Alcohol Control and Harm Reduction Policies in Lebanon: The industry, the Market and the Young consumer

(Lebanon's alcohol control policy: how it is, and how it should be)

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Table of Contents

List of Appendices [☑: publicly available]

Appendix A   Tabulation of study objectives, activities, methods, & outputs

Appendix B   Reports

B.1. Summary report of the review of alcohol control and harm reduction policies in Lebanon

B.2. The IPSOS Statex report on Alcoholic Drinks Expenditures

☑ B.3. K2P Policy Brief: Alcohol Drinking among Lebanese Youth: Delaying Initiation and Reducing Harm

☑ B.4. K2P Dialogue Summary: Alcohol Drinking and Young People in Lebanon: Potential Solutions to Delay Initiation and Reduce Harm

Appendix C   Developed Questionnaires

C.1. GPS surveillance questionnaire

C.2. LAPS University questionnaire

C.3. LAPS High-school questionnaire

C.4. DCE questionnaire

Appendix D   Abstracts accepted at local/international conferences for oral/poster presentation

☑ D.1. Alcohol outlet density in Lebanon: Youth access amid a policy void.

☑ D.2. Use of data triangulation for proposing a comprehensive national alcohol control and harm reduction policy: The case of Lebanon

☑ D.3. Alcohol control policies in the Arab region: Where do we stand, and what are the implications for youth harm reduction?

☑ D.4. "Not My Job": Stakeholder's views on youth alcohol harm reduction policy in Lebanon

☑ D.5. Modelling youths' demand and ethanol intake responsiveness to alcohol taxes using Discrete Choice Experiment

☑ D.6. Youth's perceptions of policy-level factors and their drinking patterns: Data from Lebanon

☑ D.7. What drives youths' choices of on-premise alcohol outlets? Data from Lebanon

Appendix E   Manuscripts Published/In Progress

☑ E.1. Alcohol consumption in the Arab region: What do we know, why does it matter, and what are the policy implications for youth harm reduction?

E.2. Community-based alcohol outlet density: How much is too much?

E.3. "It's Not My Job": Stakeholder's views on youth alcohol harm reduction policy in Lebanon

E.4. Modeling youths' demand and ethanol intake responsiveness to alcohol taxes: The case of Lebanon

E.5. What drives youths' choices of outlets and venues for off- and on-trade purchases of alcoholic beverages? Data from Lebanon

☑ **Appendix F Selected pictures**

NCD	Non-Communicable Disease
WHO	World Health Organization
MENA	Middle East and North Africa
MOPH	Ministry of Public Health
DSM	Diagnostic Statistical Manual
FCTC	Framework Convention on Tobacco Control
AUB	American University of Beirut
WHA	World Health Assembly
FGD	focus group discussion
DCE	Discrete Choice Experiment
FCAC	Framework Convention on Alcohol Control
TCRG	Tobacco Control Research Group
GPS	Global Positioning System
IAC	International Alcohol Control
NGO	Non-Governmental Organizations
LAPS	the Lebanese Alcohol Policy Survey
FHS	the Faculty of Health Sciences
LEA	The Lebanese Epidemiology Association
GIS	Geographic Information Systems
RA	Research Assistant
CDC	Center for Disease Prevention
GSHS	Global School-based Student Health Survey
GISAH	Global Information System on Alcohol and Health
GSAH	Global Status Report on Alcohol and Health
PHAW	Public Health in the Arab World
IRB	Institution and Review Board
PI	Principal Investigator
MEHE	Ministry of Education and Higher Education
GAPC	Global Alcohol Policy Conference
CPDD	College on Problems of Drug Dependence

EXECUTIVE SUMMARY

The overall goal of this project is to generate the evidence needed to advocate for a national alcohol harm reduction policy, and to catalyze, shape and improve the quality of the debate in the Lebanese policy environment around an evidence-based alcohol control policy for youth. To this end, the project was comprised of several objectives and related activities that were achieved by an interdisciplinary team with diverse expertise, working with multiple stakeholders. A variety of methods were used to achieve the objectives including policy analysis, stakeholders' interview analysis, point of sale GPS (Global Positioning Systems) data surveillance, focus groups with youth, discrete choice experiments (DCE), and epidemiologic surveys. The findings from these various data sources were carefully analyzed and triangulated to generate evidence-informed recommendations for a national youth alcohol harm reduction policy.

The project's first objective was to document the national alcohol policy and the legal framework and policies governing the sale, supply and marketing of alcohol. To this end, we successfully completed a comprehensive content analysis of national alcohol control policies in Lebanon, and a thorough review of the published literature on alcohol control policies as well as alcohol-relevant epidemiological evidence in Lebanon and all 22 Arab countries (Ghandour, Chalak, et al., 2015). Findings of the latter review were presented at the international Global Alcohol Policy Conference (GAPC) held in Edinburgh, Scotland from 7-9 October 2015. We also met with 18 stakeholders including director generals of ministries, representatives of NGOs active in the field of substance use prevention/harm reduction, and others; a synthesis of the thematic analysis undertaken to understand the main gaps/facilitators and barriers to implementation of a national harm reduction policy is enclosed; a manuscript is in final preparation. The main findings of the 3 activities under objective 1 can be summarized as follows: (1) the policy content analysis revealed that alcohol-related policies/decrees/decisions in Lebanon are not comprehensive, are outdated, or updated but loosely enforced - making alcoholic beverages in Lebanon affordable, highly accessible and heavily advertised/marketed; (2) the review indicated that epidemiological evidence on alcohol consumption in the Arab world is generally scarce, but that based on available published data and whether alcohol is banned or not, countries in the Arab region can be divided into 4 categories reflecting different stages of needed public health response (e.g., one category where data is absent and alcohol is not banned, like in Qatar or Bahrain, we hypothesize an ostrich-like response to a controversial behavior, or a weak research infrastructure); and (3) stakeholder interviews shed light on the main challenges to a national alcohol harm reduction policy including weak governance, lack of political will since governmental officials are concerned with other priorities and pressing issues such as security and economy, strong industry lobby, and shifting of responsibilities (mainly from governmental stakeholders to 'parents').

The overarching logic framework guiding this study's objective and questionnaire development was largely based on the WHO's identified set of evidence-based "best buys" that have been shown to most likely influence alcohol consumption behaviors. These include interventions to limit affordability (e.g., tax increases), availability (e.g.,

restricted access to retail alcohol), regulate marketing (e.g., bans on alcohol advertising) and prevent drink driving. In line with this framework, the project's second objective was to undertake an epidemiological survey aimed at identifying the direct and indirect influences of policy-relevant factors and psychosocial mediators on policy-relevant outcomes (inspired by the ITC tobacco project) among youth aged 15-25 years. We administered the same questionnaire separately to two youth populations: university and high-school students. Thus far, only university student data have been analyzed. Preliminary findings will be presented orally at the GAPC and the International Association for Adolescent Health (IAAH), 11th World Congress on Adolescent Health 2017, both to be held in October 2017. In brief, half (51%) of the 1,155 university students surveyed had had a drink in the past year, of whom 21% were classified as having mild alcohol-related problems, 7% as moderate, and an additional 7% as having severe problems. About 88% felt alcohol was very easy to obtain; 77% have never been asked to show their ID when purchasing/being served alcohol. Only 34% said that alcoholic drinks were unaffordable. The majority had been exposed to alcohol advertising/marketing in past year, and about two thirds had heard a "don't drink and drive message". Only 8% of the past year drinkers who drank and drove, or rode with someone who did, were pulled over for random breath testing. Further analyses will use path analysis to examine the direct and indirect influences of policy-relevant factors and psychosocial mediators on past year binge drinking and alcohol use disorders.

Also with the framework in mind, the third objective aimed at assessing the potential impact of specific alcohol control policy packages on youth alcohol consumption and purchasing behaviors. To meet that objective, we completed 3 focus group discussions with 27 students sampled conveniently from four private and public universities in Greater Beirut, Lebanon, developed the first of its kind questionnaire to help gauge youth's alcohol consumption and purchasing behaviors under various policy packages - using the Discrete Choice Experiment (DCE) approach, and completed the survey among 1024 university students surveyed from 8 different universities across Lebanon. Findings related to the impact of taxation on alcohol consumption was presented in June 2017 at the College on Problems of Drug Dependence (CPDD) annual meeting in Montreal, Canada and will be presented at the forthcoming GAPC 2017. Quantitative evidence from this DCE survey indicates that in both on- and off-premise settings, 8pm-to-midnight trips on weekends are most popular outings for past-month drinkers. The DCE survey also showed that "hours of purchase" is a much stronger determinant than day of purchase. With regards to expenditure elasticities, findings show positive elasticities for wine, spirits, and arak, meaning they are normal goods for which consumption increases with rising budgets available for alcohol purchasing. All this seems to be happening at the expense of beer, which negative expenditure elasticity suggests that a rising alcohol budget would decreases its consumption, making it an inferior good. Moving to the uncompensated price elasticities, all beverages have negative own-price elasticities, meaning their consumption decreases with increasing prices, making them economically typical well-behaved normal goods. Upon simulating the effects of two tax scenarios, we further illustrated how targeted taxation, cognizant of students' alcohol consumption and substitution patterns, can effectively and efficiently achieve reduction in ethanol intake among university students. In the first scenario – S1 – a blanket 20% tax is imposed on all five alcoholic beverage categories. In the second – S2 – the 20% tax is levied only on the high alcohol content beverages, namely spirits and arak, exempting beer, wine, and vodka mixes and

alcopops from it. At face value, findings suggest that S2 achieves a reduction in ethanol intake comparable to S1, only targeting a narrow range of products and exempting others from taxation. Yet in-depth analyses is being undertaken to study differences by alcohol drinkers (heavy drinkers versus not), as well as by gender. Two manuscripts are being prepared for submission by the end of 2017.

Additional activities were also undertaken in line with the overall goal of the project. This includes the completion of a GPS surveillance activity to map and describe the alcohol-outlet density in four large main areas of administrative Beirut. The objective of this activity was to assess not only the number but also distribution of alcohol-selling venues by type of venue (off-premise or on premise), alcohol beverage served (beer, wine or hard liquor) and other important indicators. The GPS findings came as no surprise: in the Ras Beirut area, alcohol outlet density ranged from 18.30 - 80.95 per sq. Kilometre and 13/109 (12%) of alcohol outlets were located at a distance of less than 100 meters from educational institutions which is against the present law. Findings clearly highlight: (1) the high density of alcohol outlets and high alcohol availability in these areas (particularly that there is no implemented policy forbidding sale to minors); and (2) the close proximity of these alcohol outlets to nearby schools, universities and places of worship. Enclosed is the manuscript in preparation, including the detailed methods, results and maps. Other activities included generating a review report on the history behind the regulatory taxation on alcohol and legislations; and purchasing from IPSOS a detailed report of the expenditures on all advertising activities across different media in Lebanon, which summarizes data on a monthly basis for the alcohol category, covering mainly TV, press, radio, outdoor and cinemas for 2013.

Throughout the study, the team adopted a participatory approach, particularly making sure that the stakeholders were involved throughout the process, including in the conceptualization, data collection, and analysis and dissemination stages. In this respect, the team held three advisory committee meetings and two expanded multi-stakeholder consultative meetings to update the stakeholders on the findings of the project and to benefit from their inputs concerning the next steps of the project.

As identified in the proposal, the triangulation of the data from all these sources has indicated areas of convergence as well as divergence. We summarize these key areas under the four main themes identified as the WHO Best Buys: availability, advertising/marketing, affordability and drink-driving. *With regards to alcohol affordability* in the country, we have learnt that (1) taxation laws are outdated, not evidence-informed, and minimum pricing is absent; (2) increased taxation can significantly reduce overall ethanol consumption among youth alcohol drinkers based on local evidence; (3) several misconceptions would need to be addressed among key stakeholders including widespread like increased taxation will negatively impact tourism, or will generate income for the State without reducing consumption; (4) several research questions would need to be investigated to help alleviate stakeholder concerns, such as would increasing taxation increase the sale of illegal and low quality alcoholic drinks, increase home production, unjustly affect the poor only etc. *With regards to alcohol availability*, we also learnt that (1) related policies are either absent or outdated or loosely enforced, such as there is no minimum legal drinking age or restrictions on alcohol outlet density, which according to a GPS surveillance revealed a relatively higher density than many similar contexts; (2) alcohol is perceived by youth to be easily accessible, without any punitive actions

taken against minor drinking or purchasing alcohol; (3) days and hours of sale are strong determinants of alcohol purchasing among youth, particularly 8pm to midnight on weekends (with hours of purchase being a stronger determinant for off-premise alcohol purchase); and (4) municipalities (working with other concerned stakeholders) could play a larger role at a local level in ensuring the implementation of a more adequate mechanism of licensing of alcohol-selling stores (location vis-à-vis educational institutions for example), and the ban of drive-through drinking shacks, or regulating sale after a particular hour. *With regards to advertising and marketing of alcohol:* (1) there exist no policies or decrees or decisions that regulate ads or sponsorships or promotions in any way, making this area completely unregulated; (2) most youth surveyed have seen alcohol ads on various media outlets, while only a few have seen anti-drinking messages; (3) stakeholders mostly agreed that alcohol marketing should not be left to the industry's self-regulation and code of ethics, and that a strong and comprehensive law is needed with continuous monitoring and lobbying against industry's influences, coupled with counter-advertising. Last but not least, *with respect to drinking and driving laws*: (1) youth surveys attest to the fact that a substantial percentage have at one point driven under the influence or ridden with someone who had been drinking, and none/very few were caught and penalized; (2) the 2012 traffic law that was passed dictates a BAC, sobriety check points and mandatory penalties, however, implementation has been irregular to absent given the lack of some supplies (e.g., alcotest) and sufficient human resources (e.g., understaffed internal security forces).

