Master of Public Health Program

Perelman School of Medicine
University of Pennsylvania

Capstone Presentation Program

Summer 2019

Thursday, August 8, 2019

Biomedical Research Building II/III, Room 251

10:20 am

Cory Czuczman, MBE
Mentor: Rebecca L. Ashare, PhD

Delay discounting task performance between smokers with and without HIV

Abstract:
People living with HIV (PLWH) smoke cigarettes at higher rates than the general population with traditional cessation methods being less effective, putting PLWH at greater risk for negative health outcomes. Therefore, it is critical to identify the factors that underlie this health disparity. Delay Discounting is the ability to put off a smaller, immediate reward for a greater, future one and plays an important role in predicting smoking cessation success. This study aimed to compare Delay Discounting between adult smokers with (HIV+) and without HIV (HIV-) and evaluate whether smoking abstinence disproportionately increases Delay Discounting among smokers with HIV. The study utilized both between-subjects (HIV+ N=34; HIV- N=46) and within-subjects designs (abstinence condition) to measure delay discounting. We did not find any significant difference in delayed discounting rates between HIV status groups (p=0.49) or within-subject abstinence effects (p=0.70) However, the HIV- group exhibited an increase in Delay Discounting following smoking cessation treatment compared to baseline (p=0.02), whereas the HIV+ showed no change (p=0.09). These findings suggest that delay discounting is relatively stable among HIV+ smokers and may be more critical to predicting smoking cessation success among HIV- smokers. Future studies should examine Delay Discounting performance against non-smoking HIV- controls.

Cory Czuczman has a BS in psychology and minor in sociology from Drexel University, completed his MBE in the spring 2019, and will finish his MPH in summer 2019. His passions within public health are broad, spanning from harm reduction practices in substance use disorders or coping strategies after childhood traumatic events to Medicare for All policies and universal basic income. Cory is currently a clinical research coordinator at the Center for Interdisciplinary Research on Nicotine Addiction (CIRNA) at the Perelman School of Medicine.

10:40 am

Alyssa Kennedy
Mentors: Sumedha Chattre, PhD and Annet Davis, RN, MSW, CCRC

Policing HIV & sex work:
Sex workers' insights about health, HIV, and HIV criminalization

Abstract
Much of the existing literature on HIV criminalization is focused on describing the prevalence and characteristics of the laws that criminalize potential HIV transmission, examining the implications of these laws for public health practice, highlighting awareness of and attitudes towards these laws, and understanding the effects these laws have on individual health behaviors. However, attention should also be given to exploring their potential influence on public health practices and behaviors related to the HIV continuum of care (for both prevention and treatment). In Pennsylvania, prostitution-related offenses are misdemeanors unless people knew or "should have known" that they are HIV-positive, in which case the offense is a felony carrying a maximum sentence of seven years. The primary aim of this research was to use qualitative semi-structured interviews to understand sex workers' experiences and perceptions of health, HIV prevention and treatment, and HIV criminalization, in order to understand how a particular structural factor – in this case, a HIV-criminal statute in Pennsylvania that targets sex workers – could influence sex workers' interaction with the HIV care continuum in Philadelphia.

Alyssa Kennedy is a submatriculant of the MPH program. She received her BA in Health & Societies: Health Policy from the University of Pennsylvania in December 2016 and started the MPH program January 2017. Alyssa works full-time at Thomas Jefferson University Hospital's Infectious Disease department as the HIV Ambulatory Outpatient & Ryan White Program Manager. She previously worked at Prevention Point Philadelphia as a case manager at their weekly Ladies' Night event as well as a harm reduction specialist in the mobile syringe exchange program. Working with communities affected by HIV has had a great influence on her and inspired her capstone work. Alyssa is preparing to go to law school in the near future to pursue a career as a public health and interest lawyer.

