SAFE RIDES

IMPLEMENTATION GUIDELINES

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AB INBEV FOUNDATION | FSG REIMAGINING SOCIAL CHANGE

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DISCLAIMER

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Executive Summary

On December 6th, 2019, AB InBev Foundation (ABIF) commissioned FSG to facilitate a convening in Columbus, Ohio to discuss whether, and how, safe rides programs can play a role in advancing public health goals. A safe rides program **creates and promotes alternative transportation to help individuals avoid drink driving incidents**. This can include programs such as one-off rides programs, shuttles, designated driver programs, public transportation, taxi cabs, or ride share services.

The convening was attended by global experts on alcohol prevention and road safety, stakeholders who supported a specific safe rides program executed in Columbus, Ohio in 2017, as well as staff from the ABIF and Anheuser Busch InBev (AB InBev).

The convening's objectives were to:

- Review the current evidence base on the impact and cost-effectiveness of safe rides programs;
- Generate suggestions about how to re-design safe rides programs in order to balance short-term injury prevention (i.e., drink driving) and long-term public health goals (i.e., reduce harmful alcohol use); and
- Distill lessons about safe rides programs that could be applied to program and research development in other settings.

The convening was informed by an extensive literature review developed by the National Opinion Research Center at the University of Chicago (NORC)[1] as well as by research and synthesis by FSG. This was supplemented by interviews with public health and road safety experts, local Columbus, Ohio stakeholders who supported the 2017 safe rides program there, and preliminary learnings from an external program evaluation of this safe rides program.

In reviewing the evidence, participants found **that prior literature shows mixed evidence for the effectiveness of safe rides programs**. Safe rides programs have shown they can reduce rates of driving while intoxicated (DWI) and crashes, but research also shows evidence of increased alcohol consumption among some users. However, none of the studies showed any negative consequences for the increased alcohol consumption, such as alcohol fueled violence, domestic violence, drunk in public arrests, missing work the next day or even hangovers.

A socioecological model was then used to examine this mixed evidence and to consider factors that might influence whether and how safe rides programs can be designed to reduce the risk of increased alcohol consumption among users. The discussion underscored the importance of the following factors:

Social norms and values

- Understanding the willingness of individuals to use alternative transportation, as this could influence an individual's decision to drive while intoxicated;
- Appreciating social and cultural barriers associated with drinking and drink driving and how they may impact potential users of safe rides;

Community context

- Determining the availability, reliability, and cost of alternative transportation, because this could influence an individual's decision to drive while intoxicated;
- Appreciating legislative processes and their implementation within the community, as these would have a bearing on an individual's decisions about alcohol consumption and drink driving;

Complementary interventions

- Implementing multi-pronged synergistic interventions in order to reduce the impact of harmful alcohol use;
- Increasing the presence and awareness of enforcement activities as these can have a demonstrable impact on reducing incidence of driving while intoxicated. To be effective, such enforcement activities should be free from bias and seek to cultivate cooperation and foster trust with the community

Program specific components

- Designing and implementing safe rides programs to be flexible and pragmatic, factoring in behavior patterns of key target population in order to be effective;
- Identifying the optimal points of intervention for a "safe ride" in a specific community, as it may differ by population; and
- Engaging multiple stakeholders across different sectors to help safe rides programs to be effective in the short-term as well as sustainable long-term.

A **future research agenda was also developed at the convening in order to advance the field of safe rides programming**. Priority research questions included the impact of safe rides programs on minority populations, how a socioecological model could be applied to enhance the impact of safe rides programs and testing whether a safe rides program can work at scale and be both sustainable and cost effective.

