

## Reducing Alcohol-impaired Driving: Mass Media Campaigns

### Summary Evidence Tables

#### Studies Emphasizing Legal Consequences

Author, Year (study period) Design suitability: design Quality of execution Evaluation Setting	Intervention/Comparison details	Results/Other information	Summary value(s)	Follow-up period
McLean, 1991 (7 weeks before and after March 26 [Easter], 1989)  Moderate: Time series  Fair  Adelaide, South Australia	Expenditures on publicity related to RBT activity increased from AU\$9,280 in Jan and Feb., 89 to AU\$43,676 in March and April, while enforcement remained at a constant high level.  Comparison to previous Easter period (1983).	Proportion of drivers (N=6,373) above .08 g/dL BAC decreased 40% (95% CI: -61, -18) from baseline of .042 (net change = -30%).	Drivers above illegal BAC limit: -30%	2 months
Epperlein 1987 (1972-1983, monthly)  Greatest: Interrupted time series with concurrent comparison  Fair  Arizona	Publicity campaigns aimed at highlighting the threat of being caught and severely punished for drunk driving were implemented in Phoenix and Tuscon in late February and March of 1982; no change in enforcement activity was associated with the campaigns.  Comparisons to daytime crashes and to crashes with no identified drinking drivers.	Nighttime fatal crashes decreased by 27% (p < .05) from monthly mean of 28 (net change = -16%);  Nighttime injury crashes decreased by 12.5% (p < .05) from monthly mean of 724 (net change = -7%);  Had-been-drinking crashes decreased by 14% (p < .05) from monthly mean of 1,036 (net change = -13%).	Fatal Crashes: -16%  Injury Crashes: -7%  Other Crashes: -13%	21 months
Worden, 1975 (5/72 – 5/74)  Greatest: Before/after with concurrent comparison  Fair  Vermont	PSA campaign conducted from 6/72-5/74; target group was young males; messages applied 'best practices' for health promotion using "fear of arrest" appeals; radio was primary medium, supplemented by TV, spots at drive-in theaters, and various other attempts to foster interpersonal communication; no change in enforcement during study.  Comparison to no-intervention counties.	The proportion of "high-risk" male drivers (those who report consuming three or more drinks at least once a week) above 0.05 g/dL BAC: - at mid-campaign (May, 1973) decreased 37% from a baseline of .021 (95% CI: -72%, +42%; net change = -158%); - immediately following the campaign (May, 1974) decreased 67% (95% CI: -88%, -7%; net change = -111%).  The proportion of had-been-drinking to total fatal crashes decreased 6% from a baseline of .45 (95% CI: -54%, +91%; net change = 0%).  Very small sample sizes result in unstable estimates.	Drivers above .05 g/dL BAC: -158%  Fatal crashes: 0%	24 months

