

Winter 12-21-2018

Protecting College Students with Good Samaritan Policies: A Call to Action!

Nia Sutton

Follow this and additional works at: https://scholarworks.gsu.edu/iph_capstone

Recommended Citation

Sutton, Nia, "Protecting College Students with Good Samaritan Policies: A Call to Action!," Georgia State University, 2018.
https://scholarworks.gsu.edu/iph_capstone/104

This Capstone Project is brought to you for free and open access by the School of Public Health at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Public Health Capstone Projects by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

Protecting College Students with Good Samaritan Policies: A Call to Action!

By

Nia A. Short-Sutton, CHES

21 December 2018

ABSTRACT

This Capstone project centers a five-page policy brief which petitions the Board of Regents of the University System of Georgia (USG) to implement a system-wide Good Samaritan amnesty policy for college students and alcohol-related emergencies. Each year, nearly 2,000 college students die due to alcohol-related harms⁵. College students are most susceptible to dangerous drinking and alcohol misuse^{6,14}. Alcohol misuse describes alcohol consumption that puts individuals at increased risk for adverse social and health consequences³. Alcohol misuse through the form of binge and heavy drinking are the most common patterns of dangerous drinking for college students. Dangerous and excessive alcohol consumption result in problems like academic consequences, sexual assault, fighting and violence, unintentional injury and motor vehicle accidents, increased risk for homicide and suicide, and death by alcohol overdose. This policy brief advocates for protection against academic penalties, like expulsion or suspension, that are likely to dissuade students from stepping up to help. This policy will protect and empower college students to step up and help save the lives of their classmates, peers and friends.

Protecting College Students with Good Samaritan Policies: A Call to Action!

by

Nia A. Short-Sutton, CHES

B.S., North Carolina Central University

A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the
Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA
30303

APPROVAL PAGE

Protecting College Students with Good Samaritan Policies: A Call to Action!

by

Nia A. Short-Sutton, CHES

Approved:

Dr. Rodney Lyn
Committee Chair

Trese Flowers, MPH
Committee Member

Aliza Petiwala, MSW, MPH
Committee Member

7 December 2018

Author's Statement Page

In presenting this capstone as a partial fulfillment of the requirements for an advanced degree from Georgia State University, I agree that the Library of the University shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to quote from, to copy from, or to publish this capstone may be granted by the author or, in his/her absence, by the professor under whose direction it was written, or in his/her absence, by the Associate Dean, School of Public Health. Such quoting, copying, or publishing must be solely for scholarly purposes and will not involve potential financial gain. It is understood that any copying from or publication of this capstone which involves potential financial gain will not be allowed without written permission of the author.

Nia A. Short-Sutton, CHES

Protecting College Students with Good Samaritan Policies: A Call to Action!

Nia A. Short-Sutton, CHES

December 2018

Alcohol Overdose: Threatening the Bright Future

Each year, nearly 2,000 college students die due to alcohol-related harm⁵. Of all U.S. populations ages 12 and older, college students are most susceptible to dangerous drinking and alcohol misuse^{6,14}. Alcohol misuse describes alcohol consumption that puts individuals at increased risk for adverse social and health consequences³. For college students, the consequences of unhealthy drinking patterns include:

- * Academic ramifications⁸
- * Physical injury and accidents^{10,11}
- * Sexual assault^{9,11}
- * Deaths⁵



Retrieved from www.kstatecollegian.com

These consequences are all public health issues that plague the college student population. However, most of these issues can be prevented if students who witnessed these dangerous situations would step up and intervene when they unfold. Although a seemingly practical solution, college students face a number of barriers to intervening in alcohol-related emergencies. One of the most prominent barriers is lack of protection against academic penalties, like expulsion or suspension, that are likely to dissuade students from stepping up to help.

This policy brief serves as a petition to the Board of Regents of the University System of Georgia (USG) for the implementation of a system-wide Good Samaritan amnesty policy for college students and alcohol-related emergencies. This policy will protect and empower college students to step up and help save the lives of their classmates, peers and friends.

College Students Misuse Alcohol in Life-Threatening Patterns

According to the 2015 National Survey on Drug Use and Health (NSDUH), 58% of full-time college students ages 18 to 22 drank alcohol in the past month compared with 48.2% of other persons of the same age⁶. Along with greater prevalence of alcohol use, college students are also more likely to consume alcohol by binge and heavy drinking.

WHAT IS BINGE DRINKING?

A pattern of drinking that brings blood alcohol concentration levels to 0.08 grams per deciliter.



Retrieved from www.arkansas-catholic.org

Binge drinking is defined as having five or more drinks on a single occasion for male bodies or four or more drinks on an occasion for female bodies. Heavy drinking describes alcohol consumption through binge drinking on at least five or more days in the past month³.

The 2015 NSDUH reported that 37.9% of college students participated in binge drinking in the past month while 12.5% reported heavy alcohol use in the last 30 days. The drinking patterns of college students are far more dangerous than others who are the same age⁶. Dangerous and excessive alcohol consumption result in negative academic, social, and health problems and remains a pressing public health issue across the U.S.⁴.

Each year:

- * 1 in 4 college students reports academic consequences from excess drinking⁸
- * 14.9% of college students report physically injuring themselves after drinking alcohol¹⁰
- * 696,000 college students report being assaulted by another student who has been drinking⁹
- * 97,000 college students report experiencing alcohol-related sexual assault or date rape⁹
- * 1,825 college students die from alcohol-related issues ranging from accidents to overdoses⁵

Alongside these annual statistics, risk for homicide and suicide are also increased for college students when alcohol is consumed in dangerous excess¹⁰. Unwanted, unplanned, and unprotected sexual activity are also problems associated with drinking among college students. This increases the risk of sexually transmitted infections and unplanned and unwanted pregnancy¹¹. A 2009 research study reported that in one year, over half a million college students were unintentionally injured while under the influence of alcohol¹².

Another study showed that hospitalizations for alcohol increased by 25% among college age young adults between 1999 and 2008. These hospitalizations are costing Americans more than \$1 billion annually¹³, and costing college students their lives.

College Campus Culture Puts Students at Greater Risk for Alcohol Overdose

For many college students, alcohol is viewed as an integral part of the college experience. Students consider binge and heavy drinking as a rite of passage through college and adulthood¹⁴. Various studies have shown that college students usually drink in the company of others for purposes of socialization and celebration^{15,16,20}. Another studied proved that competitively oriented environments, like college campuses where students compete athletically, academically and socially, are associated with binge drinking behavior¹⁷. Students are more likely to drink, and more likely have multiple drinks in the presence of someone else, specifically with their friends¹⁵.

College campus culture is also influenced by student groups and organizations on campus like clubs, athletic teams, and fraternities and sororities. These student organizations construct their own sets of cultural practices and social norms, which often involve alcohol and drinking^{16,20,21}. A 2015 study of college athletes showed that 46% of the participants consumed more than five drinks in a week¹⁸. Furthermore, athletes report more binge drinking, heavier alcohol use, and a greater number of drinking-related harms¹⁹. This high-risk group's drinking patterns are influenced by factors that normalize excessive alcohol consumption like celebration of wins and inherent competitiveness with teammates²⁰.

