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RESEARCH ARTICLE

COVID-19 and International Efforts to Reduce Harmful Drinking

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ABSTRACT

Due to the ongoing COVID-19 pandemic, efforts to promote health and well-being by reducing harms related to alcohol misuse are likely to be adversely affected by changing sales and policy environments, as well as social distancing requirements imposed to halt virus transmission. In response, the AB InBev Foundation adapted an initiative originally developed to reduce harmful alcohol drinking in five global “City Pilot” demonstration sites that sponsored partnerships between local coalitions and public institutions to reduce alcohol-related harms. Little is known about the effects of a prolonged pandemic on access to alcohol, alcohol misuse and related harms, and ongoing interventions designed to prevent or mitigate these harms. Participants in Community Steering Committees (SteerCos) associated with each City Pilot provided information about the history of the project and the context of implementation during the COVID-19 pandemic. We found that, where feasible, the City Pilots adapted their in-person prevention strategies for online delivery. They also modified the purpose of a Foundation-sponsored fund that was originally intended to support community-based alcohol harm prevention efforts. As repurposed, this fund financed local COVID-19 prevention and emergency response efforts and generated goodwill with community partners.

Keywords: COVID-19, alcohol use, community fund, community coalitions

Background

As the novel coronavirus (COVID-19) pandemic continues to devastate much of the world, efforts promoting health and well-being by reducing alcohol misuse have likely been adversely affected by changing policy, healthcare, and educational environments. Little is known about the effects of a prolonged disaster like the pandemic on alcohol consumption and related harms, and for interventions designed and initiated to prevent or mitigate these harms.

The scientific literature concerning the effects of natural and man-made disasters on alcohol consumption and abuse has generally, but not consistently, revealed a positive relationship between the two.¹ Examining the sequelae of the 2001 terrorist attack on the World Trade Center, two investigations reported increases in alcohol consumption, binge drinking, and alcohol dependence one-year post-disaster.^{2,3} Increased alcohol consumption and binge drinking also have been observed in the United States after Hurricanes Katrina and Rita.⁴ On the other hand, an investigation of the effects of ten US-based disasters on subsequent alcohol use found no increases in cases of alcohol use disorders post-disaster.⁵ Several characteristics of these disasters and their effects on alcohol use and misuse differ from the present pandemic. Although the effects of the disasters lingered to varying degrees, each was of relatively short duration as an event, and none required that people isolate themselves. The studies of each disaster assessed alcohol consumption in the aftermath—as opposed to the midst—of the event, and none of these events was associated with efforts to curtail retail access to alcohol.

Since 2016, the AB InBev Foundation has supported demonstration projects in five City Pilots as part of its Global Smart Drinking Goals (GSDG) initiative. The Foundation was created by the AB InBev Company, the world's largest brewer, to reduce harmful drinking globally by identifying effective evidence-based programs and policies and supporting their implementation by community-based coalitions in partnership with local public institutions. The Foundation's goal was to reduce harmful drinking in each city by 10% and to identify best practices that could then be scaled up elsewhere with Company support for evaluation design of this project, see Miller et al.⁶

The selection of each site for a City Pilot was largely opportunistic and based on two key criteria, the first of which was the presence of a local ABI

Company affiliate – that is, a brewer or distributor – that would support the work of the City Pilot. The second criterion required the presence of a local or regional government entity that was willing to sign a memorandum of understanding (MoU) that specified that the government would work with the Company to achieve the latter's Global Smart Drinking Goals. Consideration was also given to distributing the City Pilots across the Company's various global operational zones.

The five funded City Pilots are located in: Brasilia, Brazil; Columbus, Ohio; Leuven, Belgium; Johannesburg, South Africa; and Zacatecas, Mexico. When the pandemic first took effect, each was in a different stage of project planning and implementation. Literature on how the COVID-19 pandemic has impacted public health efforts generally and alcohol misuse prevention more specifically is just emerging for a review, see Onyeaka et al.⁷ However, the pandemic has presented a significant barrier to intervention opportunities in ways both similar to and different from that of other disasters. For example, COVID-related sequestration policies likely limited opportunities to train alcohol servers in the prevention of alcohol-related harms such as service to minors and the already intoxicated, which are key evidence-based interventions⁸⁻¹⁰ implemented by the City Pilots. Similarly, the pandemic also likely limited the availability of medical personnel to conduct Screenings and Brief Interventions (SBI) for alcohol misuse,¹¹ as patient visits were greatly reduced and any contact time was constrained by COVID testing, related patient education and emergency response. In addition, it seems likely that the medical workforce already trained in the delivery of prevention services as a key component of their practice may not return to work once their practices are reopened, and new staff will need to be trained. With educational institutions either shut down or remote, many schools may have paused or sidelined prevention efforts in favor of core educational requirements. Law enforcement agencies may have halted alcohol breath testing because of concerns around transmission of the virus, and alcohol enforcement agencies may have been reassigned to respond to other pandemic-related issues like enforcing sequestration orders or preventing interpersonal violence. Finally, media campaigns supporting prevention efforts are likely to have been sidelined by news related to the pandemic and its effects.¹²

In this paper, we explore these and other effects of the COVID-19 pandemic on the five City Pilot interventions designed to reduce harmful drinking. We also describe how the pandemic affected the operations of the community coalitions developed to realize the mission of the GSDG in the City Pilots, as well as the prevention activities they implemented with Foundation funding. We describe a “Community Fund” of up to \$50,000 per site that was originally established by the Foundation to support harm reduction interventions. During the pandemic, this fund was repurposed to support community responses to COVID 19 and to generate goodwill that would increase local support for prevention efforts once the pandemic subsided. We conclude with a discussion of the lessons learned from our exploration of the effects of the pandemic in the City Pilots, together with implications for future practice related to the prevention of alcohol-related harms within the context of prolonged disasters like COVID-19.

