Towards a global alcohol policy: alcohol, public health and the role of WHO

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In 1983 the World Health Assembly declared alcohol-related problems to be among the world’s major health concerns. Since then, alcohol consumption has risen in developing countries, where it takes a heavy toll. Alcohol-related problems are at epidemic levels in the successor states of the Soviet Union and are responsible for 3.5% of disability-adjusted life years (DALYs) lost globally. Substantial evidence exists of the relationship between the levels and patterns of alcohol consumption on the one hand and the incidence of alcohol-related problems on the other. Over the past 20 years, research has demonstrated the effectiveness of public policies involving, for example, taxation and restrictions on alcohol availability, in reducing alcohol-related problems. In the wake of rapid economic globalization, many of these policies at national and subnational levels have been eroded, often with the support of international financial and development organizations. Development agencies and international trade agreements have treated alcohol as a normal commodity, overlooking the adverse consequences of its consumption on productivity and health. WHO is in a strong position to take the lead in developing a global alcohol policy aimed at reducing alcohol-related problems, providing scientific and statistical support, capacity-building, disseminating effective strategies and collaborating with other international organizations. Such leadership can play a significant part in diminishing the health and social problems associated with alcohol use.

Keywords: alcohol-related disorders, epidemiology; alcohol-related disorders, prevention and control; alcohol drinking, adverse effects; alcoholic beverages, supply and distribution; policy-making.

Introduction

Alcohol has severe adverse effects on people’s lives, on productivity and on health care systems in both developed and developing countries. In 1983 the World Health Assembly declared that problems related to alcohol consumption were among the world’s major public health concerns and constituted serious hazards for human health, welfare and life.

At that time, however, coordinated international action was limited because of inadequate resources and a lack of political will (1, 2). Countries were left largely to their own devices in coping with the serious problems associated with drinking. National, subnational and local efforts often reflected long histories of cultural debate and conflict over drinking, and typically made use of a combination of market regulations, customary norms and formal sanctions to limit harm from drinking. In general, nation states relied on distances and traditional trade barriers to keep issues of alcohol supply and the associated problems largely within their borders.

Accelerated economic globalization is rendering obsolete the notion that the problems associated with alcohol are purely local. They have been affected in three main ways.

- The global ideology of free markets has led to the dismantling of a variety of market arrangements that served to restrain and structure alcohol consumption. State and provincial alcohol monopolies in North America have been weakened or dismantled (3). In Eastern Europe and the countries in transition, alcohol monopolies were swept away along with most other government intrusions in the market (4). Many of the municipal beer halls in southern African countries have been privatized (5). The privatization of alcohol production and distribution has often been suggested, encouraged or imposed on developing countries by international development agencies (6).

- Trade agreements, trade dispute mechanisms and the growth of new sales media have effectively reduced the ability of national and subnational governments to control local alcohol markets. The influence of trade agreements and trade dispute decisions in breaking down controls, including price control through taxation, has been documented most fully for North America (7) and Europe (8, 9), but these mechanisms have also been operating in the developing world. For
instance, the average tax on alcoholic beverages in
the Republic of Korea is likely to be decreased as a
result of complaints to the World Trade Organiza-
tion by the European Union and the USA (10, 11).
Sales of alcoholic beverages through the internet
are a rapidly growing threat to national or local
control of alcohol markets (12).
• Alcohol production, distribution and marketing
are becoming increasingly globalized (5). Seeking
new markets, transnational alcohol companies
have expanded rapidly into developing countries
and the countries in transition, benefiting from
weak policy environments and the tide of market
liberalization. Although most alcoholic beverages
are still sold in the country of production,
beverages produced industrially are increasingly
made in plants owned, co-owned or licensed by
multinational firms. To promote sales, these firms
transform and intensify the marketing techniques
used in national markets, bringing to bear all the
resources and expertise they have developed
elsewhere.

Because of these trends there is a need for public
health action on alcohol issues at the international
level. The prevention of alcohol-related problems
should be given high priority. Substantial evidence
exists that such action can be effective.

Impact of alcohol use on global health
Alcohol use causes significant harm to the physical,
psychological and social health of individuals,
families and communities in both developed and
developing countries (13–16). It was estimated to
account for 3.5% of the disability-adjusted life years
(DALYs) lost in 1990, more than tobacco at 2.6%
and far more than illegal drugs at 0.6% (17). It is a risk
factor to global health on a level with measles,
tuberculosis and malaria.

