

**If A Country Were Starting Alcohol Regulation from Scratch, What Regulatory
Framework**

Would You Advise It To Create and Why?

Joseph Ojih

Adjunct Professor of Mathematics and Business

Baltimore City Community College.

November, 2012

Abstract

Even though most of those who drink alcohol do so responsibly and moderately, there exist a significant proportion of people who misuse alcohol in every society. Centrally speaking, the misuse or irresponsible consumption of alcohol has the potential to impose harm on both individuals and society through a range of health and social problems, including cognitive impairment, addiction, reduced productivity, neglect of family responsibilities, birth defects, traumatic injury and property damage from accidents, criminal victimization, domestic violence, unwanted sexual encounters and venereal diseases. Hence, it is not surprising that all over the world, historically and currently, public concern about the consequences of excess alcohol consumption for individual health and community well-being has not only been incorporated in cultural norms but has, to a large extent, become reinforced by private rules and government regulations. In this paper, I proposed a regulatory framework for a country starting alcohol regulation from scratch. Known as the “direct regulatory option” framework, this policy option include the use of pricing and taxation, access and availability, legal drinking age, blood alcohol concentration level, and public education to regulate the consumption of alcohol and other related product in the concerned country. I also presented credible and persuasive arguments for supporting the direct regulatory option as the best regulatory policy framework for any country that is starting alcohol regulation from the scratch. As a concession to practicality, I equally suggested that, for such a country, the ability of direct regulatory option to achieve its intended goal relies heavily on its enforcement – implying that that this policy option may be largely ineffective if insufficient mechanism to ensure that they are, indeed, implemented and upheld is lacking.

Introduction

The most practical defense for alcohol regulation is that consumers tend to drink less alcohol, and hence have fewer alcohol-related problems, when its availability is restricted or when alcoholic beverage prices are increased. This means that alcohol regulations can help a country to minimize the harms caused by alcohol consumption. Hence the policy makers in a country are often interested in alcohol regulation from one practical standpoint: such policies are relevant because alcohol abuse imposes large “external” costs on others. In this paper I presented the regulatory framework that would be suitable for a country that is starting alcohol regulation from scratch. My organizing framework for the paper is as follows:

1. Briefly explain the rationale for alcohol regulation;
2. Propose a regulatory framework for the country starting alcohol regulation from scratch and present my argument for backing the proposed framework;
3. Make some valid recommendations for implementing the regulatory framework.

Rationale for Alcohol Regulation

Policy makers are generally interested in alcohol regulation from four practical standpoints. First, alcohol consumption is among the leading causes of death in modern societies. For instance, in 1987, the U.S. Center for Disease Control(CDC) reported that alcohol-related mortality was 105,000 for that year – a value that was estimated to constitute 4.9 percent of all deaths in 1987(Centers for Disease Control and Prevention,1987). According to the World Health Organization’s (WHO) Global Status Report on Alcohol and Health, approximately 2.5 million people die each year from alcohol related causes. In addition, every fifth death is due to harmful drinking in countries like Russia and the Commonwealth of Independent States (CIS).

WHO also reported that binge drinking is now prevalent in Brazil, Kazakhstan, Mexico, Russia, South Africa and Ukraine, and has contributed to the rise in death rates in these countries because it often leads to risky behavior(Reuters, 2012).

Second, the concern for highway safety: The single most important independent variable for measuring the extent of the alcohol-crash problem is the blood alcohol concentration(BAC). Academic research documents that human performance related to driving is substantially impaired in virtually everyone at BACs of .10 and higher. According to the available published epidemiological evidence, impaired performance even at such low BACs is manifested in increased crash risk(U.S. Department of Transportation, 2001) . Simply put, the probability of a fatal crash increases with increasing driver BAC. It is thus not surprising that more than half of U.S. drivers killed in car accidents, for example, had alcohol or drugs in their system at the time of the crash(Fox News, 2012).