Research Questions

The onset of COVID-19 occurred at different times and differentially impacted the five City Pilot sites, based on the nature and severity of the epidemic in each and the ability of local public health systems to develop and enforce public health policies, to engage existing infrastructure, and to provide health care workers with materials such as personal protective equipment (PPE). In this study we address three questions:

- 1) What was the impact of COVID-19 on the efforts of City Pilots to develop and implement projects to reduce harmful drinking?
- 2) How did the City Pilots respond to a Community Fund established by the Foundation to support local Covid prevention and mitigation efforts?
- 3) How did the City Pilots use the resources this fund provided them, and what effects did local stakeholders believe the fund would have on the long-term success of their efforts to prevent harms related to alcohol use?

Methods

Data were collected from key stakeholders by means of a written questionnaire completed by key staff at the 5 City Pilot sites in mid-April 2020, followed by semi-structured interviews with key staff and community-based SteerCo members in 2019-2020, and again in September/October of 2021. The individuals interviewed received no

incentives for their participation. The information was not of a personal or sensitive nature and, thus, if released outside the research context would not pose a risk of harm to participating individuals such as legal, criminal, financial, or damage to reputation. Therefore, this component was deemed Exempt from IRB oversight as per 45 CFR 46.101(b)(2). However, the overarching study from which this smaller project was derived was approved by the Institutional Review Board of the Pacific Institute for Research and Evaluation.

Questionnaires Completed by Key City Pilot Staff

In April 2020, we asked City Pilot staff to report how the coronavirus had affected their communities regarding alcohol production, distribution, sales, and consumption, as well as alcohol-related harms such as alcohol dependence, interpersonal violence, and drink driving. They also were asked to report how the pandemic had influenced the operations of their SteerCo, and how they adapted projects or programs to meet the exigencies of local sequestration orders. If any interventions or programs were suspended, we asked them what plans there were to restart the interventions once these orders were rescinded. Finally, staff were asked how they intended to use the Community Fund that the Foundation provided them. A copy of the questionnaire is included as Attachment A.

Initial Interviews with Key Stakeholders in the Five City Pilots

We conducted semi-structured, video-based interviews of between 60 and 90 minutes with key staff and SteerCo members representing each of the five City Pilots.¹ These took place between April and October, 2020 for all City Pilots with the exception of Mexico, which began in October 2019. Participants were reminded of our status as outside evaluators who were interested in their experiences working on Foundation-sponsored interventions before and during the COVID-19 pandemic. We asked respondents to describe their responsibilities regarding their SteerCo and the current context of their work. In most cases, respondents were employed by the project and completed the interview as a part of their regular duties. In total, 27 interviews were conducted with 29 interviewees (two interviews included two people). In addition, we conducted an interview with two AB InBev Foundation staff who oversaw all

¹ A copy of the interview guide is included as Attachment B.

the City Pilots. All participants were reminded that because readers might discern their identity from what they told us, we could not ensure their anonymity. We suggested that if they were

concerned about maintaining their privacy, they should avoid making statements that they thought might place them at risk.

Table 1. Interviewees for Initial Interviews with Key Stakeholders

City Pilot	Interviewees
All sites	Executive Director, Program Officer for City Pilots
Alexandra	SteerCo Coordinator*, Program Officer*, Site Monitor**, Drinking and Customer Service Relations Manager, South Africa***
Brasilia	SteerCo Coordinator*, Program Officer*, Site Monitor**, 2 Company Representatives***
Columbus	SteerCo Coordinator*, SteerCo Chair *, Columbus Site Monitor**, Former Program Officer, Representative from the AB InBev Company***
Leuven	SteerCo Coordinator, Current Program Coordinator*, Former Program Coordinator, Site Monitor**, Professor and Emergency Room Doctor at the University Hospital in Leuven, Vice President of Legal and Corporate Affairs of AB InBev, Europe***
Zacatecas	Original Program Coordinator, then Steerco Coordinator, now Program Officer*, SteerCo Coordinator, Site Monitor **, 2 AB InBev Local Affiliate partners**, 2 Intervention Partners
*Indicates that interviewee is a paid employee of the AB InBev Foundation ** Indicates that interviewee is a paid contractor of the external evaluator ***Indicates that interviewee is a paid employee of AB InBev	

Re-Interviewing Key Stakeholders in the Five City Pilots

In the fall of 2021, we reinterviewed as many of the key stakeholders and SteerCo members as were available. In cases where staffing had changed, we attempted to interview both former and current staff. We conducted one interview per site with a total of eight key stakeholders. Interviews lasted approximately 60 minutes and focused on the effects of COVID-19 on their work. Participants were asked about the effects of their use of the Community Fund on community relationships as well as their future intentions for each intervention. A copy of the semi-structured interview guide for the follow up interviews is included as Attachment C.