11:00 am

Paige Lombard
Mentors: Peter F. Cronholm, MD, MSCE, CAQHPM, FAAFP and Christine M. Forke, PhD, MSN, CRNP

Creating a multi-state dataset to explore the role of physical activity as it interacts with childhood adversity and chronic health

Abstract:
Adverse childhood experiences (ACEs) are incredibly common, and impact children and families across racial, ethnic, and socioeconomic groups. ACEs typically include household-level dysfunction, ranging from personal experiences of abuse to parental separation and other risk among household members. ACEs create a stress response in the body that can be detrimental, if activated frequently and in the absence of protective factors, throughout a child's development. Research has established that an individual's risk for developing long-term health conditions increases relative to numbers of ACEs experiences. Emerging evidence suggests that physical activity may impact stress and chronic illness in some way. This study aimed to further explore the role of physical activity as it interacts with other key variables such as ACEs and chronic health. Data were collected from the Behavioral Risk Factor Surveillance System (BRFSS), focusing on six states that included optional ACE questions within their 2015 BRFSS survey. Thorough examination of each dataset was conducted, and variables of interest (ACEs, physical activity, chronic health conditions, demographics) were compared in a newly created comparison codebook. Data were merged into one combined dataset and then recoded to help reconcile discrepancies and generate new variables that aligned across states. The combined dataset will be used to explore how the presence or absence of regular physical activity might affect the relationship between ACEs and adult health. Results can be used to inform how individuals experiencing ACEs can best be supported. The large majority of ACEs research to date has focused on the damaging impacts that childhood adversity can have on individuals experiencing high doses. However, those who work with affected families need more evidence focused on identifying protective factors that can support healing.

Paige Lombard earned her bachelor's degree from the University of Pennsylvania in Medical Anthropology. Shortly after graduation, she began working at Penn's Netter Center for Community Partnerships. She serves as the Associate Director of a sports-based youth development program that establishes athletic teams with students from Penn's partner schools in West Philadelphia and engages them with Penn's varsity teams. While working full-time at the Netter Center, Paige enrolled in the Master of Public Health program at Penn as a part-time student and is expected to graduate in August 2019.

11:20 am

Melissa Ostroff
Mentors: Michelle Kondo, PhD and Marilyn Howarth, MD, FACOEM

Feasibility of a vacant lot remediation program to reduce gun violence in Chester, Pennsylvania

Abstract:
Gun violence is a pernicious and deadly public health problem in the United States, but its impact is not spread evenly across the country. Chester, Pennsylvania is among a cluster of American cities and towns disproportionately affected by gun violence. In recent years, municipal governments and non-profits have begun implementing place-based approaches to address gun violence, including cleaning and "greening" of vacant lots. A growing body of evidence supports the association between vacant lot remediation programs and decreasing gun violence. Our project sought to determine the feasibility of a vacant lot remediation program in Chester by conducting semi-structured interviews with key informants representing a wide breadth of relevant experience and expertise. Interviewees provided insights on Chester's landscape in relation to core program elements, lot selection, staffing, funding, costs, legal considerations and political climate. These findings will inform Chester residents, advocates, and leadership as they consider scaling promising evidence to reduce the city's firearm violence.

Melissa Ostroff is the Associate Director for Health Policy at the Leonard Davis Institute of Health Economics at the University of Pennsylvania. Melissa began her career working with low-income Philadelphians seeking affordable legal aid, later serving in communications roles with Pennsylvania State Senator Art Haywood and Penn's Center for Health Incentives & Behavioral Economics. As a public health professional, Melissa is most interested in bridging the gap between research, policy and practice, with a focus on environmental health and place-based interventions.

11:40 am

Marisa Theodora Mohrer

Mentors: Malitta Engstrom, PhD; Phyllis Solomon, PhD; and Sherry Morgan, PhD, MLS, RN

A systematic scoping review of U.S. programs for pregnant women during and following incarceration in jail or prison

Abstract:
Research estimates that approximately 6-10% of women are pregnant upon incarceration. They face elevated biopsychosocial risks, and their health outcomes have multigenerational implications impacting their children and society at large. This project examines programs and services available in the United States for pregnant women who are currently incarcerated or within one year of returning to the community. A search was conducted in the PubMed and EMBASE databases to identify relevant literature from 1990-2018. Articles were independently screened by two reviewers who utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This process resulted in a final citation list of 21 articles deemed appropriate for inclusion. The literature was summarized using a thematic synthesis framework. Results illustrate the limited availability of prison nurseries, community-based residential care programs, parenting classes, case management opportunities, and doula support programs for this populations. Effective programs that both accurately assess and meet the unique needs of pregnant mothers are urgently needed. By building on previous reviews, findings from this study can be used to inform future public health research. This review provides research recommendations and clinical guidelines to better support this vulnerable population.