Members of fraternities and sororities are also more likely to engage in high-risk drinking²¹. In fact, research has shown that individuals who drink heavily often self-select into fraternities and sororities, and heavy drinking and alcohol consequences increase as individuals affiliate with Greek Letter Organizations¹⁶. Peer influences also play a role in the heavy drinking of fraternity and sorority members. The presence of heavy-drinking peers significantly increases alcohol consumption, as normative perceptions such as quantity, frequency, and acceptability of drinking are inflated. Typically, fraternity members approve of heavy alcohol use and perceive it as a common behavior among peers. Unfortunately, alcohol use is valued among these groups and directly influences the popularity of being in a fraternity²¹.

As a result of dangerous drinking, fraternity and sorority members report adverse consequences like blackouts, unplanned sexual activity, and academic problems at much higher rates than non-members. Additionally, fraternity and sorority members report more severe symptoms typically associated alcohol dependence. Implementing interventions among these groups is challenging for colleges and universities as organizational culture often fosters and supports heavy drinking²¹.

Ameliorating Alcohol Overdose with Public Health Strategies

A wide range of public health interventions have been implemented at various levels of society with effort to prevent alcohol overdose among youth and college students. As indicated by the Socio-Ecological Model of Health, these societal levels include the individual, their interpersonal relationships, their institutional and organizational affiliations, cultural and physical

environments, and the larger society to which they belong that is influenced by government and policy. This theory-based model explains the multifaceted interactions between a person and their environment that determine behavior, and help identify opportunities for intervention or health promotion²².

Socio-Ecological Model



Retrieved from KidQuest via CDC

Alcohol overdose prevention strategies range from individualized interventions for a single person or small group of people to federal laws that impact all people in a society. These strategies can be categorized as either individual-level strategies or environmental-level strategies. Individual-level strategies are intended to produce changes in one person's attitudes and behaviors related to negative health outcomes. Environmental-level strategies aim to change negative health behaviors and outcomes at the population level²³. Although environmental strategies are most effective at creating public health change, combining individual and environmental strategies has the greatest impact on all levels of society²⁴.



The National Institute on Alcohol Abuse and Alcoholism developed the College Alcohol Intervention Matrix (AIM) to help schools address harmful drinking and identify effective interventions. This resource identifies the most effective individual strategies on U.S. college campuses as educational programs that provide personal feedback and information about alcohol use²³. These strategies target risk factors like negative attitudes and beliefs about drinking and risk-taking behavior. The most effective environmental strategies are those that were implemented at the highest socio-ecological level that include the enforcement of minimum age drinking laws and increased tax and pricing on alcoholic beverages²³. These strategies reduce access to alcohol for young people and enforce penalties that encourage compliance.

College AIM also indicated other interventions that have not been robustly implemented or studied for the prevention of alcohol overdose on college campuses. Two of these strategies include medical amnesty policies and bystander interventions²³. Bystander interventions are trainings that teach specific skills that help to prevent harm in dangerous or potentially dangerous situations. Similarly, these strategies rely on those in closest proximity to persons experiencing an alcohol overdose to help save their lives. These strategies target risk factors for witnesses, bystanders and peers like fear of judicial penalty²⁵ and lack of skill when a person needs medical attention due to alcohol misuse²⁶. Because students are most likely to take part in health risks like excessive drinking when accompanied by someone they consider a friend¹⁵, implementing strategies that empower bystanders is imperative in preventing alcohol overdose deaths among college students.

The Good Samaritan Law Protects and Enables Students to Step Up and Help!

Many colleges and universities across the U.S. have implemented medical amnesty policies to prevent alcohol overdose among students. These institutions include Cornell University, where a profound study on the institution's Medical Amnesty Protocol (MAP) proved these types of policies to be effective. Two years after MAP's implementation on Cornell's campus, students were less likely to report fear of getting in trouble as a barrier to calling for help²⁶. Dartmouth University also added a Good Samaritan clause to its alcohol policy and found that students were far less reluctant to bring their friends to the emergency room out of fear²⁵. The findings from the Cornell study provided foundation for the Medical Amnesty Initiative which advocates for the enactment and education of Medical Amnesty legislation throughout the United States²⁷.

Fortunately, Georgia is one of the majority states that have adopted a medical amnesty law. The Georgia Good Samaritan Law, protects anyone who seeks emergency medical attention for someone experiencing a drug or alcohol overdose²⁸.



Since the enactment of Georgia's amnesty law, there have been nearly 2,000 successful opioid overdose reversals reported in the state. Greater than 1,300 overdose reversals were performed by community bystanders²⁹. This proves that when given the skills, resources, and protection needed, bystanders will step up and save lives. Coupled with bystander intervention trainings, medical amnesty policies have the potential to save lives of college students across the state.

Although not robustly studied, bystander interventions have been proven to be effective as well. The Red Watch Band was developed in response to the alcohol overdose death of freshman student at Northwestern University. Six months after implementing this bystander intervention program, 94% of students reported willingness to intervene in an alcohol related emergency³⁰. *Every Choice* is another existing bystander intervention program that shows positive results that indicate improvement in attitudes about intervening and confidence to do so. *Every Choice* is an online, video-based program designed to equip students with realistic, actionable bystander intervention tools. After implementation, 96% of students said they were likely to do something if they saw a situation where they could help³¹.



By implementing a medical amnesty policy that is coupled with bystander intervention, the University System of Georgia has an opportunity to continue research for these public health prevention strategies.

A Call to Action!

While the current state law provides protection from legal prosecution, it does not protect against academic penalties and sanctions that could impede progress toward program completion and graduation. As USG's governing body, the Board of Regents must consider implementing a policy that is modeled after the Georgia Good Samaritan Law in an effort to prevent the lethal consequences of alcohol overdoses on USG college campuses. This means putting amnesty policies in place to protect bystanders, and preparing bystanders with skills to help save lives. A system-wide policy would have the greatest impact on USG's more than 300,000 students³², student organizations, and college campuses, and eliminate fear of penalty as a risk factor for students who can potentially save a classmate's life. This policy would normalize bystander intervention and encourage students to step up and help.

The greatest risk of failing to implement a system-wide Good Samaritan policy may result in preventable student deaths on USG college campuses. While it is imperative to uphold the current alcohol policies at each of USG's institutions, preventing injury and saving lives of students must take precedence. Adopting a medical amnesty policy will:

- * Protect and empower students as first responders to emergency situations
- * Increase university system retention and graduation rates
- * Prepare students with skills to prevent various types of violence and harm on campus, and
- * Save lives of USG students!