Analysis

For the questionnaires and interviews, we began by coding participants’ responses to each question and then coded them again by theme,¹³ using the NVIVO Qualitative Software program. The team determined a priori coding structure based on the questions in the interview guide, and then identified themes across the interviews, while the third author reviewed the emerging themes and suggested additional probes into the data. After

multiple readings of the transcripts, our team also created literal codes (such as “shifts to online administration of SBI”) from respondents’ language. Then, by comparing respondents’ narratives, we created more focused codes, such as “accelerating work online for greater efficiency.” We continued a cyclical process of analysis and discussion until the project team agreed on the salient themes from the data.

Results

Results are reported by theme and by intervention City Pilot site in alphabetical order.

Initial impact of the pandemic on alcohol regulations and the availability of alcohol in City Pilot sites

Brasilia, Federal District of Brazil. In mid-March the government of the Federal District mandated that bars, liquor stores, and restaurants close to the general public. Home delivery services were allowed. The President of the Brazilian Association of Studies on Alcohol and Substance Abuse warned of the risk of increased alcohol consumption during the pandemic.¹⁴ In addition, the Pan American Health Organization rebutted rumors prevalent in Brazil and elsewhere that alcohol consumption reduced the probability of contracting the virus.¹⁵

Columbus, Ohio, United States. Local reports of the effects of the pandemic on consumption varied considerably. We know that alcohol-related deaths have increased in the United States.¹⁶ Key Stakeholders in Columbus reported anecdotal evidence that the closing of colleges in the area resulted in binge drinking reductions. However, restaurants with liquor licenses that offered takeout meals were able to sell up to two prepackaged drinks with each meal, and any other business with an existing liquor permit was allowed to deliver alcohol. When outdoor patios serving alcohol re-opened in May of 2020, flagrant violations of social distancing policies in some college drinking venues were reported.¹⁷

Alexandra Township, Johannesburg, South Africa. In mid-March of 2020, the government of South Africa imposed evening closing hours on restaurants, clubs, and off-premises establishments licensed to sell liquor. A week later the government completely banned the sale of all alcohol and prohibited granting new liquor licenses for special events. In so doing, South Africa enacted some of the most stringent regulations of any nation in the world.¹⁸ In response, some bars and restaurants called for the alcohol ban to be lifted¹⁹ due to increased demand and hardship on their businesses.

Leuven, Belgium. The federal government of Belgium closed all bars, restaurants, and non-essential businesses in mid-March. City Pilot key stakeholders reported that very few bars appeared to violate these restrictions. However, alcohol continued to be available in supermarkets. At the beginning of the outbreak, participants reported crowding in bars for “lockdown parties” prior to their anticipated closing. There was local speculation that alcohol consumption would increase at home because of the lockdown, and that residents would engage in online “happy hours” and “aperos” (or “aperitifs”). Further, a key stakeholder described an increase in the number of people who “struggle with alcohol.”

Zacatecas, Zacatecas state of Mexico. In late March, the federal government decreed a health emergency and suspended all non-essential activities, including alcohol production. The distribution and sale of alcoholic beverages, as well as the operation of premises where alcohol was sold and consumed, were subjected to additional municipal and state government restrictions. Zacatecas held bragging rights to the largest brewery in the world, and with production curtailed, Mexicans complained of a national beer crisis.²⁰

Those who failed to comply with restrictions were threatened with a revocation of their permits to sell alcohol, and distributors who transported alcohol to private homes were subject to fines.²¹ The government also sponsored a “National Healthy Distance” campaign that warned citizens against all private and public social gatherings, including sites of mass alcohol consumption. Zacatecas City Pilot stakeholders reported that the public initially responded to reductions in the accessibility of beer with a surge in purchases.

Impact of the pandemic on the sponsored interventions/programs at the City Pilots

Altogether, plans submitted by the SteerCos to and approved by the Foundation prior to the pandemic included a total of 37 interventions that were to be implemented in 2020. Of these, 10 continued, usually with some adaptations to accommodate the pandemic; 14 were suspended with the expectation that they might be continued once the pandemic subsided; and the residual 13 were halted altogether pending further review in 2021.

In *Brasilia*, SBI and Responsible Beverage Service (RBS) trainings aimed to reduce service to underage or intoxicated patrons with bar owners and beverage servers were adapted for online delivery. In addition to these alcohol harms prevention interventions, this City Pilot sought to support mental health, prevent gender-based violence, and prevent underage drinking through an online service for homebound and isolated students. In addition, the adoption of the telehealth delivery of SBI accelerated coverage and when compared with the face-to-face delivery model pre-pandemic.

Electronic screening and brief intervention (e-SBI) continued to be supported by several post-secondary institutions in the *Columbus* area, relying on voluntary student participation in the initial screening process. Plans to make the screening and an associated course mandatory for first-year students were suspended. However, plans for the development of an RBS program for servers, with a focus on rules and regulation compliance, continued. Two additional initiatives were suspended: requiring ignition interlocks for repeat drink driving offenders, and a social marketing campaign designed to support the City Pilot’s purchase of a blood alcohol concentration (BAC) truck for police to test for, and record immediate evidence of, drink driving.

