Drink Driving Prevention Initiatives in Low- and Middle-income Countries: Challenges and Progress in Nigeria and Vietnam

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Context
Many low- and middle-income countries have not shared the progress in drinking and driving prevention experienced in higher income countries around the world. These countries bear a disproportionate burden of injury and death resulting from traffic crashes, including those resulting from impaired driving. Understanding the economic, legal, and cultural context of these countries is important to the development of effective drink driving prevention programs. This paper highlights the nature of the drink driving problem and ongoing prevention intervention programs in Nigeria, a low-income country and Vietnam, a lower-middle income country.

Objectives
A situation assessment was carried out in each country to identify the most serious challenges and possible points of intervention. In Nigeria, commercial drivers, including drivers of oil tankers and of buses, were identified as at particular risk of drinking and driving. The program implemented to address this problem included involving drivers' unions as partners in changing driver behavior as well as educating alcohol sellers at highway rest areas. Sobriety checkpoints were implemented to measure driver BAC at baseline and as the program progressed. In Vietnam, two-wheeled motor vehicles account for the bulk of traffic. The need for greater public awareness of drinking and driving as a safety problem and the need for better drink driving enforcement were identified as key issues. Public awareness and enforcement training programs were implemented. Public opinion surveys and roadside breath testing were carried out at baseline and as the program was implemented.

Key Outcomes
Roadside surveys are measuring the number of drinking drivers of tankers and buses in Nigeria. Results from the surveys thus far are presented. In Vietnam, opinion surveys have shown greater public awareness and concern about drinking and driving. Roadside surveys are measuring changes in alcohol impaired driving. The results thus far are presented.

Conclusion
Reducing drinking and driving in low and middle income countries is a challenging task but when interventions are tailored to local conditions and needs, progress can be made. Experience with the projects has also shown the importance of effective partnerships with local governmental and nongovernmental organizations.

Introduction
A great deal of progress has been made in reducing alcohol impaired driving crashes and the related injuries and deaths in countries around the world (GRSP 2007). Most of this progress has
been in high income countries with mature road safety policies. The reductions in drink driving have resulted from a combination of more stringent laws, more vigorous enforcement, and changing social norms. Unfortunately, this progress has not been shared by many low and middle income countries. These countries continue to experience great social and economic harm as a result of drink driving (GRSP 2007).

The dangers inherent in drink driving are exacerbated in many low and middle income countries by infrastructure that is less protective, vehicles that are less safe, and the presence of many vulnerable road users (pedestrians, cyclist, motor scooters and motorcycles). This overall road safety problem is indicated by the fact that over 90% of the world’s fatalities on the roads occur in low-income and middle-income countries, which have only 48% of the world’s registered vehicles (WHO 2009). It is expected that without adequate policies the number of fatalities and injuries will continue to increase in low and middle income countries. Driving under the influence of alcohol will continue to play a significant part in these crashes.

Many high income countries have reached a plateau in their efforts to further reduce drink driving crashes and are making initial steps towards adopting ever more stringent or technologically sophisticated strategies to accomplish further reductions. Many low and middle income countries, by contrast, have yet to implement even minimal public education, legal, or enforcement approaches to combat drinking and driving and the application of more technologically advanced strategies may only occur in the distant future.

The Drink Driving Initiative

In response to this disparity, international organizations are working to assist low and middle income countries to reduce drink driving and the resulting deaths and injuries. Among these efforts is the Drink Driving Initiative of Global Actions on Harmful Drinking (see http://www.global-actions.org/globalactions/DrinkDriving) being carried out through the International Center for Alcohol Policies (ICAP). The initiative combines global and local action in partnership with government, industry and community stakeholders, with a focus on six low- and middle-income countries where drink driving is a significant issue. These countries are China, Colombia, Mexico, Nigeria, Russia and Vietnam.

In each of these six countries, the initiative has sponsored a situational assessment to provide an overview of the current status of drink driving in the country. Following the advice of the World report on road traffic injury prevention (WHO 2004) and the global good practice guide on drinking and driving (GRSP 2007), these assessments included a review of available statistics and a critical appraisal of current practices (Johnson 2012). The results of these assessments were used to select specific local regions or cities for intervention. Locally tailored capacity-building and training events took place. Projects have been implemented, customized to accommodate regional factors such as levels of development, road conditions, and patterns of alcohol consumption and harm. Ongoing monitoring and outcome evaluation are taking place. This paper highlights two countries included in the initiative: Nigeria and Vietnam.