Endnotes

1. SAMHSA. (2018). (n.d.). *2017 National Survey on Drug Use and Health (NSDUH)*(Rep.).
2. Office of Juvenile Justice and Delinquency Prevention. *Drinking in America: Myths, Realities, and Prevention Policy External*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 2005.
3. National Institute on Alcohol Abuse and Alcoholism. *Helping patients who drink too much: a clinician's guide*. Rockville: National Institutes of Health; 2005.
4. National Institute on Alcohol Abuse and Alcoholism (b). (2018, August). Alcohol Facts and Statistics. Retrieved from <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics>
5. Hingson, R.W.; Zha, W.; Weitzman, E.R. *Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18–24, 1998–2005*. Journal of Studies on Alcohol and Drugs (Suppl. 16):12–20, 2009.
6. Substance Abuse and Mental Health Services Administration (SAMHSA). 2015 National Survey on Drug Use and Health (NSDUH). Table 6.84B—Tobacco Product and Alcohol Use in Past Month among Persons Aged 18 to 22, by College Enrollment Status:
7. SAMHSA. (2015, October 30). Alcohol. Retrieved from <https://www.samhsa.gov/atod/alcohol>
8. Wechsler, H.; Dowdall, G.W.; Maenner, G.; et al. *Changes in binge drinking and related problems among American college students between 1993 and 1997: Results of the Harvard School of Public Health College Alcohol Study*. Journal of American College Health 47(2):57–68, 1998.
9. Hingson, R.; Heeren, T.; Winter, M.; et al. *Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18–24: Changes from 1998 to 2001*. Annual Review of Public Health 26:259–279, 2005.
10. American College Health Association. (2014). Spring 2014 Reference Group Executive Summary. Retrieved from American College Health Association-National College Health Assessment (ACHA-NCHA) Spring 2014.
11. Centers for Disease Control and Prevention (c). (2018, October). Binge Drinking. Retrieved from <https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>
12. Hingson, R. W., Edwards, E. M., Heeren, T., & Rosenbloom, D. (2009, May). *Age of drinking onset and injuries, motor vehicle crashes, and physical fights after drinking and when not drinking*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19298330/>
13. White, A. M., Hingson, R. W., & Pan, I. (2011). *Hospitalizations for Alcohol and Drug Overdoses in Young Adults Ages 18–24 in the United States, 1999–2008: Results from the Nationwide Inpatient Sample*. Journal of Studies on Alcohol and Drugs, 72(5), 774-786.
14. Crawford, L. A., & Novak, K. B. (2006). *Alcohol Abuse as a Rite of Passage: The Effect of Beliefs about Alcohol and the College Experience on Undergraduates Drinking Behaviors*. Journal of Drug Education, 36(3), 193-212.
15. Varela, A., Pritchard, M. PhD (2011). *Peer Influence: Use of Alcohol, Tobacco, and Prescription Medications*. Retrieved from Journal of American College Health, 59 (8), 751-756.
16. Park, A., Sher, K. J., & Krull, J. L. (2008). *Risky drinking in college changes as fraternity/sorority affiliation changes: A person-environment perspective*. Psychology of Addictive Behaviors, 22(2), 219-229.

17. Maholchic-Nelson, S. (2010). *High- and Low-Achieving Fraternity Environments at a Selective Institution: Their Influence on Members' Binge Drinking and GPA*. ERIC. Retrieved November, 2018.
18. Druckman, J. N., Gilli, M., Klar, S., & Robison, J. (2015). Measuring Drug and Alcohol Use Among College Student-Athletes. *Social Science Quarterly*, 96(2), 369-380.
19. Nelson, T. F., & Wechsler, H. (2001, January). *Alcohol and college athletes*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11194110>
20. Clark, N. (2016, December 06). *The Athlete's Kitchen: Alcohol & Athletes*. Retrieved from <http://www.ncaa.org/sport-science-institute/topics/athlete-s-kitchen-alcohol-athletes>
21. Turrisi, R., Mallett, K. A., Mastroleo, N. R., & Larimer, M. E. (2006). *Heavy Drinking in College Students: Who Is at Risk and What Is Being Done About It?* *The Journal of General Psychology*, 133(4), 401-420.
22. Centers for Disease Control and Prevention. (2018, February 20). Violence Prevention. Retrieved from <https://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html>
23. National Institute on Alcohol Abuse and Alcoholism. (n.d.). CollegeAIM Overview. Retrieved October, 2018, from <https://www.collegedrinkingprevention.gov/CollegeAIM/Introduction/default.aspx>
24. Frieden, T. R. (2010). A Framework for Public Health Action: *The Health Impact Pyramid*. *American Journal of Public Health*, 100(4), 590-595.
25. Meilman, P. W. (1992). *College Health Services Should Promote Good Samaritan Rules as Part of University Alcohol Policies*. *Journal of American College Health*, 40(6), 299-301.
26. Lewis, D. K., & Marchell, T. C. (2006). *Safety first: A medical amnesty approach to alcohol poisoning at a U.S. university*. *International Journal of Drug Policy*, 17(4), 329-338.
27. The Medical Amnesty Initiative. (2018). (n.d.). Make the Call Save a Life. Retrieved September, 2018, from <https://www.medicalamnesty.org/>
28. Stephens, C. (2017, December 12). Georgia's Opioid Epidemic and Ways to Get Help. Retrieved from <https://georgia.gov/blog/2017-12-12/georgia's-opioid-epidemic-and-ways-get-help>
29. Fuggitt, L. (2018). *Opioid Overdose Reversals in Georgia*. (Rep.). Georgia Overdose Prevention.
30. Currie, L., & Cushman, S. (2013). *Red Watch Band: Implementation and Outcomes of an Alcohol Bystander Intervention Program*. (Rep.). Northwestern University.
31. Wells, B. (2013). Every Choice Violence Prevention through Bystander Intervention. Retrieved from <http://www.every-choice.com/>
32. University System of Georgia (USG). (2018). USG Institutions. Retrieved from <https://www.usg.edu/institutions/>

Introduction

This Capstone project centers on a five-page policy issue brief entitled, *Protecting College Students with Good Samaritan Policies: A Call to Action*. The brief serves as a petition for the prevention of alcohol related harm across colleges and universities in Georgia. More specifically, the 26 academic institutions of which the University System of Georgia (USG) is comprised (USG, 2018). The regional reach of this collegiate body is ideal for creating positive change across the entire state's college campuses. USG Board of Regents is the target audience of the policy brief.

This document serves as a narrative in support of the more abbreviated policy brief. This narrative reviews the current literature on alcohol-related harm and



(University System of Georgia, 2018)

prevention methods, and outlines and discusses major components that inspire the Capstone project. These components include alcohol misuse as a public health concern and its harmful implications among college students, societal response to drug and alcohol overdose as a result of alcohol abuse, and the need to institutionalize these structural responses at the collegiate level. This document also discusses the Capstone's contribution to public health and explains the need for students to be protected under Good Samaritan and amnesty policies on their campuses.