In *Johannesburg*, many initiatives planned pre-pandemic by the SteerCo were put on hold. SBI implementation was suspended, as there were concerns about the well-being of healthcare workers responsible for administering it, and the willingness of the public to visit healthcare facilities for screening while the pandemic threatened. However, the SteerCo continued to plan for project operations post-lockdown. The SteerCo reported that an online RBS server training to avoid serving underage and intoxicated patrons was less effective than previous in-person trainings. Because many establishments that served alcohol were closed, and many others (e.g., 'shebeens') were family run, unlicensed, and lacked access to the Internet, virtual server trainings were impractical. Thus the implementation of RBS was delayed. Of further concern, the SteerCo became aware that some taverns that closed for the epidemic might never reopen.

Leuven. Much of the work of the City Pilot's SteerCo changed substantially, with a new focus on managing the prevention of contagion and the multiple effects of the pandemic by supporting the immediate needs of those institutions affected (including bars and restaurants), as well as drafting a recovery strategy to be implemented once the lockdown was lifted. Healthcare providers who traditionally delivered SBI became unavailable as the pandemic increasingly burdened the health care system. The SteerCo noted the apparent prevalence of alcohol use as a lockdown-related coping mechanism and expressed reservations about the willingness of patients in the healthcare system to be screened for alcohol misuse. The SteerCo's plans for reviving RBS were less clear given that local retailers were focused on economic survival, therefore increasing challenges relating to the recruitment of bar owners and managers to participate in RBS training. Additionally, the Health House, the physically immersive and interactive platform for many of the Leuven interventions' educational components, remained inoperative.

Zacatecas. SteerCo communications continued as before, including planning discussions among key partners and the suspension of larger or more formal events until it was considered safe for people to gather indoors. Several SteerCo-sponsored programs were suspended due to government-imposed constraints on social gatherings. These included SBI as implemented in school settings and as designed for adults attending primary care health centers. Although more than

500 medical providers were trained in SBI, and healthcare settings remained open, very little screening occurred in 2020 even amid reports of increased alcohol use. Both programs were expected to resume once the pandemic receded, and it was suggested that SBI might shift to online delivery with non-medical providers as screeners. Other programs were curtailed, but not halted, including Mexico's keystone road safety initiative, due to restrictions related to breath testing and the redirection of enforcement to pandemic-related concerns. This initiative continued throughout the pandemic with the construction of a holding and assessment center for individuals arrested for drink driving. The Zacatecas City Pilot also worked to develop a response to gender-based violence in collaboration with the State's Sub-Secretary for Crime Prevention.

Adaptation of the existing Community Fund

Months prior to the advent of the pandemic, the Foundation created a Community Fund to support interventions that were likely to generate community support but had not yet shown to address alcohol-related harms. Once this fund became available, City Pilot SteerCos pivoted rapidly from primarily focusing on adapting evidence-based approaches to reducing alcohol-related harms to considering how this fund might be used to mitigate the effects of the pandemic in their communities. Some SteerCos had been struggling to determine how they would use their Community Fund in a way that would be approved by the Foundation, and the pandemic offered an opportunity to use resources as part of both a local and larger corporate responsibility response to COVID-19. To this end, the Foundation encouraged the City Pilots to reach out to new and existing partners like city and municipal governments and leading health-relevant non-profits to determine how they could help these entities adapt to rapidly evolving community needs. In so doing, Foundation stakeholders hoped that the goodwill generated would support the continuation of existing partnerships and illustrate the Foundation's commitment to the community, as well as its eagerness to continue its work once the pandemic abated.

Columbus: Prior to the pandemic, this City's SteerCo struggled to identify an intervention to use with the Community Fund that would both meet the Foundation's standards as well as its own. Then it successfully applied for an initiative to support the distribution of health and safety materials to

individuals experiencing homelessness. Bags contained items designed to help recipients avoid infection and encourage help-seeking (e.g., hand sanitizer, masks, first aid kits, sunscreen, and resource material for access to alcohol, drug, and mental health-related issues). Local stakeholders applauded this effort to mitigate existing tensions with the public health community concerning the SteerCo's acceptance of funding from the alcohol industry.

The *Johannesburg* SteerCo received support from the Community Fund to support three general initiatives related to both the pandemic and the reduction of alcohol-related harms. In partnership with the SteerCo, the local AB InBev beer manufacturer, South African Breweries (SAB), pledged to produce 100 thousand liters of alcohol to make hand sanitizers and to recycle plastic from beer crates to make 100,000 masks to donate to healthcare workers. The first intervention involved educating the community through radio spots that included content related to COVID-19, such as information concerning lockdown regulations and the alcohol purchase ban, as well as violence prevention messages. The second initiative, which was specifically requested by the Johannesburg Police, included the provision of PPE to healthcare workers and law enforcement. In addition, the Fund supported the provision of 500 hygiene and nutrition packages to needy and vulnerable families in the local area.

The AB InBev Foundation approved *Leuven's* request for a print and social media campaign for "What's your new happy hour?" This campaign sought to attenuate the social norm that successful socially distant gatherings be alcohol-centered, instead promoting alcohol-free alternatives at online meetings, "pavement visits" (socializing outside on the sidewalk, respecting the 1.5m social distancing rule), and garden talks (neighbors gathering in their own garden and talking over their fence). These series of interventions supported *Leuven's* efforts to develop innovative alcohol harms prevention interventions that were responsive to local cultural practices.

