

## *Issue Briefing #1*

# ALCOHOL CONSUMPTION & ALCOHOL-RELATED PROBLEMS

**Higher overall levels of alcohol consumption are strongly correlated to higher levels of alcohol-related problems.** Therefore, in order to reduce those problems, communities need to reduce average per capita alcohol consumption through population-wide measures (such as regulation of alcohol availability and taxation) in addition to efforts targeted at high-risk subpopulations.

Decades of research have led to a consensus among alcohol experts – including public health bodies such as the World Health Organization<sup>1</sup> - regarding this principle:

- ♦ “Rising per capita alcohol consumption levels invariably lead to rising rates of alcohol-related mortality and other alcohol-related adverse effects.”<sup>2</sup>
- ♦ “When alcohol levels increase in any given society, there tends to be an increase in the prevalence of heavy drinkers, defined in terms of high annual alcohol intake.”<sup>3</sup>
- ♦ “... in order to be complete, a sensible prevention strategy needs to include measures aimed both at **the general level of consumption in society** and at drinking patterns in a more qualitative sense ...”<sup>4</sup>

Relevant research includes:

- ♦ An analysis of the relationship between per capita alcohol consumption and mortality in 25 European countries found that a change in average consumption of 1 liter (1.06 qts.) of absolute alcohol would result in a 1.3% change in the overall mortality rate, up or down.<sup>5</sup>
- ♦ A study of the 48 contiguous states from the period of 1979-1988 found a close correlation between per capita consumption and violent crime rates.<sup>6</sup>

<sup>1</sup> Cf. World Health Organization (2008)

<sup>2</sup> Plant, Plant, & Green (2007), p. 152

<sup>3</sup> Babor, Caetano, Casswell, Edwards, Giesbrecht, Graham, et al. (2003), p. 42

<sup>4</sup> Edwards, Anderson, Babor, Casswell, Ferrence, Giesbrecht, et al. (1995), p. 102, emphasis added

<sup>5</sup> Her, M. & Rehm, J. (1998)

- ◆ Overall beer and wine consumption levels were found to be significantly related to alcohol-related motor vehicle crashes in a study of the state of Michigan.<sup>7</sup>
- ◆ Overall alcohol consumption has been positively correlated with suicide rates in the US,<sup>8</sup> France,<sup>9</sup> Hungary,<sup>10</sup> Norway & Sweden,<sup>11</sup> Finland,<sup>12</sup> and Denmark.<sup>13</sup> Another US study found a connection between suicide rates and distilled spirits sales, but not beer or wine sales.<sup>14</sup>

Several “natural experiments” have also verified the relationship between overall consumption and alcohol-related problems:

- ◆ In the Soviet Union from 1984 to 1987, under the alcohol control campaign of President Gorbachev, “estimated total alcohol consumption fell by about 25 percent” and “age-adjusted male deaths from circulatory disease fell by 9 percent.” After the campaign was discontinued, from 1987 to 1993 overall alcohol consumption rose by approximately 36 percent with a corresponding increase in the circulatory disease death rate of 29 percent.<sup>15</sup>
- ◆ When wine was rationed during the German occupation of Paris in 1940-1945, the death rate for cirrhosis fell by an astounding 80%.<sup>16</sup> (In spite of industry and media efforts to portray wine as a type of health food,<sup>17</sup> France continues to experience rates of liver cirrhosis that are much higher than the US, Canada, and Northern Europe due to higher per capita consumption of alcohol.<sup>18</sup>)
- ◆ Strikes in the state monopoly liquor stores in Finland in 1972 and 1985 each led to reductions in alcohol consumption by about 30%. During the strike, drunkenness arrests were halved. “At the same time, the number of drinking and driving offenses fell by about one-fourth, and violent crimes and other alcohol-related crimes decreased by one-fifth.”<sup>19</sup>
- ◆ While the American Prohibition experiment failed due to lack of public support and the stimulation of an illegal market,<sup>20</sup> it did succeed in sharply curtailing alcohol-related morbidity and mortality, including liver cirrhosis and neuropsychiatric conditions.<sup>21</sup> This suggests that more measured and reasonable limitations on accessibility would have beneficial effects.<sup>22</sup>

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<sup>6</sup> Cook & Moore (1993)

<sup>7</sup> Wagenaar (1984)

<sup>8</sup> Wasserman (1989); Rusk, et al. (1986)

<sup>9</sup> Norström (1995)

<sup>10</sup> Skog & Elekes (1993)

<sup>11</sup> Norström (1988); Rossow (1993)

<sup>12</sup> Mäkelä (1996)

<sup>13</sup> Skog (1993)

<sup>14</sup> Gruenewald, Ponicki, & Mitchell (1995)

<sup>15</sup> Rehm, Gmel, Sempos & Trevisan (2003), p. 43

<sup>16</sup> Ledermann (1956)

<sup>17</sup> E.g. American Public Health Association (1993); Simini (2000)

<sup>18</sup> Ramstedt (2001); Norström & Ramstedt (2005)

<sup>19</sup> Osterberg (1993)

<sup>20</sup> Cook (2007)

<sup>21</sup> Dills & Miron (2003); Miron & Zwiebel (1991)

<sup>22</sup> Cook (2007)

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