The Capstone project serves three primary purposes:

- To highlight substance abuse and alcohol misuse as a growing public health issue on college campuses.
- To identify substance abuse prevention and harm reduction opportunities for collegiate settings; and
- To advocate for the implementation of a system-wide Good Samaritan Policy that protects students from academic penalties related to alcohol violation when they seek to assist in saving a peer's life

Ultimately, the policy brief created as a part of this capstone can be used to inform the policy decisions of USG and college administrators across the state. Public state agencies that are mentioned throughout the project, like the Georgia Department of Behavioral Health and Developmental Disabilities (DBHDD), can also use this document and the accompanying issue brief to advise strategic planning for substance abuse prevention among college students.

Highlighting the intersectional opportunities between harm reduction and prevention is one of this project's major contributions to public health. In terms of substance abuse, "harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs." (Harm Reduction Coalition, 2018). The Georgia 911 Medical Amnesty Law is one example of a harm reduction strategy, because it aims to reduce harm caused by alcohol or drug overdose by protecting anyone who calls emergency services seeking medical attention. While this strategy does not actually prevent alcohol and drug misuse, it does help to prevent injury, disability, and death, which public health practitioners acknowledge as tertiary prevention.

This means that public health avenues exist to prevent alcohol and drug overdose at primary and secondary levels as well. These opportunities can include individual level strategies; interventions that focus on attitudes, beliefs and intended behaviors of individual people, and also environmental strategies; interventions that target laws and policies around potentially harmful substances like alcohol, opioids, and prescription drugs. These types of strategies are thoroughly explained in this narrative. “For many health problems, a combination of primary, secondary and tertiary interventions are needed to achieve a meaningful degree of prevention and protection.” (Institute for Work & Health, 2015). Existing prevention strategies, models, and interventions are closely reviewed in this document.

Another significant contribution of this Capstone is that it proposes interventions that present research opportunities on the college student population. The project also suggests strategies that colleges can use to address the opioid crisis in the U.S., and campus community issues like sexual assault and hazing. Lastly, this Capstone project advocates for combining of several different strategies to address alcohol misuse, overdose, and other related harm. This will require collaborations between institutional leadership and decisionmakers, students and student organizations and possibly community organizations who have stake in the health of college students. Advisement from local and state governments may also be necessary to effectively implement this Capstone’s proposed strategies. These organizations have shared objectives that can be attained by collaborating and sharing resources. Public health should explore this opportunity to address substance abuse prevention in the U.S.

Protecting College Students with Good Samaritan Policies: A Call to Action

Public Health Issue

In 2014, more than half of Americans above the age of 11 reported being current users of alcohol (National Survey on Drug Use and Health, 2018). In fact, alcohol is the most commonly used and abused drug among youth in the United States

Table 1.

| National Survey on Drug Use and Health: Trends in Prevalence of Alcohol for Ages 12 or Older, Ages 12 to 17, Ages 18 to 25, and Ages 26 or Older; 2017 (in percent)* | | | | | |
|---|--------------------|-------------------------|----------------------|----------------------|-------------------------|
| Drug | Time Period | Ages 12 or Older | Ages 12 to 17 | Ages 18 to 25 | Ages 26 or Older |
| Alcohol | Lifetime | 80.90 | 27.10 | 81.10 | 87.10 |
| | Past Year | 65.70 | 21.90 | 74.00 | 69.50 |
| | Past Month | 51.70 | 9.90 | 56.30 | 55.80 |

(National Institute on Drug Abuse, 2018)

(CDC^a, 2018). As depicted in **Table 1** above, 74% of youth and young adults between the ages of 18 and 25 reported alcohol use in the past year. This percentage is nearly five percent greater than the prevalence of alcohol use in older adults (National Institute on Drug Abuse, 2018). Within this age group of the U.S. population falls traditional college students who are between the ages of ages 18 and 24; and most times when youth consume alcohol, it is misused and consume in dangerous excess (SAMHSA, 2015).

Alcohol misuse describes alcohol consumption that puts individuals at increased risk for adverse health and social consequences (CDC^b, 2018). Binge and heavy drinking are the most common forms of excess drinking among youth (CDC^c, 2018). Binge drinking is defined as having five or more drinks on a single occasion for male bodies or four or more drinks on an occasion for female bodies (SAMHSA, 2015). Heavy drinking describes alcohol consumption through binge drinking on at least five or more days in the past month (NIAAA^a, 2018).

Alcohol misuse in the form of binge and heavy drinking are growing issues of concern on college campuses across the U.S. The Substance Abuse and Mental Health Services Administration reports that nearly 60% of full-time college students are current users of alcohol. College students are also more likely than their non-college peers to have used alcohol in the past month, binge drink, and drink heavily (Varela, 2011). According to the 2015 National Survey on Drug Use and Health, 37.9% of college students ages 18 to 22 reported binge drinking in the past month compared with 32.6% of other persons of the same age group. Nearly 13% of college students reported heavy alcohol use in the last 30 days compared to almost nine percent of their non-collegiate peers. As consequences of these unhealthy drinking patterns, college students experience adverse health and social issues ranging from poor academic performance to unintentional death (NIAAA_b, 2018).

Implications of Public Health Issue

About one in four college students report academic consequences from drinking, including missing class, falling behind in class, doing poorly on exams or papers, and receiving lower grades overall. Each year, 696,000 students between the ages of 18 and 24 are assaulted by another student who has been drinking, and risk for homicide and suicide are increased. Unwanted, unplanned, and unprotected sexual activity are also problems associated with drinking among college students. Ninety-seven thousand students between the ages of 18 and 24 report experiencing alcohol-related sexual assault or date rape (NIAAA_c, 2018). This can lead to increased risk of sexually transmitted infections and unplanned and unwanted pregnancy. A 2009 research study reported that in 1 year, over half a million students between the ages of 18 and 24 were unintentionally injured while under the influence of alcohol (Hingson, 2009).

Other detrimental consequences include injury, motor vehicles accidents and death. In fact, unintentional injuries, including those associated with alcohol misuse, are the leading causes of death among the college age population (CDC_d, 2018). According to the 2014 National College Health Assessment, 14.9% of college students reported physically injuring themselves after drinking alcohol (ACHA-NCHA, 2014). Among drivers with blood alcohol content levels of 0.08% or higher involved in fatal crashes in 2016, 26% were between 21 and 24 years of age (National Highway Traffic Safety Administration, 2017). Further proving dangerous alcohol use as a growing issue, hospitalizations for alcohol increased by 25% among 18 to 24 year olds between 1999 and 2008. These hospitalizations are costing Americans more than \$1 billion annually. (White, 2011). Each year, 1,825 college students die from some form of alcohol-related injury including accidents, drowning, burns, falls, and alcohol poisoning (NIAAA_b, 2018).

Alcohol poisoning - or alcohol overdose - is the most deadly and dangerous consequence of excess drinking. This occurs when a person consumes too much alcohol in a short period of time, and their body responds negatively. These negative responses include confusion, vomiting, dangerously slow and irregular breathing, and low body temperature that can lead to hypothermia. A person suffering from alcohol poisoning may also experience breathing or heart beat that suddenly stops or hypoglycemia, too little blood sugar, which can lead to seizures (NIAAA, 2018). The consequences of these negative responses can be deadly. For example, confusion can lead to fatal injuries, and excessive vomiting can result in choking or dehydration. Untreated severe dehydration can cause seizures, permanent brain damage, or death.