Challenges and Opportunities
It is important to note that the traffic safety and drink driving problems of low and middle income countries are different not just in quantity but in basic qualities from those in high income countries. For example, to varying degrees, these countries are confronting rapid economic growth and, along with that, rapid motorization. More and more of the population is able to afford motor vehicles. Often these vehicles are used in environments that lack well-engineered roadways and other physical infrastructure that can contribute to safety. The legal and policy infra-structures in these countries are also often lacking basic elements, such as clear blood or breath alcohol limits for drivers and rigorous driver licensing standards. Enforcement of the laws that do exist is sometimes hampered by a lack of training and equipment as well as troubled relationships between law enforcement officers and the public. Alcohol has also become more affordable to the population in some countries. At the same time, alcohol control policies vary widely and where they do exist, are sometimes subverted by the availability of unregulated alcohol from non-commercial sources. Media promotions of alcohol and cultural acceptance of alcohol use can also add to the difficulties in preventing drinking and driving in some countries. The combination of increased use of private transport for social activities (particularly in Asia), and the drinking culture exacerbates the risk. Alcohol use in commercial transport is also common in some countries (Stewart, et al., 2012).

Attitudes among the general public about drink driving vary among these countries. In many high income countries, knowledge of the dangers of drink driving and social attitudes condemning it are widespread. This is not the case in many low and middle income countries, where social norms against impaired driving may have not yet developed. In addition, all of these countries confront other threats to health and safety that compete for public and government attention and limited resources.

A problem confronted by all the countries included in the initiative is a lack of thorough and reliable data on crashes and alcohol involvement in crashes. In addition to and interrelated with recording problems are problems with basic enforcement. Traffic police do not always have the equipment and training needed to record breath alcohol levels and use judgment to identify drivers who have been drinking. Corruption among police can be an issue. The result is, in some cases, weak enforcement. In addition, the poor and incomplete data make it difficult to compare countries, to analyze specific problems, and to track changes. For policy makers there is little evidence on which to base decisions.

**Vietnam**

*Background*
Vietnam has experienced phenomenal growth in motor vehicles especially motorcycles in the last decade (400%). This initially led to an increase in deaths from road crashes but since 2006 the number has stayed fairly level according to police statistics. Comparisons with health data, however, suggest that the number of deaths is much higher and there are clearly a number of problems with the relevant data systems. Data on the percentage of drivers exceeding legal limits is not available but police statistics indicated that 3-7% of crashes involve alcohol. This is likely to be an underestimate as the police and health services do not have the equipment to measure BAC levels of all drivers in crashes. Motorcycles represent 80% of the traffic on the road and they also account for the largest proportion of road users found to be drinking and
driving. For example between 2001 and 2003, 71% of road users tested positive for alcohol were motorcyclists (Luu et al., 2012). The legal system includes strict limits and severe punishments for drunk drivers involved in serious crashes. However the police do not have adequate manpower or equipment to conduct regular and frequent road-side checking for drivers who have been drinking. There have also been a number of education programs on drinking and driving but these have not included sustained and intensive campaigns targeting the high risk groups.

Program
In response to the situation described above, a program was designed and implemented in Vietnam, focused on Da Nang City. It included three main components implemented in five waves:

- Capacity building training courses for health workers (to take BAC measures on crash victims), police (to carry out roadside breath testing), and community leaders (to coordinate efforts and carry out publicity campaigns).
- Communication campaigns including television and radio, ward/village loudspeaker systems, community meetings, newspapers and magazines, posters, banners, flyers, and programs in workplaces, hospitals, and schools including contests, oral presentations, amateur dramatics, and exhibitions.
- Enhanced enforcement, including random roadside breath testing.

Results
Prior to the implementation of this program, Da Nang traffic police did not carry out random roadside breath testing. In the first campaign of the project, during one month, 2,097 drivers were stopped and tested. Of these, 6.2% were found to be over the legal limit of .05 (82 cases). Unfortunately, subsequent enforcement waves did not occur. The reason given by enforcement agencies was a lack of equipment.

Testing of traffic crash victims showed that the proportion of tested blood samples above the legal alcohol concentration was reduced from 62.9% to 56.5% after one month of conducting the communication activities and enforcement enhancements.