Based on the triangulated findings, we have suggested areas of priority intervention/recommendations. At the research level, and using the data we have collected, we plan on conducting further in-depth analyses of the DCE and epidemiological alcohol surveys, as well as moving forward with at least two follow-up grants, one assessing the economic implications of our suggested policy options and the other pilot testing an intervention on a local scale with the collaboration of an active municipality. On the advocacy level, we will continue working with the coalition of stakeholders identified, identify champions for the advocacy process, and conduct a power analysis to better understand the dynamics between the various stakeholders (including opponents of an alcohol harm reduction policy).

Dissemination of the findings was conducted in a number of ways via peer-reviewed journal publications, policy brief and dialogue, oral/poster presentations at local and international conferences, including the Global Alcohol Policy Conference and the College on Problems of Drug Dependence, as well as several media appearances to discuss the project and its role in ultimately reducing alcohol-related harms in youth in Lebanon. Through dissemination we have been able to (1) contribute to the published scientific literature by adding a regional perspective to the epidemiological evidence on alcohol as a public health issue, (2) sensitize the stakeholders and the lay public to the issue of underage drinking thus enhancing the quality of the debate in the Lebanese policy environment (the attention that this project has already garnered from the media is indicative of the power of its potential impact); (3) connect with international scholars/experts working on alcohol harm reduction; (4) engage stakeholders and creating a coalition group to advocate for alcohol harm reduction plan as a commitment to moving the policy dialogue forward beyond the timeframe proposed for this study; as well as (5) lay the ground for follow-up work.

THE RESEARCH PROBLEM

Alcohol as a global health issue

Alcohol poses a major public health problem worldwide. A major contributor to the global burden of disease and injury, alcohol is one of the world's largest risk factors for disease and disability, associated with an array of consequences contributing to more than 60 types of non-communicable (NCD) and other diseases (Mathers & Loncar, 2006). Early onset of alcohol consumption has been consistently and strongly linked to risky youth behaviors, including sexual activity with multiple partners (Grunbaum et al., 2004), gambling (Engwall, Hunter, & Steinberg, 2004), physical fights (Hingson, Heeren, & Zakocs, 2001), and unintentional injury (Hingson, Heeren, Jamanka, & Howland, 2000). Moreover, while many young drinkers may reduce their alcohol use as they reach young adulthood (Chilcoat & Breslau, 1996), earlier onset has been associated with increased risk of developing problem drinking (Warner & White, 2003; Warner, White, & Johnson, 2007), as well as alcohol and other substance use disorders (DeWit, Adlaf, Offord, & Ogborne, 2000; Grant & Dawson, 1998; Gruber, DiClemente, Anderson, & Lodico, 1996; Hawkins et al., 1997; Lowman, 2004; Prescott & Kendler, 1999) in adulthood.

From an ecological model perspective (Bronfenbrenner, 1979), several factors operate independently and/or jointly at multiple levels, to influence youth alcohol use behaviors (Hawkins, Catalano, & Miller, 1992). Previous research has shown that alcohol control policies can help target some of these macro-level factors by focusing on core areas such as limiting alcohol availability, decreasing affordability, and minimizing or banning alcohol marketing and advertising (Anderson, Chisholm, & Fuhr, 2009). A recent analysis of 26 country-specific alcohol control policies adds to the accumulating evidence that shows an inverse relationship between a comprehensive alcohol control policy and per capital alcohol consumption (Brand, Saisana, Rynn, Pennoni, & Lowenfels, 2007; Paschall, Grube, & Kypri, 2009). This applies to youth as well. Higher alcohol taxes and prices, increased age of legal alcohol purchase and consumption, banned or restricted marketing and advertising of alcohol (which are often designed to appeal to youth) are some of the most successful environmental-level interventions to reduce drinking and associated alcohol-related crashes in youth under age 21 (NIAAA, 2004).

While an array of effective evidence-based policies and interventions has been delineated, the evidence to date is still primarily drawn from the Western world. Research has shown, however, that policies are affected by the political and social contexts within which they are enforced, and those that are successful in one context may not be equally effective in another. Many low- and middle- income countries continue to witness high levels of alcohol consumption among their youth coupled with weak alcohol policies and/or policy enforcement (Casswell & Thamarangsi, 2009).

Underage drinking: a public health concern in Lebanon

According to 2010, the World Health Organization (WHO) ranked Lebanon as having the third largest total Alcohol Per capita Consumption (APC) in the Middle East and North Africa (MENA) region (WHO, 2014) . Local epidemiological data on alcohol consumption among youth enrolled in schools and universities in Lebanon clearly indicates the need to develop and implement evidence-based policy interventions. According to the Global

School-based Student Health Surveys (2005 and 2011), the percentage of middle school students (7th-9th graders) who reported having had at least one alcoholic drink in the past month increased from 20% in 2005 to 28.5% in 2011(Ghandour, Afifi, Fares, El Salibi, & Rady, 2015). Quite concerning is the percentage who report ever having been "really drunk" one or more times in the past month (14% in 2005 vs. 21% in 2011 (Ghandour, Afifi, Fares, El-Salibi, & Rady, 2015). Worth noting here are the significantly higher estimates reported by private middle school students compared to their counterparts in Lebanese public schools (Ghandour, Afifi, Fares, El-Salibi, et al., 2015). Furthermore, data seems to suggest that drinking in minors in Lebanon is not occasional but rather common. In a sample of high school students (aged 16.78 ± 0.06 years) enrolled from private, public as well as vocational schools in the greater Beirut area, 40% of those who reported ever having had an alcohol drink in the preceding year reported drinking alcohol *once or twice per week or more* (Zahlan, Ghandour, Yassin, Afifi, & Martins, 2014). Frequent alcohol drinking also characterizes university student life where almost half of the lifetime alcohol users (45.4%) in a 2010 university survey reported drinking 1-2 times per week or more (Ghandour, El Sayed, & Martins, 2012).

Beyond drinking, experiencing alcohol-related problems among youth in Lebanon also prevails as early as in middle school. In 2005, 1 in 5 lifetime drinkers reported ever having had alcohol-related problems, such as having had a hangover, felt sick, gotten into trouble with family or friends, missed school, or gotten into a fight (Ghandour, Afifi, Fares, El-Salibi, et al., 2015). This estimate is markedly higher than that found among an older high school population a decade earlier (11% of the lifetime drinkers met criteria for alcohol abuse as per the Diagnostic Statistical Manual (DSM)- version IV), keeping in mind the methodological differences (Karam, Ghandour, Maalouf, & Salamoun, 2010; Karam, Ghandour, Maalouf, & Yamout, 2003), but lower (50.1%[1]) than that recently found in among lifetime drinkers in a sample of university students (Ghandour et al., 2012).

Young alcohol drinkers in Lebanon also face the potential risk of later alcohol-related problems due to their early age of alcohol initiation; in 2011; 88% of the middle school students admitted to having had their first alcoholic drink before an age of 14 (Ghandour, Afifi, Fares, El Salibi, et al., 2015), a finding that is also corroborated by high school students who reported a mean age of onset of 14 years. Indeed, a previous substance use monitoring study (Ghandour, Karam, & Maalouf, 2009; Karam, Maalouf, & Ghandour, 2004) had suggested that the risk of lifetime alcohol use is becoming significantly higher among more recent university cohorts, signifying a decrease in the age of first-time alcohol use with time (Degenhardt et al., 2008).

Lebanon's national alcohol control policy[2]

Despite the available epidemiological evidence on youth drinking patterns in Lebanon, the country is still characterized by a prevailing absent, outdated and/or updated yet loosely enforced alcohol control measures. In

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[1] Estimate conveys the percentage of lifetime drinkers who reported at least one alcohol abuse symptom as per the Diagnostic and Statistical Manual version IV criteria, excluding 74 students (23.9% of the total sample) who were missing on all criteria (data undergoing multiple imputation).

[2] It is important to note here that the 2004 WHO Global Status and Health Report, which summarizes the alcohol use situation and national policies in over 200 countries globally, did not publish data from Lebanon, while the more recent 2014 report indicates the absence of any information on various alcohol control measures

fact, low prices, illegal sale to minors, and heavy bombardment of alcohol marketing and promotion on various media outlets characterize the country's national alcohol control policy. For instance, with regards to alcohol sales to minors, the law (#625) states that whomever serves alcohol to a minor to the point of intoxication is fined $4 to $10, an amount that is clearly insignificant and cheaper than the price of one alcohol drink in most places. In terms of affordability, excise taxes on alcohol are negligible and range by type from $0.04 per liter of beer to $0.15 per liter of spirits (law last updated in 2000). Sales permit fees are also low: from $18 per brand per annum for points of sale to $600 per brand per annum for big distributors. The weak regulatory framework extends to alcohol advertising whereby companies continue to vehemently promote their products through various means such as in-store advertisement, TV commercials, billboards and sponsorship of major events and applying special offers on sales, spending around $15 million annually (Stigset, April 2005). Altogether, the reality is that Lebanon's alcohol control policy is not comprehensive, largely outdated and weakly enforced, and in need of immediate reform.

An array of proven cost-effective policies and interventions and global evidence supporting stronger laws are available and implemented in most developed countries. However, in many governments, including the Lebanese, it is the lack of informative contextualized data and absence of advocacy or community lobbying that hinders adopting and properly enforcing comprehensive alcohol control policies. The Lebanese government has yet to develop and implement comprehensive and fully enforceable alcohol control policies. Recent success in effectively advocating for a comprehensive tobacco control policy in Lebanon reinforces the importance of local evidence coupled with strong advocacy in moving health policy forward (Nakkash, March 2012). Indeed, Lebanon ratified the Framework Convention on Tobacco Control (FCTC) in 2005, and in 2011 the Lebanese parliament approved Law No. 174, the country's first comprehensive tobacco legislation. This experience demonstrates how contextualized evidence and strong civil society advocacy can achieve health promoting policies. Nonetheless, it also exposed the role of the tobacco industry in recruiting allies that succeeded in indirectly obstructing the effective enforcement of the Law 174 to preserve the industry's interests.

Significance of the present project

In 2010, the World Health Assembly (WHA), through its endorsement of a global strategy to reduce the harmful use of alcohol, urged its member states (including Lebanon) to strengthen their national responses, and adopt preventive policies and programs (WHO, 2010). In view of this, and the growing international commitment to strengthen alcohol control policies, it was imperative to undertake this study in Lebanon to help generate local data needed to inform national strategies aimed at alcohol harm reduction.

The present project aimed at generating data needed to inform the development, reform and implementation of the national alcohol control policies to influence behavior change, and ultimately reduce harmful alcohol use and alcohol-related harms.

Research Questions and Objectives

In the presence of high and increasing alcohol use among youth in Lebanon, and the absence of an updated comprehensive national alcohol control policy The overall goal of this project is to generate the evidence needed to advocate for a national alcohol harm reduction policy, and to catalyze, shape and improve the quality of the debate in the Lebanese policy environment around an evidence-based alcohol control policy for youth. In other words, the goal is to place the issue of alcohol control high on the Lebanese policymaking agenda. The study aimed to do this by (1) generating and providing evidence that can be used by multiple stakeholders from various sectors, and (2) forming a group of persons committed to moving the policy dialogue forward. Although it is likely that any adopted and implemented national alcohol control policy will influence alcohol consumers of all ages, the present project focused on generating policy-oriented evidence and a national strategy that will target primarily youth, a highly vulnerable subpopulation of alcohol consumers. Ultimately, we hope that this project's impact and additional similar research endeavors globally and locally would be seminal in guiding a Framework Convention on Alcohol Control (FCAC) similar to FCTC that advocates for the implementation of alcohol harm reduction policies in the WHO member states.

The project had 3 main objectives, conceptualized to answer the following specific research questions:

(1) What is the current status of alcohol control policies in the country? What are the major challenges for implementing an effective national alcohol control policy? Who are the major players, advocates and opponents, for its implementation?