Third, excessive alcohol consumption is linked to violence and risky sex. For instance, a parent , for instance, has more chances of being provoked to strike an irritating child when he or she is under the influence of alcohol. In a similar vein, friends may escalate an argument into a bloody fight when they are drunk. Other connections between excessive alcohol consumption and violence and risky sex may be summarized thus: While under the influence of alcohol a robbery victim may foolishly attempt resistance in the face of a loaded gun; and during a soccer game, the fans may riot in response to an unsatisfactory outcome, and so on. It should be noted here that risky and unwanted sex is another consequence associated with excessive alcohol use. According to the available epidemiological evidence, alcohol abuse promotes the spread of venereal disease(Cook & Clark, 2005; Chesson et al, 1997).

The fourth reason has to do with the impact of drinking on productivity: Ranging from workplace rules banning drinking on the job to alcohol regulations governing the armed forces, the belief that drinking impairs productivity has helped to motivate a wide range of both private and public responses. Historical evidence suggests that, in the United States and Europe alone, this concern with the quality and quantity of work was a major factor in the formation of the nineteenth-century temperance movements (Roberts, 1984; Rumbarger, 1989). It can also be inferred with considerable confidence that the belief that alcohol abuse reduces the productivity of some employees is the main compelling argument that persuaded the majority of large U.S. corporations to establish various forms of occupational alcoholism programs as well as employee assistance programs (Walsh, 1982; U.S. Office of Personnel Management, n.d.). Besides, many revealing government-commissioned estimates of the economic costs of alcohol abuse remains significant in terms of serving as persuasive evidence that these costs are predominantly the result of reduced productivity (Harwood et al, 1998; Cook, 1991). Stating this point more correctly, we may say that there is documented evidence that that heavy drinking has an indirect effect on productivity because it interferes with both family formation and with schooling – an interference that subsequently impacts on productivity as well as earnings.

Based on those perspectives and other evidences presented above, a clear conclusion emerges: There is a need to regulate alcohol so as to safeguard the wellbeing of every individual in a given society as well as to reduce the burden of harm due to alcohol misuse on the society and ensure public safety.

In this section, I have succinctly examined the rationale for alcohol regulation. In the following section, I will present the suitable and practical regulatory framework for a country that is starting alcohol regulation from scratch, namely, the direct regulatory policies.

Policy Proposals - The Case for A Direct Regulatory Policy Framework

If a phrase sums up the best regulatory framework for the country starting alcohol regulation from scratch it would be the “direct regulation option” framework. Broadly, this policy framework can be implemented in a number of areas that are under the jurisdiction of the concerned government for implementation and enforcement. For the country starting alcohol regulation from scratch, the direct regulatory option will generally include the following measures which can be implemented to differing degrees within individual regulatory frameworks: pricing and taxation, access and availability, legal drinking age, blood alcohol concentration level, and public education.

Pricing and Taxation

Academic research confirmed that, like most other commodities, alcohol (which includes beer, wine, and distilled spirits) is a commodity that is subject to taxation. Generally speaking, alcohol taxes are levied by national, federal, state, or local governments of the concerned country, often in combination with each other. It should be noted here that the main purpose of taxation is to generate revenue for the concerned government. However, for the country that is starting alcohol regulation from scratch, taxes on beverage alcohol should be used for another important purpose: to attempt to reduce abuse and harm by making alcohol less accessible (ICAP, 2012). Nevertheless, in creating alcohol policies, this country’s government must weigh commercial freedoms and consumers’ rights of access to alcohol against the goal of protecting its citizens. In doing this, the country’s government should determine the levels of taxation that will not penalize producers of alcohol by restricting fair trade practices or impose an undue burden on alcohol consumers and restrict their choices.

The main argument for supporting pricing and taxation is clear: the concerned government can use pricing through taxation to limit the demand for alcohol by not only raising its cost but also by making it less accessible to consumers (Chaloupka, et al, 2002; Österberg, 1995). Considerable divergence of opinion has developed with respect to the effectiveness of taxation as a public health and social tool for reducing alcohol consumption, abuse and other related problems. However, state-of-the-art research has repeatedly shown persuasive and credible evidence that increasing the price of alcohol limits, to a very significant extent, its purchase by some people (Babor & Del, 2003). Extensive research also acknowledges that, while alcohol is a source of legitimate enjoyment, people will tend to drink too much unless they are forced to take account of the full costs associated with consumption through taxation (ICAP, 2012).