Combined use of alcohol and other drugs is another dangerous drinking habit of college age students. In fact, a 2012 study showed that 7 out of 10 youth who are non-medical users of prescription opioids, combine use with other substances. Alcohol is the second most co-ingested

substance among youth who use non-prescribed opioids (McCabe, 2012). Over the 10-year period where alcohol-related hospitalizations increased by 25%, the steepest increase occurred among cases of combined alcohol and drug overdoses (White, 2011). Opioids and alcohol are mixed to enhance the euphoric high of the opioid and lower inhibitions even further, but the consequences of doing so can cause serious and permanent health problems and significantly increase the risk of overdose and death (American Addiction Centers, 2018).

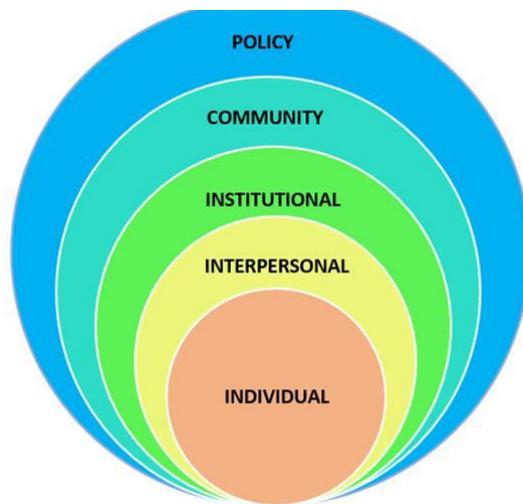
Public Health Interventions

In effort to prevent alcohol overdoses among students, college campuses have implemented a wide variety of strategies. Following the Socio-Ecological Model, prevention and harm-reduction methods have been introduced at multiple levels of society to tackle this issue and save the lives of college students. This model considers the complex

interactions between individuals, those with whom they have interpersonal relationships, their schools, jobs, and other organizations, their communities, and societal factors. It allows us to understand the range of risk and protective factors associated with negative health outcomes like alcohol overdose. The overlapping rings in the model illustrate how factors at one level influence factors at another level and the effect of potential

prevention strategies. Aside from clarifying these factors, the model also suggests that in order to prevent negative health outcomes, it is necessary to act across multiple levels of the model at the

Socio-Ecological Model



(Adapted by KidQuest from Centers for Disease Control, 2017)

same time. This approach is more likely to sustain efforts over time than any single intervention (CDC, 2018).

The individual level describes biological and personal history factors that increase (risk factors) or decrease (protective factors) the likelihood of one person to experience a negative health outcome. Considering alcohol overdose, some individual risk factors may include a family history of alcoholism or negative attitudes and beliefs about drinking. Demographic measures like age group and education are also risk and protective factors for alcohol use. These factors and other psychological measures like impulsivity and deviancy, equally impact the patterns and contexts in which people drink (Gruenewald, 2014). Individuals with positive attitudes toward alcohol use tend to gravitate toward environments and social groups that foster high-risk drinking. A study conducted throughout 50 California cities revealed that individual-level factors act jointly with community availability in having the greatest impact on use of alcohol (Gruenewald, 2014). Interventions that are introduced at this level are most proximal to an individual person and usually include some form of education or life-skills training.

The second level of the Socio-Ecological Model, interpersonal, describes risk and protective factors that are influenced by a person's family, friends, and peers. An example of an interpersonal risk factor for alcohol poisoning is peer use and pressure to drink in excess. Results from a 2014 study on peer influence and substance use show that participants were more likely to drink, and more likely have multiple drinks in the presence of someone else, specifically with their friends (Varela, 2011). Protective factors could be a family rule that no alcoholic beverages are allowed in the household, or role-modeling from parents who do not drink. Prevention strategies at this level may include parenting or family-focused programs, and mentoring or peer-to-peer programs (CDC, 2018).

The next level of the model is the organizational level. This level describes groups, clubs, teams, and other organizations that individuals join, which have their own sets of norms and practices. These norms and practices can serve as either risk or protective factors for individuals. At this level is where many factors and interventions around college drinking are found. The norms and culture of college campuses, fraternities and sororities, student athletes and other student organizations fall within this level. A study that measured drug and alcohol use among college student athletes found that 46% of the participants consumed more than five drinks in a week (Druckman, 2015). Furthermore, athletes report more binge drinking, heavier alcohol use, and a greater number of drinking-related harms (Nelson, 2001). This high-risk group's drinking patterns are influenced by factors that normalize excessive alcohol consumption like celebration of wins and inherent competitiveness with teammates (Clark, 2016). While college athletes are exposed to a greater number of alcohol prevention efforts than non-athletic students, researchers suggest that interventions for this population target their unique social and environmental influences (Nelson, 2001), which occurs at higher levels of the Socio-Ecological Model.

Members of fraternities and sororities are also more likely to engage in high-risk drinking (Turrisi, 2006). In fact, research has shown that individuals who drink heavily often self-select into fraternities and sororities, and heavy drinking and alcohol consequences increase as individuals affiliate with Greek Letter Organizations (Park, 2008). Peer influences also play a role in the heavy drinking of fraternity and sorority members. The presence of heavy-drinking peers significantly increases alcohol consumption, as normative perceptions such as quantity, frequency, and acceptability of drinking are inflated. Typically, fraternity members approve of heavy alcohol use and perceive it as a common behavior among peers. Unfortunately, alcohol

use is valued among these groups and directly influences the popularity of being in a fraternity (Turissi, 2006).

As a result of dangerous drinking, fraternity and sorority members report adverse consequences like blackouts, unplanned sexual activity, and academic problems at much higher rates than non-members. Additionally, fraternity and sorority members report more severe symptoms typically associated alcohol dependence. Implementing interventions among these groups is challenging for colleges and universities as organizational culture often fosters and supports heavy drinking (Turissi, 2006).

The next level of the model describes factors that exist within a community that influence health outcomes. For example, the number of alcohol retail outlets in a community impacts alcohol use among that community's members, including college students. An aforementioned study by Gruenewald (2014) found that greater alcohol retail outlet densities were related to greater drinking frequencies and volumes. The community factors mentioned in this study not only include the density of restaurants, bars, and stores that sell and serve alcohol, but also factors like residential stability and neighborhood organization (Gruenewald, 2014). The presence of parks, community resources, and recreational activities impact drinking within communities, including college campuses.

However, this level also describes factors that exist within cultural and social communities. For example, many qualitative research studies over the years have proven that college students consider binge and heavy drinking as a rite of passage on academic campuses. In fact, "*students view alcohol as integral to the college experience*" (Crawford, 2006). Cultural factors that impact alcohol use include alcohol drinking at holiday events or alcohol use as part of a religious ritual. Interventions targeting any of these factors, whether physical, or social and

cultural environments, can be helpful in reducing risk of negative health outcomes. These strategies usually come in the form of “small p” policies, like a Christian church that decides to use juice instead of wine for Holy Communion. These policies may not necessarily involve a legislative, political, or governmental body, but target community practices and resources.

