# The Development of International PSAs and Break-through Messaging about Under-aged Alcohol Drinking: An Innovative Partnership between Academia, a College of Design and an International Public Health Organization

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#### **Abstract**

Global public health problems associated with alcohol consumption have reached alarming proportions, and alcohol has become one of the most important risks to the global health of young people. Few

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prevention efforts have successfully focused on reducing the consumption and negative consequences related to under-aged drinking throughout the Americas. Typical collaborative efforts have included research teams primarily composed of multi-disciplined academicians but few approaches, if any, have combined the expertise of a college of design, an international health promotion organization and academia. In an effort to counter alcohol advertisements that appeal to under-aged drinkers throughout the Americas, the Pan American Health Organization commissioned Art Center College of Design in Pasadena, California to design and develop anti-drinking Public Service Announcements (PSAs) for international distribution. This paper addresses the methodology, creative process, and integrated educational approach behind this partnership. This project demonstrates how the interplay of academic research dissemination (in this case, an alcohol expert that educated students in the film and advertising disciplines about the complex scope of the problem) with multi-disciplinary design expertise at the service of an international health organization can result in an awareness campaign that provides a new paradigm for developing public service announcements focused on alcohol consumption among youth.

Compassionate visual artists and designers collaborating with world-class research experts can produce an extremely powerful communications team whose message may directly change the perspectives of those at risk or provide alternative sources of help for those already impacted by alcohol abuse. The chance to help with such an important effort is inspirational and contagious. For filmmakers who want to make a difference, it doesn't get much better than this."

-Robert Peterson. 2005

Chairman, Film Department, Art Center College of Design

#### Addressing Alcohol Use is Imperative to Global Public Health

Public-health problems associated with alcohol consumption have reached alarming proportions, and alcohol has become one of the most important risks to health globally. According to the World Health Report 2002, alcohol is the leading risk factor for burden of disease in the Americas, accounting for more than 10% of the overall disease burden in these countries (see Table 1) (Ezzati et al., 2002).

Table 1: Leading risk factors for disease burden in the different subregions of the Americas defined by adult and child mortality (in 1000 DALYs) DALYs = Disability Adjusted Life Years. The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability (source: www.who.int).

America D* High Mortality		America B* Low Mortality		America A* Very Low Mortality	
Alcohol	959	Alcohol	9297	Tobacco	6173
underweight	922	Overweight	3423	Alcohol	3627
Unsafe sex	831	Blood Pressure	3245	Overweight	3479
Unsafe water & San	756	Tobacco	3003	Blood Pressure	2783
Overweight	423	Cholesterol	1873	Cholesterol	2463
Blood Pressure	386	Unsafe Sex	1755	Low Fruit & Veg	1369
Iron Deficiency	338	Lead Exposure	1696	Physical Inactivity	1267
Indoor Smoke	328	Low Fruit & Veg	1477	Illicit Drugs	1207
Cholesterol	196	Unsafe water & San	1289	Unsafe Sex	516
Low fruit & Veg	139	Physical Inactivity	1167	Iron Deficiency	478

<sup>\*</sup> Definition of regions: The regional sub-groupings used were defined by WHO (World Health Report, see WHO, 2000) on the basis of high, medium or low levels of adult and of infant mortality.

America A	Canada, Cuba, United States of America
IAmerica B	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, C
	Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Honduras, Jamaio
	Mexico, Panama, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the
	Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela
America <b>D</b>	Bolivia, Ecuador, Guatemala, Haiti, Nicaragua, Peru

A stands for very low child and very low adult mortality, **B** for low child and low adult mortality, **D** for high child and high adult mortality (WHO, 2000). This is not due primarily to alcohol dependent persons, however. The biggest problem is over consumption by people drinking in social contexts, resulting in acute intoxication (Monteiro, 2005).