(2) What is the direct and indirect influence of specific policy-relevant proximal factors (e.g., perceived cost, promo/ad awareness) on psychosocial mediators (e.g., beliefs, attitudes) and outcome variables (i.e. comprehensive consumption data)? Are there any marked differences by gender and various age groups?

(3) What specific package of policies is most likely to influence young consumer alcohol consumption patterns in Lebanon?

The research questions were rephrased into 3 specific study objectives as listed below. The table in Appendix A highlights the specifics of the activities conducted to address each objective.

- Objective 1: Document the national alcohol policy, particularly the current legal framework covering the local alcohol industry, and policies governing the sale, supply and marketing of alcohol, with a special emphasis on the vulnerable population of youth.

- Objective 2: Identify the direct and indirect influences of policy-relevant factors and psychosocial mediators on policy-relevant outcomes (e.g., alcohol consumption, alcohol purchasing patterns) among youth aged 15-25 years.

- Objective 3: Assess the potential impact of specific alcohol control policy packages on youth alcohol consumption and purchasing patterns.

This project's objectives and related activities were largely guided by the WHO's alcohol-related evidence-based intervention areas (core, expanded and optimal), which focus on four themes including: affordability (e.g., tax increases), availability (e.g., restricted access to retail alcohol), regulation of marketing (e.g., bans on alcohol advertising) and drinking and driving.

The specific methods for undertaking each of the activities under each objective are described in Appendix A. The table clearly shows how each of the specific activities has contributed to the overall goal and purpose of the project. It consists of a description of activities, data collection and analytical methods, as well as anticipated outputs (as per the IDRC grant proposal), for each objective. In this project, we used both qualitative and quantitative research methods to achieve our goal.

As a final step, findings collected using a variety of methods including policy analysis, stakeholders' interview analysis, point of sale Global Positioning System (GPS) data surveillance, FGDs with youth, discrete choice experiments (DCE), and epidemiologic surveys, were triangulated, and evidence-informed recommendations were made.

PROGRESS TOWARDS MILESTONES

Objective 1: Document the national alcohol policy, particularly the current legal framework covering the local alcohol industry, and policies governing the sale, supply and marketing of alcohol, with a special emphasis on the vulnerable population of youth.

Milestone 1.1/ Activity 1: A comprehensive content analysis of the national alcohol control policy in Lebanon (e.g., laws, decrees and strategies) was undertaken, particularly with regards to core intervention areas including affordability, availability, and regulation of marketing, and drinking and driving.

With the help of an experienced lawyer (M.T.), an in-depth review of the alcohol-related laws, decrees and decisions was undertaken, which enabled us to gain a more in-depth understanding of the local policy framework, as well as existing and non-existing policies (vis-à-vis the WHO Best Buys). The summary report enclosed (Appendix B.1) describes all alcohol-related laws, decrees and decisions specifically pertaining to the four core intervention areas (availability, affordability, regulation of marketing and advertising, and drinking and driving). A summary table of the current national alcohol control policies is presented in Appendix B.1. For each of the core intervention areas, the table states clearly whether the essential policy is present or not, and, where present, the policy type, number, and date of issuance (including last update). Besides describing the laws governing alcohol consumption, the content analysis of these documents pointed to important gaps in terms of content and implementation (more details on the implementation were uncovered from the key stakeholder interviews (Appendix E.3). The process of reviewing and summarizing the policies also informed the identification of key stakeholders and the development of the interview guide **(Objective 1/ Activity 3).** Most recently, following the important findings of the survey of drinking university youth (18+) that greatly contributed to the aim of informing taxation policies, the team sought to further contextualize those findings. For this purpose, we consulted with a Lebanese tax expert (T.M) who developed a comprehensive review of the alcohol tax system in Lebanon, how it initially started, how it evolved throughout the years and what is its current status. The review indeed reinforced the findings of the alcohol control policy content analysis (objective 1/Activity 1) with regards to latest taxation law. The report will help us identify the barriers to increasing taxes on alcohol, and, in further contextualizing our recommendations and developing an evidence based proposed law/decree in an effort to reduce affordability of alcohol among youth in Lebanon.

Milestone 1.2 - Activity 2: Review of the literature on alcohol control policies in regional (Arab) and selected international countries was conducted, specifically with regards to how they are set up, revised and enforced.

The literature review on alcohol control policies in regional (Arab) and selected international countries helped us benchmark local alcohol control policies against that of other neighboring countries in the region and selected international countries, mainly the countries currently undertaking the International Alcohol Control (IAC) Study. It also highlighted further important gaps in the current national alcohol control policy both in terms of provisions and processes. In addition, findings from the literature review helped to guide discussions with selected stakeholders

(Objective 1/ Activity 3). The review supplemented information gained through interview with stakeholders of possible facilitators and barriers to the development and implementation of a strong national alcohol control policy.

In an effort to consolidate the information gathered from the policy content analysis (activity 1) and the literature review (activity 2), a review article (Appendix E.1) entitled "Alcohol consumption in the Arab region: What do we know, why does it matter, and what are the policy implications for youth harm reduction?" was published in September 2015 in the International Journal of Drug Policy. The paper carefully synthesizes the characteristics of published research on alcohol use (e.g., number of studies published over the years, by country, by target sample…), and summarizes alcohol consumption prevalence and patterns from this epidemiological evidence; the paper also integrates the information synthesized on existing alcohol control policies in the Arab world, while highlighting policy gaps and directions. Findings were presented at the Global Alcohol Policy Conference (GAPC) held in Edinberg, Scotland from 7-9 October, 2015.

Milestone 1.3 *Activity 3*: A series of semi-structured key informant/stakeholder interviews were carried out with a sample of relevant key stakeholders with knowledge on alcohol control to document their perceptions with regards to the alcohol policies.

Interviews with key informants/stakeholders with working knowledge on alcohol control policies were conducted over a period of 8 months in spring and summer 2014. A total of 18 interviews were conducted with various stakeholders within ministries, Non-Governmental Organizations (NGOs) working on alcohol prevention and awareness, syndicates and unions. The interview guide included questions that were addressed to stakeholders under four different domains mainly advertising and marketing, availability, drinking and driving, and affordability (depending on the stakeholder only one or more core areas were covered). The key informant interviews with stakeholders helped validate the information gathered as part of the policy content analysis. The interviews were partially guided by the content analysis **(Objective 1/Activity 1)**, specifically allowing us to probe for stakeholders' knowledge of the current existing policy measures, the extent to which the current control policies/measures are being implemented, possible challenges to formulating and implementing strong alcohol control policies, but also opportunities for and feasibility of implementing strong policy packages.

The transcribed interviews underwent thematic analyses that helped in the generation of 13 different themes that included mainly (1) the difficulty of enforcing public policies and laws, (2) the knowledge of public policy and laws: knowledge of the policy framework, (3) the role of stakeholders in participating in the making and implementation of the law, (4) self-regulation, (5) challenges in the formulation of strong policies to control alcohol, (6) Barriers to development and implementation, (7) Barriers to development and implementation: the absence of sufficient awareness among parents, (8) recommendations, (9) conflicts of interest, (10) supporting persons/entities, (11) opponent persons/entities, (12) important stakeholders, (13) other interesting topics. Subsequently, searching for recurring themes and important non-identifiable (anonymously-kept) quotes in the Arabic transcribed documents

was undertaken. Once this step was completed, the excel file was printed on a large-scale flip chart document, to allow for clear visualization of the recurring themes.

The findings of the stakeholder interviews have been integrated into a research paper that is being finalized for submission to a peer-reviewed journal in August 2017 (Appendix E.3). The paper specifically explores the perception of key governmental and non-governmental stakeholders on the challenges of designing and implementing an effective national alcohol control policy. In summary, the results indicate that controlling alcohol use among the youth is not yet a policy priority. In a context of political instability, governmental officials argued that the priorities rest in more pressing issues such as security and economy. This has created an unregulated open market for alcohol-related businesses. Analysis also shows that a clear governance gap transpires where stakeholders appear to shift the responsibilities among each other. There is a weak legal framework for public health while a developed framework exists for the market. The majority of the interviewed stakeholders shifted responsibility of the problems arising from excessive alcohol consumption among youth to parental permissiveness and neglect when it comes to monitoring their children's outing and behaviors.

Overall, our activities already have confirmed the importance of a systematic assessment of available policies, a benchmarking against international best buys, and the importance of understanding the policy environment (both social/people and physical/places). We thus recommend for all countries to undertake a similar review of their alcohol control policies, for regional researchers to connect with international scholars, and for regional data to become more readily disseminated and easily retrievable.

Objective 2: Identify the direct and indirect influences of policy-relevant factors and psychosocial mediators on policy-relevant outcomes (e.g., alcohol consumption, alcohol purchasing patterns) among youth aged 15-25 years (will be carried out in the second year).

Milestone 2: A quantitative cross-sectional survey was undertaken to collect data on policy-relevant influencing factors (e.g., perceived cost, promo/ad awareness), psychosocial mediators (e.g., beliefs, attitudes) and alcohol consumption patterns as well as demographic and other potential moderating variables (e.g. age, sex), in order to ultimately explore the direct and indirect influences of youth alcohol consumption.

Between August 2015 and January 2016, the questionnaire (Appendices C.2 and C.3) for the survey, that we refer to as the Lebanese Alcohol Policy Survey (LAPS), was developed in English and then translated into Arabic. The target population constituted of the general (i.e. alcohol drinkers and non-drinkers) university and high-school students. The questionnaire was developed based on a conceptual framework that the team had put together inspired by the ITC model as well as other peer-reviewed literature. The LAPS collects data on policy-relevant factors (e.g., availability, affordability), psychosocial mediators (e.g., Perceived cost, attitudes) and comprehensive alcohol consumption data, as well as demographic and other potential moderating variables (e.g. SES, sex). The LAPS questionnaire was administered to two convenient samples (as specified in the Grant agreement), one comprising of university students (survey completed in June 2016) and the other on high school

students (survey completed June 2017). Findings from the university survey have been summarized and submitted as abstracts to GAPC, 4-6 October, 2017 and the IAAH 11th World Congress on Adolescent Health, 27-29th October, 2017 that got accepted in both conferences for presentation (Appendix D.7). Further advanced statistical analyses - notably a path analysis - are underway.

A total sample of 1155 conveniently chosen university students from 7 public and private universities completed the self-filled anonymous questionnaires. The sample was equally distributed by gender with a mean age of 21(SD=1.97). Preliminary analysis shows that around half of the sample reported drinking at least one alcoholic drink in the past year of which: 41% reported drinking 1-3 times per month; 25% and 13% reported missing school or work due to drinking and alcohol cravings, respectively; an overwhelming majority (98%) acknowledged drinking and driving or riding with someone who has been drinking is harmful; and 76% were never asked to show ID when purchasing or being served alcohol.

Objective 3: Assess the potential impact of specific alcohol control policy packages on youth alcohol consumption and purchasing patterns.

Milestone 3.1 /Activity 1: *Focus group discussions were held with youth prior to the DCE (activity 2 below) to identify options that are feasible and relevant to young consumers.*

Three FGDs were held between October 2014 till November 2014 (each a two-hour session) including a total of 27 students (all alcohol drinkers) aged 18 to 25 years from four private and public universities in Lebanon, located in various regions, to discuss the possible policy attributes/measures that are relevant to youth living within the Lebanese context. The FGDs helped inform the survey design and format of the choice scenarios (i.e. DCE survey) in a way that relates to respondents and mimics their experience when purchasing and consuming alcohol to the largest extent possible. Further, it helped refine the lists of factors (and their levels) that are used to populate the mentioned choice scenarios. For example, an attribute which we termed "promotion" and that basically defines whether or not a certain pub or bar has a happy hour offer was found confusing by focus group participants as they warned us that it might be misunderstood as advertising and publicity. Alternatively, they suggested renaming it "offer".

Milestone 3.2 /Activity 2: A discrete choice experiment (DCE) among young (aged 15-25 years) alcohol drinkers was conducted to help gauge youth's alcohol purchasing patterns under various policy packages.

A discrete choice experiment (DCE) (survey instrument enclosed in Appendix C.4) was completed in December 2015 among a sample of 1,024 among university youth – aged 18-25 years - who drink at least once per week. The sample was recruited from both private and public universities of Greater Beirut and adjacent Jounieh. The DCE aimed to generate data on the drivers of choice of outlets for off- and on-premise purchases of alcoholic beverages

among youths in Lebanon. These data are further used to develop guidance on where and when to focus law enforcement resources in order to cost-effectively reduce harmful drinking among youths.

The DCE survey sample description: A total sample of 2,381 youths was approached in order to fill in 1,024 completed questionnaires. The outcomes were as follows: 272 respondents refused to participate in the survey, as they were not interested in hearing more; 135 respondents were not eligible for the survey as they were not university students aged 18-25 at the time of the survey; 83 respondents were not eligible for the survey as their university was outside the scope of the study; 596 respondents were not eligible for the survey as they do not drink alcohol once or more per week; and 271 respondents chose not to participate after reading the oral consent form. This yielded a total sample of 1,024 completed questionnaires. The sample consisted of 64.7% males and 35.3% females.