Alcohol use may cause or contribute to
physical, psychological and social harm for both
drinkers and non-drinkers, and can damage nearly
every tissue and system in the body (18). Harm to
the drinker includes alcoholic psychosis, alcohol depend-
ence syndrome, alcoholic polyneuropathy, alcoholic
cardiomyopathy, alcoholic gastritis, alcoholic liver
cirrhosis, ethanol toxicity and methanol toxicity (14).
There are also associations between alcohol use and
cancers of the oral cavity, pharynx, larynx, oesophag-
us, liver (19) and breast (20). Heart disease, high
blood pressure and stroke (21, 22), as well as
pancreatic inflammation, atrophy and fibrosis (23),
may also be caused by alcohol use.

For non-drinkers, harm from alcohol use may
begin prenatally in the form of fetal alcohol syndrome
and fetal alcohol effects (24, 25). Both drinkers
and non-drinkers may suffer from the consequences
of alcohol use, for example by traffic crashes (26),
burns (27), drownings (28) and suicides (15, 29).
While the causal connection of alcohol to criminal
behaviour is complex, crimes of violence consistently
show strong relationships with alcohol use (30–32).
Alcohol use may also be related to a variety of other
social problems including marital breakdown (33),
loss of productivity and high rates of absenteeism
(34, 35), family violence and child abuse (14), and
homelessness (36).

Public health policy is complicated by the fact
that alcohol use may have some beneficial effects.
Apart from the positive valuation drinkers may place
on the taste, calories or effects from alcoholic
beverages, there is evidence that alcohol use at levels
as low as one drink per week may offer some degree
of protection against coronary heart disease and
stroke (37–40), an effect reported mostly from
industrialized countries. Since coronary heart disease
primarily affects men aged over 35 years and
postmenopausal women, the effect has been primarily
confined to older age groups. However, while
numerous studies have found an effect, several have
not (41, 42), and the former may have had
methodological failings (43, 44). Any protective
effect of drinking is likely to be minuscule in the
many cultures in the developing world with low rates
of coronary heart disease. From a public health
perspective it is worth noting that the optimal level of
drinking for a population is lower than that for an
individual.

In terms of years of life lost the adverse effects
of drinking outweigh any protection against coronary
heart disease, even in the most vulnerable national
populations. Globally, and taking into account the
burden of disabilities, the estimate of 3.5% of
disability-adjusted life years lost is a net figure
allowing for the possible protective effects of alcohol
consumption.

Recent studies from Eastern Europe have
emphasized the contingent nature of benefits for
cardiac health from the consumption of alcoholic
beverages. Binge drinking, i.e. sporadic or in-
termittent drinking of large numbers of drinks, seems to
be associated with adverse, rather than positive, effects
on heart disease. This pattern is common in much of
Eastern Europe. The decrease in mortality from heart
disease in the former Soviet Union in 1985 and after,
and the increase in the Baltic and Slavic successor
states in the 1990s, closely mirrored changes in the
availability and estimated levels of consumption of
alcoholic beverages. An increasing incidence of
alcohol intoxication episodes has been implicated in
the drastic rise in premature male mortality in the
1990s in Russia and many Eastern European
countries (45–48).

While there is a great diversity of drinking
patterns in developing countries, binge drinking
patterns are common in many societies (16). The new
epidemiological evidence from Eastern Europe that
binge drinking can be bad for the heart is potentially
significant for many developing countries.

The highest estimate of the impact of alcohol
use for any developing region is that for Latin
America, where 9.7% of the disability-adjusted life
years lost are attributed to alcohol-related problems (17). The 8.3% estimate for the former socialist economies in Europe is also high, along with the 10.3% value for the established market economies. The current estimates for Asia and Africa are considerably lower, in the range 1.6–2.8%. However, the estimates for Asia do not take into account the adverse health consequences that can be expected to follow the steep rises in consumption during recent years. Moreover, the experience of recent decades suggests that economic recovery in Africa will probably be accompanied by substantial increases in rates of alcohol-related problems.