Over-consumption of alcohol does not only affect the individual, but can also harm and kill those who do not drink. In 2000, alcohol use was responsible for 4.0% of the global disease burden, slightly less than the damage to society caused by

tobacco use (4.1%) and high blood pressure (4.4%). Globally, use of alcohol is estimated to have caused 1.8 million deaths, or 3.2% of the total, in 2000 (World Health Report, 2000). In addition to alcohol-related disease, there are marked social consequences stemming from alcohol use (drinkers and non-drinkers) e.g., domestic violence and injuries, family and personal relationships, other types of violence, work and economic problems, child abuse and neglect, fatalities of passengers in cars and pedestrians (Klingemann & Gmel, 2001; Room et al., 2002, 2003; PAHO, 2004). While in some established market economies, the costs of alcohol-related social problems outweigh the costs of alcohol-related health problems, we have no knowledge about this relationship for developing countries.

Despite the alarming estimates by WHO, alcohol-related issues continue to be a low priority in the health agendas of most countries in the region of the Americas, and epidemiological information on alcohol consumption and related problems among men and women is scarce. Many of these countries have never had national or large surveys on alcohol consumption, patterns of alcohol use and related consequences, and have not undertaken a gender analysis or epidemiological study of underage drinking involving of these variables. In addition, in many Latin American countries there is a lack of political will to create and to enforce alcohol policies (Global Status Report: Alcohol Policy, WHO, 2004). For example, in recent years, the alcohol industry has increased its power of influence on public policies; this trend has negatively affected the implementation of effective policies.

Public health experts (Perspectivas de Salud, 2005) note that alcohol takes a disproportionate toll on the poor because they spend a greater share of their income on alcohol and when they have drinking problems they have less access to services, may lose their jobs and bring major hardships to their families. For all these reasons many public health experts believe that alcohol policy should be a top priority in every country of the Americas. The most effective ways of reducing overall consumption are by increasing prices and taxes on alcohol and restricting availability: where it can be sold, to whom and by whom, at what times and on which days. These public health measures have proven to work well, but they often encounter opposition from business and industry. Experts are calling for more research and action to counter the toll of alcohol on global public health.

In an effort to raise awareness of the nature and extent of alcohol problems in Member Countries, PAHO commissioned Art Center College of Design to develop a public awareness campaign for television and print distribution, to help elicit the regional response and public support necessary to implement effective policies. A key goal of the commissioned campaign was to counteract the pervasive hold of alcohol advertising in media outlets.

#### Pan American Health Organization (PAHO), Regional Office of the World Health Organization

PAHO was established in 1902 and is the world's oldest public health organization. The organization works with all the countries of the Americas to improve the health and the quality of life of people of the Americas. It serves as the Regional

Office for the Americas of the World Health Organization (WHO) and enjoys international recognition as part of the United Nations system.

PAHO Member States today include all 35 countries in the Americas. France, the Kingdom of the Netherlands, and the United Kingdom of Great Britain and Northern Ireland are Participating States. Portugal and Spain are Observer States, and Puerto Rico is an Associate Member. The PAHO Mental Health and Specialized Programs unit functions to strengthen the capacities of countries to develop policies, models and plans that contribute to the improvement and reorganization of mental health services to control the use of alcohol and other addicting substances. The Regional Advisor and Technical Officer on Alcohol and Substance Abuse are responsible for the development and dissemination of effective alcohol and drug policies, assistance to countries on the implementation of such policies and capacity building for research and service provision. Other activities include alcohol and substance use epidemiology and treatment, capacity building for research, and prevention of alcohol and other drug related problems.

#### **Art Center College of Design**

Since its inception in 1930, Art Center College of Design has developed creative leaders who shape the form and function of our culture. Widely regarded as one of the premier schools of art and design in the world, the institution is a laboratory for innovation at the center of international dialogue in design. Since 2001, the College has established a new educational agenda that is imbuing the curriculum with a greater broadened world view about the evolving role of designers in the larger service of society: designmatters @ Art Center College of Design, is a college-wide initiative that addresses the humanitarian impact designers exert on issues of societal consequence, and represents the College's commitment to pioneer the use of design as a catalyst for change at a global scale. The College's designation as a Non-Governmental Organization (NGO) by the United Nations—the first design school to hold such important affiliation since 2002—is central to the advocacy and project outreach that the Art Center community now exerts on an international level.