It should be realized that one important problem with taxation is that it can be a blunt tool that does not differentiate between problematic and unproblematic drinking patterns: It does not effectively target those who abuse alcohol and have risky drinking patterns. Besides, these individuals (that is, those who abuse alcohol and have risky drinking patterns) may generally not respond to increase in pricing that may result from taxation (Heyman, 1994; Heyman, 2000; Kenkel, 1996; Manning et al., 1995). Other evidence against taxation as an effective policy measure against abuse is based on the notion that high taxation rates can also result in a number of unintended consequences. First, high taxation induces increased cross-border trade of alcohol from neighboring countries where taxes and its consequent effective prices are lower. Second, it can foster the growth of black market trade in smuggled and counterfeit beverage alcohol, most of which would have dubious quality. Third, given that high taxation can significantly raise the price of alcohol, it can become an incentive to producers to change their business strategy which

can be in the form of a movement away from commercial beverages toward home production – a strategy that can also increase the possibility of low-quality products (Härstedt, 2004; Leifman, 2001; Lyall, 2003; Nordlund & Österberg, 2000). In my view, the conclusions suggested by these arguments have little practical utility because the weight of evidence and opinion has continued to swing in favor of taxation as a suitable tool for regulating alcohol: Given the repeated demonstration that alcohol is no exception to the economic law of downward-sloping demand, the price level of alcoholic beverages has the capability to influence per capita consumption levels of these products in addition to influencing the incidence of alcohol abuse and its health-related consequences (Cook & Moore, 2002). Hence the bottom line here is that, for the country starting alcohol regulation from the scratch, taxation and pricing will be an effective alcohol-control measures that can be used to promote public health.

Access and Availability

A second approach that a country starting alcohol regulation from scratch can use in conjunction with taxation is the controlling of alcohol consumption by limiting availability as well as access to it. The aim of this approach is to prevent alcohol-related harm through the imposition of controls as it relates to the access and availability of alcohol and related products to the drinkers as retail customers (ICAP, 2012). The strongest argument for supporting this approach is based on the findings of early research in this area, which showed that regulations on outlet densities could ameliorate community problems, such as public drunkenness and violence (Edwards et al. 1994). Besides, current research in this area also shows that higher outlet density, to a very large extent, makes for elevated rates of excessive alcohol consumption and increased levels of violence and other similar harms. Generally speaking, the bunching of on-premise establishments, which is usually compounded by price wars among competitive business

owners who sell alcoholic products, can result to more people causing or falling victim to accidents, vandalism, fights and so on (ICAP, 2012; Livingston et al., 2007; Popova et al., 2009). Furthermore, a number of strong related studies link increased violence and harm in and around alcohol-serving establishments with extended late-night hours with its attendant heavier alcohol use (Stockwell & Chikritzhs, 2009; Popova et al., 2009). Thus practical, empirical and logical reasoning suggests that the increase in excessive drinking that occurs when access and availability is not restricted do make both patrons and neighborhoods residents to suffer as well as add extra burden on law enforcement, transportation services and primary healthcare resources (Middleton et al., 2010).

Three important generalizations can be made from the foregoing discussions. First, if alcohol sales can be measured, greater outlet densities will be positively correlated to greater use. Second, for any country or region, greater densities of bars and taverns and similar on-premise drinking places can result to high levels of assaults and violence. Three, greater densities of bars, taverns, and sometimes restaurants can significantly increase the incidence of drunken driving and alcohol-related crashes. Hence, for a country starting alcohol regulation from scratch, the benefits of this approach would be considerable for one important reason: It can be one of the most effective means of reducing harms associated with heavy drinking in the country. In other words, lower outlet density means lower rates of alcohol consumption and decreased rates of violence and other related harms.

It should be noted here that, for the country starting alcohol regulation from scratch, this regulatory model can be best implemented via the adoption of the following measures:

1. Rules that ensures a reasonable restriction on density of local alcohol outlets;

2. Rules that require regular enforcement of the general requirements for businesses in areas such as zoning, business licensing, parking, noise bylaws, building permits and bylaws, fire safety, health and food safety;
3. Rules that stipulate specific criteria for approval of new or amended applications for liquor licenses – a criteria that consider location, proximity to other public facilities, population density and trends, person capacity and hours of liquor service, relevant social-economic considerations, traffic, noise, parking, and impact on community; and
4. Rules that restricts the hours of operation or days when alcohol can be obtained in any region of the country.