Global trends in alcohol consumption

In general, both the type and amount of alcohol being consumed are changing. As Fig. 1 shows, recorded consumption of alcohol is declining in the developed countries and rising in the developing countries. Recorded per capita alcohol consumption in most developing countries is considerably lower than in industrial countries (15). However, the data underestimate consumption in many developing countries because:

- consumption is largely of alcohol that is produced and traded informally and thus does not appear in recorded figures;
- the majority of the population does not drink and so per capita consumption understates actual consumption by drinkers.

Even with these qualifications, however, there is a wide disparity between consumption in developed and developing countries. Widespread poverty is a significant factor in this disparity, as a lack of buying power strictly limits consumption.

An analysis of trends in the three macroregions (Asia, Central and South America, Sub-Saharan America) of the developing world suggests that levels of alcohol use and related harm increase as economic development raises buying power. Fig. 2 shows that alcohol consumption has in general grown with regional economic fortunes. Alcohol consumption grew rapidly in East and South-East Asia from the 1960s until very recently. Latin America and Africa saw increases from the early 1960s until the early 1980s, when global recession began to depress early 1980s until the early 1980s, when global recession began to depress national economic development and alcohol consumption. Common to many developing countries, however, is the dual character of alcohol markets, reflecting large differences in income between the well-to-do and the poor majority.

In the transitional societies of Eastern Europe, and especially in the successor states of the Soviet Union, the unstable economic and political situation has led to pronounced, largely uncontrolled changes in the production, trading and consumption of alcohol, including a significant shift from recorded to unrecorded sources. This shift explains the drop in recorded per capita consumption shown in Fig. 1.

Drinking patterns and problem levels

In developed countries, where alcohol is consumed by the majority of the adult population, there is a well-established correlation in any given society between per capita consumption and the rate of alcohol-related problems (13). In many developing countries, however, the majority of the adult population does not drink, women drink much less than men, and the age structure of the population is the reverse of that in developed countries, i.e. a large proportion of the population is below the drinking age. Thus problems related to drinking, affecting people associated with drinkers as well as the drinkers themselves, are often linked to a relatively smaller drinking population.

In developing countries experiencing rapid social change, new patterns of drinking are emerging, often built on traditional drinking behaviours but occurring without traditional social controls. In
cultures where drinking used to take place on special occasions, such as completion of the harvest or other common work projects, and where the custom was to drink until the beer ran out, an inexhaustible supply of industrially produced beer has engendered a pattern of drinking until the money runs out. Drinking games, buying rounds, binge drinking and other patterns are described increasingly often in these cultures (5).

Where binge drinking is prevalent it is likely to be associated with comparatively large problems for a comparatively small total consumption. Thus it is not surprising that there is a high level of problems in many developing countries where overall per capita consumption is relatively low.

**Drawbacks of industrializing and increasing alcohol production**

We have noted that there are benefits as well as costs in terms of the public health effects of alcohol use, although the adverse effects are predominant. It is too often taken for granted that the economic effects of industrializing or increasing production are all positive. The assumed benefits include expanded employment and improvements in the balance of payments through exports, import substitution and the creation of a product of improved quality. Because of these apparent advantages, governments and development agencies have supported the building and expansion of alcohol production facilities in developing countries.

In fact, however, the impact on developing economies varies. Particularly in Africa and to a lesser extent elsewhere the bulk of alcohol consumed comes from the informal sector. In some African countries the proportion has been estimated at 90% (50), and its production and trade provide income, especially for women who are heads of household and primary providers for their families (51). New breweries producing beers of the lager type, operating exclusively with imported technology, provide much less employment, the highly skilled jobs typically being held by expatriates. In such circumstances the industrialization of production reduces employment and differentially removes resources from a vulnerable part of the population. There is little benefit to the balance of payments, and there may even be a negative effect when the domestic production of beer depends on the import of barley and malt, as in a number of African countries (52).

Also important in weighing the balance of economic benefits and drawbacks is the potential adverse impact of increased alcohol consumption on productivity and the performance of exacting tasks associated with development. The substantial toll of injuries and deaths related to drinking on the roads and elsewhere removes or diminishes productivity, particularly of people in their prime working years. The adverse impact of drinking on productivity and reproductive and family life is harder to quantify. However, it is notable that in many developed countries the banishment of drinking from the workplace came only after a long and arduous social struggle.