PAHO's commission to develop a series of Public Service Announcements (PSAs) for wide distribution throughout the Americas, highlighting the significant issue of alcohol consumption and its public health toll, presented Art Center students with the opportunity to lend their voices to a particularly challenging health topic. The question or "design brief" that PAHO posed the Art Center class was to address the chief question of how to clear the common misconception that the problem of alcohol is alcohol dependence, or alcoholism, when from a chief public health perspective, alcohol's greatest impact (homicides, traffic accidents, suicides, domestic violence, child abuse, etc) can occur from occasional high-risk drinking by light to moderate drinkers (Sharman, 2005). The educational value of the close dialogue that ensued between PAHO and the multidisciplinary teams of students and faculty on the project cannot be overestimated.

In today's information and media driven society, the profusion and ubiquitous power of images are unquestionable. More than ever, there is a widely accepted notion that media driven images are influencing ways in which individuals—and particularly impressionable youth--establish a sense of personal identity. In this context, glossy television commercials and print advertisements that typically associate drinking with glamour can lend a certain "coolness factor" to alcohol consumption. By constructing sleek-looking commercial spots with persuasive stylistic treatments, similar to those of beer commercials, for example, the Art Center student teams aimed to produce PSAs which could "turn heads and change minds," by delivering powerful messaging to capture the attention of a youth audience, reveal the detrimental sequels of drinking, and make a positive imprint about the reality at hand. As young designers in sync with their peers, the students were equipped with a unique lens through which to view the best design-based communication strategies that could both positively affect and effectively shape public opinion about the related societal impact of alcohol.

#### The PAHO and designmatters @ Art Center Partnership: a Cross-Pollinization of Expertise

From PAHO's perspective, the opportunity to participate in the educational framework established by designmatters @ Art Center allowed Art Center to solicit the creative expertise of the film and advertising students and faculty of practicing professional designers and artists of the College, sharing expertise, and exchanging ideas about the complex issues related to alcohol consumption and public health policy. A hallmark of Art Center's educational initiatives has been the College's history of industry engagement and the professional standards of the work produced by the students. This partnership presented PAHO with the ability to engage in a commission where PSAs would be developed from conceptual stage to final production, with PAHO leading the efforts for the dissemination of the finished PSAs throughout the Americas. PAHO has a list of over 300 cable and television stations in the Americas from Canada to Tierra del Fuego, Chile covering four languages: English, Spanish, French and Portuguese. Some of the major networks included are: CNN (international and local), MTV, Discovery Channel, Globo (Brazil), ABS, CBS, Fox, NBS, Telemundo and Univision, among others. PAHO will distribute these PSAs to the contacts on this list and will receive a report as to when the PSAs aired and for how long.

In this process, PAHO staff, who are normally involved in working on technical issues and policies of alcohol and substance abuse, were directly involved in the Art Center creative process. PAHO staff participated both in the conceptual development of the PSAs (the initial phase led by the advertising students) and the production and post-production of the approved concepts (led by the film students). The collaboration in turn provided Art Center students and faculty with the scientific data and publications from PAHO, and the first-hand perspectives of PAHO staff to guide the teams on how to weave such technical information into their creative messaging with the joint goal of crafting public awareness campaigns that encourage people, especially youth, to think and act together within their communities to create and enforce alcohol policies for the benefit of society as a whole.

PSAs.