Preliminary analysis yielded demand system estimates for off-premise alcohol consumption used to simulate the effects of two hypothetical alcohol tax scenarios on overall ethanol intake from all types of alcohol beverages: (1) Tax Scenario 1 (TS1) imposes a 20% excise tax on high-ethanol beverages (e.g. spirits, arak) and exempts lower-ethanol ones (e.g. beer, wine, alcopops) from taxes, while (2) Tax Scenario 2 (TS2) imposes a blanket 20% excise tax on all type of alcoholic beverages, be they high or low-ethanol.

The data is currently undergoing more in-depth analysis and 2 papers at least are planned to be submitted by end of August 2017 to peer-reviewed journals (Appendices E.4 and E.5). Results have been presented in a local conference (Lebanese Epidemiological Association/LEA 2016) and an international meeting (The College on Problems of Drug Dependence/CPDD 2017) (Appendices D.5). In addition, two abstracts were submitted and accepted for oral presentation at the GAPC 2017 conference (Appendix D.5 and D.6).

Other milestone activities achieved during the project timeline

As we engaged in project activities, we identified a variety of additional activities that had not been included in the proposal but that we felt were essential to the comprehensive understanding of the issue, and therefore the effectiveness of the project. These included the following:

Organizing a workshop – Corporate Funding and Public Health: An Open Discussion

On December 17, 2015, the research team held a dialogue entitled "Corporate funding and Public Heath: An Open Discussion" that hosted 11 Civil Society Organizations (CSOs) and selected number of researchers. This workshop was co-organized with the Tobacco Control Research Group (TCRG) and the IDRC funded CSR projects at FHS. The idea of the workshop arose from observations that NGOs are often taking money from corporations that are contrary to their missions: for example, drink driving prevention NGOs taking money from the alcohol industry. As the goal of our project as to catalyze, shape and improve the quality of the debate in the Lebanese policy environment around an evidence-based alcohol control policy for youth; we felt tackling this issue was critical. The core aim of this meeting was to provide a platform for academicians and civil society groups to share their experiences about the challenges and opportunities that they may face when soliciting or

receiving funds from large for-profit corporations. The focus of the meeting was conflict of interests (COI) related to corporate funding. It aimed to reflect on sources of corporate funding and understand the impact of the associated COI on CSOs, NGOs, researchers, and academicians work agendas knowing that often the objectives of corporate-based foundation funding are contrary to public health ethics and agendas. NGOs were divided into three teams and reflected together the following discussion areas: Contextual challenges that are relevant to funding, sources of corporate funding, and how to manage COI issues. The meeting minutes are available upon request.

Developing a policy brief/preparing for a policy dialogue

The team worked with the IDRC-funded K2P center at FHS to develop policy brief that compiled relevant evidence on effective individual, family, school, community and policy-level interventions for alcohol use prevention and control. Work on the brief began in September 2015; a preliminary draft underwent litmus testing with selected governmental and non-governmental stakeholders followed by 2 merit reviews. The document was developed in English and the final document was then translated into Arabic at the end of 2016 (Appendix B.3). An executive summary of the policy brief was circulated among stakeholders, in preparation for the first policy dialogue around alcohol consumption among youth and its related harms.

Policy Dialogue

On January 2017, key decision-makers, partners and civil society were invited to a policy dialogue titled "Alcohol Drinking among Youth: Delaying Initiation and Reducing Harm". The dialogue was led by the PI of this project (L.G.) and with the Director of the IDRC-funded K2P Center (F.J.); and was used the above policy brief as a platform to discuss the problem of alcohol use among youth in Lebanon and possible effective solutions. The policy dialogue was a great step forward for this project because it brought together major stakeholders including the Director General of the Ministry of Public Health, head of the national program against addiction at the Ministry of Social Affairs, Director of the control department at the Ministry of Tourism in Lebanon, Director of Youth Department at the Ministry of Youth and Sports, the manager of Traffic Management Center, the executive director of the National Road Safety Council, in addition to representatives from each of Ministry of Economy and Trade, Ministry of Finance, the World Health Organization, local and regional NGOs focused on road safety ad substance use/abuse, advocates and supporters, specialists in health law, member of the research team, and students. In view of the increase rates of alcohol consumption among youth in Lebanon (as per GSHS 2005 and 2011), the dialogue deliberations – guided by the policy brief - were action-oriented and explored implementation barriers, proposed counterstrategies at each level, and set next steps. Participants also agreed to form an advocacy coalition to advance the mission of delaying the initiation of alcohol drinking and preventing related risks among youth in Lebanon. The policy dialogue summary is enclosed (Appendix B.4).

Compiling statistics on alcohol marketing/ads in Lebanon (January 1, 2013-Dec 31st 2013)

As the research team began discussing the clear evidence linking advertising and alcohol consumption, we felt that validating student perceptions (though the surveys) of the most advertised alcohol brands would strengthen the evidence we could share with key stakeholders. We requested a list of all marketing/ads in Lebanon for the last year (2013) from IPSOS, the leading Market Research Company in the MENA with more than 25 years of experience in the region's market. We purchased from IPSOS a detailed report of the expenditures on all advertising activities across different media in Lebanon. The "Statex Report" (enclosed as Appendix B.2) summarizes data on a monthly basis for the alcohol category, covering mainly TV, press, radio, outdoor and cinemas for 2013. This also allows us to ascertain whether the brands most consumed by youth are also those most advertised, providing further evidence to policy makers of the need for controls on advertising.

GPS Surveillance of alcohol outlets

Upon reviewing and summarizing the national alcohol-related policies, particularly with regards to the physical availability of alcohol, and the allowed proximity of alcohol selling outlets to universities, schools and sanctuaries— we decided to quantitatively assess the issue via a GPS surveillance of alcohol outlets within populated areas of administrative Beirut (Capital city of Lebanon). Knowing that geographic factors, such as the location of alcohol outlets, can affect alcohol consumption, and patterns of alcohol-related problems in a specific area, the team decided to use Geographic Information Systems (GIS) and global positioning systems (GPS) to display visually the location and density of community alcohol outlets in the Beirut area. The aim was also to create reference points for alcohol outlets and to use them to determine distance and adjacency to other landmarks. Information such as the type of off/on-premise outlets, the opening and closing times, the presence of a sign that prohibits sales to minors, the type of alcoholic beverages served/ available, the display of the bottles within the outlets, promotions and point-of-sale advertising were also collected using an observational form (Appendix C.1) and analyzed using GPS/GIS systems. A manuscript is being finalized for submission to the Journal of Health and Place by the end of August (draft enclosed as Appendix E.2).

DATA TRIANGULATION AND SYNTHESIS OF FINDINGS

The project's first objective was to document the national alcohol policy and the legal framework and policies governing the sale, supply and marketing of alcohol. The main findings of all activities under objective 1 can be summarized as follows: (1) the policy content analysis revealed that alcohol-related policies/decrees/decisions in Lebanon are not comprehensive, are outdated, or updated but loosely enforced - making alcoholic beverages in Lebanon affordable, highly accessible and heavily advertised/marketed; (2) the review indicated that epidemiological evidence on alcohol consumption in the Arab world is generally scarce, but that based on available published data and whether alcohol is banned or not, countries in the Arab region can be divided into 4 categories reflecting different stages of needed public health response (e.g., one category where data is absent and alcohol is not banned, like in Qatar or Bahrain, we hypothesize an ostrich-like response to a controversial behavior, or a weak research infrastructure); and (3) stakeholder interviews shed light on the main challenges to a national alcohol harm reduction policy including weak governance, lack of political will since governmental officials are concerned with other priorities and pressing issues such as security and economy, strong industry lobby, and shifting of responsibilities (mainly from governmental stakeholders to 'parents').

The overarching logic framework guiding this study's objective and questionnaire development was largely based on the WHO's identified set of evidence-based "best buys" that have been shown to most likely influence alcohol consumption behaviors. These include interventions to limit affordability (e.g., tax increases), availability (e.g., restricted access to retail alcohol), regulate marketing (e.g., bans on alcohol advertising) and prevent drink driving. In line with this framework, the project's second objective was to undertake an epidemiological survey aimed at identifying the direct and indirect influences of policy-relevant factors and psychosocial mediators on policy-relevant outcomes (inspired by the ITC tobacco project) among youth aged 15-25 years. Preliminary findings show that half (51%) of the 1,155 university students surveyed had had a drink in the past year, of whom 21% were classified as having mild alcohol-related problems, 7% as moderate, and an additional 7% as having severe problems. About 88% felt alcohol was very easy to obtain; 77% have never been asked to show their ID when purchasing/being served alcohol. Only 34% said that alcoholic drinks were unaffordable. The majority had been exposed to alcohol advertising/marketing in past year, and about two thirds had heard a "don't drink and drive message". Only 8% of the past year drinkers who drank and drove, or rode with someone who did, were pulled over for random breath testing. Further analyses will use path analysis to examine the direct and indirect influences of policy-relevant factors and psychosocial mediators on past year binge drinking and alcohol use disorders.

Also with the framework in mind, the third objective aimed at assessing the potential impact of specific alcohol control policy packages on youth alcohol consumption and purchasing behaviors. Quantitative evidence from this DCE survey indicates that in both on- and off- premise settings, 8pm-to-midnight trips on weekends are most popular outings for past-month drinkers. The DCE survey also showed that "hours of purchase" is a much stronger determinant than day of purchase. With regards to expenditure elasticities, findings show positive elasticities for wine, spirits, and arak, meaning they are normal goods for which consumption increases with rising budgets

available for alcohol purchasing. All this seems to be happening at the expense of beer, which negative expenditure elasticity suggests that a rising alcohol budget would decreases its consumption, making it an inferior good. Moving to the uncompensated price elasticities, all beverages have negative own-price elasticities, meaning their consumption decreases with increasing prices, making them economically typical well-behaved normal goods. Upon simulating the effects of two tax scenarios, we further illustrated how targeted taxation, cognizant of students' alcohol consumption and substitution patterns, can effectively and efficiently achieve reduction in ethanol intake among university students. In the first scenario – S1 – a blanket 20% tax is imposed on all five alcoholic beverage categories. In the second – S2 – the 20% tax is levied only on the high alcohol content beverages, namely spirits and arak, exempting beer, wine, and vodka mixes and alcopops from it. At face value, findings suggest that S2 achieves a reduction in ethanol intake comparable to S1, only targeting a narrow range of products and exempting others from taxation. Yet in-depth analyses is being undertaken to study differences by alcohol drinkers (heavy drinkers versus not), as well as by gender.

With regards to the GPS surveillance of alcohol outlets study, the findings came as no surprise: in the Ras Beirut area, alcohol outlet density ranged from 18.30 - 80.95 per sq. Kilometre and 13/109 (12%) of alcohol outlets were located at a distance of less than 100 meters from educational institutions which is against the present law. Findings clearly highlight: (1) the high density of alcohol outlets and high alcohol availability in these areas (particularly that there is no implemented policy forbidding sale to minors); and (2) the close proximity of these alcohol outlets to nearby schools, universities and places of worship.

Other activities included generating a review report on the history behind the regulatory taxation on alcohol and legislations. As a summary, the focus during Ottoman and Mandate eras on the one hand was more on generating income for treasury (during Ottoman era levies on alcohol – as with other products like tobacco – went towards servicing the Empire's debts), while in the post-independence era the focus became increasingly regulatory, namely to organize production and distribution and limit counterfeit. In no period of time were any taxes imposed for public health purposes. At present (latest update was in 2008), the plethora of taxes were consolidated into mainly 3 starting in the early 90s. These are the following for both off-premise sold bottles/cans and on-premise sold drinks: (1) ad valorem customs on imported alcoholic beverage, (2) volumetric domestic consumption tax and (3) 10% VAT. In addition, license fees are paid by both off-premise and on-premise outlets, but these are really low. While import tariffs were lowered since the early 2000s due to Lebanon's bid to access the WTO (less so for imported wines and arak to protect domestic industry), VAT has remained fixed, while there are attempts to increase domestic consumption tax and license fees to finance the ranks and salaries grid.