**Alcohol policies at national and subnational levels**

Alcohol-related problems are not limited to and not suffered only by alcohol-dependent people. Public health action should be directed at the whole drinking population and not only the small percentage of drinkers who are alcohol-dependent.

There is no single policy formula or panacea. As alcohol-related problems have multiple causes, arise in many different situations, and affect a diverse range of people in different countries, cultures and settings, policies should be based on reliable data gathered in each location. Political feasibility and public acceptance also have to be considered when policies are being determined.

Over the past 25 years a substantial body of practical experience and scientific evidence has been gathered on alcohol-control policies (13), the most effective of which involve the following:

- increasing the real price of, and taxes on, alcoholic beverages (13, 53, 54);
- restricting consumption by controlling the availability of alcohol, including the use of minimum drinking age legislation (13), the organization of production or retailing monopolies (55, 56), the rationing of availability (57, 58) and restricting the number, types and opening hours of outlets serving or selling alcohol (13);
- deterring alcohol-related harm through measures such as drink-drive laws (59, 60);
- server intervention, i.e. through policies and training leading to a refusal to serve alcohol to intoxicated persons (61).

Other measures showing promise which should be included in a comprehensive approach to the prevention of alcohol-related problems include: controlling the types, locations and times of alcohol advertising (62, 63); increasing access to affordable and effective treatment and rehabilitation services (64, 65); providing public education on the negative consequences of drinking alcohol, through active measures (e.g. mass media and social marketing campaigns), passive measures (e.g. warning labels) and the promotion of the effectiveness of alcohol policies (66); placing strict controls on product safety; and implementing appropriate measures against the illicit production and sale of alcoholic beverages.

The provision of treatment for persons with alcohol-related problems should be part of society’s health and social care responsibilities. It may also play a part in preventing increases in the overall level of alcohol-related problems in a population, although the evidence for this is not very strong (13).
some evidence that brief interventions in the general health or service system, in addition to specialized services, can provide cost-effective treatment (67).

Evidence of substantial effects is strongest for strategies limiting the general availability of alcohol, such as taxation and some restrictions on availability, and for those focused on deterring behaviour related to particular alcohol-related harm, such as drink-driving. However, in an era dominated by an ideology of free markets and the rights of the consumer, such strategies tend to be the least politically popular. On the other hand, the politically popular strategies, such as the education of school students and public information campaigns, generally show the least evidence of effectiveness (68).

Alcohol policy at a national, regional or local level should combine a range of strategies, adapted according to the level and patterns of alcohol consumption and problems in the population concerned. The appropriate mix of strategies depends on:

- the capacity of the country in question to respond, including the degree of control over both the alcohol market and the means of enforcement;
- feasibility in different cultural contexts;
- public acceptance;
- the likelihood of impact.

Choosing a single policy is likely to have a limited public health impact, if any. The most effective approach is to adopt a comprehensive strategy providing consistent societal messages about alcohol use and problems (see Box 1).

Towards a global alcohol policy

A global alcohol policy should consist of a set of principles and strategies for local, national and international action aimed at reducing alcohol-related problems. Although much of the action has to be taken at the national and subnational levels, in an increasingly globalized world a consistent global public health message and effort is needed. WHO is uniquely fitted to provide leadership in this field.

An important task for WHO is to encourage the production of data to fill major gaps in knowledge, particularly with respect to developing societies. To set societal priorities, more evidence is required on the use of alcohol in relation to different kinds of social and health harm. Precise data also often assist in developing political will for action. In addition, detailed studies can suggest effective intervention points for diminishing the harm from drinking. Particular attention should be directed to the impact of alcohol use on women and families, given that men do more than three-quarters of the world's drinking while women and families bear many of the consequences (16).

Another task for WHO is to identify, document, publicize and build capacity in the implementation of effective strategies across the whole range of interventions, and to evaluate and provide information and assistance on alcohol control, prevention and treatment strategies. While the literature evaluating different alcohol-related problems and preven-

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Box 1. The European Alcohol Action Plan: a possible model for action elsewhere

In 1992 the WHO Regional Office for Europe launched the European Alcohol Action Plan. In 1995 a ministerial conference adopted the European Charter on Alcohol with the following components of comprehensive national strategies for controlling alcohol-related problems.