Safe Rides Implementation Considerations

For practitioners looking to implement a safe rides program, the following tips derived from the convening are recommended as important considerations:

Key Considerations	Y/N
1. **Consider existing social norms and community context** through rigorous data collection efforts, such as local population-based surveys.	
2. **Understand how safe ride interventions impact marginalized communities** and how programs can be designed to meet their needs.	
3. **Cost effectiveness can be an issue at scale**; promoting the use of a ride share, or designated driver may, at times, be more cost effective.	
4. **Design for optimal intervention points** to encourage plans for a safe ride in advance of alcohol consumption while offering unplanned safe rides at drinking establishments.	
5. **Build evaluation into the program** in order to better understand the effectiveness of a safe rides program and derive key lessons.	
6. Plan to engage multiple stakeholders across different sectors to help safe rides programs to be effective	
7. Wide dissemination of implementation findings to inform future programming efforts in public health and public safety	

Introduction

On December 6th, 2019, the AB InBev Foundation commissioned FSG to facilitate a convening in Columbus, Ohio, with a group of experts and safe rides program designers and stakeholders, to discuss whether, and how, safe rides programs can play a role in advancing public health. Global academics and researchers on alcohol prevention and road safety, stakeholders who supported a safe rides program in Columbus, Ohio in 2017, and staff from the ABIF and Anheuser Busch InBev (AB InBev) attended the convening. Several international experts joined virtually to share their perspectives. A complete participant list can be found in Appendix A.

The convening's objectives were to:

- Review the current evidence base on the impact and cost-effectiveness of safe rides programs;
- Generate suggestions about how to re-design safe rides programs in order to balance short-term injury prevention (i.e., drink driving) and long-term public health goals (i.e., harmful alcohol use); and
- Distill lessons about safe rides programs that could be applied to program and research development in other settings.

The next section summarizes the evidence review, discussion and key recommendations from the convening.

1| Evidence on safe rides is mixed across different outcomes and can be examined through a socioecological lens

In the first part of the meeting, FSG presented existing evidence for safe rides programs, grounded in a shared definition and according to target outcomes (see Appendix B for a list of outcomes). The research synthesized the evidence to date, drawing from an extensive literature review developed by NORC, in preparation for this convening (Appendix C includes a table summarizing key articles from the literature review).[1] The evidence review also drew from initial findings based on an evaluation of a safe rides program in Columbus, Ohio in 2019 [2] and interviews with local Columbus stakeholders who supported this initiative.

FSG proposed a socioecological model to further understand the evidence base and factors influencing the future success of safe rides programs (see Appendix D for this model). This model includes four "levels" of analysis: 1) social norms and values, 2) community context, 3) complementary interventions, and 4) program-specific components.

The key discussion points from this section of the meeting resulted in:

- **An expanded definition of safe rides to include the promotion of existing programs.** The definition of a safe rides program was expanded to include creating and promoting alternative transportation to help individuals avoid drink driving incidents.
- **Recognition that target outcomes could include injury and crime prevention, depending on the goals of the intervention.** Outcomes such as sexual assault and crime, which go beyond a

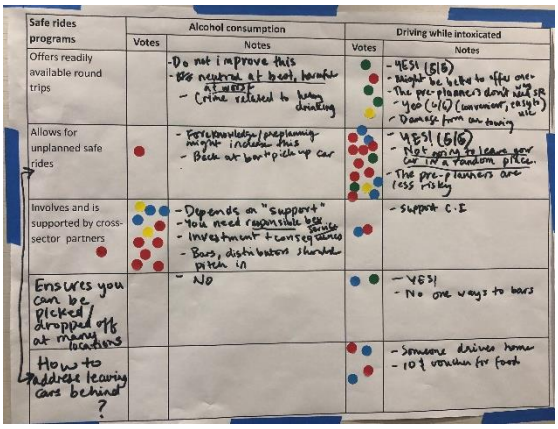
[1] Fell J., Scolese J., Achoki T., Burks C., Goldberg A. DeJong W. 2020. The effectiveness of Alternative Transportation Programs in Reducing Impaired Driving: A literature Review and Synthesis. (Manuscript Submitted)
[2] Miller, Ted, Matthew Courser, James E. Lange, Stephen R. Shamblen, William DeJong, and Christopher Ringwalt. 2019. "The Efficacy of Ridesharing Services in Reducing Drinking and Related Harms in Columbus, OH." Draft report

reduction in driving while intoxicated (DWI) or vehicular crashes, might be important reasons for introducing a safe rides program and could be included in the outcomes that a future safe rides program could target.