In general, public awareness of the campaign increased over the course of the program, reaching 70% to 90% by the final survey wave, an increase of 17 percentage points. Specific areas in which awareness and opinion changed were awareness of the alcohol limit (increasing from 7% to 40%), agreeing that it is not advisable to drive within two hours of drinking (76% to 92%). Increases were also seen in support for penalties. The proportion of survey respondents reporting driving within two hours after drinking decreased after each campaign, from 30.2% to 12% after the last campaign.

Local program coordinators concluded that political will was a very important factor in achieving results. In Da Nang, there have been 91 official orders and decisions issued during two years of project implementations. The leaders at both city and district levels attend many events and workshops.

Support from key government bodies has been very important in Vietnam, a country with a strong central planning system. ICAP and the National Traffic Safety Committee established the
Project Steering Committee and Project Working Group at the central level. Da Nang City Traffic Safety Council established the Project Management Board and Project Working Team. At the district level, similar systems have been established. All the work is carried out per the signed Project Management Mechanism from central to city to district, both top down and grass root up.

Nigeria

Background
A comparison of Nigeria’s crash statistics with those of other countries shows that the rate of fatal road traffic crashes in the country is one of the highest in the world. General observations attribute this high rate of road crashes to a number of reasons, including the poor condition of many Nigerian roads and highways, vehicles that are not road-worthy, excessive speeds, illiteracy of drivers; and drink driving. There is a low level of awareness about the legal blood alcohol concentration (BAC) level, and that it is rarely mentioned in public discourse about alcohol-related problems. The average driver who drinks beverage alcohol does not know or understand what BAC means. This situation assessment carried out by ICAP indicated that commercial vehicle drivers are a major contributor to drink driving incidents in Nigeria. In particular, commercial drivers engaged in long distance journeys are at risk (Ogazi and Edison, 2012). Their habit of drinking and driving is linked to the pervasive perception that drivers need to consume alcohol in order to remain alert while on a journey.

The sale of both branded and unbranded beverage alcohol products at motor parks and mid-highway towns where drivers stop to rest and refresh are serious contributory factors to drink driving. In informal motor parks, some drivers (who often come from distant towns and do not have a home to stay in or cannot afford to pay for a hotel) sleep in the parks.

Program
The intervention in Nigeria includes two target groups of professional drivers: Drivers of commercial passenger buses and drivers of petroleum product tankers. Both of these groups drive on heavily traveled roads and can pose serious risks to passengers, other road users, and the surrounding areas. There have been a number of fatal crashes and popular rest points offer alcoholic beverages to drivers.

The intervention for drivers is designed to:
- Increase the capacity of the road safety officials to conduct random checks for breath alcohol concentration
- Explore issues related with drink driving among bus and tanker drivers who ply this route
- Educate alcoholic beverage sellers about the dangers of selling alcoholic beverages to all drivers especially bus and tanker drivers.
- Mobilize public support for stricter drink drive laws by informing them about the dangers involved with a permissive culture regarding drink-driving among drivers.
Road safety officials pull over the drivers of buses and tankers to test the breath alcohol concentration levels while research assistants administer questionnaires on the drivers to explore origin and destination as well as places where alcohol might have been consumed. The intervention also included education of unions to which drivers belong and distribution of Information, education and communication materials on the dangers of drink-driving, including handbills and posters. A carnival was also put on at roadside rest areas aimed at general public awareness of the dangers of sale of alcohol to long-distance drivers while on duty.

Results
Results of the first survey indicated that the vast majority of drivers were unfamiliar with Nigerian laws about drinking and driving and thought that their chances of being stopped by law enforcement were very small. A follow-up survey carried out among the same set of drivers within a three month period showed a significant change in awareness of drink drive laws. Breath tests of bus drivers at baseline found approximately 11% positive for alcohol, with 5% over the legal limit. Among tanker drivers, 16% were positive for alcohol and 3% were over the legal limit. There was no significant change from baseline to the second round of testing.

Conclusions
The challenges in each of the countries included in the initiative are daunting. It is necessary, to find ways of adapting strategies that have worked in high income countries for use in low and middle income countries. Experience in Vietnam and Nigeria indicates that the progress can be made but programs confront challenges. The baseline level of awareness and concern in Nigeria, for example, is very low even among professional drivers. While awareness in Vietnam was relatively high and increased over the course of the campaigns, enforcement elements were not fully implemented due to lack of resources. Persistence and continued creativity and adaptability are needed in order for progress to be made.

References