#### The Challenges of Professional PSA Production in a Creative Educational Setting

The conceptualization, development, and production of Public Service Announcements (PSAs) at Art Center College of Design occur over the intense fourteen-week period of the College's academic term. The structure of this collaboration works in three distinct phases:

Research and Conceptual Development Phase with Client Review and Response (8 weeks)
Pre-Production Phase (2 weeks)

Production and Post-Production Phases (4 weeks)

This collaboration was assigned to two design disciplines: advertising students, who researched complex health issues and subsequently developed concepts for the PSAs; and film students, who carried the task of producing the ideas into concrete visual realities. In this way, each set of students was able to mirror its professional real-world counterparts: the advertising students assumed the role of Creative Directors on the project, and the film students became Directors of the final PSA. The students who participated in this project represented various ethnicities and nationalities: five white males, including one Canadian national, three white females, two Hispanic males and two Pacific Islander males, all in their mid to late-twenties.

The closing section describes the multi-faceted processes of conceptual development and production of the project. In keeping with the model of all designmatters @ Art Center commissioned PSA campaigns, the project was led by "transdisciplinary" teams of faculty and students from the advertising and film disciplines, with key expertise and research leadership provided by the UCLA scholar and PAHO.

#### The Role of the Researcher

Paramount to the collaboration and real-world deliverables of the project was the Liberal Arts & Sciences component offered by alcohol research specialist, Didra BrownTaylor, Ph.D. As part of the conceptualization of the project, Art Center and PAHO recognized that in order to translate their collective expertise into a efficacious product an expert in the area of alcohol would have to be a part of the multidiscliplinary team. This project included nearly two weeks of preparation and two months of face-to-face lectures from Dr. BrownTaylor, during which the advertising students absorbed up-to-date research and technical assistance on alcohol policy, beverage-specific alcohol consumption patterns, availability, industry responsibility, marketing, culturally congruent PSA development, at risk drinking and critical analyses of preexisting efficacious alcohol and tobacco awareness campaigns. As an added assurance of support, the researcher was also available via email and cell phone should additional questions arise. Throughout the lectures, the PAHO client also visited the class, to review presentations on concepts-in-progress, and offer essential feedback and clarification of PAHO's policy, which, together with the expertise of the alcohol scholar and the advertising department faculty member, were critical to inform the students' concepts for the PSAs.

From the perspective of the researcher, in tackling alcohol problems, there can be no universal blue print. What is applicable to one country may not be to another with diverse cultural and social norms. Alcohol action PSAs should be a mix of scientifically proven strategies, sensitive to the culture in which they are applied and which are politically viable and publicly acceptable. PAHO will be able to ascertain and validate the cultural, political and general public's acceptance of the materials being proposed.

Further, the researcher made it clear that alcohol advertising and promotions certainly have a strong influence in the etiology and maintenance of several social, economic and health problems faced in the US. In the role as expert, it was the primary responsibility of the alcohol researcher to identify and merge Art Center and PAHO paradigms into a digestible form for the students to get a clear idea of their clients' objectives for the PSAs. To that end, the researcher presented numerous research articles, videos, websites and lectures that provided critical analyses of the issues related to global alcohol promotion, targeted advertising and consumption (BrownTaylor, 2000; 2004).

Most surprising were the students' critical analysis of the research data presented to quantify the extent of problem. Students actively questioned the validity of the numerous research studies regarding targeted advertising by the alcohol industry. Unbeknownst to the researcher, this type of inquiry and challenge of the data is typical of Ad and Film students because they want to ensure they can defend the facts being used in their PSAs.

One of the major challenges was convincing the students that knowledge alone does not change behaviors. The researcher worked within the theoretical framework that there must be an emotional experience (sadness, fear, happiness, resentment, anger) in order for someone to be motivated to change his or her behavior. Many resources were provided to support the notion that disrespect in addition to an emotional experience is a huge impetus for change for many young people and minorities.