Raising the Legal Drinking Age

The imposition of the legal drinking age - the minimum legal age for purchase and consumption of alcohol - is considered to be one of the great public health success stories of the late 20th century. For instance, alcohol regulation in the United States is, to a very large extent exemplified by the minimum legal drinking age (MLDA). Until 1984, individual states of the country had made significant steps and achievements with respect to establishing different minimum ages at which alcohol could be purchased from retail outlets in their domains.

Available published evidence showed that, among states that allowed alcohol sales, some established the MLDA at age 18, others at age 21, while a significant number of them made laws that chose age 18 for beer and age 21 for liquor as their MLDA (ICAP, 2012). In a landmark series of studies, Wagenaar and colleagues were able to prove that alcohol use and associated problems decreased (or increased) among underage drinkers when the affected states switched to a higher (or lower) MLDA (O'Malley & Wagenaar 1991; Wagenaar 1993; Wagenaar & Wolfson 1995). It is important to state emphatically that this pattern of effects continued until 1984,

which was the year when almost all the states were encouraged to adopt an MLDA of 21 (ICAP, 2012). For a country starting alcohol regulation from scratch, the argument for recommending MLDA is clear: Given that higher MLDA make it more difficult for underage drinkers to purchase alcohol, it means that the approach can reduce drinking among underage youth, reduce drinking among of-age youth who grow up with higher MLDAs, as well as reduce alcohol-related motor-vehicle crashes and other problems (Wagenaar & Toomey 2002). Besides, the MLDA laws are not only effective and relatively easy to implement and enforce, but they can also be generally beneficial to society since such laws can save the lives of up to 1,000 young people each year, even though some underage youth still can obtain alcohol through other means (Shults et al. 2001; Wagenaar & Wolfson 1995; Wechsler & Nelson 2010).

Imposition of A Legal Blood Alcohol Concentration Level

Broadly speaking the belief that alcohol in the bloodstream impairs reaction time and the ability to execute certain motor tasks, including driving a motor vehicle, can no longer be dismissed as mere theoretical sentimentality but accepted as scientific reality. The relationship and statistical association between the level of alcohol in the bloodstream of a driver and the likelihood that that driver will be involved in a fatal crash has been extensively documented (Borkenstein et al., 1964; Moskowitz, et al, 1985; U.K. Ministry of Health, 1995; Zador, 1991). Hence the basic theme that emerges from these studies is evident: for a country starting alcohol regulation from scratch, imposing a legal maximum allowable blood alcohol concentration (BAC) level for drivers will have a positive effect in terms of reducing the number of motor-vehicle crashes in which alcohol is a contributor (Homel, 1988; McKnight & Voas, 2001; Ross, 1992; Shults et al., 2001). Given this positive effect, it can be recommended with considerable confidence that this country should apply similar regulations to the operation of ships,

commercial vehicles, trains, airplanes, and other modes of transportation. It should thus be acknowledged that, while the threshold for legal BAC levels differs across countries, the impact of applying these limits will have similar effect on any country starting alcohol regulation from scratch.

Public Education

In my opinion, intensive public education can be a potent policy tool for a country starting alcohol regulation from scratch. The argument for supporting public education is clear: As a policy tool, public education can be an important component of any approach toward reducing alcohol-related crashes because it will increase awareness among drivers about the dangers of impaired driving, as well as ensure that they are informed about existing laws, the risk of being detected, and the consequences of this behavior (Davis et al., 2003; Shults et al., 2009). Broadly speaking, for a country in this category, public education programs should include training for servers in premises licensed to sell alcohol, designated driver campaigns, school education for the children and the youth, professional education in driver training, and publicity campaigns targeting specific groups. Three additional facts relating to public education may be worthy of comment. First, a variety of public education and information campaigns that were focused on impaired driving has been successfully implemented in many countries by government agencies, advocacy groups, and bodies sponsored by the beverage alcohol industry. And a significant amount of these campaigns have been developed and executed as partnership efforts by the different entities within the affected countries. Second, public education has the capability to sustain the behavior of those who seldom or never drive if over the local BAC limit as well as change the behavior of people who might drive while intoxicated. Third, public education will help the affected country to enjoy the support of both government and the public.