As identified in the proposal, the triangulation of the data from all these sources has indicated areas of convergence as well as divergence. We summarize these key areas under the four main themes identified as the WHO Best Buys: availability, advertising/marketing, affordability and drink-driving. *With regards to alcohol affordability* in the country, we have learnt that (1) taxation laws are outdated, not evidence-informed, and minimum pricing is absent; (2) increased taxation can significantly reduce overall ethanol consumption among youth alcohol drinkers based on local evidence; (3) several misconceptions would need to be addressed among key stakeholders including

widespread like increased taxation will negatively impact tourism, or will generate income for the State without reducing consumption; (4) several research questions would need to be investigated to help alleviate stakeholder concerns, such as would increasing taxation increase the sale of illegal and low quality alcoholic drinks, increase home production, unjustly affect the poor only etc. *With regards to alcohol availability*, we also learnt that (1) related policies are either absent or outdated or loosely enforced, such as there is no minimum legal drinking age or restrictions on alcohol outlet density, which according to a GPS surveillance revealed a relatively higher density than many similar contexts; (2) alcohol is perceived by youth to be easily accessible, without any punitive actions taken against minor drinking or purchasing alcohol; (3) days and hours of sale are strong determinants of alcohol purchasing among youth, particularly 8pm to midnight on weekends (with hours of purchase being a stronger determinant for off-premise alcohol purchase); and (4) municipalities (working with other concerned stakeholders) could play a larger role at a local level in ensuring the implementation of a more adequate mechanism of licensing of alcohol-selling stores (location vis-à-vis educational institutions for example), and the ban of drive-through drinking shacks, or regulating sale after a particular hour. *With regards to advertising and marketing of alcohol:* (1) there exist no policies or decrees or decisions that regulate ads or sponsorships or promotions in any way, making this area completely unregulated; (2) most youth surveyed have seen alcohol ads on various media outlets, while only a few have seen anti-drinking messages; (3) stakeholders mostly agreed that alcohol marketing should not be left to the industry's self-regulation and code of ethics, and that a strong and comprehensive law is needed with continuous monitoring and lobbying against industry's influences, coupled with counter-advertising. Last but not least, *with respect to drinking and driving laws*: (1) youth surveys attest to the fact that a substantial percentage have at one point driven under the influence or ridden with someone who had been drinking, and none/very few were caught and penalized; (2) the 2012 traffic law that was passed dictates a BAC, sobriety check points and mandatory penalties, however, implementation has been irregular to absent given the lack of some supplies (e.g., alcotest) and sufficient human resources (e.g., understaffed internal security forces).

IMPLEMENTATION AND MANAGEMENT

Below is a detailed description of all project activities and their implementation, presented in chronological order. While the grant start date was January 2013, the search for the research assistant took longer than anticipated and a research assistant (A.A.) was recruited finally 6 months later in July 2013, obviously creating delays in administrative and ultimately research activities. Also, it became apparent that the policy content analysis necessitated a lawyer, and recruiting one also took a few months. Consequently, implementation of some planned components of the project were delayed, specifically the completion of the stakeholder interviews, since they were supposed to be informed and guided by the results of the content analysis of the national alcohol control policies.

During the first year (Jan-Dec 2013), the project team prepared the grounds for the project and its various activities under the 3 main objectives listed above. A comprehensive content analysis of the national alcohol control policies in Lebanon **(Objective 1/ Activity 1)** was conducted with the help of a lawyer using the legal library of the Court of Justice in Beirut ("the library of the lawyer") as the main reference for the majority of the searches. The "library of the lawyer" comprises a comprehensive collection of legal documents, including: policies (laws, decrees, and decision) and their corresponding amendments, jurisprudential texts, and legal doctrines. The library of the "Tawk's law firm" was also used as another search reference. The lawyer (M.T.) carried out an extensive search and looked carefully into decisions, laws, and decrees as well as key policy, strategy and research documents related to alcohol consumption particularly with regards to the WHO-defined core intervention areas including affordability, availability, and regulation of marketing, as well as drinking and driving. All relevant documents were identified, scanned and compiled. Altogether, a total of approximately 450 hours (between May - September 2013) were spent searching the available laws, reading them, selecting what is of real relevance to the core intervention areas of the study, and summarizing the important/relevant information. A summary underlining a review of the current national alcohol control policies, with possible gaps in their content/implementation and highlighting information gathered from various sources was synthesized (Appendix B.1). For each of the core intervention areas, the table states clearly whether the essential policy is present or not, and, where present, the policy type, number, and date of issuance (including last update).

During the same year, a review of the literature on alcohol control policies in the region (Arab countries) and other selected countries **(Objective 1/ Activity 2)** was also performed. The RA met with the project leader (L.G. an epidemiologist whose research is focused on alcohol and other substance use) to decide on the search terms (key words). Then, and to ensure a proper comprehensive search, the RA was carefully trained by the Information Specialist at AUB- Saab Medical Library on the use of various search engines (search strategies and techniques). As such, a thorough literature search for relevant publications between 1993 and 2013 on alcohol use and alcohol-related harms in the Arab region was conducted. The main search engines used were PsychNet (PsycINFO and PsycARTICLES), PubMed (Ovid MEDLINE(R)), Index Medicus for WHO Eastern Mediterranean (IMEMR) as well as Google Scholar. Several substance abuse keywords and MeSH (Medical Subject Headings) terms including:

"alcohol use", "alcohol abuse", "alcohol dependence", "alcohol misuse", "binge drinking", "heavy drinking", "drunkenness", "alcohol drinking", "alcohol intoxication", and "booze" were included. The following countries of the Arab region were included in the search: Algeria, Bahrain, Egypt, Gaza, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen and the term "Arab countries". Using PsychNet, the search was limited to keywords contained in the title and abstract. For both Google Scholar and Index Medicus for WHO Eastern Mediterranean (IMEMR), we limited the search to the title of published articles. For PubMed (Ovid MEDLINE(R)), no restrictions were made. An Endnote library of the retrieved articles was constructed and with the guidance of the project leader, the RA reviewed carefully their titles and abstracts for relevance. Only articles of which (1) the primary objective was to assess alcohol drinking prevalence, alcohol patterns or alcohol-related harms, risk and protective factors and (2) data on alcohol was presented separately from other substance use, were included (more details on inclusion/Exclusion criteria are described in Appendix E.1). The references listed within every review article on alcohol in the Arab region were further examined to preserve the comprehensiveness of the search. The majority of the search time was spent in tracking/spotting the overall substance use related articles that may or may not address the prevalence of alcohol consumption as a component *per se*.

We also reviewed alcohol-related reports by the WHO and Center for Disease Prevention (CDC). Data on alcohol from the Global School-based Student Health Survey (GSHS) were abstracted and summarized from the published reports or fact sheets. For data on alcohol control and harm reduction policies in the Arab region, a comprehensive assessment of both the *Global Status Report on Alcohol and Health* (GSAH) and the Global Information System on Alcohol and Health *(GISAH)* was performed. An email was sent twice to the Public Health in the Arab World (PHAW**)** mailing list to also try and locate any information on alcohol-related policies in Arab countries, over and beyond what is published in the WHO report (since we had found discrepancies between what is published in the report and what our content analysis revealed). More details on the methodology can be found in the paper that was published in the International Journal of Drug Policy (Appendix E.1)

Becoming well-informed about our own national alcohol control policies is greatly achievable through meeting with key informants/stakeholders **(Objective 1/ Activity 3)** who are well-acquainted with the area of alcohol control policies. A list of stakeholders with knowledge and expertise of alcohol control policies has been compiled, including the contact details of stakeholders using publically available information. The AUB Institutional Review Board (IRB) permission was granted during the first year of the project to conduct these interviews. The interview guide was personalized according to each stakeholder's area of governance, public health orientation, and type of industry. All interview guides are in Arabic and available upon request. The questions addressed to stakeholders were divided under four different domains known as the WHO 'Best-buys' policies mainly affordability, availability, advertising and marketing, and drinking and driving (depending on the stakeholder only one or more core areas was covered).

Although key informant interviews with relevant stakeholders were initiated during the month of April 2014, the completion of these interviews took longer than anticipated due to the extreme difficulty of setting meetings with some stakeholders in high positions. This barrier was basically due to the country's ongoing unstable security

situation, which placed the issue of alcohol consumption low on the national policy agenda. It thus created delays in completing the estimated total of 40 semi-structured interviews. In order to conduct the interviews, a letter briefly explaining the objectives of the meeting and requesting an appointment was sent from the principal investigator (PI) (L.G.) to the stakeholder. The RA contacted the stakeholders by phone within a week or 10 days following the email/mail invitation letter, to schedule an appointment. During each visit, a written informed consent was sought prior to starting the interview. The key informant interviews were conducted by one or two of the investigators; the research assistant accompanied them sometimes to take notes. Consent to tape record the interview was also sought. In total, 18 interviews were successfully conducted over a period of around 8 months and enabled the research team to gain a clear understanding of the current national alcohol control policy, specifically the content, gaps, facilitators and barriers to implementation. The research team continued to contact and try to schedule 2-3 additional interviews with stakeholders in unique positions, but couldn't reach any. Notwithstanding that we didn't achieve the estimated numbers of interviews, the information that was gathered from the 18 interviews was judged by the research team as somewhat saturated and sufficiently adequate.

By the end of 2014, a total of 15 recorded interviews were transcribed into their original language (Arabic) to retain the important meanings; 3 interviews were not recorded because the stakeholder had not consented. The team conducted several meetings to guide the thematic analyses and discuss the findings. The analysis was initially planned to be conducted via NVIVO software but was ultimately done manually – given the team's previous experience- which had illuminated how the latter technique preserves important phrases and meanings better. The team first met to agree upon the main themes. Then, the RA conducted trial thematic analyses for a couple of interviews (cross-checked with team members for accuracy) before she completed the analysis of all our interviews. A couple of team meetings were set to brainstorm and extract sub-themes that would fall under the barriers to development and implementation. Thematic analyses of all the interviews helped in the generation of interesting 13 different themes that included mainly (1) the difficulty of enforcing public policies and laws, (2) the knowledge of public policy and laws: knowledge of the policy framework, (3) the role of stakeholders in participating in the making and implementation of the law, (4) self-regulation, (5) challenges in the formulation of strong policies to control alcohol, (6) Barriers to development and implementation, (7) Barriers to development and implementation: the absence of sufficient awareness among parents, (8) recommendations, (9) conflicts of interest, (10) supporting persons/entities, (11) opponent persons/entities, (12) important stakeholders, (13) other interesting topics. Subsequently, searching for recurring themes and important non-identifiable (anonymously-kept) quotes in the Arabic transcribed documents was undertaken. Once this step was completed, the excel file was printed on a large-scale flip chart document, to allow for clear visualization of the recurring themes. Appendix E.3 summarizes the sub-themes and results. Specific quotations from the different interviews were then added under each generated sub-theme of the barriers. Other sections generated from the thematic analysis were carefully examined to account for any missing theme that needs to be incorporated under the barriers.

The key informant interviews with stakeholders helped validate the information gathered in the alcohol control summary presented in the end of the first year. The interviews informed the content analysis performed in year 1,

specifically by generating important findings about stakeholders' knowledge of the current existing policy measures, the extent to which the current control policies/measures are being implemented, possible challenges to formulating and implementing strong alcohol control policies, but also opportunities for and feasibility of implementing strong policy packages. The findings concluded from the key-informant interviews are being compiled and synthesized as a peer-reviewed journal article to be submitted end of 2017.

FGDs (Objective 3/ Activity 1) with youth were conducted to identify youth alcohol perceptions, consumption and purchasing attributes, be it their own or their peers. FGD findings mainly provided guidance for effective policy packages, and the results were used to inform the design of a quantitative discrete choice experiment (DCE), which would quantify the potential effectiveness of various alcohol control policies among the Lebanese youth. Participants in the FGDs included university youth aged 18-25 years, recruited from 4 different private and public universities in Lebanon, distributed across various regions, including: American University of Beirut, Lebanese American University, Lebanese University, and Saint-Joseph University, advertising by means of flyers, hard copies of which were distributed at selected university entrances. The flyer invited youth who are alcohol drinkers themselves or are able to discuss their peers' drinking and purchasing patterns to contact the research assistant if interested. A total of 3 FGDs were completed between October and November 2014, involving 27 students (11 females, 16 males) aged 18 to 25 years recruited from four private and public universities in Lebanon. The first focus group discussion gathered 11 students (4 females, 7 males) from both the American University of Beirut and the Lebanese American University. 10 students (5 females, 5 males) from the Lebanese University participated in the second focus group discussion, and 6 students (2 females, 4 males) from Saint-Joseph University participated in the third discussion. Although the initial plan was to hold a total of 4 FGDs, it was difficult to recruit students from distant universities such as Université Saint-Esprit de Kaslik or Notre Dame University-Louaize (USEK/NDU) (despite the fact that transportation was being covered).

At the start of the FGDs, the PI or Co-PI conducting the interview explained to participants again the objectives of the group discussion and the overall study, in addition to the process and their rights. Following this, the participants received the informed consent form for their careful review and signature. Once they consented, the team member proceeded with the discussion. All initially willing and interested participants were free to opt not to participate after reviewing the consent form. The interview guide included two parts, the off-premise and the on-premise group. The off-premise questions highlighted mainly the shopping event where participants were asked to imagine a typical trip to purchase alcohol, whether their own or their friends/peers. The on-premise questions highlighted mainly the outing event where participants were asked to imagine a typical outing to drink alcohol, whether their own or their friends/peers. The Co-investigator (A.C.) divided the participants into two groups according to their purchasing behaviors: those who primarily drink or know of others who drink 'on premises' (e.g., in pubs/bars) versus 'off premises' (e.g., purchase alcohol from supermarkets to drink at home or in public spaces). The two groups were interviewed in parallel by two separate moderators, and each FGD took about 60 minutes. Discussions were carried out in English and/or Arabic according to the participants' preference and were tape recorded following the participants' consent (if consent by one or more participant was not provided, the assistant would stop the recorder

when the designated person speaks). The RA prepared synthesis reports summarizing the main findings from the 3 FGDs by carefully looking for major repetitive themes (potential policy attributes) as raised and discussed by the youth. The derived recommendations from the reports were used to help inform the development and guide the design of the DCE questionnaire.