#### Research and Conceptual Development Phase with Client Review and Response

Perhaps the most important, pivotal phase of the entire collaboration and the creative process behind the production of these PSAs was the initial period of *conceptual development and client approval*. The intensity and rigor involved in producing highly effective messaging in a 30-second PSA, within the constraints of an academic term, was a challenge best supported by periodic review and response sessions with the client. To ensure this Art Center produced—at the start of the academic term—a carefully constructed and detailed production schedule, which allowed several weeks for this vital conceptual development and feedback process to occur.

During this stage, it was key for the advertising students to present the concepts in as much detail as possible for their client, in order to eliminate all possibility of unexpected feedback once production has begun. For this reason, advertising students

shared their visions for the PSAs in intricate storyboards and PowerPoint presentations, in order to visually represent ideas for

casting choices, color palette, music selection, set design, and overall "look and feel." With final conceptual approval secured,

the advertising students continued to refine and finalize their scripts and copy for the PSAs, and concurrently designed

companion print collateral for the campaign, in the form of posters and brochures.

**Pre-Production Phase** 

In the eighth week of the academic term the concepts attained final approval, and the second phase of the collaboration—the

pre-production phase—began. Just as the initial conceptual period relied heavily on the creative inspiration of the advertising

students, a successful production phase was the responsibility of the film students, who were charged with transforming

messaging concepts into visual realities. Pre-production was an intense period dedicated to set design, casting sessions,

prop assembly, budget preparation, equipment rental, permit filing, and many other necessary details that informed the

process.

**Production and Post-Production Phases** 

In accordance with the resources offered to them within an educational framework, and under the close supervision of the film

department faculty member, the film students adopted an efficient model of production to maximize creativity and peer

expertise on the PSA sets. The College's soundstages housed the productions, with sets accordingly outfitted by a complex

organizational web of lighting design, wardrobe and makeup artists, craft services, professional actors, and a myriad of other

expert resources the students assembled for the two days of PSA filming.

With shooting complete, the students transferred their raw 35mm footage to digital DVD format, and assemble "rough-cut"

versions of the PSAs for a concluding series of review with the client—during which the collaborating agency's expertise was

an indispensable resource in refining subtle nuances of the PSAs messaging—though it is important to emphasize that the

students themselves had the ultimate responsibility for the project's final creative direction. After addressing various post-

production refinements such as sound mixing, logo treatments and voiceover recording, the students delivered final versions

of the PSAs—in digital format for viewing purposes, but also in the critical Beta tape master format, which allows the client

technical freedom to duplicate and disseminate the PSAs to an extensive distribution network, ensuring maximum visibility of

the collaborative end product.

Synopses of the PAHO PSAs:

**Channel Surfer** 

Director: Jennava Laska, Department of Film, Art Center College of Design

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Creative Director: Seth Hadaway, Department of Advertising, Art Center College of Design

During after school hours, children worldwide are exposed to thousands of televised alcohol ads annually. The **Channel Surfer** PSA examines the potential impact of televised alcohol advertisements—and the effectiveness of a "self-regulating" alcohol industry— by using depth-of-field cinematography to portray a child TV-viewer's perspective during these high-peak hours. [Tagline: "Fight the Spin." URL: www.fightthespin.com]

#### Substance Hostage

Director: Corey Stubbs, Department of Film, Art Center College of Design

Producer: Robert Stark, Department of Illustration, Art Center College of Design

This concept takes its inspiration from statistics, which reveal that a large portion of the alcohol industry has been recently acquired by the tobacco industry. **Substance Hostage** comments on the subversive influence of alcohol and tobacco by using surreal imagery and dark shadowing to paint a dismal portrait of a man who is "held hostage" by his consumption of these two agents, and the mega-industries which promote them. [Tagline: "They're Not Letting You Go." URL: <a href="www.">www.</a> notlettingyougo.org]

#### Seeing One Thing Hearing Another

Director: Darlene Phares, Department of Film, Art Center College of Design Creative Directors: David Clark, Department of Film, Art Center College of Design

rs: David Clark, Department of Film, Art Center College of Design Shannon Pert. Department of Advertising. Art Center College of Design