This is very important since an alcohol regulatory policy will be most effective and sustainable only when stakeholders from various sectors and disciplines within the affected country work together (ICAP, 2012).

Recommendations

One of the basic insights from the discussions made in this paper is that alcohol regulation and policies has been proven to work – United States and some European countries such as Britain have used it for years – and those countries that lack such policies have reason to get on board. It should be realized that enacting a regulatory framework is only the first stage of controlling the consumption of alcohol and other alcoholic substances. Simply put, the ability of any form of regulation to achieve its intended goal relies heavily on its degree of enforcement within the concerned country. In other words, while a country can mandate many measures for regulating alcohol and other related substances, such measures may end up becoming ineffective due to insufficient mechanism to ensure that they are, indeed, implemented and upheld. In addition, while regulation can be critical to the success of any initiative to control the use of alcohol, public support both within communities and from the beverage alcohol industry will also contribute significantly to its enforcement.

The discussions made in this paper showed fairly clearly and comprehensively that, for the country starting alcohol regulation from scratch, the effectiveness of such regulation relies heavily on proper enforcement. This implies that the government of the affected country will need to give the direct regulation option recommended in this paper the force of law to avoid it becoming mere “lip -service” to appease the public and the international community. In addition, they should also solicit the support and participation of all the local stakeholders – community associations, schools, health authorities and alcohol dealers – in the implementation of the direct

regulation policy framework. This is the only way they can ensure an effective alcohol regulation in their domain.

Conclusions

As a capstone to this paper, I will state here that uncontrolled alcohol consumption is a complex problem that includes various dimensions such as alcohol-impaired driving, alcohol abuse, underage drinking, accidents and other social concerns. For a country starting alcohol regulation from scratch, the solutions need to be the formulation of alcohol policy that is equally complex and wide-ranging while, at the same time, demanding a comprehensive, creative, and flexible approach. Such policies should thus reflect a view of alcohol-impaired driving and alcohol abuse within the broader context of public health implications of alcohol abuse and other related issues. Given that the problem of drinking and driving affects society at large, the alcohol regulatory framework proposed for the country starting alcohol regulation from scratch, namely, the direct regulatory policy framework, is one that ensures cooperation from a variety of sectors and disciplines within the country – government, the beverage alcohol industry, community-based organizations, and academic institutions - to address the problem. However, it should be acknowledged that the impact of this policy framework likely to be negligible or even non-existent unless resources are available to monitor and enforce this particular regulation.

References

- Borkenstein, R. F., Crowther, R. F., Shumate, R. P., Ziel, W. B., Zylman, R., & Dale, A. (1964): *Role of the Drinking Driver in Traffic Accidents*. Bloomington, IN: Indiana University, Department of Police Administration.
- Babor, T. F., Del Boca, F. K. (2003): *Treatment Matching in Alcoholism*. Cambridge, U.K.: Cambridge University Press.
- Centers for Disease Control and Prevention (1987): Alcohol-Related Mortality and Years of Potential Life Lost—United States. *Morbidity and Mortality Weekly Report*. Retrieved November 22, 2012 from <http://www.cdc.gov/mmwr/preview/mmwrhtml/00001576.htm>
- Chaloupka, F. J., Grossman, M., & Saffer, H. (2002): The Effects of Price On Alcohol Consumption and Alcohol-Related Problems. *Alcohol Research and Health*, 26, 22–34.
- Chesson H.W., Harrison P., & Kassler W.J. (1997): Sex Under the Influence – The Effects of Alcohol Policy On Sexually Transmitted Disease Rates in the United States. *Journal of Law and Economics*, 215-238.
- Cook R.L., Clark D.B. (2005): Is There An Association Between Alcohol Consumption and Sexually Transmitted Diseases? A Systematic Review. *Sexually Transmitted Diseases*, 32(3), 156-164.
- Cook P.J., Moore M.J. (2002): The Economics of Alcohol Abuse and Alcohol-Control Policies. *Health Affairs*, 21(2), 120-133.
- Cook P.J. (1991): The Social Costs of Drinking. In Norwegian Ministry of Health and Social Affairs (Ed.), *The Negative Social Consequences of Alcohol Use* (pp. 49-81). Oslo: NMHSA.
- Davis, A., Quimby, A., Odero, W., Gururaj, G., & Hijar, M. (2003): *Improving Safety by Reducing Impaired Driving in Developing Countries - A Scoping Study*. Crowthorne, UK: Transport Research Laboratory.
- Edwards, G.; Anderson, P.; Babor, T.F. (1994): *Alcohol Policy and the Public Good*. Oxford, U.K.: Oxford University Press.
- Fox News (2012): *Alcohol, Drugs Common in Fatal Crashes*. Retrieved November 22, 2012 from <http://www.foxnews.com/health/2012/09/06/alcohol-drugs-common-in-fatal-crashes/>
- Härstedt, K. (2004): *Vår Gar Gränsen? [Where do we set the limit]*. Stockholm: Statens Offentliga Utredningar.