At this most distal level from an individual are the societal and political factors that either encourage or discourage the likelihood of alcohol overdose and other negative health outcomes. While social and cultural factors exist at this level also, risk and protective factors around laws, economics, health, and education have the largest impact on the health of populations. The enactment and enforcement of federal laws related to alcohol, like increased pricing and taxing on alcoholic beverage is an example of prevention at the policy level. This limits affordability and accessibility to alcohol, therefore reducing use and excessive drinking. Over a 15-year period, the minimum legal drinking age being raised to 21 resulted in a 19% net decrease in deaths (Treno, 2014). The National Institute on Alcohol Abuse and Alcoholism rate these laws as two of the most effective strategies in preventing alcohol misuse on college campuses across the U.S. (NIAAA, 2018).

The Socio-ecological model calls for multilevel interventions that better incorporate social, institutional, and policy approaches to health promotion. “Expecting any single intervention to focus on multiple ecological levels may be unrealistic” (Golden, 2012), and this is why interventions for any one public health issue must exist at more than one societal level. More than half of the interventions set in schools included institutional-level activities (Golden, 2012). This suggests that college campuses are well-suited to adopt multi-level strategies to prevent alcohol misuse and related harm.

Interventions at these various levels can be categorized as either individual-level strategies or environmental-level strategies. Individual-level strategies are intended to produce changes in one person's attitudes and behaviors related to negative health outcomes. For alcohol misuse, these programs are expected to decrease an individual's alcohol use and/or alcohol-related risk-taking behaviors, thereby reducing harmful consequences (NIAAA, 2018).

Interventions that exist at the individual and interpersonal levels of the Socio-Ecological Model are most commonly classified as individual-level strategies. However, individuals can be targeted at the organizational and community levels as well, depending upon the specific risk factors and needed change.

Environmental-level strategies aim to change negative health behaviors and outcomes at the population level. For alcohol overdose, these strategies target the settings, occasions, and circumstances in which alcohol use occurs, thereby reducing consequences (College Aim, 2018). Interventions at the institutional, community and policy level of the Socio-Ecological Model can be classified as environmental-level strategies. Advantages of strategies that target change at the levels of policy and environment include lower per-person costs and greater potential for long-term sustainability than strategies that target change at the individual level (Frieden, 2010).

Table 2 below list various types of individual and environmental level strategies that have been used to address alcohol overdose on college campuses. This table also includes governmental policies that have been enacted at local, state, and national levels that impact college students. The table identifies these strategies by effectiveness (i.e., no, low, moderate, high). However, there are a few strategies that have not been robustly implemented or studied in order to determine effectiveness.

Table 2. Effectiveness of Individual and Environmental Prevention Strategies to Prevent Alcohol Misuse & Overdose on U.S. College Campuses

| Effectiveness | Individual Strategies | Environmental Strategies |
|--------------------------------|---|---|
| High | AlcoholEdu® for College: A two-part, online program providing personalized feedback along with education around alcohol use. | Enforce age-21 drinking age (e.g., compliance checks) |
| | Alcohol focused self-monitoring: (daily diaries, longitudinal assessment, etc.) | Increase alcohol tax |
| | Parent-based alcohol communication skills training | Prohibit alcohol use and sales at campus sporting events |
| | Targeted social norming: Event-specific prevention (21st birthday cards) | Establish an alcohol-free campus |
| | Information, knowledge, and education programming alone, without any other interventions | Conduct campus-wide social norms campaign |
| Moderate | | |
| Low to No Effectiveness | | |
| Non-robust | Skills training: Alcohol 101 Plus™ | Enact amnesty policies Implement bystander interventions |

National Institute on Alcohol Abuse and Alcoholism, 2018

College Alcohol Intervention Matrix

Public Health Opportunities

The implementation of medical amnesty and Good Samaritan policies to prevent alcohol overdose presents a grand opportunity for continued research for colleges and universities across the state of Georgia. Good Samaritan laws, also known as 911 medical amnesty, provide legal protection for those who assist a person who is injured or in danger. These laws protect active bystanders from judicial consequences, in the event that a person needs life-saving assistance despite illegality or violation. Although the College AIM Matrix is unable to indicate medical amnesty policies as effective, the Medical Amnesty Protocol (MAP) at Cornell University showed positive results in preventing alcohol overdose deaths on their campus (Lewis, 2006). Using a two-pronged approach, MAP's primary goal was to increase the likelihood that students will call for help in alcohol-related medical emergencies. Awareness of the University's protocol was raised through an educational campaign that not only informed students of the amnesty protections, but also displayed signs and symptoms that would warrant a call to 911. Two years after MAP's implementation on Cornell's campus, students were less likely to report fear of getting an intoxicated person in trouble as a barrier to calling for help (Lewis, 2006).

This finding is monumental, as fear of potential consequences is a leading contributing factor for why students choose not to seek help for their friends in need. In the Cornell University study, the author indicates that the threat of judicial consequences resulting from enforcement of the minimum drinking age or other law or policy violations leads some students to refrain from calling for emergency medical services (Lewis, 2006). By adopting medical amnesty policies similar to those at Cornell University, the University System of Georgia can support further research to have Good Samaritan laws recognized as an effective method to saving the lives of college students. This research could also support continued funding and

support of amnesty laws and campaigns at the state and national levels, since these are strategies that are being widely used to address the U.S. Opioid Epidemic presently.

In April 2014, Governor Nathan Deal signed Georgia House Bill 965. This law, also known as the Georgia Good Samaritan Law, protects anyone who seeks emergency medical attention for someone experiencing a drug or alcohol overdose. The law implies that neither the caller nor the victim can be arrested or prosecuted for possessing a small amount of drugs, alcohol, or drug paraphernalia, as long as it is evident that they were seeking medical assistance. Furthermore, this legislation increases accessibility to Naloxone, which can be given to someone to reverse the effects of an overdose. When given in a timely manner, Naloxone can prevent death and long-term brain damage from an opioid overdose (Stephens, 2017).

While the current state law provides protection from legal prosecution, it does not protect against academic penalties and sanctions that may discourage students from seeking medical attention for their peers in need. Following the state's government leadership, the University System of Georgia should consider implementing policies that are modeled after the State of Georgia law in an effort to prevent the lethal consequences of alcohol overdoses on college campuses. This means putting amnesty policies in place to protect bystanders, and preparing bystanders with skills to help save lives. The magnitude of a system-wide policy would have the greatest impact on students and their campuses by eliminating fear of penalty as a risk factor for students who can potentially save a classmate's life. A USG amnesty policy must ensure academic protections for its more than 300,000 students (USG, 2018).