## Studies emphasizing social and health consequences

<b>Author, Year (study period)</b> <b>Design suitability: design</b> <b>Quality of execution</b> <b>Evaluation Setting</b>	<b>Intervention/Comparison details</b>	<b>Results/Other information</b>	<b>Summary value(s)</b>	<b>Follow-up period</b>
<p>Cameron, 1998 (1/90 – 6/97, quarterly)</p> <p>Greatest: Time series with concurrent comparison</p> <p>New Zealand</p>	<p>Campaign modeled after Victorian Transport Accident Commission ads, often featuring graphic crash scenes; campaign cost approximately NZ\$7 million per year; AID-themed ads increased approximately 12-fold to 678-770 target audience rating points per month.</p> <p>Evaluated using double-log regression. Comparison of high alcohol hour to low alcohol hour crashes.</p>	<p>In 1996/97, campaign estimated to result in:  a 33% decrease in urban high alcohol hour serious injury crashes (95%CI: -40%, -25%; net change = -7%);  a 32% decrease in rural high alcohol hour serious injury crashes (95% CI: -41%, -22%; net change = -18%).</p> <p>In 1995/96, campaign estimated to result in:  a 16% decrease in urban high alcohol hour serious injury crashes (95%CI: -24%, -6%; net change = -2%);  a 6% decrease in rural high alcohol hour serious injury crashes (95% CI: -18%, 7%; net change = -5%).</p> <p>Over the course of the evaluation stops at sobriety checkpoints decreased 7.5%, while total stops increased 13%.</p>	<p>-7%</p> <p>-18%</p>	<p>24 months</p>
<p>Samuels, 1978 (12/76 – 3/77)</p> <p>Greatest: Before/after with concurrent comparison</p> <p>Fair</p> <p>England</p>	<p>4 commercials were produced discussing the negative consequences (i.e., crashes) of driving after drinking even a small number of drinks (theme chosen based on reactions of focus groups); these were aired for an unspecified period of time beginning 12/20/1976.</p> <p>Comparison to prior year's data. Yorkshire and Tyne Tees used as comparison sites.</p>	<p>Relative to the prior year, during the campaign period:  - the proportion of fatal/serious crashes occurring at night (10PM to 4AM) decreased 8% (net change = -2%);  - had-been-drinking crashes decreased 19% (net change = +2%).</p>	<p>Injury Crashes: -2%</p> <p>Other Crashes: +2%</p>	<p>3 months</p>
<p>Newstead, 1995 Cameron, 1993 (1983 – 1992, monthly)</p> <p>Moderate: Time series</p> <p>Fair</p> <p>Victoria, Australia</p>	<p>Nearly \$23 million spent on road safety advertising between 1989 and 1992, with about 70% of expenditures going to TV; "fear-based" campaign included graphic crash scenes, with some spots highlighting random breath testing (RBT) activities; random breath testing increased over study period, but was included in the regression model.</p> <p>Evaluated using double log regression, with terms for number of breath tests, unemployment rate, linear trend, and month included in the model.</p>	<p>Nighttime serious casualty crashes estimated to be approximately 14% lower than expected in the absence of advertising.</p> <p>The level of adstock was inversely related to serious casualty crashes in both Melbourne (regression coefficient = -0.0249, p &lt; .05) and rural Victoria (regression coefficient = -0.0316, p &lt; .05).</p> <p>Contrary to expectations, the trend term of the regression model indicates that injury crashes would increase over time if the other variables modeled remained constant.</p>	<p>Injury Crashes: -14%</p>	<p>37 months</p>

<p>Author, Year (study period) Design suitability: design Quality of execution Evaluation Setting</p>	<p>Intervention/Comparison details</p>	<p>Results/Other information</p>	<p>Summary value(s)</p>	<p>Follow-up period</p>
<p>Lastovicka, 1987 Murry, 1993 (1/83 – 9/87, monthly)</p> <p>Greatest: Before/after with concurrent comparison</p> <p>Fair</p> <p>Wichita, Kansas Kansas City, Kansas</p>	<p><b>Mass media</b> campaign (television, radio, newspapers, &amp; billboards) focused on DUI in 18-24 y.o. males (secondary targets 15-24 y.o. males and females). Messages were of high production quality and run in paid time slots. Campaign run for 6 months from March through August of 1986 at cost equivalent to \$25 million on a national level. Same ads aired in Kansas City as PSAs, with about half the audience exposure of the Wichita campaign.</p> <p>Comparison to residents of Omaha, Nebraska</p>	<p>Relative to the prior year, during the campaign period:          Serious injury crashes involving 15 to 24 year-olds in Wichita decreased 17% from a baseline of 20/month (net change = -14%)          Nighttime serious injury crashes involving 15 to 24 year-olds in Wichita decreased 7% from a baseline of 9/month (net change = -19%)          Serious injury crashes among 15 to 24 year-olds in Kansas City decreased 13% from a baseline of 18/month (net change = -6%)</p> <p>The proportion of 18 to 24 year-old male drivers who reported driving in the past month after drinking four or more drinks:          in Wichita decreased by 20% from a baseline of 0.35 (net change = -36%, <math>p &lt; .05</math>)          in Kansas City decreased by 17% from a baseline of 0.37 (net change = -33%, <math>p &lt; .05</math>)</p> <p>Interrupted time series results also indicate significant (one-tailed) campaign benefits.</p>	<p>Injury Crashes (Wichita): -14%</p> <p>(Kansas City): -6%</p>	<p>6 months</p>