The *Brasilia* team was unable to find community partners with whom to affiliate to use the Community Fund. Although the local City Pilot staff sought to use the funds to address domestic violence and other social issues that they expected would increase due to the pandemic, they were encouraged not to formally apply for the funds

from the Foundation since they lacked a strong community partner.

Before the pandemic, the *Zacatecas* City Pilot program had proposed to use the Community Fund to support a project called Cinema Park. This program, based in movie theaters, engaged young schoolchildren in substance use and other health education topics in an interactive and entertaining way. Cinema Park was approved for implementation in 2020, but when the pandemic struck in spring of 2020, movie theaters and schools shut down throughout Mexico, so it could not be implemented. At the same time, the Mexican federal government mandated the cessation of alcohol production and sales. The largest brewery in the world in *Zacatecas* could thus no longer produce alcohol, but it could repurpose its materials and workforce to create hand sanitizing gel and redirect forms of PPE used for beer manufacturing to health care workers. Referencing a media report that Latin America could become the greatest victim of the pandemic,²² the Governor and the Secretary of Health of the state of *Zacatecas* appealed to the AB InBev Foundation for \$50,000 to purchase PPE for its healthcare workers. Stating that existing supplies were inadequate, the request referenced the importance of strengthening the healthcare system so that at the pandemic's Foundation-sponsored programs could be expeditiously restarted.

Relationships built through the Community Fund

In the City Pilots that utilized the Community Funds, all noted key partnerships persisted approximately six months after the termination of this support. Although no City Pilot could identify a specific causal relationship between their use of Community Funds and their willingness to restart (or begin anew) alcohol prevention efforts, all reported that the impact of the Fund was likely a positive one. When the pandemic struck, the Fund became a means to redirect resources to attempt to address immediate community needs, and in some cases improved the image of the alcohol industry that, for some, had been a source of suspicion because funding interventions to prevent harms were supported by their profits.

Columbus City Pilot staff reported seeing its risk reduction bags in the community. By the time of our second round of interviews, staff reported that they collaborated on the production and dissemination of a training video for bar servers with the Ohio Department of Commerce. Staff were

unsure of the extent to which the Community Fund encouraged the partnership but noted that “it didn’t hurt.” The video was among one of the earliest public health interventions following the COVID-19 related ban on public activity.

Of the five City Pilot sites, the staff of the *Johannesburg* City Pilot reported the most difficult transition to online meetings designed to continue partnerships during the early days of COVID-19. They told us that, “people do not have airtime and cannot get online. We have had to wait it out.” It is in this context that any progress on the interventions, regardless of how minor, is noteworthy. City Pilot staff reported that they leveraged the Community Fund to work with tavern, bar, and shebeen owners who were angry about the government’s policy that temporarily halted the sale of alcohol. Previously hesitant to agree to RBS-related training, owners committed to the training out of hopes that local governments (with whom the City Pilot partnered) would find them “responsible” and allow them to sell alcohol.

Leuven City Pilot staff reported that COVID-19 created a delay in the interventions planned, but that the Community Fund helped them prioritize continuing the coalition they had developed with bar and café owners. City Pilot staff reflected that “it didn’t feel ok to do nothing and that alcohol harms reduction is a topic we need to keep alive.” They reported meeting monthly with bar and café owners and said, “that is why they are still at the table,” indicating that the partners were still willing to participate in future prevention efforts. “We were there for them,” our informant continued, “during their one and a half years with COVID.” The coalition shifted its alcohol misuse prevention efforts from the bar to the home, where most alcohol was consumed. They also developed a “smart and safe drinking” campaign that spread the message that alcohol use could adversely affect healthy behaviors like social distancing and handwashing.

The *Zacatecas* City Pilot and the local ABInBev affiliate, Grupo Modelo, already enjoyed strong relationships with municipal and state governments. To secure permissions from local government to implement a variety of public health, public safety and educational interventions, the City Pilot leveraged these relationships successfully. The offer of PPE and hand sanitizer, as well as a public education campaign related to the pandemic, served to reinforce a positive relationship between the Foundation, local government, and the local

industry affiliate. Here these key partners could be seen to address immediate community needs, and the Foundation’s source of funding could be publicly reframed as an asset rather than a risk to the wellbeing of the community. The use of the Fund helped the City Pilot continue to address any potential regulatory or governmental barriers to the planned interventions. Even though the Fund helped cement relationships with existing political stakeholders, the ability of the Foundation to convince new political leadership in Zacatecas of the benefits of programs that are currently suspended is yet to be determined.