A system-wide policy must explicitly state that students who seek emergency services will not face academic dismissal from their collegiate institutions, even if they possess or are under the influence of alcohol, despite campus regulations on the substance. This will ensure that

all students across the 26 USG institutions are protected, considering the varying alcohol policies across all campuses. The policy must also make clear that no other academic sanctions or penalties that could impede progress toward program completion will be enforced against bystanders. However, the amnesty policy could include mandated campus and community service, participation in prevention programming, and substance abuse counseling, if needed; the second component of Cornell University's Medical Amnesty Protocol. Alongside increasing calls for medical emergencies related to alcohol, the University sought to increase the number of students who received psycho-educational interventions as a follow-up to the medical treatment they received after a friend called for help (Lewis, 2016).

The Georgia 911 Medical Amnesty Law also relies heavily on bystanders as first-responders to medical emergencies. This is known as bystander intervention. Bystander intervention is a strategy where witnesses of dangerous or potentially dangerous situations use a set of skills to prevent various types of violence or harm. When implemented on college campuses, bystander intervention trainings are designed to increase a student's capacity and willingness to intervene when another student may be in danger of harming him/herself or another person due to alcohol use. This strategy is also used to reduce consequences of drug use, sexual assault, and other campus problems (College Aim, 2018).

Bystander interventions teach specific skills, like what a person should do when they notice someone is suffering from alcohol poisoning. These interventions also address attitudes and intended behaviors around drinking and helping others who have had too much to drink. Self-efficacy is another construct that is targeted by bystander intervention trainings. It is important that students feel confident in their ability to make a difference when they step up and

help. Proposed by Icek Ajzen, the Theory of Planned Behavior (TPB) is a public health model that is helpful in understanding how bystander interventions work.

TPB predicts a person's intention to engage in a behavior at a specific time and place, where they have the ability to exert self-control (LaMorte, 2018). The key component to this theory is behavioral intent. This model states that behavioral intentions are influenced by attitudes about the desired behavior and perceived behavioral control over a situation. For example, if a student believes that helping a friend or classmate is worth their while or a good thing to do, they are more likely to step up and intervene in a dangerous situation like alcohol overdose. The second part of this is if the student believes that that can prevent harm by helping and stepping up will actually make a difference.

Existing bystander interventions show positive results that indicate improvement in attitudes about intervening and confidence to do so. *Every Choice* is an online, video-based program designed to equip students with realistic, actionable bystander intervention tools. After implementation, 94% of student participants reported that they were committed to intervening when they witnessed a potentially dangerous situation. Ninety-six percent of students said they were likely to do something if they saw a situation where they could help. (Wells, 2013). Participation in these types of trainings could also be made a requirement for first-year students under a university system-wide policy. This way, USG could ensure that new students are equipped with the information and skills needed to prevent harm, injury and deaths related to alcohol misuse. This tactic could also be helpful in changing campus norms regarding alcohol use, and normalize bystander intervention in the presence of dangerous situations related to alcohol and other types of campus violence. However, bystander interventions should be

customized to reflect the locations, colloquialisms and culture of each differing campus (University of New Hampshire, 2018).

Because students are most likely to take part in health risks when accompanied by someone they consider a friend (Varela, 2011), implementing policies that empower bystanders is imperative in preventing alcohol overdose deaths among college aged youth. Amnesty laws should be coupled with bystander interventions so that the peers and friends of victims can actually help save lives with specific skills. After learning these skills, bystanders will be more inclined to help, especially under academic and judicial protection from a system-wide amnesty policy. This two-prong approach addresses several different risk and protective factors which fall within multiple levels of the Socio-Ecological Model. Working simultaneously, these approaches will ensure sustainability in college alcohol overdose prevention across the state of Georgia. Created by the author of this Capstone project, the logic model below depicts how these strategies in combination could work to reduce binge and heavy drinking and its negative impacts among college students.

Campus Amnesty Policy Logic Model

| Problems/ Related Behaviors | Risk & Protective Factors | Interventions (Strategies/Programs/Practices) | Short-term Outcomes | Long-term Outcomes |
|---|---|--|--|---|
| <p>Binge and heavy drinking among college students</p> <p>Failure of college students to intervene in the presence of dangerous drinking</p> <p>Negative health consequences associated with alcohol overdose</p> | <p>Risk factors:</p> <ul style="list-style-type: none"> - Fear - Risk of penalty - Lack of skills - Diffusion of Responsibility - Low self-efficacy <p>Protective factors:</p> <ul style="list-style-type: none"> - Intervention skill set - High self-efficacy - Intent to intervene | <p><u>Georgia Good Samaritan Law:</u> Protects anyone who calls 911 seeking medical attention for someone experiencing a drug or alcohol-related overdose. Meaning that the callers nor victims can be arrested or prosecuted for small possessions of drugs, alcohol, or drug paraphernalia if it's evident they were seeking medical assistance.</p> <p><u>Campus Good Samaritan Law:</u> Protects any student who seeks emergency services for someone experiencing an alcohol-related overdose from academic penalty.</p> <p><u>Bystander Intervention Training:</u> Bystander intervention is a strategy where witnesses of dangerous or potentially dangerous situations use a set of skills to prevent various types of violence or harm.</p> | <p>Reduce fear associated with intervening in harmful situations</p> <p>Reduce risk of legal and academic penalty when in violation but seeking help</p> <p>Increase knowledge of harm-reduction skills</p> <p>Increase behavioral intention to intervene in dangerous or potentially dangerous situations</p> <p>Increase self-efficacy and perceived control</p> | <p>Reduce binge and heavy drinking among 18-25 year olds</p> <p>Increase bystander intervention to prevent and reduce alcohol-related harm among college students</p> |

The model of combining bystander intervention with amnesty laws to prevent death is proving effective in Georgia. While a bystander intervention training for the entire state would not operationalize as effectively as a training for first-year college students, state agencies are ensuring that Georgians are equipped with the resources and skills to prevent overdose. The Georgia Department of Behavioral Health and Developmental Disabilities has disseminated public service announcements via YouTube and social media sites, movie screening advertisements, and regional community stakeholders. These PSAs raise awareness of the state's Good Samaritan Law, but also provide step-by-step instruction for how to access and use Naloxone to save lives.

Since the enactment of Georgia's amnesty law, there have been nearly 2,000 successful opioid overdose reversals in the state (Georgia Overdose Prevention, 2018). This number does not include reversals performed by emergency medical technicians or other medical professionals. However, the co-founder of Georgia Overdose Prevention reports that the organization "strongly suspect[s] that these numbers are underreported, as many people do not report reversals for a variety of reasons." (Georgia Overdose Prevention, 2018). While 173 different law enforcement agencies across the state have received training and Naloxone rescue kits, greater than 1,300 overdose reversals were performed by community bystanders. This proves that when given the skills, resources, and protection needed, bystanders will step up and save lives.

Georgia is one of 40 states (and the District of Columbia) that has enacted some form of an overdose immunity law. While each state has its own legislative nuances, 80% of U.S. states are protecting citizens and preventing overdose with Good Samaritan Laws. Across the country, 26,000 lives have been saved through overdose prevention efforts. Strategies that are

eliminate fear of penalty as a risk factor for students who can potentially save a classmate's life. This policy would normalize bystander intervention and encourage students to step up and help.