- **Consensus that prior literature shows mixed evidence for the effectiveness of safe rides programs, although individual research outcomes show directionality towards positive or negative outcomes**. Attendees agreed that the current evidence base shows mixed results on the effectiveness of safe rides programs. Some attendees noted that while the results broadly are inconclusive, individual outcomes demonstrate trends; safe rides programs may contribute to a reduction in DWI crashes but may also contribute to an increase in alcohol consumption.
- **Consensus that a socioecological model is an effective framework to understand factors that influence the potential success of safe rides programs**. Attendees agreed that the socioecological model listed above was an effective way to understand the social norms and community context surrounding a safe rides program and could be instrumental in influencing the design of complementary interventions and program-specific components for future safe rides programs.

2| Factors that have opposite impacts on drink driving and alcohol consumption need to be considered

FSG presented key factors that should be considered before implementing and while designing a safe rides program at each of the four levels of the socioecological model. The goal of this activity was to crowdsource additional key factors and evidence that influence the success of a safe rides program and understand how these factors should be prioritized.



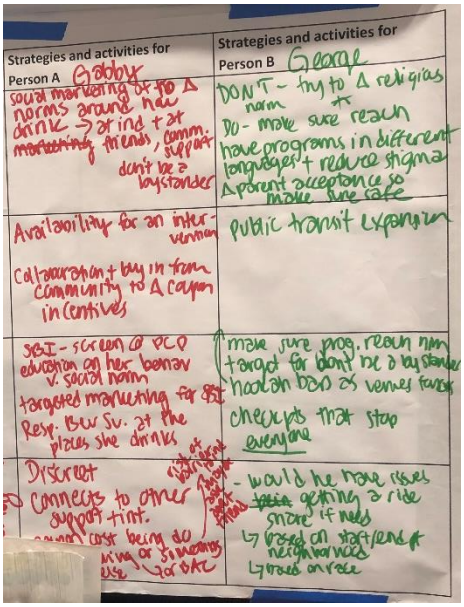
Participants were divided into small groups to discuss the FSG-identified key factors, add other key factors, and vote on which factors were most important. While voting, participants were asked to determine whether each factor impacted alcohol consumption and/or drink driving.

The priority factors that were considered critical to influence future program success, for each level of the socioecological model, are outlined below:

Social norms and values	The main factors identified as influential to success were: - A deep understanding of an individual's willingness to use alternative transportation while intoxicated - Appreciation of the social and cultural barriers associated with drinking and drink driving that affect potential users of safe rides - Community responsibility norms as regards, for example, overserving, as well as socio-cultural barriers relate to gender norms
Community context	The key determinants of success were identified as: - Availability, reliability, and cost of alternative transportation options

	- Willingness of the community for legislative action. - Willingness of the community to implement appropriate and targeted interventions to address local issues. For example, using data such as "place of last drink" (POLD), which is collected from arrested offenders Driving under the influence (DUI)
Complementary interventions	The main factors that can influence program success were identified as: - Multipronged interventions that can harness synergies in reducing impairment and drink driving - Increased presence and awareness of law enforcement activities that are free from any form of bias and seeking to foster trust with the communities served - Recognition that factors such as corruption and lack of infrastructure, may play a role in reducing the effectiveness of interventions
Program-specific components	Some of the key attributes of successful programming were identified as: - A flexible and convenient program design, e.g. one that allows for unplanned safe rides - Involvement and support of cross-sector partners within a given community - A pleasant customer experience that increases the probability of repeat safe ride users, as well as acceptable pricing for the target market, to ensure sustainability

3| Designing programs for specific end users surfaces barriers that may be addressed by considering community context and by developing complementary interventions



In four small groups, participants brainstormed how to design a safe rides program to meet the needs of two hypothetical end users. The goal of the exercise was to consider how a safe rides program might change, depending on the target end user.

Several clear themes emerged from the discussion:

