Self Help “Alcoholics Anonymous”</td>
<td>*</td>
<td>*</td>
<td>***</td>
<td>Feasible alternative to treatment</td>
</tr>
<tr>
<td>Mandatory Treatment of Repeat Drinking/Driving Offenders</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Targeted to subgroup</td>
</tr>
</tbody>
</table>