Marisa Mohrer is a dual degree Master of Clinical Social Work and Master of Public Health candidate. She graduated cum laude from Bates College with a BA in psychology. Marisa was inspired to conduct this capstone project after co-facilitating a support group for pregnant and incarcerated women. Marisa has experience serving as a case manager, a therapist, and a health educator. Upon completion of her degrees this August, Marisa will move to California, where she will undertake a two-year fellowship with the CDC at the Monterey County Health Department working in HIV.

12:40 pm

Lauren Rhodewalt, MSW, LSW

Mentor: James Guevara, MD, MPH

Easy as 1-2-3? Understanding caregiver health literacy and reading behaviors at home in low-income Philadelphia families

Abstract:
It has been shown that low literacy results in chronic health conditions, decreased economic and educational attainment, and billions of dollars in cost to the health industry. Additionally, children of parents who have low literacy rates are more likely to struggle with reading and writing themselves. This is partly presumed to be hereditary, with the example of increasing likelihood of a child having dyslexia when at least one of their parents are also dyslexic. However, research has also indicated that parents who struggle with literacy do not engage in at home reading behaviors as early as parents who do not face any literacy issues. This study provides an analysis of 70 low-income families in Philadelphia County with children less than 30 months old who were referred to early intervention services. Parents completed measures on demographic information, the Measure of Cognitive Stimulation Provided in the Home (StimQ) and the Short Assessment of Health Literacy (SAHL). By understanding the relationship between parental literacy and at home reading behaviors, we can better inform practices to bolster caregiver engagement with reading to children. In turn, interventions should be designed to support reading behaviors in the home and mitigate potential literacy difficulties experienced by children of low literacy parents. Improving intergenerational literacy rates will not only directly improve academic and health outcomes for the affected individuals but also decrease the economic repercussions faced by institutions in light of low literacy rates in adults.

Lauren Rhodewalt is an MSW/MPH candidate at the University of Pennsylvania. She received her Honors BS from the University of Utah in 2014.

1:00 pm

Maura Sheehan
Mentors: Colin Hawkes, MD, PhD and Frances Shofer, PhD

Who wore it better? Predictors of successful continuous glucose monitor use in children with Type 1 diabetes

Abstract:
Continuous Glucose Monitor (CGM) use is associated with lowered glycosylated hemoglobin (HbA1c) levels in many pediatric patients with type 1 diabetes (T1D). However, some patients do not achieve improved glycemic control with this device and may need additional support. The aim of this study was to identify clinical and socioeconomic characteristics of patients less likely to improve HbA1c with CGM use. Patients with antibody-positive T1D aged 0 to 17 years who started using a CGM after 2014 were included in this single-center retrospective chart review, performed at the Children's Hospital of Philadelphia. Successful use was defined as an HbA1c reduction of ≥0.5% or HbA1c of <7.5% at 1-year, with continued use of the device. Unsuccessful patients had a higher median (IQR) HbA1c at baseline (7.8(7.3, 8.5)% , vs 7.3(6.6, 8.3)% p<0.0001) and a longer median (IQR) time from diabetes diagnosis to CGM start (3.0(0.8, 6.7) years vs 1.3(0.4, 4.7) years, p<0.0001). They were also more likely to be from an area with more than 3189 people per square mile (p=0.022) and an area annual median income of less than \$73,877 (p=0.021). In conclusion, we have identified clinical and socioeconomic factors associated with unsuccessful CGM use. This work will help target public health interventions, such as additional education, more frequent contact with the healthcare team, or community health care workers, for those least likely to improve glycemic control using CGM. Future studies are required to determine whether these interventions will increase the likelihood of success in this patient population.

Maura Sheehan earned her BS from Albright College in 2017 with concentrations in biology and theatre. She currently works at the Penn School of Veterinary Medicine as a research specialist investigating the role of mitochondria in disease. Her public health interests include program implementation and evaluation and disparities in the distribution of medical care. Maura is currently applying to medical school in pursuit of her goal to become a pediatric endocrinologist.