It was clear from the responses and discussions with students during the first FGD that we needed to probe further about other possibilities during next discussions than the choices initially suggested in our interview guide. Whereas some students suggested we drop some factors, and others proposed to re-categorize some other factors, we probed more as well about these suggested changes in further FGDs. For instance, when asked about the factors that would influence their consumption decisions once in the venue, including the factors determining their choices and quantities, participants agreed that the main and only choice determinants were the type of alcoholic drink and the price. They all agreed on dropping out "draught beer" from the types of alcoholic drink since it was rarely available and consumed and adding instead "shots" and "Arak" to that category. In addition, students proposed some re-categorization and changes that they believe would be closer to their typical alcohol purchasing and consumption patterns, whether their own or their peers'. For example, when asked about the factors influencing their choice of their next outing event, participants agreed on making changes under the "distance" attribute; they suggested deleting all levels that would include walking to reach the on-premise outlets and splitting the levels according to the time it would take them to reach their destination by car. "Distance" was renamed to "Distance by car" and the split became: (1) Less than 15 min; (2) between 15 and 30 min; (3) between 30 and 60 min; (4) more than 1 hour. Finally, some words needed to be changed because they weren't clearly understood by some students. A choice exercise was added where students were asked to describe what their next shopping event most probably look like. On the second and third FGD, the responses and discussions with students showed that we had almost probed about most of the possibilities during the discussion. The changes made to the interview guide after all three FGDs helped cover all possible categories. Even though we didn't conduct the fourth FGDs due to logistic reasons, it would be unlikely to have provided much added information.

The FGDs prepared the grounds for conducting the DCE survey **(Objective 3 / Activity 2).** While the DCE is increasingly used in environmental (Mandeville, Lagarde, & Hanson, 2014), transport (Baltas, 2007) as well as health economics (e.g. Tobacco (Regmi, Kaphle, Timilsina, & Tuha, 2017)), it has never been used before particularly to help inform a package of alcohol control policies based on young consumers' preferences and choice scenarios. The use of the DCE in this present project was judged as adequate to help uncover the existence, and quantify the extent, of segregation in attitudes and stated intentions towards various alcohol control policy packages, such as some youths being indifferent to policy and price signals and continuing in their usual purchasing patterns and others being very sensitive to them and hence modifying their behavior markedly in response.

During the second half of year 2, the research team spent a significant amount of time developing the DCE survey questionnaire (Appendix C.4). Reference was made to reliable and valid questionnaires that have been used to investigate alcohol use among college and university students. Accordingly, questions were extracted from Monitoring The Future survey (MTF), the European School Survey Project on Alcohol and Other Drugs (ESPAD),

the College Alcohol Study Questionnaire (CAS) taken from the Harvard School of Public Health College Alcohol Study, as well as the National Institute on Alcohol Abuse and Alcoholism (NIAAA) along with some relevant articles from the literature conducted during the first year. Relevant questions extracted from these questionnaires were integrated under the different themes and topics proposed in an earlier session mainly (1) Opinions on alcohol and alcohol control (country's policy about alcohol use and enforcement and attitudes towards possible governmental policies), (2) Alcohol acquisition/ Alcohol purchasing patterns, (3) Alcohol intentions, (4) Attitudes towards alcohol (ethical and health issues), (5) Perceptions of alcohol availability, (6) Perceptions of alcohol advertising (self-perceived influence of alcohol ads, awareness of alcohol ads and self-reported frequency of exposure to alcohol commercials), (7) Social parameters of alcohol consumption and (8) Background information. This task required around one month of extensive work. Some questions were adapted, meaning that they were changed according to the context of Lebanon and/or modified as to address alcohol issues rather than tobacco or other drugs. A couple of meetings with team members were held to check for accuracy and relevance of these questions. Some modifications were made to the questions, whereas some questions were discarded and others added. These questions feed into the first section of the DCE questionnaire.

As for the second section of DCE survey that presents youth with various hypothetical alcohol control policy packages (i.e. DCE analysis), multiple meetings were held and during the first quarter of 2015 (year 3 of the project), the team developed and pre-tested the protocol and questionnaires needed for the *DCE* - the first survey of its kind to survey alcohol purchasing and drinking preferences and help identify specific alcohol policy packages that are likely to influence youth drinking behaviors. While the team made every effort to initiate and complete the DCE survey prior to June 2015, to avoid surveying university youth on alcohol consumption during Ramadan, delays at the Institutional Review Board (IRB) level (not specific to our project) pushed the start date to September 2015. Alcohol is prohibited by the Muslim faith, but many Muslims drink alcohol outside this month, so we did not want to embark on the survey during Ramadan, hence selecting out many who often change their drinking behaviors during this month (behaviors which in addition are likely to alter their general outlook on alcohol) before reverting back to their 'typical' behaviors soon after. Up to our knowledge, this is the first time that a DCE approach is being applied to alcohol use among youth globally. The team received IRB approval in July 2015 and embarked on the survey in September 2015. Data collection was completed in December 2015. Challenges faced by field workers were also documented but they were mainly difficulty in finding students who admit to drinking alcohol, mainly at select conservative universities (field workers were faced with high numbers of students whom they know to drink alcohol either personally or from friends but who reported they do not drink, whether because of social pressure or other reasons given the general environment/setting of the related universities). This issue was more difficult among female respondents than male ones.

During the second half of the third year of the project (Jan –Dec 2015), the team started developing a survey protocol and questionnaire for the alcohol policy relevant survey **(Objective 2)**. For personal reasons, the initial RA with whom we started the project had to leave the AUB institution and the research team and a new RA (S.A.), a

fresh MPH graduate with a concentration in Epidemiology and Biostatistics, was interviewed and hired in August 2015.

The process of developing the questionnaire of the Lebanese Alcohol Policy Survey (LAPS) was time-consuming. As a matter of fact, the research team decided to develop a unique questionnaire from scratch instead adopting a pre-constructed questionnaire, originally tuned to youth populations of developed countries and adapting it to our Lebanese, Middle-Eastern youths. Consequently, a conceptual framework was primarily drawn borrowing from the experience of tobacco control policy evaluation studies (Fong, Cummings, & Shopland, 2006; Fong, Cummings, Borland, et al., 2006). Further literature review on alcohol use surveys such as NSDUH, NESARC, GENACIS, and GSHS, among others, and IAC resources enabled the team to conceptualize a pathway that links policy-specific variables to policy-relevant alcohol consumption outcomes in youth and to identify possible variables that may act as psychosocial mediators as well as potential moderators/confounders for this pathway. Based on this framework, a questionnaire was developed in English and translated into Arabic.

Between September 2015 and January 2016, the LAPS questionnaire was developed in English (Appendices C.2 and C.3) and then translated into Arabic. The team developed a conceptual framework relying on the ITC model as well as other peer-reviewed literature and substance use surveys. The framework visually depicts the associations between policy-relevant proximal (e.g., availability, affordability), psychosocial mediators (e.g., Perceived cost, attitudes) and our outcome variables (i.e. comprehensive consumption data), as well as demographic and other potential moderating variables (e.g. SES, sex). The LAPS was administered to two target populations: university students and high-school students.

During the first half of 2016, the team finalized the LAPS in English and translated it into Arabic, then submitted an ethical review application to the IRB AUB in February 2016 to conduct the survey among university students randomly selected from the outside campus of the following 7 public and private universities in Greater Beirut: American University of Beirut (AUB), Lebanese American University (LAU- Beirut), Lebanese University (LU-Fanar), Lebanese University (LU- Hadath), Notre Dame University (NDU- Zouk Mosbeh), Holy Spirit University of Kaslik (USEK- Kaslik), and Saint Joseph University (USJ-Beirut).

The team contracted with a research agency to do the data collection. A half-day training session was delivered by members of the AUB research team on the administration of the instruments as well as ethics of data collection. The team received IRB approval in May 2016, then immediately embarked on the survey. The trained fieldworkers approached the students from outside/around campus, introduced themselves and established eligibility criteria which include being a student of one of the seven selected universities, AND aged between 18 and 25 years. The fieldworker handed the student the oral consent form, which further clarifies the objectives of the study and its processes. Students were allowed the time needed to carefully review it and agree or disagree, prior to starting filling the questionnaire. Oral consent forms and questionnaires were administered in either English or Arabic language (pending respondent preference). After the consent was obtained, the fieldworker handed the respondent the self-filled questionnaire and left the respondent with the privacy needed to complete the survey. The trained field worker remained close by in case the participant had questions or needed clarifications but far enough not to

invade the respondent's privacy. Once the participant completed the survey, the fieldworker thanked the respondent and placed the filled questionnaire in a designated envelope.

For the university component, the team submitted an application to IRB, including the respective questionnaire and all other materials to in February 2016 and received IRB approval on May 2016. Data collection was completed within a couple of month's period (May 12 - June 10, 2016). Exploratory analysis of the data has been conducted. More in depth analysis to assess correlations between alcohol-policy variables is underway, and we hope to have our first manuscript submitted by January 2018.

In 2016, the team was granted a 1 year no-cost extension followed by an additional 6 months to finalize the high-school component and data triangulation. With regards to the high-school sample, the initial plan was also to do a similar survey with around a 1000 high school students, but we know from previous experiences, the complex bureaucratic and logistical challenges involved with undertaking a high-school survey (getting permission from each individual and randomly selected school, obtaining both parental consent given students are younger than 18 and child assent following school approval, and detailed follow-up… to mention a few). To facilitate the process of obtaining school approval, the team explored with the WHO the possibility of pairing this survey with the GSHS which is conducted in Lebanon every 5 years, and was being conducted in November 2016 at that time. The GSHS 2016, unlike previous ones, was expanded from middle school students to high school students, making it feasible to our objective. The PI and research team had positive negotiations with the WHO senior professional officer in Lebanon who agreed to allow us to use the same sampling frame and selected schools sample for our high-school survey. We planned to administer our survey early in 2017, immediately following few weeks after the GSHS is completed. Due to some delays in getting AUB IRB approval, low participation rates of schools (particularly private), and inability to secure parental consent (students were not returning the signed consent form), the data collection of the high school component began April 2017 and was completed by end of June 2017. For our high-school study we sought our own IRB approval, and contacted the Director General of the MEHE to tell him further about the survey of general high-school youth 15-18 and to facilitate obtaining parental consent and student assent before data collection.

Additional Activities

Compiling statistics on alcohol marketing/ads in Lebanon

This unanticipated activity in the first year pertained to compiling all alcohol marketing/ads in Lebanon for the last year (2013) from IPSOS, the leading Market Research. It was undertaken between January 1, 2013-Dec 31st 2013. We purchased from IPSOS a detailed report of the expenditures on all advertising activities across different media in Lebanon. The "Statex Report" summarizes data on a monthly basis for the alcohol category, covering mainly TV, press, radio, outdoor and cinemas for 2013 (Appendix B.2). Although the first report was sent by March 2014, careful review with team members revealed some gaps in the report, especially that some earlier agreed upon variables were not included. IPSOS were contacted consequently to ensure proper delivery of the material requested. A final report submitted by August 2014, compiling all alcohol marketing/ads in Lebanon for the year

2013, details clearly the sector (alcoholic drinks), the category (alcoholic energy drinks, champagne & sparkling wine, etc...), product, brand, media agency, creative agency, media (TV, outdoor, magazine, newspaper etc.), medium (PROMOMEDIA, VIVAD, AL-BALAD LBCI, OTV, MTV, FUTURE TV) and monthly expenditures is USD.

Surveillance of alcohol outlets

During year 2 of the project, the Surveillance of alcohol outlets was made possible through the recruitment of an ArcGIS Specialist (J.N.), who has completed a variety of projects on environmental, geology, landscape, oil and gas exploration and transportation. Ms. Nicolas was recruited to lead on this component under the supervision of the PI. She specifically recruited graduate students from the Faculty of Arts and Sciences (FAS) - geology department, with field experience in acquiring point data and data collection. These students were easily capable of working and manipulating GPS machines and retrieving data in coordinate system. The PI was able to secure two calibrated GPS machines for use during data collection (for free). Upon completion of field work, the machines were returned to the department of Geology.