Harwood H., Fountain D. & Livemore G.(1998): *The Economic Costs of Alcohol and Drug Abuse in the United States*. Rockville, MD: National Institute on Drug Abuse.

Heyman, G. M. (1994). Elasticity of Demand for Alcohol in Humans and Rats. In L. Green & J. H. Kagel (Eds.), *Advances in Behavioral Economics: Volume 3. Substance Use and Abuse*. Norwood, NJ: Ablex Publishing Corporation.

Heyman, G. M. (2000). An Economic Approach to Animal Models of Alcoholism. *Alcohol Research and Health*, 24, 132–139.

Hemel, R. (1988): Random Breath Testing in Australia: A Complex Deterrent. *Australian Drug and Alcohol Review*, 7, 231–241.

Kenkel, D. (1996). New Estimates of the Optimal Tax on Alcohol. *Economic Inquiry*, 34, 296–319.

ICAP(2012): Introduction – An Integrative Approach to Alcohol Policy. *International Center for Alcohol Policies*. Retrieved December 13, 2012 from <http://www.icap.org/PolicyTools/ICAPBlueBook/IntroAnIntegrativeApproachtoAlcoholPolicies/tabid/187/Default.aspx#7>

Leifman, H. (2001). Homogenization in Alcohol Consumption in the European Union. *Nordisk Alkohol- and Narkotikatidskrift*, 18, 15–30.

Livingston, M., Chikritzhs, T. & Room, R. (2007): Harm Reduction Digest 38: Changing the Density of Alcohol Outlets to Reduce Alcohol-Related Problems. *Drug and Alcohol Review*, 26(5), 557-566.

Lyall, S. (2003, October 13). Something Cheap in the State of Denmark: Liquor. *The New York Times*, p. 4A.

Manning, W. G., Blumberg, L., & Moulton, L. H. (1995): The Demand for Alcohol: The Differential Response to Price. *Journal of Health Economics*, 14, 123–148.

McKnight, A. J., & Voas, R. B. (2001): Prevention of Alcohol-Related Road Crashes. In N. Heather, T. J. Peters, & T. Stockwell (Eds.), *International Handbook on Alcohol Dependence and Problems* (pp. 741–769). Chichester, U.K.: John Wiley & Sons.

Middleton, J.C., Hahn, R.A., Kuzara, J.L., Elder, R., Brewer, R., Chattopadhyay, S. et al. (2010): Effectiveness of Policies Maintaining or Restricting Days of Alcohol Sales On Excessive Alcohol Consumption and Related Harms. *American Journal of Preventive Medicine*, 39(6), 575-589.

Moskowitz, H., Burns, M. M., & Williams, A. F. (1985): Skills Performance at Low Blood Alcohol Levels. *Journal of Studies on Alcohol*, 46, 482–485.