1:20 pm

Stana Leigh Ziemba
Mentors: Alison Buttenheim, PhD, MBA and Dominique Ruggieri, PhD

The pulse on vaccination: A qualitative analysis of online vaccination comments

Abstract:
Vaccine hesitancy refers to conscious vaccine refusal or vaccination on a delayed schedule despite the availability of vaccine services. It is a primary driver of low vaccination rates in many pockets of the United States, including, in California. In response to the 2014-2015 California measles outbreak, California's legislature passed a bill in 2015, SB 277, mandating vaccination of all school students medically able to accept them. To gauge public opinion about this policy change, the comment sections of two online newspaper articles written about the aftereffects of SB 277 were analyzed. The articles both were published in 2018 and were chosen because both received a large number of comments posted to them (173 & 467) and both were featured in well-circulated and premier news outlets, The *New York Times* and The *Los Angeles Times*. Thematic analysis, coarse-discourse analysis, and quasi-statistical analyses were performed on these data. Results of the thematic analysis indicated that six major themes were present in the data: government and system responsibility, herd immunity, science, judgment on vaccines, the role of vaccination as protection, and solutions for anti-vaccination efforts. The results of the coarse-discourse analysis give insight into the ways that users are interacting in these online spaces. These results have implications for health communications and education campaigns designed to counteract online misinformation.

Stana Leigh Ziemba, RN, BSN graduated from the College of New Jersey in 2016 with a Bachelor of Science in Nursing and will graduate from Penn with her MPH in August of 2019. She worked as a registered nurse, notably on progressive care and medical-surgical units and as a school nurse for the School District of Philadelphia.

1:40 pm

Jacqueline Omorogbe
Mentors: Evan Anderson, JD, PhD and Dominique Ruggieri, PhD

Food safety laws for food donations:
A content analysis of existing state laws to inform policymakers

Abstract
The rate at which food is being wasted in retail operations is problematic considering the number of people who face food insecurity in the United States. Most food retailers often cite civil and criminal liability as well as unclear and inconsistent food safety laws as two of the greatest deterrents when it comes to donating excess food items. Previous studies have focused only on identifying states with regulations in place for food donations. To date, no study has explored and summarized the content in statutes regulating food donations. This is crucial in identifying and rectifying shortcomings in state food safety laws for food donations. Thus, we conducted an exploratory qualitative study to assess the content of state food safety laws for food donations using a modified content analysis approach. Six states with food codes that outlined food donation instructions were included in the study and were identified through agency contact and online searches. Requirements for submission, exemptions, food items approvable for donation, hygiene and sanitation requirements, and liability were the five main themes identified across state food codes. However, some of the requirements that were given for food donation varied across state food codes. Study results will be used to inform policymakers and serve as a guide when developing regulations that address food safety for food donations.