- **Redesigning programs for a specific type of end user is a helpful way to improve uptake**. In designing with an end user in mind, participants described a tension between designing a population-level intervention versus designing for the needs of a diverse set of end users.
- **Addressing social norms is critical yet difficult.** While a number of social norms and values impact drink driving, participants found it challenging to identify evidence-based interventions that shift these norms. It was agreed that Identifying effective interventions is critical, particularly how the use of local champions could potentially catalyze a shift in norms
- **Community context and complementary interventions presented the most opportunity to reduce alcohol consumption.** Participants focused on these aspects of the socioecological model when addressing harmful alcohol consumption for a user.
- **Safe rides is not always a solution.** In situations where there is a pattern of drink driving and an unwillingness to change behavior, addressing drinking behavior is more important. Responsible beverage service with enforcement and alcohol pricing measures (e.g. increases of price or elimination of "happy hours") are two interventions that could lead to reduced heavy episodic drinking and perhaps impact drink driving.
- DUI prevention research has a long history of demonstrating the utility of heightened enforcement and strong adjudication of drink driving laws. High visibility enforcement, and substantial penalties for violations help to not only increase the perceived risk of driving impaired, they help to establish community norms against the behavior. And in many cases, they effectively remove high risk drivers from the road.
- However, there has been far less research on the community response to these efforts; specifically, the plausible interaction between enforcement activities, including court sentencing decisions, and the community's trust that those are applied fairly. Indeed, citizen trust in the underlying fairness, reasonableness, and professionalism of police and courts may be far less universal across the globe than implied by the underlying research that forms the evidence-base of DUI prevention. Whether discussing unjust practice for a specific population group, more generalized concern over systemic corruption, or politically motivated use of enforcement for restrictions of freedoms, the message to increase enforcement may evoke legitimate concern within a community that must be heard and carefully included within the intervention decisions being made. Therefore, enforcement must be free from any form of bias and seek to cultivate

support and trust from the community it serves in order to deliver on public health and public safety objectives.

- **Correctly identifying partners and building strong, collaborative relationships is needed.** Community collaboration is critical to ensuring the program has buy-in, necessary funding, and smooth implementation.

4| Recommendations

Participants prioritized a set of key points for other communities choosing to implement a safe rides program. These are summarized as follows:

- It is critical to understand and design considering existing social norms and community context. This understanding is best derived through rigorous data collection efforts, such as local population-based surveys.
- Safe rides are sometimes not able to effectively reach people who need help the most. It's important to carefully consider how to effectively reach the target population.
- It might not be cost effective to fund safe rides programs at scale; promoting the use of a ride share, or designated driver may, at times, be more cost effective.
- Consider the optimal point(s) to offer a safe ride to program targets. They could be encouraged to plan a safe ride in advance of consuming alcohol. At the same time, offering unplanned safe rides at drinking establishments could help high-risk drink drivers.

In interpreting the findings and recommendations outlined in these guidelines, it must be recognized that majority of the research consulted came for the United States where the Safe Rides Project was implemented. Therefore, programmatic adaptations paying attention to local context should be embraced and observed by those seeking to expand on this work.

5| Priority research questions

A research agenda to advance the field of safe rides that is actionable includes:

Designing for social norms and community context

- How do current safe ride interventions impact minorities, and how could safe rides be re-designed to meet their needs?
- How can safe rides become more socially acceptable?

Complementary interventions

- What other transportation options exist for those who would otherwise drive or take public transportation?

Program-specific components

- How can programs better target high-risk users?
- How can programs nudge end users to think about safe rides before alcohol consumption?
- How can bartender and bar manager responsible beverage service training be coupled with enforcement, and how can the effectiveness of such interventions be best evaluated?
- How can safe rides programs be established in rural areas?

Cost effectiveness

- Is the cost of a safe rides program, operating at scale, sustainable and cost effective?
- Considering the far-reaching impacts of safe rides on public health and public safety; what would be the ideal perspective to base future cost effectiveness analyses?

Appendices – Convening Participants and Presentation Tables and Figures

Appendix A: Participant list

Participant Name	Title	Organization
Local Columbus Representatives		
Kathy Cowen	Director, Office of Epidemiology	Columbus Public Health Dept.
Amanda Hill	Director of Stakeholder Relations	Ohio Dept of Liquor Control
Shannon Yang	Family Health Administrator - City Programmatic Lead	Columbus Public Health Dept.
Erin Beck	Policy Advisor	Mayor's Office, City of Columbus
Michaela Martin	Assistant Director of Student Wellness	Ohio State University
Randi Love	Clinical Associate Professor	Ohio State University
Lt. Paul Weiner	Lieutenant	Columbus Policy Dept.
Michelle Thourot	Agent-In-Charge	Ohio Dept. of Public Safety
Tom Achoki	Director of Research and Evaluation	AB InBev Foundation
Allison Goldberg	Executive Director	AB InBev Foundation
Courtney Burks	Director of Programs and Operations	AB InBev Foundation
Catie de Montille	Communications Lead	AB InBev Foundation
Maryellen Pado *(Virtual participant)*	Senior Director-Research	Anheuser-Busch HQ
Joao Brites	Global Director, GSDG	Anheuser-Busch HQ
Elena Cardenas Vargas *(Virtual participant)*	Project Director	AB InBev Foundation
Experts		
Ted Miller	Principal Research Scientist and Director	Pacific Institute for Research and Evaluation
Matthew Courser	Senior Research Scientist	Pacific Institute for Research and Evaluation