Frank Rivera, Department of Advertising, Art Center College of Design

This PSA aims to highlight the disparity between the alcohol industry's strong worldwide media presence, and the comparatively underdeveloped media representation of the incidents of social violence that can indirectly result from alcohol use. By synchronizing the recorded sound of car accidents, hospital apparatus, and domestic abuse against an appealing visual portrayal of alcohol use in a social setting, **Seeing One Thing Hearing Another** seeks to magnify the difference, and to motivate global social policy to address this complex issue. [Tagline: "Are You Listening?" URL: www.areyoulistening.tv]

#### Lock Up

Director: Mathieu Dorion, Department of Film, Art Center College of Design

Creative Directors: William Esparza, Department of Advertising, Art Center College of Design

Gail Gonzales, Department of Advertising, Art Center College of Design

Kent Villaraiz, Department of Film, Art Center College of Design

While the alcohol industry continues to maintain a "self-regulated" marketing stance, youth worldwide are annually exposed to thousands of dynamic visual alcohol advertisements. Inspired by this statistic, **Lock Up** strives to suggest a negative influence of alcohol advertising, and advocates for parents' greater awareness of pro-alcohol messaging that is "imported" into the home through various commercial print material. Using film transition effects and magnified images of common home security features, this PSA seeks to evoke irony by suggesting that many youth remain "unprotected" from alcohol advertising, amid a myriad of environmental domestic security devices. [Tagline "Under The Influence" URL: www.undertheinfluence.info]

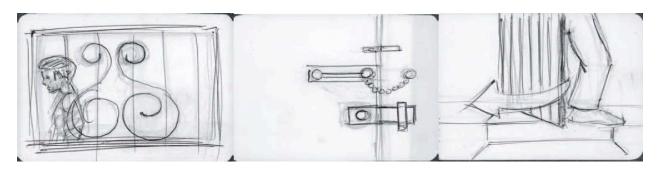
#### Conclusion

From an educational standpoint, the collaborative framework of the project proved effective in enabling the students to grapple with the complex assignment set by PAHO. They visualized directions aimed at counteracting the impact of pro-alcohol messages and generated innovative outcomes ready for distribution through the vast media outlets of PAHO throughout the Americas. Moving ahead, Art Center looks forward to building partnerships with PAHO and the academic community of international alcohol experts that will take on the task of tracking and measuring the ultimate effects of the PSAs produced, and their lasting imprint on the targeted audiences.

In the future, PAHO will undertake focus group discussions to access the cross-cultural validity of the PSAs, and

how they are perceived and understood by youth from several different backgrounds. Impact will be measured through evaluation research of the proportion of public support for alcohol policy changes before and after the release of the PSAs in selected countries. At the same time, PAHO will be fostering necessary changes in alcohol policy at national and regional levels, which will hopefully lead to reduction in alcohol related problems.

### "Lock Up" Original Storyboard



A father walks past a wrought iron window.

Unlocking of chains and deadbolt on door.

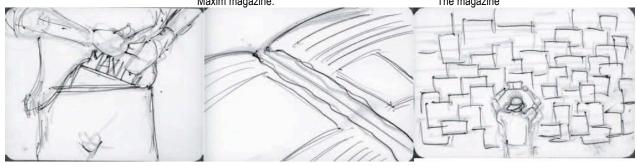
Father walks out of the iron door



Gets mail.

Comes back in and sets down mail and Maxim magazine.

A 10 year old boy comes by and takes The magazine



Boy goes to room and takes out

Tears out some pages from magazine.

Places it on the wall.



Camera pulls back, the whole room is covered with alcohol advertising

### "Channel Surfer" Original Storyboard

OpiniTime\*\* and a TIFF (LTW) decompressor are needed to see this picture.