Discussion

The Foundation’s Community Fund, which was originally intended to support local incubators for promising practices targeting alcohol-related harms, was generally reconceptualized to support applications by the SteerCos for small projects designed to mitigate the effects of the pandemic. These projects kept the SteerCos engaged in prevention activities and built or reinforced relationships with local authorities whose support and approval was required for implementation. Perhaps most important, these projects responded in a timely fashion to pressing community needs, including PPE for beleaguered healthcare workers and first responders, some of whom are likely to be involved in administering post-pandemic prevention programs such as SBI, RBS, and road safety. Other funded activities included media outreach to disseminate key information pertinent to the pandemic, as well as hygiene and nutrition packages for vulnerable families. Whereas these latter initiatives are unrelated to the prevention of harms related to alcohol consumption, they may well have enhanced the reputation of the SteerCos in the communities they serve, and thus facilitate future prevention efforts. In addition to garnering goodwill from the broader community, the City Pilots’ collaborative efforts through the Community Fund to support public health during the pandemic may also create new community partnerships. That is, SteerCos may find that institutions with which they have not previously partnered because of real or perceived differences in goals and approaches are now willing to collaborate against the common threat of the coronavirus. To the extent that these new joint endeavors create opportunities to dispel misconceptions about the intent of the alcohol industry as a supporter of harm reduction strategies, SteerCos may find that COVID-19 has

laid the groundwork for an expanded base of support among community organizations in the post-COVID-19 environment.

The information collected from the five City Pilots reveals that the advent of the pandemic greatly altered implementation programming, and in so doing threatened any early positive effects of the alcohol harms prevention initiatives that the Foundation had funded. Prevention services related to the reduction of alcohol-related harms identified by the SteerCos and supported by the Foundation were attenuated, and many were suspended, pending the retreat of the pandemic. Even so, the Foundation and its City Pilot SteerCos demonstrated considerable capacity and creativity in adapting online to a radically changed environment in which the implementation of many traditional prevention strategies was difficult. In-person gatherings were replaced by virtual meetings to the extent possible, given the constraints imposed by limitations to internet access. What remains to be seen is whether virtual meetings constitute an effective substitute, and whether and to what extent they can be maintained once citizens resume normal life post-pandemic. Attention should be paid to how virtual meetings can best be conducted and attended by diverse audiences, and how meeting productivity is positively or adversely affected.

It is important to consider how prevention strategies can be successfully adapted to digital delivery formats that do not depend on in-person contact and allow for the possibility for rapid and cost-efficient scale-up. There are a variety of readily available precedents, including electronic versions of SBI²³ and RBS.¹⁰ This literature should be systematically reviewed to determine whether these online strategies demonstrate the effectiveness noted in earlier studies. Attention should also be given to how programs were successfully adapted, and whether their reach and penetration were sufficient to warrant implementation. Even in cases in which effects are diminished relative to the original, in-person delivery system evaluated, the reach and penetration of online programs may increase sufficiently that they should be considered, particularly as their implementation costs are likely to substantially decrease.

Limitations

In this study, we relied on the beliefs and perceptions of key informants in each City Pilot who were closest to the planning and implementation of the interventions funded. We recognize that their

perspectives may have been affected by social desirability bias, although we tried to minimize this bias by reminding interviewees that we were external evaluators who would not report identifiable information back to their funders. We are also aware that each City Pilot was at a different stage of the pandemic at the time of data collection, which may also have affected our informants' responses.

Conclusions

The activities of the AB InBev Foundation and its SteerCo affiliates that we have described here suggest steps that prevention professionals might consider in response to the pandemic, besides simply halting the implementation of those strategies that depend on in-person contacts or, if and as feasible, adapting others for online delivery. These activities include continuing to engage with local governmental authorities and planning bodies by repurposing resources like the Foundation's Community Fund to address critical community needs unrelated to the Foundation's primary mission. The City Pilots have shown that some community-based health promotion strategies, such as the reduction of harms related to alcohol misuse, do not need to be halted completely to focus on emergent crises and, in fact, may be leveraged to build broader partnerships and coalitions that will support further prevention initiatives after the crisis has passed.

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Declarations

- *Ethics Approval and Consent to Participate*—Data sources for this manuscript involve questionnaires and key informant interviews about program activities. The information was not of a personal or sensitive nature and, thus, if released outside the research context would not pose a risk of harm to participating

individuals such as legal, criminal, financial, or damage to reputation. Therefore, this component was deemed as exempt as per 45 CFR 46.101(b)(2). However, the overarching study was approved by the Institutional Review Board of the Pacific Institute for Research and Evaluation.

- Consent for Publication—N/A
- *Availability of Data and Materials*—The data that support the findings of this study are available from HBSA upon reasonable request and with permission of The AB InBev Foundation.
- *Disclosure of Possible Conflicts of Interest*—The authors have been supported within the past three years by funding from the alcohol

industry to evaluate industry-sponsored programs to reduce harmful alcohol use.

- *Authors' Contributions*—ASR collected and analyzed the data regarding the impact of the COVID-19 pandemic on the City Pilots and contributed to the writing of this manuscript. LLG also collected and analyzed data and contributed to the writing of this manuscript. CLR provided oversight and contributed to the writing and editing of this manuscript. LLG contributed to the writing of this document and provided editorial support. TA provided editorial support. All authors read and approved the final manuscript.

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Appendix A. Brief questionnaire on City Pilot's response to the COVID-19 epidemic and its impact on the local alcohol environment

We are working hard to respond to an ever-changing COVID-19 environment. Our report will address how the pandemic is affecting your ways of working, what is happening with the various initiatives that your City Pilot is sponsoring or planning, and how your local landscape is changing in regard to alcohol manufacture, distribution, and consumption. These topics are of great interest not only to the Foundation but also to the entire field of substance abuse prevention and early intervention.