- Nordlund, S., & Österberg, E. (2000). Unrecorded Alcohol Consumption: Economics and its Effects on Alcohol Control in the Nordic Countries. *Addiction*, 95(Suppl. 4), S551–S564.
- O'Malley P.M., Wagenaar A.C.(1991): Effects of Minimum Drinking Age Laws on Alcohol Use, Related Behaviors and Traffic Crash Involvement Among American Youth, 1976-1987. *J Stud Alcohol*, 52,478-491.
- Österberg, E. (1995). Do Alcohol Prices Affect Consumption and Related Problems? In H. D. Holder & G. Edwards (Eds.), *Alcohol and Public policy: Evidence and Issues* (pp. 145–163). New York: Oxford University Press.
- Popova, S., Giesbrecht, N., Bekmuradov, D. & Patra, J. (2009): Hours and Days of Sale and Density of Alcohol Outlets: Impacts of Alcohol Consumption and Damage - A Systematic Review. *Alcohol and Alcoholism*, 44(5), 500-516.
- Reuters(2012): Alcohol-Related Deaths Kill More Than AIDS, TB Or Violence, WHO Reports. Retrieved November 22, 2012 from <http://www.huffingtonpost.com/2011/02/11/alcohol-related-deaths- n 821900.html>
- Roberts J.S.(1984): Drink, Temperance and the Working Class in Nineteenth Century Germany. Boston: Allen & Unwin.
- Ross, H. L. (1992): *Confronting Drunk-Driving - Social policy for Saving Lives*. New Haven, CT: Yale University Press.
- Rumbarger J.J.(1989): Profits, Power and Prohibition – Alcohol Reform and the Industrializing of America, 1800-1930. Albany, NY: State University of New York Press.
- Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., et al. (2001). Reviews of Evidence Regarding Interventions to Reduce Alcohol-Impaired Driving. *American Journal of Prevention and Medicine*, 21(4 Suppl.), 66–88.
- Shults, R. A., Elder, R. W., Nichols, J. L., Sleet, D. A., Compton, R., Chattopadhyay, S. K., et al. (2009). Effectiveness of Multicomponent Programs With Community Mobilization for Reducing Alcohol-Impaired Driving. *American Journal of Preventive Medicine*, 37(4), 360-371.
- Stockwell, T. & Chikritzhs, T. (2009). Do Relaxed Trading Hours for Bars and Clubs Mean More Relaxed Drinking? A Review of International Research on the Impact of Changes to Permitted Hours of Drinking. *Crime Prevention and Community Safety*, 11(3), 153-170.
- UK Ministry of Health. (1995). *Sensible Drinking: A Report of An Interdepartmental Working Group, December 1995*. Wetherby, U.K.: Department of Health.
- U.S. Department of Transportation (2001): Alcohol and Highway Safety 2001 – A Review of the State of Knowledge. Retrieved November 22, 2012 from <http://www.nhtsa.gov/people/injury/research/alcoholhighway/index.htm>

U.S. Office of Personnel Management(n.d.): Alcoholism in the Workplace – A Handbook for Supervisors. Retrieved December 2, 2012 from http://www.opm.gov/Employment_and_Benefits/WorkLife/OfficialDocuments/HandbooksGuides/Alcohol/index.asp#Alcoholism

Walsh D.C.(1982):Employee Assistance Programs. *Milbank Quarterly*, 60(3), 492-517.

Wagenaar A.C.(1993): Minimum Drinking Age and Alcohol Availability to Youth - Issues and Research Needs. In Hilton M.E.& Bloss G. (eds.), *Economics and the Prevention of Alcohol-Related Problems*(175-200). Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism (NIAAA) Research Monograph No. 25, NIH Pub. No. 93-3513.

Wagenaar A.C., Wolfson M.(1995): Deterring Sales and Provision of Alcohol to Minors - A Study of Enforcement in 295 Counties in Four states. *Public Health Rep.*, 110, 419-427.

Wagenaar A.C., Toomey T.L.(2002): Effects of Minimum Drinking Age Laws: Review and Analyses of the Literature from 1960 to 2000. *J. Stud. Alcohol*, 14, 206-225.

Wechsler H., Nelson T.F.(2010): Will Increasing Alcohol Availability By Lowering the Minimum Drinking Age Decrease Drinking and Related Consequences Among Youths? *American Journal of Public Health*, 100(6), 986-992.

Zador, P. L. (1991). Alcohol-Related Relative Risk of Fatal Driver Injuries In Relation to Driver Age and Sex. *Journal of Studies on Alcohol*, 52, 302–310.