### "Seeing One Thing, Hearing Another" Original Storyboard



### **PSAs in Production**



#### References

Almeida-Filho N, Lessa I, Magalh es L, Araujo MJ, Aquino E, Kawachi I, James SA. (2004). Alcohol drinking patterns by gender, ethnicity, and social class in Bahia, Brazil. Revista de Saúde Pública. 38(1). pp. 45-54.

BrownTaylor, D., Guzman, N., Waiters, L., Bluthenthal, R. (2003). What the public doesn't know: Alcohol beverage type, advertising, and classification systems. Accepted poster at American Public Health Association (APHA).

BrownTaylor, D. (2000) Adverse consequences associated with malt liquor beer consumption among African American men in South Central Los Angeles. <u>In: A. Varley, Ed., Towards a Global Alcohol Policy: Proceedings of the Global Alcohol Policy Conference</u>, Syracuse, New York, USA, August 2000, London, UK: The Institute of Alcohol Studies. 81 p. (p.73) (160483)

Ezzati, M., Lopez, A.D., Rodgers, A., Vander Horn, S., Murray, C.J.L, & the Comparative Risk Assessment Collaborating Group. (2002). Selected major risk factors and global and regional burden of disease. *The Lancet* 360. pp.1347-1360

Greenfield, T.K. (2001). Individual risk of alcohol-related disease and problems. In N. Heather, TJ Peters & T Stockwell (Eds.), *International Handbook of Alcohol Dependence and Problems* pp. 413-437. New York: Wiley.

Klingemann, H. & Gmel, G.(Eds.) (2001). *Mapping the social consequences of alcohol consumption. Dordrecht*: Kluwer Academic Publishers.

Monteiro, M. (2005, personal communication). Pan American Health Organization, Washington, D.C.

Pan-American Health Organization. (2004). Unit of Mental Health and Specialized Programs, *Brochure "What you need to know about alcohol policy"*. Pan- American Health Organization, Washington D.C., 2004.

Perspectivas de Salud. Revista de la Organizacion Panamericana de la Salud. Volumen 10, Numero 1, 2005, paginas 19-23)

Rehm, J., Sempos, C.T., & Trevisan, M. (2003). Average volume of alcohol consumption, patterns of drinking and risk of coronary heart disease – a review. *Journal of Cardiovascular Risk* 10(1): 15-20.

Rehm, J., Room, R., Monteiro, M., Gmel, G., Graham, K., Rehn, N., Sempos, C.T., Frick, U., & Jernigan, D. (in press). Alcohol. In: M Ezzati, AD Lopez, A Rodgers, CJL Murray (Eds.) Comparative quantification of health risks: Global and regional burden of disease due to selected major risk factors. The World Health Organization, Geneva.

Rehm, J., Room, R., Graham, K., Monteiro, M., Gmel, G., & Sempos, C.T. (2003). The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease - An overview. *Addiction* 98(10):1209-1228.

Room, R., Jernigan, D., Carlini-Marlatt, B., Gureje, O., Mäkelä, K., Marshall, M., Medina-Mora, M.E., Monteiro, M., Parry, C., Partanen, J., Riley, L., & Saxena, S. (2002). Alcohol in developing societies: a public health approach. *Helsinki: Finnish Foundation for Alcohol Studies* 

Room, R., Graham, K., Rehm, J., Jernigan, D., & Monteiro, M. (2003). Drinking and its burden in a global perspective: policy considerations and options. *European Addiction Research* 9(4):165-175.

Sharman, C. (2005). "The Problem with Drinking," Perspectives in Health, The Magazine of the Pan American Health Organization, vol.10, No.1. http://www.paho.org/english/dd/pin/home.htm

World Health Organization. (2004). Global Status Report: Alcohol Policy. World Health Organization, Department of Mental Health and Substance Abuse, Geneva, 2004.

World Health Organization. (2000). *The World Health Report 2000 Health Systems: Improving Performance*. World Health Organization, Geneva, 2000.

World Health Organization. (2002). The World Health Report: Reducing Risks, Promoting Healthy Life. World Health Organization, Geneva, 2002.