Jacqueline Omorogbe graduated from Temple University with a Bachelor of Science in Public Health in 2015 and will graduate with a Master in Public Health from the University of Pennsylvania. She is currently a Research Coordinator at the University of Pennsylvania at the Center for Clinical Epidemiology and Biostatistics.
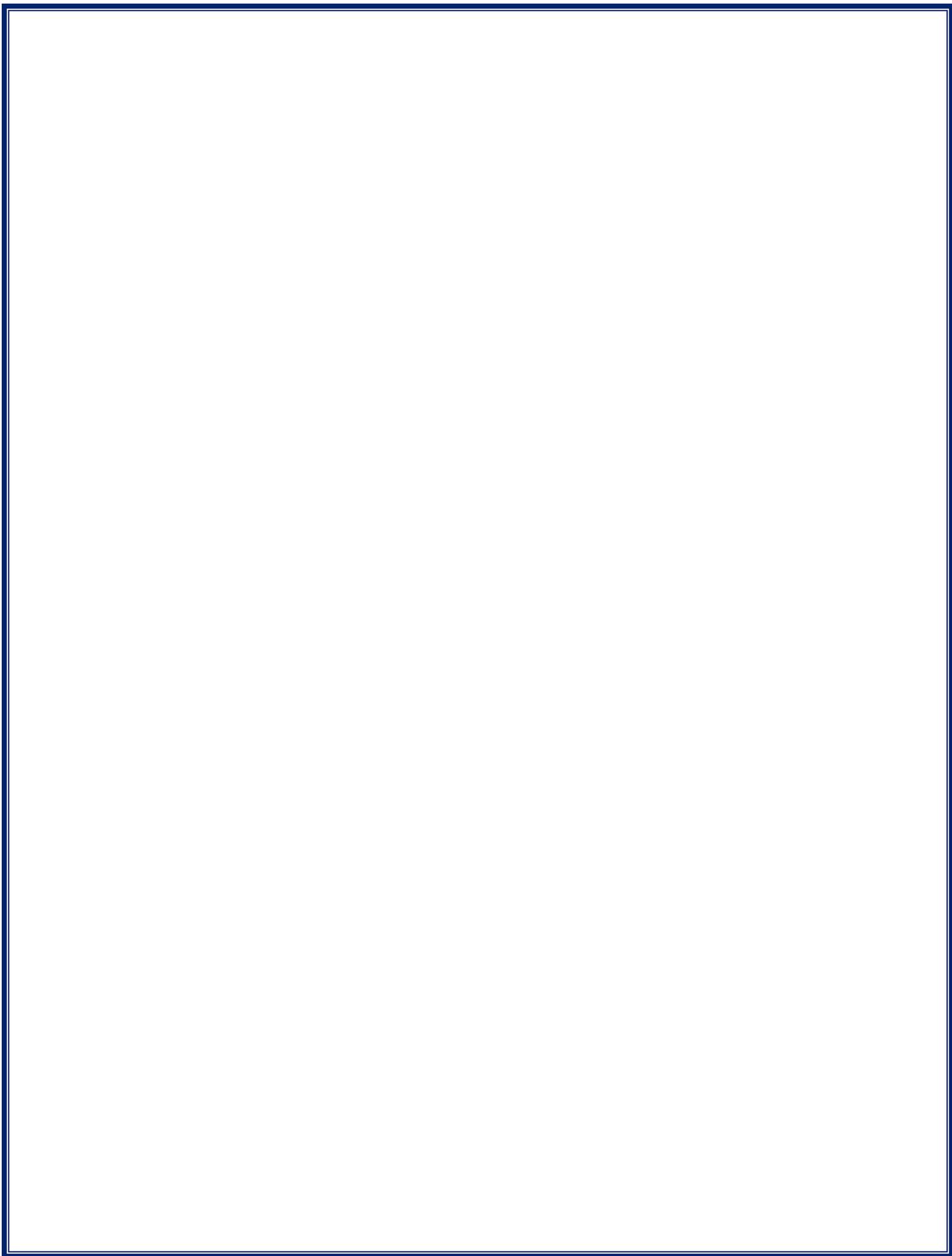
2:00 pm

Kiara Benson
Mentors: Bernadette D'Alonzo, MPH; Dominique Ruggieri, PhD; Doug Wiebe, PhD

Not in Philly: A quality improvement project examining community attitudes and beliefs about litter and litter reduction

Abstract:
While litter continues to be a pervasive issue in large cities, it is also very manageable. *Not in Philly* is a nonprofit, volunteer-based organization that provides Philadelphia residents with an opportunity to participate in cleaning up litter in their own communities. Despite over 1300 residents signing up since the organization first started in 2016, the majority of volunteers come from a select number of wealthier, better-kept Philadelphia neighborhoods. The purpose of this project was to assess the motivations, concerns, and perceptions regarding litter that shapes *Not in Philly's* ability to engage the community in the organization's mission. Results from this project could help further the organization's goals for sponsorship, expansion, and stronger community participation. Four one-on-one, key informant interviews with Southwest Philadelphia community volunteers were conducted, transcribed, and open-coded. The interviews included a photo-elicitation component as a way to evoke a more dynamic range of responses and perceptions from volunteers. Themes extracted from the interviews were used to determine current concerns that residents have regarding litter in their community and the intent/motivations behind their involvement in cleanup efforts. This information contributed to the development of a measurement tool (i.e. a survey). The survey will be used to gather information regarding what pushes/prevents residents to get involved with cleanup efforts, community concerns, and current perceptions of the impact of litter/litter reduction on the community. In the future, *Not in Philly* leadership will be able to administer the survey to new potential volunteers and the broader Philadelphia area through local meetings, block captains, and other venues, allowing for the collection of on-going data as well as an assessment of community needs.

Kiara Benson graduated from Southern Methodist University in 2014 with a BA in Biology and a BA in Psychology. Her research interests include psychosocial stress and its impacts on community health. She is currently a full-time as a Clinical Research Coordinator for The Center for the Studies of Addiction at the University of Pennsylvania.