- To inform people of the consequences of alcohol consumption on health, family and society and of the effective measures that can be taken to prevent or minimize harm, building broad educational programmes beginning in early childhood.
- To promote public, private and working environments protected from accidents and violence and other negative consequences of alcohol consumption.
- To establish and enforce laws that effectively discourage drink-driving.
- To promote health by controlling availability, e.g. to young people, and influencing the price of alcoholic beverages, e.g. by taxation.
- To implement strict controls, recognizing existing limitations or bans in some countries, on direct and indirect advertising of alcoholic beverages and to ensure that no form of advertising is specifically addressed to young people or linked to sporting events.
- To ensure accessibility of effective treatment and rehabilitation services, including those integrated into primary health care settings, with trained personnel, for people with hazardous, harmful and dependent alcohol consumption and members of their families.
- To foster awareness of ethical and legal responsibility among persons involved in the marketing or serving of alcoholic beverages, to ensure strict control of product safety and to implement appropriate measures against illicit production and sale.
- To enhance the capacity of society to deal with alcohol through the training of professionals in different sectors, such as those of health, social welfare, education and the judiciary, along with the strengthening of community development and leadership.
- To support nongovernmental organizations and self-help movements that promote healthy lifestyles, specifically those aiming to prevent or reduce alcohol-related harm.
- To formulate broadly based programmes in Member States, taking account of the European Charter on Alcohol, to specify clear targets for and indicators of outcome, to monitor progress and to ensure periodic updating of programmes on the basis of evaluation.

In September 1999, WHO's Regional Committee for Europe approved an extension of the Alcohol Action Plan for five years. A further ministerial conference, focusing particularly on reducing alcohol-related problems among young people, is to be held in December 2000 in Stockholm.
tion measures has burgeoned in recent years, it does not cover a sufficiently broad range of societies. WHO can play a valuable role in stimulating work on the evaluation of studies on alcohol policy in a wider range of countries and in collating and disseminating the results. It is also necessary to develop and disseminate practical advice and manuals on applying and institutionalizing proven measures at new sites.

A third task for WHO is to build and use mechanisms by which the public health interest in alcohol production, trade and marketing may be taken into account. In an increasingly global economy, alcohol controls are an international matter. National alcohol controls, such as taxes and other restrictions on supply, are losing their effectiveness as national borders become more permeable and the geographical reach of particular marketers expands. The tendency in trade agreements and disputes for alcohol to be treated in the same way as other commodities is leading to the erosion of national control measures. It should be counteracted by international agreement on specific provisions protecting restrictions on the market in the interest of public health. A need also exists for international agreement on effective measures against alcohol smuggling and other international violations of national control regimes. WHO’s thinking and experience concerning the Framework Convention on Tobacco Control could be drawn on for workable models and precedents.

Conclusion

Although many of the policies needed to control alcohol-related problems have to be implemented at the national and subnational levels, there is both a need and an opportunity for global leadership to reduce the significant contribution of alcohol use to mortality, morbidity and disability. Many of the lessons learnt from efforts to prevent tobacco-related illness are applicable to alcohol control. A potential model lies in the experience of the WHO European Region in developing plans for the reduction of alcohol-related problems, including targets for the reduction of per capita consumption and mechanisms such as taxation that accomplish this.

In the realm of advocacy a global awareness campaign is needed in respect of the compelling evidence of both alcohol-related harm and the policies that have shown promise in reducing it. Such a campaign would counter myths promoted by the alcohol industry, build popular support and motivation for effective alcohol policies (66), and provide evidence and strategies to win the support of decision-makers and public health administrators. WHO has developed a statistical database tracking alcohol use, problems and policies, and this could be used to support both strategic decisions in policy-making and advocacy for action against alcohol-related problems internationally.

In the absence of a strong global public health voice on alcohol use and related problems, neoliberal economic policies and the alcohol industry have become the principal influences on national and international alcohol policies. Health experts should collaborate with the World Trade Organization, the World Bank, the Food and Agriculture Organization and other bodies to ensure that the public health interest is reflected in trade agreements and in global strategies for development and the eradication of poverty.

Given the substantial adverse influence of alcohol use on the burden of disease there should be no further delay in the emergence of a strong global public health voice providing information and advice on the prevention of alcohol-related problems.