Jim Fell	Principal Research Scientist	NORC at the University of Chicago
Jim Lange	Consultant	AB InBev Foundation associated expert
Westley Clark	TAG Chair	AB InBev Foundation
William DeJong	Consultant	AB InBev Foundation associated expert
Jennifer Scolese	Principal Research Analyst	NORC at the University of Chicago
Hannah Barrett	Research Associate	Traffic Injury Research Foundation (TIRF)
Craig Lyon	Senior Research Scientist	Traffic Injury Research Foundation (TIRF)
Bryan Weber	Assistant Professor	College of Staten Island
Sheila Mitra-Sarkar	Research Fellow; Principal	Institute of Public Urban Affairs at University of San Diego; Future Trans Consulting
Dumisani Rebombo *(Virtual participant)*	Co-Director	Yanani Community Project
Joseph Lau *(Virtual participant)*	Associate Director and Head	Center for Health Behaviors Research
FSG		
Clare Schroder	Senior Consultant	FSG
Aditi Srinivas	Associate	FSG
Melissa Oomer	Director	FSG
Alex Geertz	Director	FSG

Appendix B. Outcome definitions

Outcomes	Definition
Use of rides	The number of **users of the intervention**, taking into account the size of the target population
Community perception	The community perception of the intervention
Alcohol consumption	Whether the intervention led to increased, decreased, or no change in the amount of **alcohol consumed. A reliable measure for this is obtaining BAC breath tests and making comparisons. Other relevant measures would be arrests for alcohol-related assaults, public intoxication, and alcohol-related emergency room visits.**
Driving while intoxicated (DWI)	Whether the **number of people driving while intoxicated** (blood alcohol content levels above legal limit while operating a vehicle) increased, decreased, or did not change as a result of the intervention. A reliable measure for this would be roadside surveys
Crashes	Whether the number of **vehicular crashes** changed as a result of the intervention (Note: in safe rides research this may include total crashes, alcohol-related crashes, injury-related crashes and / or fatal crashes). Considering police underreporting of alcohol related crashes some adjustments could be appropriate[3].

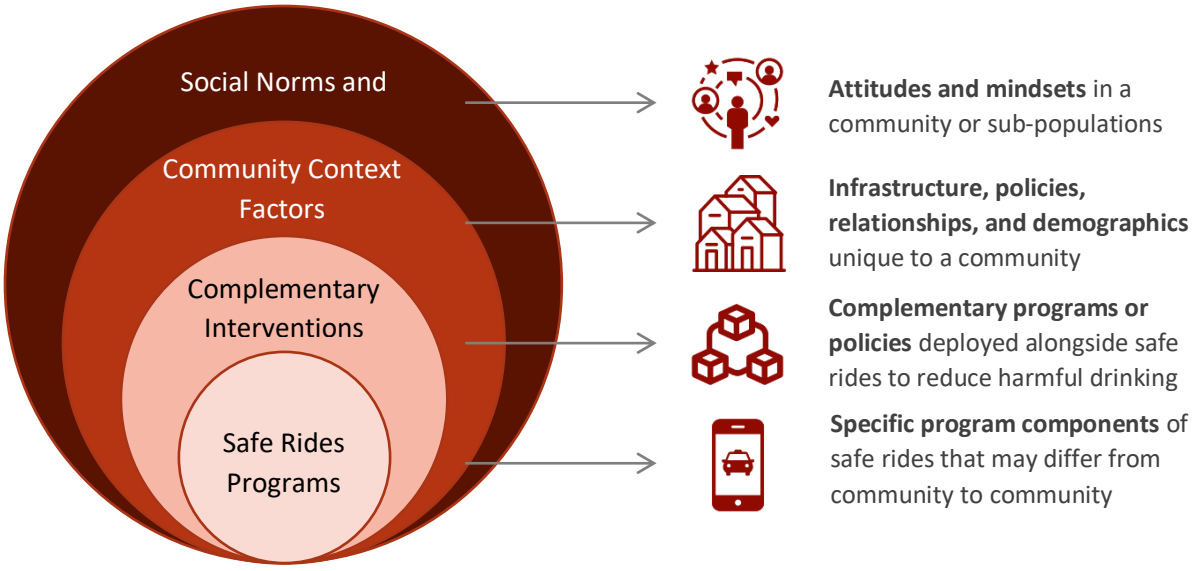
[3] Use the ratio of single vehicle nighttime crashes (high probability of alcohol) to multiple vehicle daytime crashes (low probability of alcohol)