Inherently, tension between the responsibility of colleges and universities to enforce federal and university alcohol policies and the need to motivate underage students to call for assistance when alcohol-related medical emergencies will occur with the enactment of this policy (Lewis, 2006). While it is imperative to uphold the current alcohol policies at each of USG's institutions, preventing injury and saving lives of students must take precedence. Adopting a medical amnesty policy will protect and empower students as first responders to emergency situations, increase university system retention and graduation rates, prepare students with skills to prevent various types of violence and harm on campus, and save lives of USG students!

Resources

- American Addiction Centers. (n.d.). The Effects of Mixing Opioids and Alcohol. Retrieved September, 2018, from <https://www.alcohol.org/mixing-with/opioids/>
- American College Health Association. (2014). Spring 2014 Reference Group Executive Summary. Retrieved from American College Health Association- National College Health Assessment (ACHA-NCHA) Spring 2014.
- Calancie, L., Leeman, J., Pitts, S. B., & Khan, L. K. (2015). Nutrition-Related Policy and Environmental Strategies to Prevent Obesity in Rural Communities: A Systematic Review of the Literature, 2002–2013. *Preventing Chronic Disease, 12*.
- Centers for Disease Control and Prevention (a). (2018, August). Underage Drinking. Retrieved from <https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm>
- Centers for Disease Control and Prevention (b). (2016, March 01). Workplace Health Promotion. Retrieved from <https://www.cdc.gov/workplacehealthpromotion/health-strategies/substance-misuse/index.html>
- Centers for Disease Control and Prevention (c). (2018, October). Binge Drinking. Retrieved from <https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>
- Centers for Disease Control and Prevention (d). (2013, April). Ten Leading Causes of Death and Injury. Retrieved from <https://www.cdc.gov/injury/wisqars/LeadingCauses.html>
- Clark, N. (2016, December 06). The Athlete's Kitchen: Alcohol & Athletes. Retrieved from <http://www.ncaa.org/sport-science-institute/topics/athlete-s-kitchen-alcohol-athletes>
- Crawford, L. A., & Novak, K. B. (2006). Alcohol Abuse as a Rite of Passage: The Effect of Beliefs about Alcohol and the College Experience on Undergraduates Drinking Behaviors. *Journal of Drug Education, 36*(3), 193-212.

- Department of Behavioral Health and Developmental Disabilities. (2017). Substance Abuse Prevention. Retrieved 2017, from <https://dbhdd.georgia.gov/substance-abuse-prevention>
- Druckman, J. N., Gilli, M., Klar, S., & Robison, J. (2015). Measuring Drug and Alcohol Use Among College Student-Athletes. *Social Science Quarterly*, 96(2), 369-380. <https://doi.org/10.1111/ssqu.12135>
- Frieden, T. R. (2010). A Framework for Public Health Action: *The Health Impact Pyramid*. *American Journal of Public Health*, 100(4), 590-595.
- Golden, S. D., & Earp, J. A. (2012). Social Ecological Approaches to Individuals and Their Contexts. *Health Education & Behavior*, 39(3), 364-372.
- Gruenewald, P. J., Remer, L. G., & Lascala, E. A. (2014). Testing a social ecological model of alcohol use: The California 50-city study. *Addiction*, 109(5), 736-745.
- Hingson, R. W., Edwards, E. M., Heeren, T., & Rosenbloom, D. (2009, May). Age of drinking onset and injuries, motor vehicle crashes, and physical fights after drinking and when not drinking. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19298330/>
- Lewis, D. K., & Marchell, T. C. (2006). Safety first: A medical amnesty approach to alcohol poisoning at a U.S. university. *International Journal of Drug Policy*, 17(4), 329-338. doi:10.1016/j.drugpo.2006.02.007
- Maholchic-Nelson, S. (2010). High- and Low-Achieving Fraternity Environments at a Selective Institution: Their Influence on Members' Binge Drinking and GPA. *ERIC*. Retrieved November, 2018.
- National Highway Traffic Safety Administration. (2017). Traffic Safety Facts 2016 data: alcohol-impaired driving. U.S. Department of Transportation. Retrieved from <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812450>

National Institute on Alcohol Abuse and Alcoholism (a). (n.d.). Drinking Levels Defined.

Retrieved September, 2018, from <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking>

National Institute on Alcohol Abuse and Alcoholism (b). (2018, August). Alcohol Facts and

Statistics. Retrieved from <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics>

National Institute on Alcohol Abuse and Alcoholism (c). (n.d.). Consequences. Retrieved

September, 2018, from

<https://www.collegedrinkingprevention.gov/Statistics/consequences.aspx>

National Institute on Alcohol Abuse and Alcoholism. (n.d.). CollegeAIM NIAAA's Alcohol

Intervention Matrix. Retrieved September, 2018, from

<https://www.collegedrinkingprevention.gov/CollegeAIM/Default.aspx>

National Institute on Drug Abuse. (n.d.). Alcohol. Retrieved October, 2018, from

<https://www.drugabuse.gov/drugs-abuse/alcohol>

Nelson, T. F., & Wechsler, H. (2001, January). Alcohol and college athletes. Retrieved from

<https://www.ncbi.nlm.nih.gov/pubmed/11194110>

Park, A., Sher, K. J., & Krull, J. L. (2008). *Risky drinking in college changes as*

fraternity/sorority affiliation changes: A person-environment perspective. Psychology of Addictive Behaviors, 22(2), 219-229.

SAMHSA. (2015, October 30). Alcohol. Retrieved from <https://www.samhsa.gov/atod/alcohol>

Treno, A., Marzell, M., & Gruenewald, P. (2014). A Review of Alcohol and Other Drug Control

Policy Research. *Journal of Studies on Alcohol and Drugs*, 98-107.

Turrisi, R., Mallett, K. A., Mastroleo, N. R., & Larimer, M. E. (2006). *Heavy Drinking in College Students: Who Is at Risk and What Is Being Done About It?* *The Journal of General Psychology*, 133(4), 401-420.

University of New Hampshire (UNH). Bringing in the Bystander®. (n.d.). Retrieved May 2018, from <https://cola.unh.edu/prevention-innovations-research-center/bringing-bystander%C2%AE-person-prevention-program>

University System of Georgia (USG). (2018). USG Institutions. Retrieved from <https://www.usg.edu/institutions/>

Varela, A., Pritchard, M. PhD (2011). Peer Influence: Use of Alcohol, Tobacco, and Prescription Medications. Retrieved from *Journal of American College Health*, 59 (8), 751-756.

Wells, B. (2013). Every Choice Violence Prevention through Bystander Intervention. Retrieved from <http://www.every-choice.com/>

White, A. M., Hingson, R. W., & Pan, I. (2011). Hospitalizations for Alcohol and Drug Overdoses in Young Adults Ages 18–24 in the United States, 1999–2008: Results from the Nationwide Inpatient Sample. *Journal of Studies on Alcohol and Drugs*, 72(5), 774-786. doi:10.15288/jsad.2011.72.774