The objective was to assess not only the number but also distribution of alcohol-selling venues by type of venue (off-premise or on premise), alcohol beverage served (beer, wine or hard liquor) and other important indicators collected using an observational form (Appendix C.1) and analyzed using GPS/GIS systems. Two areas were selected for pilot-testing of the observational form developed for this component (including Gemmayzeh and Mar Mkhayel). The objective of this pilot-testing was to anticipate any possible problems that could arise with data collectors when in the field and to identify any potential misunderstanding/unclearness of variables to be collected in the respective outlets, in order to recommend justified changes to the observational form and different approaches in collecting data. The pilot took place on four different days, mainly March 31, May 14, May 22 and May 26, 2014 by four different data collectors. The data collectors made 67 stops marked in 6 hours of work during 4 days. The average per stop was 5 minutes which was considered viable. A debriefing meeting was held to discuss pilot findings and amend observation form accordingly,

Data collection started on June 3rd, 2014 and ended on July 2nd, 2014. Four large main areas of administrative Beirut were surveyed: Area 1: Hamra & AUB, Area 2: Ain el Mraisseh & Minah el Hosn, Area 3: Ras Beirut & Manarah, and area 4: Tallet Jounblat & Kantari. Once the data was collected, Ms. Nicolas initiated the analysis. Quality control of data in ArcGIS format was undertaken; in fact, when data was uploaded into the ArcGIS system, the attributes needed to have specific field properties to be able to display them into the GIS format. Several maps were generated as per this component's objective. The methodology details and surveillance finds and interpretation and being written as a peer-reviewed article (Appendix E.2).

PROJECT OUTPUTS

In line with what we specified in the IDRC grant proposal (in the results and dissemination section), the main outputs are presented below.

Under Objective 1,

- A timely and comprehensive document summarizing all the relevant decrees, regulations, decisions related to alcohol control in Lebanon (Appendix B.1).

- A review paper summarizing the epidemiological evidence, and alcohol-related control policies in Lebanon and all other Arab countries in the region, making evidence-informed recommendations published in the International Journal on Drug Policy (Appendix E.1).

- A manuscript (in preparation) describing perceptions of key stakeholders from the government, NGOs and the alcohol industry in Lebanon on the significance of having a national alcohol control policy to curb youth drinking well as the challenges of designing and implementing such a policy (Appendix E.3).

Under objective 2,

- A self-filled questionnaire - the LAPS (university and high-school) - assessing the relations between policy-relevant proximal (e.g., perceived cost, promo/ad awareness), psychosocial mediators (e.g., beliefs, attitudes) and outcome variables (i.e. comprehensive consumption data), as well as demographic and other potential moderating variables (e.g. age, sex) among youth (15-25) (Appendices C.2 and C.3).

- An abstract entitled "Youth's perceptions of policy-level factors and their drinking patterns: Data from Lebanon" accepted for presentation at the GAPC 2017 and IAAH Congress 2017 (Appendices D.7).

Under Objective 3,

- A self-filled questionnaire - the DCE survey questionnaire - including choice scenarios based on the main findings of the youth FGDs that were done a priori (Appendix C.4). The DCE survey questionnaire helped gauge youth's alcohol purchasing patterns under various policy packages.

- Two manuscripts in preparation for submission end of August 2017 (Appendices E.4 and E.5).

<u>**Additional outputs**</u>

- A survey form useful for collecting data while conducting a GPS surveillance study; allows to collect data such as the type of off/on-premise outlets, the opening and closing times, the presence of a sign that prohibits sales to minors, the type of alcoholic beverages served/ available, the display of the bottles within the outlets, promotions and point-of-sale (Appendix C.1).

- A manuscript summarizing the GPS surveillance findings, planned for submission in August 2017 to the Journal of Health and Place (Appendix E.2).

- A Policy Brief (enclosed in Appendix B.3) that compiles relevant evidence mostly from developed countries on the effectiveness of various individual, family, school, community and policy-level interventions that aims to control alcohol consumption among youth, delay initiation and reduce alcohol related harms. The goal of the policy brief is to sensitize key stakeholders to the importance of addressing the issue of youth harmful alcohol use.
- A taxation report reflecting a comprehensive review of Alcohol Taxation system in Lebanon.

Throughout the project, the team also conducted meetings with the advisory board (April 2015, May 2015, and September 2016). The team also held two M&E workshops (May 2015, May 2016) with the objective of reviewing progress and strategizing needed activities to ensure a comprehensive approach our goal. All meeting minutes are available upon request.

<u>Outputs in progress</u>
- Conducting path analyses (as per objective 2) to estimate the direct, indirect and total effects of the various policy-relevant proximal measures on alcohol consumption.
- Developing infographics of the main findings.
- Formulating a formal list of policy recommendations based on the triangulation of findings and discuss with a variety of stakeholders next steps. The outcome of the meeting should be consensus over the most appropriate policy options to propose to policymakers.

In the absence of NGOs that exclusively work on alcohol harm reduction, the sustainability of the taskforce and the active engagement of its members is crucial to ensure moving the alcohol control policy forward. We have a number of NGOs and governmental representatives who are willing to be part of a taskforce that advocates along with research team for the implementation of the study-generated recommendations. Now, we have the data necessary to develop the recommendations and we will conduct additional meetings with the stakeholders to gain their insight on the feasibility of the policy recommendations.

DISSEMINATION OF FINDINGS

Dissemination of the findings was conducted in a number of ways via peer-reviewed journal publications, policy brief and dialogue, oral/poster presentations at local and international conferences, including the Global Alcohol Policy Conference and the College on Problems of Drug Dependence, as well as several media appearances to discuss the project and its role in ultimately reducing alcohol-related harms in youth in Lebanon (few pictures enclosed as Appendix F).

Through dissemination we have been able to (1) contribute to the published scientific literature by adding a regional perspective to the epidemiological evidence on alcohol as a public health issue, (2) sensitize the stakeholders and the lay public to the issue of underage drinking thus enhancing the quality of the debate in the Lebanese policy environment (the attention that this project has already garnered from the media is indicative of the power of its potential impact); (3) connect with international scholars/experts working on alcohol harm reduction; (4) engage stakeholders and creating a coalition group to advocate for alcohol harm reduction plan as a commitment to moving the policy dialogue forward beyond the timeframe proposed for this study; as well as (5) lay the ground for follow-up work.

Consultative meetings with stakeholders

The first multi-stakeholder consultative/dissemination meeting (May 2015)
Knowing that the goal of this project can only be successfully sustained on the long-run via the collaborative efforts of all major stakeholders, the team gathered a group of like-minded actors (as a first-step) in a multi-stakeholder meeting in May 2015 to collectively think through some of the foreseeable local challenges and potential solutions. Participants included governmental (Ministries of Social Affairs and Public Health) and non-governmental stakeholders (primarily those who had participated in the stakeholder interviews, including additional stakeholders identified since) to share with them preliminary findings related to the status of alcohol-related publications from Lebanon and the Arab world, the national alcohol-related policies and stakeholders' perceptions/views mainly with regards to the challenges and opportunities to implementing an evidence-informed national alcohol harm reduction policy. The goal was to validate our findings from the stakeholder interviews, begin in-depth discussions about the findings, and ways forward. The meeting was very well attended (16 attendees besides research team) – and included directors and senior officials from governmental programs and NGOs. The meeting emphasized the importance of generating an evidence-based harm reduction policy while simultaneously attending to (or at least preparing for) major challenges/obstacles. The meeting minutes are available upon request.

The second multi-stakeholder consultative/dissemination meeting (May 2017)
The second meeting was held in May 2017 to update stakeholders on the progress of the project and its next steps, present the findings of the project to date, and our initial recommendations derived from the triangulation of various data sources, and engage together in a discussion of the findings and the next steps. At this 2nd multi-stakeholder

dissemination meeting, the research team presented the data triangulation using all the surveys, reports, stakeholder interviews and the national policy dialogue. The meeting was well attended (less so than the first meeting). However, some important recommendations and feedback was provided by the attendees. The meeting minutes are available upon request.

Peer-reviewed publications

- One published manuscript in the *International Journal of Drug Policy* (Appendix E.1) that synthesizes the main findings of Objective
- Four additional manuscripts in progress: (1) the first explores the perception of key governmental and non-governmental stakeholders on the challenges of designing and implementing an effective national alcohol control policy (Appendix E.3); (2) the second summarizes the main findings of a GIS/GPS surveillance activity (Appendix E.2); (3) the third based on the DCE survey explores what drives youths' choices of outlets and venues for off- and on-trade purchases of alcoholic beverages (Appendix E.5); and (4) the fourth also based on DCE survey findings models youths' demand and ethanol intake responsiveness to alcohol taxes, and focuses on generating data to inform the design of alcohol tax policies to cost-effectively reduce harmful drinking among youths in Lebanon (Appendix E.4).
- Other future manuscripts will summarize findings from the LAPS high school and university surveys, and the triangulation of the data.

Instructional settings

The findings and some components of the methodology have been presented as part of a graduate course on the Epidemiology of NCDs and Mental Health – at the Faculty of Health Sciences (FHS – AUB). Case studies for students have not yet been developed.

Media

The project has gained much media attention across several stages of the study, whereby several local and regional magazines and newspapers have either interviewed the PI (L.G.) or published the press release (prepared by the AUB Communications Office). The press releases were both in English and Arabic languages shedding light on the importance of the project given the public health importance of the topic. The press releases highlight mainly the rise alcohol drinking among youth in Lebanon, pointing to the need for this IDRC-funded project that aims to provide an evidence based alcohol control policy package. The tiles of selected news publications, their publication dates and newspaper names are listed below:

- "Lebanon's underage drinking problem", March 14, 2013, EXECUTIVE Magazine. https://goo.gl/t2LV7a
- "FHS launches a study on alcohol haram reduction policies in Lebanon", March 3, 2013, AUB website. https://goo.gl/U5apZp

- "AUB research team launches study on alcohol haram reduction policies in Lebanon", March 5, 2013, AME info. https://www.aub.edu.lb/fhs/fhs_home/news/articles-12-13/Documents/YouthAlcohol_BeirutBusinessReport_0313.pdf

- "Press release: AUB research team launches study on alcohol harm reduction policies in Lebanon", March 5, 2013, MEED.com.

- Study of the American University about the "دراسة للجامعة الأميركية عن مضار الكحول نسبة شاربيها ارتفعت 40% بين اليافعين harmful effects of alcohol, proportion of consumers increased to 40% among adolescents"; March 5, 2013, Al nahar newspaper. https://goo.gl/cJfr6Q

- Proportion of alcohol drinkers among the youth of Lebanon "نسبة شاربي الكحول بين شباب لبنان ارتفعت 40% في 7 سنوات increased 40% over 7 years"; March 4, 2013, Al nahar newspaper. https://goo.gl/cJfr6Q

- "Out of seven adolescents, two consume alcohol in Lebanon", 6 "بين كل سبعة يافعين اثنان يتعاطيان الكحول في لبنان March 2013, Saida City newspaper. https://goo.gl/BE9vsb

- A research team from the American University of "فريق بحثي من الجامعة الأميركية يبدأ بتطوير دراسة حول تخفيف مضار الكحول Beirut launches a study on alleviating the harmful effects of alcohol", 5 March 2013, El Nashra online newspaper. https://goo.gl/iMnFZW

- ك ت صيدلا استقلال حلها "تدرس" كلية والجامعة الأميركية يتعاطيان الكحول واثنان يافعين بين كل سبعة

"Out of seven adolescents, two consume alcohol and the American University of Beirut" studies policy reform to reduce consumption", 6 March 2013, Almustaqbal newspaper - Official Website. https://goo.gl/BE9vsb

- الكحول "The American University of Beirut considers local policies to الجامعة الأميركية تبحث في سياسات محلية تخفف من إستهلاك reduce the consumption of alcohol", 4 March, 2013, Aliqtisadi.com.

- The PI of the grant was invited to appear in a segment of a TV documentary tackling youth drinking in Lebanon – where the project and its role in ultimately reducing alcohol-related harms in youth in Lebanon was highlighted ("Tahkik" TV show on a local TV channel, MTV, January 2015)

- In 2017, the policy dialogue gained attention in the media and various news presses published about the work we have done.

- The PI (L.G.) was invited to a TV Interview on a local TV channel to talk about the situation in Lebanon with regards to alcohol drinking among youth and its related harms, in addition to discuss the work of Alcohol Harm Reduction Working Group and K2P in informing and influencing related policies that are based on contextualized evidence ("Yawm Jdid" morning TV show on a local TV channel, OTV, February 7, 2017) ...

- The PI was invited to a Radio Interview about alcohol consumption among youth in Lebanon, our alcohol harm reduction initiative and the K2P policy dialogue PI radio interview ("The voice of Lebanon", Date February, 2017).