Résumé

Consommation d’alcool et santé publique : rôle de l’OMS dans l’élaboration d’une politique mondiale de lutte contre l’alcoolisme

En 1983, l’Assemblée mondiale de la Santé a déclaré que l’alcoolisme était l’un des principaux problèmes de santé dans le monde. Depuis, la consommation d’alcool a augmenté dans les pays en développement, et notamment en Asie. Les problèmes liés à l’alcool ont pris la dimension d’une épidémie dans les Etats successeurs de l’Union soviétique où la mortalité par cardiopathie due à une forte consommation prolongée surpasse largement la protection contre les cardiopathies coronariennes que peut conférer la consommation d’alcool en faible quantité. L’alcool est responsable de 3,5 % des années de vie ajustées sur l’incapacité perdues dans le monde, et les pays en développement sont gravement touchés.


La mondialisation rapide de l’économie a quelque peu affaibli un grand nombre de ces politiques aux niveaux national et infranational, et souvent les
Towards a global alcohol policy

Hacia una política mundial sobre el alcohol: el alcohol, la salud pública y el papel de la OMS

En 1983 la Asamblea Mundial de la Salud declaró que los problemas relacionados con el alcohol eran uno de los problemas de salud más graves en todo el mundo. Desde entonces, el consumo de alcohol ha seguido aumentando en el mundo en desarrollo, especialmente en Asia. El alcoholismo ha adquirido dimensiones epidémicas en los Estados nacidos de la Unión Soviética, donde los posibles efectos protectores del consumo de pequeñas cantidades de alcohol contra las coronariopatías se ven más que contrarrestados por la incidencia de defunciones atribuibles a cardiopatías relacionadas con el etilismo crónico. A nivel mundial el alcohol causa el 3,5% de las pérdidas de años de vida ajustados en función de la discapacidad, y las regiones en desarrollo pagan buena parte de ese tributo.

Existen abundantes pruebas de la existencia de una relación entre los niveles y modalidades de consumo de alcohol por una parte y la incidencia de problemas relacionados con el alcohol por la otra. A lo largo de los últimos 20 años las investigaciones han demostrado la eficacia que, en lo que respecta a controlar o reducir los problemas relacionados con el alcohol, tienen las políticas públicas que aplican, por ejemplo, impuestos, restricciones a la venta de bebidas alcohólicas, medidas de disuasión de los comportamientos dañinos propiciados por el alcohol y prácticas de intervención de los camareros. Otras políticas prometedoras entrañan la adopción de medidas restrictivas de la publicidad del alcohol, la inclusión de advertencias sobre el alcohol en las botellas, el acceso a tratamientos, las campañas de educación del público, el control de la inocuidad de los productos y una restricción eficaz de la producción y venta ilícitas de alcohol.

Tras el rápido proceso de globalización económica, muchas de esas políticas se han visto erosionadas a nivel nacional y subnacional, a menudo con el apoyo de organizaciones financieras y de desarrollo internacionales. Con frecuencia se ha exagerado la contribución potencial de la producción industrial de alcohol al desarrollo nacional, mientras se ignoraban los efectos adversos de esa sustancia. En los acuerdos comerciales internacionales se ha tendido a tratar el alcohol de la misma manera que otros productos básicos, pasando por alto las consecuencias potenciales para la productividad y la salud.

La OMS ocupa una posición privilegiada para tomar la iniciativa del desarrollo de una política mundial sobre el alcohol consistente en una serie de principios y estrategias que guíen las medidas nacionales e internacionales de reducción de los problemas relacionados con el alcohol. Aunque en general las políticas al respecto deberían ser adoptadas a nivel nacional y subnacional, y si bien cada país o comunidad debería encontrar su propia combinación de políticas compatible con su cultura y los valores locales, para prevenir los problemas relacionados con el alcohol es necesario un liderazgo mundial. La OMS puede proporcionar las pruebas estadísticas y científicas necesarias para apoyar la adopción de políticas eficaces contra el alcohol, alentar la realización de investigaciones sobre el nivel de los problemas y la eficacia de diversas estrategias, catalogar y crear los medios necesarios para aplicar las políticas más eficaces a nivel nacional y subnacional, y potenciar la colaboración con otras organizaciones internacionales a fin de prevenir los problemas relacionados con el alcohol. Ese liderazgo mundial podría ser decisivo para reducir la magnitud de los problemas sanitarios y sociales asociados al consumo de esa sustancia.
References