Your Name: _____

Name of City Pilot: _____

Date Submitted: _____

Thank you for your participation! There are two parts to this questionnaire; answering questions with information that you and your colleagues know and conducting a scan of the media. *When possible, please answer all these questions in reference to the city or community served by your city pilot.*

Part I. Questions about the Impact of COVID-19 on the City Pilot Community

To answer these questions, please:

- **reach out** to your colleagues on the SteerCo and in your community for help, as you need to
- respond to each of the questions below **replacing the instructions in yellow with your own text**
- respond in English. **Focus on the content of our questions.** Perfect English is not required; in fact, bulleted points would be fine. Whatever works best for you.
- If you don't have any information for us in response to any of our questions, please indicate that.

1. How has the COVID-19 virus affected your City Pilot community's:

- a. Alcohol production, distribution, and sales in your community? (provide dates, locations and who required change, if possible). Note any known compliance issues.

(1 paragraph or bulleted list)

Example:

- *The federal government shut down the larger brewery April 1, but our state govt has allowed smaller distributors in our community to sell off site only.*
- *Our state government mandated all bars and restaurants are closed to on-site sales April 1, but there are reports that some bars in our community have remained open to cash paying customers.*

- b. Alcohol consumption? (think about underage drinking, binge or excessive drinking, public versus private drinking)

(1 paragraph or bulleted list)

Example:

- *At the beginning of the local outbreak, the media reported that people were crowding into bars in anticipation of their closing. Typically, in our city, people do not drink alcohol at home, so*

consumption appears to be low following quarantine. Media reports show this as based upon google tracking.

- *Unsupervised teens out of school have been caught drinking in cars in public.*
 - c. *Harms related to alcohol use? (think about assault, interpersonal violence, alcohol dependence and treatment access, drink driving, etc.)*

(1 paragraph or bulleted list)

Example:

- *Many reports of domestic violence as related to home quarantine, and difficulty reporting and obtaining help.*
- *Enforcement with breathalyzers stopped on 3-13 in order to protect law enforcement and the public, and no drink driving related activity has since been reported.*

2. How has the COVID-19 affected:

- a. *The way that your SteerCo works? How is your SteerCo adapting to the demands of COVID-19? What are its future plans? (this may be long or short depending upon your project)*

(1 paragraph or bulleted list)

Example:

- *All SteerCo formal meetings have been put on hold until public officials are able to respond to the pandemic. With a stay at home order in place, informal meetings occur via cell phone in order to check in and offer mutual support. However, some public officials have been out of contact as they do not have access to a work computer, email or phone, so Steerco members have provided informal support to each other through personal networks.. The education official requested funds from the Steerco to help support internet access to children quarantined at home, and the local affiliate offered resources to this effect.*
- *Steerco members have begun to rethink their work overall in order to respond appropriately to future pandemics.*

- b. *The various projects or programs that your SteerCo are sponsoring or involved in?*

(1 paragraph or bulleted list)

Example:

- *The local affiliate has worked to move its prevention education program online, paying for hotspots and tablets for students to use at home.*

3. How do you anticipate that COVID-19 will affect the following types of programs in the future?

(1 paragraph or bulleted list for each)

- SBI
- RBS
- Violence Prevention
- Underage
- Road Safety

4. What planning, if any, is being done to restart these programs that were suspended due to COVID-19?

(1 paragraph or bulleted list for each)

- SBI
- RBS
- Violence Prevention
- Underage
- Road Safety

5. Are City Pilot staff and SteerCo members recommending that the Foundation use “community funds” in response to COVID-19? If so, for what programs?

(1 paragraph or bulleted list for each)

- SBI
- RBS
- Violence Prevention
- Underage
- Road Safety

6. What other things are SteerCo members (or others engaged with the City Pilot project) doing for City Pilot staff in response to COVID-19 that are not funded by the Foundation?

(1 paragraph or bulleted list)

Appendix B. City Pilot Key Informant Interview Guide

Thank you for taking the time to talk to us. This is the initial interview of what we expect will be annual conversations, although future interviews will be shorter than this one. We will ask you questions about the history, management, and functioning of your SteerCo, and where you think it is headed. We will also ask you about some of the challenges you have faced and what you have done about them, as well as the accomplishments about which you are most proud.

Our ultimate purpose in collecting this information is to understand the history, development, and functioning of your SteerCo better, so that we can interpret the findings of our impact evaluation, and report what factors may have contributed to these findings. We recognize that some of our questions may probe for sensitive information, and we will be very careful about how we use it. Your name will never be directly associated with what you tell us, but some people may be able to guess what information you shared with us.

As this project occurs in cities around the world, we know that each SteerCo functions very differently. Therefore, we recognize that you may not know the answers to some of these questions. You do not have to answer any questions that you don't feel comfortable responding to, and there are (of course) no right or wrong answers. We'd like to learn from different people's perspectives, in their own words, how the SteerCo works.

Now, I'd like to ask you to talk a little about yourself. Can you tell me about your job duties as they relate to the City Pilot program or SteerCo? What % time would you say you spend working with this City Pilot program?