Appendix C. Summary of robust article findings along each outcome

Article	Author, year	Use of rides	Community perception	Alcohol consumption	DWI	Crashes
1. *DRAFT* The Efficacy of Ridesharing Services in Reducing Drinking and Related Harms in Columbus, OH	Miller, et al. 2019					
2. Do Ridesharing Services Increase Alcohol Consumption?	Burgdorf, Lennon and Teltser 2019					
3. Safe Rides as an alternative to alcohol-impaired driving and their effects: a literature review	Barrett, Vanlaar and Robertson 2017					
4. New York City Drunk Driving After Uber	Peck 2017					
5. Uber and Metropolitan Traffic Fatalities in the United States	Brazil and Kirk 2016					
6. Minnesota Safe Ride Program Report	Sprattler 2010					
7. Alternative Transportation Programs-A Countermeasure for Reducing Impaired Driving	Decina, Foss and Tucker 2009					
8. Reducing alcohol-impaired driving crashes through the use of social marketing	Rothschild and Mastin 2006					
9. The Efficacy of Experimental Interventions Designed to Reduce Drinking Among Designated Drivers	Lange, et al. 2006					
10. Examining a Safe Ride Program: An Assessment of the Midnight Special Late-Night Bus Service	Elam, et al. 2006					
11. Effectiveness of Designated Driver Programs for reducing alcohol-impaired driving	Dotter, et al. 2005					
12. Do Drivers drink more when they use safe rides?	Harding, et al. 2001					
13. DWI Prevention: Profiles of Drinkers Who Serve as Designated Drivers	Caudill, Harding and Moore 2000					
14. Evaluation of a Full-Time Ride Service Program	Lacey, Jones and Anderson 2000					

Positive and significant impact
Inconclusive impact
Negative and significant impact
Not examined in the article

Appendix D: Socioecological model for safe rides program



About the Safe Rides Implementation Guidelines

As part of the AB InBev Foundation's (ABIF) global city pilot program designed to bring scientific rigor and local expertise to the pursuit of the Global Smart Drinking Goals, the Columbus City Pilot implemented a safe rides partnership program in 2017 to address alcohol-impaired driving. When the program's independent evaluation showed unexpected results, ABIF commissioned FSG to facilitate a convening in Columbus, Ohio to discuss whether and how safe rides programs can play a role in advancing public health goals.

The resulting Safe Rides Implementation Guidelines covers the outcomes of the event's objectives:

- A review of the current evidence base on the impact and cost-effectiveness of safe rides programs;
- Generating suggestions about how to re-design safe rides programs in order to balance short-term injury prevention and long-term public health goals; and
- Distilling lessons about safe rides programs that could be applied to program and research development in other settings.

The memo includes input from the National Opinion Research Center at the University of Chicago (NORC) and FSG, interviews with public health and road safety expert as well as local stakeholders who supported the safe rides program, and preliminary learnings from an external program evaluation of this safe rides program. Ultimately, we found mixed evidence for the effectiveness of safe rides programs: they have been shown to reduce rates of driving while intoxicated and crashes, but they also increase alcohol consumption among some users.

Naturally, the memo summarizes the activities of the convening and its findings in detail. This is all in service of ABIF's goal of transparently sharing information from initiatives that work and those that don't to advance the reduction of alcohol harm around the globe.