Reports
- Policy brief (Appendix B.3)
- Policy Dialogue Summary (Appendix B.4). The meeting minutes available upon request.
- Alcohol Taxation system in Lebanon

Conferences and meetings

- In April 3-5, 2013, Dr. Chalak attended the 16th conference of the Alcohol Policy series entitled "Building Blocks for Sound Alcohol Policies" on in Washington, DC. The conference allowed the team to gain insight into the work of various international organizations, including representatives from the WHO, from the Global Alcohol Policy Alliance (e.g. Sally Casswell, David Jernigan, Thomas Babor), Centre for Addiction and Mental Health (e.g. Rehm) and various American organizations (NIAAA, CDC, Alcohol Justice etc.), as well as universities, most prominent of which was the Johns Hopkins Bloomberg School of Public Health. While attending this conference also, we were informed of the upcoming GAPC conference on Alcohol in Seoul and its importance as a forum for an academic discussion of alcohol control policies.

- Consequently, Dr. Ghandour attended the second Global Alcohol Policy Conference (GAPC) on "Alcohol, Civil Society and Public Health: From Local and National Action to Global change", which took place in Seoul, Korea (7-9th October, 2013), and gathered experts and academics from different regions of the world.

- On September 14-18, 2014, Dr. Ghandour attended the XVI World Congress of Psychiatry, entitled "Focusing on Access, Quality and Humane Care", which was held in Madrid, Spain. This congress constituted the major meeting of worldwide psychiatrist, psychologist and mental health professionals, to discuss and share new findings on the specialty. Dr. Ghandour was invited to talk about the "Harmful Drinking among Youth in Lebanon: A Growing Practice and Concern"- and in her presentation she highlighted the role of this grant and its activities in curbing harmful alcohol drinking by proposing an evidence-based alcohol control and harm reduction strategy.

- An abstract submitted to the World Congress on Public Health (Kolkata, India, February 2015) was accepted as an oral presentation but none of the team members were able to attend. The abstract is entitled: "Use of data triangulation for proposing a comprehensive national alcohol control and harm reduction policy: The case of Lebanon" (Appendix D.2)

- On October 7–9, 2015, Dr. Ghandour and Dr. Nakkash attended the 4th GAPC entitled "Momentum for Change: Research and Advocacy Reducing Alcohol Harm", held in Edinburgh, Scotland, that aims to gather researchers from around the world who are committed to evidence-based actions to reduce alcohol-related harm worldwide. Three abstracts (Appendices D.1, D.3, and D.4) were submitted and accepted to be presented at the Conference, two as oral presentations and one as a poster presentation.

- On June 17-22, 2017 Dr. Ghandour and Dr. Chalak attended The College on Problems of Drug Dependence (CPDD) 79th Annual Scientific Meeting (2017), held in Montreal, Quebec, Canada. An abstract entitled "Modelling youths' demand and ethanol intake responsiveness to alcohol taxes: The case of Lebanon" was accepted as an oral presentation delivered by Dr. Ghandour (Appendix D.5).

- An Abstract entitled "Modelling youths' demand and ethanol intake responsiveness to alcohol taxes using Discrete Choice Experiment" presented at the LEA 2016 and CPDD 2017 (Appendix D.5) and was accepted along with a second abstract entitled: "What drives youths' choices of on-premise alcohol outlets? Data from Lebanon" for presentation at the GAPC 2017 (Appendices D5 and D.6).

- An abstract summarizing the findings from the LAPS university survey entitled "Youth's perceptions of policy-level factors and their drinking patterns: Data from Lebanon" (Appendix D.7) was accepted as oral PPT at the GAPC 2017 as well as the IAAH 2017 congress.

PROBLEMS AND CHALLENGES

Objective 1: **Document the national alcohol policy, particularly the current legal framework covering the local alcohol industry, and policies governing the sale, supply and marketing of alcohol, with a special emphasis on the vulnerable population of youth.**

Objective 1/Activity 1: Comprehensive content analysis of the national alcohol control policy in Lebanon (e.g., laws, decrees and strategies) particularly with regards to core intervention areas including affordability, availability, and regulation of marketing, and drinking and driving.

- Delays in recruiting an RA, causing subsequent delays in administrative and research activities

- Initially the team had envisioned that the RA would be able to summarize the alcohol-control related policies, but the process turned out more tedious than expected given that the alcohol-related policies, decrees, and decisions are scattered across various policy documents. Finally, a lawyer was identified, willing to volunteer her time and thoroughly review the alcohol control policies in Lebanon. This task required extensive time and effort since such policies are scattered into different other policies that are not thematically classified under alcohol-related themes. In other words, the alcohol control stipulations are not part of a holistic national alcohol control policy, and not all of the alcohol control stipulations are easily traceable under alcohol related polices. Some of the stipulations are part of policies (laws, decrees, and decisions) that are easily tracked from the title/subject as alcohol related policies (this is mainly the case of policies that are related to labeling, importing and marketing of alcoholic beverages). Other stipulations are more difficult to track since they fall under policies that are not indicative or suggestive of their relevance to alcohol and/or alcohol control through the title/subject of the policy (i.e. stipulations related to the minimum drinking age, licensing of days and hours of sale, drinking in public places…). Extra effort was made to ensure that no stipulation related to alcohol is missed.

Objective 1/Activity 2: Review of the literature on alcohol control policies in regional (Arab) and selected international countries, specifically with regards to how they are set up, revised and enforced.

- Incomparability of the epidemiological findings across studies or countries as a result of the methodological differences.

- Discrepancies were found between (1) what is published in the 2014 WHO Global Status Report on Alcohol and Health and GISAH and our alcohol control policy content analysis (Objective 1/Activity 1); so for the policy mapping exercise within other Arab countries, the summary table may not provide a comprehensive or completely accurate portrayal of the situation of alcohol policy in any specific country

- Discrepancies were found between (1) alcohol consumption data within the 2014 WHO Global Status Report on Alcohol and Health (i.e. estimates of international standardized surveys using focal points) and data from local epidemiological representative surveys.

Objective 1/Activity 3: A series of semi-structured key informant/stakeholder interviews and (if possible) focus group discussions (FGDs) carried out with a sample of relevant key stakeholders with knowledge on alcohol control to document their perceptions with regards to the alcohol policies.

- IRB delays
- Accessing and interviewing the selected stakeholders was sometimes challenging, particularly the director generals of the governmental bodies

Objective 2: Identify the direct and indirect influences of policy-relevant factors and psychosocial mediators on policy-relevant outcomes (e.g., alcohol consumption, alcohol purchasing patterns) among youth aged 15-25 years (will be carried out in the second year).

- A major challenge was ensuring that all aspects of the developed conceptual framework were actually operationalized in the questionnaire, using valid questions and without over burdening the youth with too many questions. Since the questionnaire ideally should not take more than 30 minutes to be completed, we were obliged to cut down on its length by removing a big number of questions especially the psychosocial factors that are related to alcohol consumption and initiation among youth. We are aiming to assess this side of the problem in future surveys.

- High school surveys are challenging, particularly because of the a) students are underage (<18 years) and the study team would require parental consent in addition to student assent, and previous experiences have illustrated repeatedly the difficulty in obtaining parental consent; and b) students' schedules are usually very packed, and schools are reluctant to allow researchers use up an hour or so for research. Private schools are more difficult to recruit since they are beyond the jurisdiction of the Ministry of Education and Higher Education (MEHE). As a means to streamline the implementation of the LAPS high school survey, the PI negotiated with the WHO Lebanon Office director the possibility of integrating the LAPS high school survey as part of the GSHS 2016 survey among high school students. The GSHS is a school-based survey developed by WHO in collaboration with CDC, UNICEF, UNESCO, and UNAIDS, conducted worldwide and collects data on a major substances including alcohol. The team was hoping as best case scenario to administer the alcohol survey for general high-school youth, jointly (i.e. within the same school, at the same day) with the GSHS questionnaire preferably to a different class section of the same grade to avoid overburdening the students. However, the final agreement was that we come one or two weeks after the GSHS survey to administer our survey. This was unfortunate because theoretically, (1) schools might be reluctant about getting us to enter classes twice, (2) it would be overburdening the same group of students (same classes/sections that participated in GSHS) and (3) we would need a separate permission from the schools to enter selected classes.

- We got IRB approval end of April 2017 and immediately started administering the surveys to the randomly selected schools and classes (the ones that participated in the GSHS). In the meantime the GSHS survey was done and the data collection enlightened us regarding the issues that they faced. Mainly there were delays because of the low participation of schools. In fact, many of the randomly selected schools especially

private schools were religious-affiliated and considered the GSHS content (substance use, sexual and reproductive health, parenting practices) to be sensitive and therefore did not allow access. As we agreed to use the sample sampling frame as the GSHS we faced the same issues and same delays. Consequently, we couldn't attain the estimated sample size due to high refusal rate of schools to participate. As we were committed to prioritize our research ethics (IRB process and the parental permission requirement) at the expense of meeting research outputs, time was running which hindered us from approaching Grade 12 students as they left schools in May for a retreat in preparation for the official exams. The data collection was done in June, generating data from only 257 students. It is important to note that had we administered our questionnaire jointly with the GSHS, we would still need to develop our own parental permission and child assent in line with the IRB guidelines. This was crucial especially because the GSHS did not ask to get parental permission in the first place.

Objective 3: Assess the potential impact of specific alcohol control policy packages on youth alcohol consumption and purchasing patterns (will be carried out in the second year).

Objective 3/Activity 2: A discrete choice experiment (DCE) among young (aged 15-25 years) alcohol consumers will be undertaken to help gauge youth's alcohol purchasing patterns under various policy packages.

- Recruiting alcohol drinkers, particularly from universities within more conservative areas of Lebanon.
- Developing the DCE on alcohol was challenging given that this is the first time to our knowledge the approach has been applied to this area. The choice scenarios were to some extent guided by the recommendations of the youth who participated in the FGDs.

OVERALL ASSESSMENT AND RECOMMENDATIONS

As we were undertaking the research activities, we realized how ambitious we had been when writing this grant. We realized that instead of one research grant, what we had proposed was a research agenda or program on alcohol control. This has made us cognizant of our tendency to squeeze activities into a relatively short time period, a tendency that comes from wanting to advance health and wellbeing faster than is often possible. Throughout the course of this project, we also learned the importance of planning a timeline that takes into account unplanned activities that invariably arise. The multi-disciplinary aspect of the research team was critical but also meant extra time spent reviewing and achieving consensus. As for the budget, the team was always identifying the most cost-effective mechanism to implement the activities; the LAPS high school survey was contracted to the same personnel handling the GSHS 2016 survey, under the assumption that this would streamline the implementation of our survey. In retrospect, had we conducted developed our own sampling frame and implemented our own sampling strategy, and hired the same company that implemented LAPS university survey, the outcome may have been more positive. Worth noting that we had estimated that the LAPS University and high school components would cost the same, given that they were to be implemented by the same research company. The high school survey, however, ended up costing much less than budgeted since it was ultimately implemented by another party.

Project Trajectory

Based on the triangulated findings, we have suggested areas of priority intervention/recommendations.

At the research level, and using the data we have collected, we plan on conducting further in-depth analyses of the DCE and epidemiological alcohol surveys, as well as moving forward with at least two follow-up grants, one assessing the economic implications of our suggested policy options and the other pilot testing an intervention on a local scale with the collaboration of an active municipality.

At the level of advocacy, we will continue working with the coalition of stakeholders identified, identify champions for the advocacy process, and conduct a power analysis to better understand the dynamics between the various stakeholders (including opponents of an alcohol harm reduction policy). The 'champion' would be socially and politically well-respected by all, and would provide support, and publically speak about the alcohol issue. Having such a 'champion' to our side is especially important since we are expecting to face significant resistance from the alcohol industry and businesses related to it (alcohol companies, producers, ad agencies etc…). In addition, this 'champion' would help us in accessing strategic stakeholders in the government and beyond. As for the power dynamics exercise, understanding the real influencers and the potential key actors in the alcohol-related policymaking landscape. Those actors are often operating behind the scene; which would necessitate a proper mapping of 'who is who' and 'who speaks with whom', 'the way each actor think' and from 'which political party' the actors are.

Catalyzing, shaping and improving the quality of the debate in the Lebanese policy environment around an evidence-based alcohol control policy for youth necessitated contextualized data and evidence that were not available before this grant. We now have a lot of data and our plan is to fulfill what we were not able to completely meet for the grant proposal. The coalition we have built and the research team will work together on consensus building around an evidence based alcohol harm reduction policy framework. The focus will be on supporting enforcement and implementation of all policies as per the WHO BEST BUYS, those in place as well as advocating for the formulation and adoption of new evidence based policies.

From our several consultative meetings with the key stakeholders, and while we will continue to advocate for a comprehensive alcohol harm reduction policy for the country, it is evident that:

- We may start our focus on drink driving – we have results that suggest it is an area that has had little attention and all the stakeholders suggest it as a priority because few people will argue against this emphasis. Additionally, the traffic law is available and recently revised, therefore the coalition can play an important role as advocates for activating the law ensuring its proper enforcement.
- Informing current discussion of taxation policy so as to benefit from any window of opportunity that might open in the near future to direct adoption of evidence informed policies.

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