- How, when, and why did you first get involved in the SteerCo or City Pilot project?
- What was your original role on the SteerCo? That is, what did you do?
- Has your role changed over time? If so, how?

- Has your role changed due to the COVID-19 pandemic? If so, how?
- Now, please tell me about the history and functioning of the SteerCo. (If there is not yet a formal Steerco, can you describe the current guiding structure of the work?)**
- When did it start?
- Who created it, and how?
- Who were its original members? (probe for roles of industry affiliate, government, Foundation)
 - How has its membership changed over time?
 - Currently, who are its members?
- **Originally, who were its key players? That is, what SteerCo members were the most influential and active? (probe for roles of industry affiliate, government, Foundation)**
 - How have its key players changed over time?
 - Who are its key players now?
- **Originally, who managed it? Please describe the management style.**
 - How has the management of the SteerCo changed over time?
 - Who manages it now? Please describe the current management style.
- **How did the SteerCo originally establish its priorities and make decisions about what it is to do? (probe for roles of industry affiliate, government, Foundation)**
 - How has it most recently established its priorities and made decisions?
 - Can you give me an example of how a decision was made?
- **To your knowledge, does the SteerCo have bylaws or other governance documents that specify how it should function? If so, please share them with us.** Tell me about how those governance documents were drawn up and if they've changed in any way.
- **Does the SteerCo have job descriptions for various roles and responsibilities? Again, please share them with us.**
- **How does the SteerCo oversee, guide or influence program or strategy implementation? Please give an example. Who provides oversight?**
 - *Probe for key interventions, how they were selected, carried through and different SC participant's role.*
- **Has the SteerCo established any committees to do its work? If so, for what content areas are the committees responsible? Describe how these committees work.**
 - *Probe for key interventions and different SC participant's role.*
- **Has the SteerCo begun to consider how the prevention programs and policies that it sponsors will continue after the project ends? If so, please give an example.**
- What was the SteerCo's original relationship with the AB InBev Company and its local affiliate (name)?**
- How has that relationship changed over time?
- What is that relationship like now?
- Has that relationship or the communication you have come to expect in that relationship changed as a result of the COVID-19 pandemic? How so?
- What was the SteerCo's original relationship with the Foundation?**
- How has that relationship changed over time?
- What is that relationship like now?

- Has that relationship or the communication you have come to expect in that relationship changed as a result of the COVID-19 pandemic? How so?

How does the SteerCo engage with local community partners as it implements its plans? Please give an example.

Now, please tell me a story about a notable challenge that the SteerCo or the City Pilot Project has faced. Probe for key interventions for City Pilot

- Who was involved?
- What happened?
- Did anything about the SteerCo change as a result? If so, what?

Now, please tell me a success story about something the SteerCo accomplished or did particularly well. Probe for key interventions for City Pilot

- Who was involved?
- What happened?
- Did anything about the SteerCo change as a result? If so, what?

What will the SteerCo focus on for the immediate future?

- Will that/ how might that be impacted by COVID-19?
- Over the next year or two?

To be asked of SteerCo affiliates only: Please describe any strategies and activities designed to prevent alcohol abuse or harms associated with alcohol use that the (Name of the Affiliate) has sponsored over time, but that are not supported by the Foundation.

If we have time and the stamina, we'd like to conclude by asking you whether/how the COVID-19 pandemic has impacted alcohol use, policy, and enforcement.

- To your knowledge, how has the Covid-19 virus affected:
 - Alcohol production, distribution, and sales?
 - Alcohol consumption?
 - Harms related to alcohol use?
 - Policy?
 - Enforcement?
- How has the virus affected:
 - the SteerCo's ways of working?
 - The various projects or programs that the SteerCos are sponsoring or involved in? What planning, if any, is underway to support their resurrection once the epidemic has sufficiently subsided?
- What measures could or should the Foundation take on (by using it's "community fund") in response to the pandemic?
 - How can it/should it support personnel who are key to the implementation of programs that are now on hold?
 - How can interventions continue to work, but in different ways?

What else do you think we should know about your SteerCo that we haven't asked about?

Thank you very much for your time!

Appendix C. City Pilot Key Informant Interview Guide for Second Interviews

- *How does the COVID epidemic continue to affect the work your City Pilot is sponsoring or considering?*
 - What interventions are continuing?
 - How did COVID affect the roll out of this initiative? Did it stop and, if so, IN WHAT MONTH? For how long? How and in what month did it restart?
 - Have you made any adaptations to the intervention to accommodate the epidemic? For example, have you moved online or changed locations or partners?
 - How are these adaptations working out?
 - Are there any adaptations that you tried that didn't work out and why?
 - Are there adaptations you are considering for the future? When will they start?
 - What interventions have stopped altogether? When did they stop and why? Did you make adaptations and what effect did they have?
 - Are there interventions that you planned to start but couldn't due to the pandemic? Tell us about that.

- *Are there any Foundation interventions that were taken up by another entity – like the AB InBev local affiliate, local government, non-profits, universities or schools? Tell us about that. How has the intervention changed?*

- *Some City Pilots have repurposed some of their resources from alcohol harms prevention to support COVID mitigation efforts. What has your City Pilot done in that regard this year? What effect do you think it has had?*

- *Tell us briefly about any continuing role of the SteerCo. What does it look like now since we last spoke? What role does it play?*