

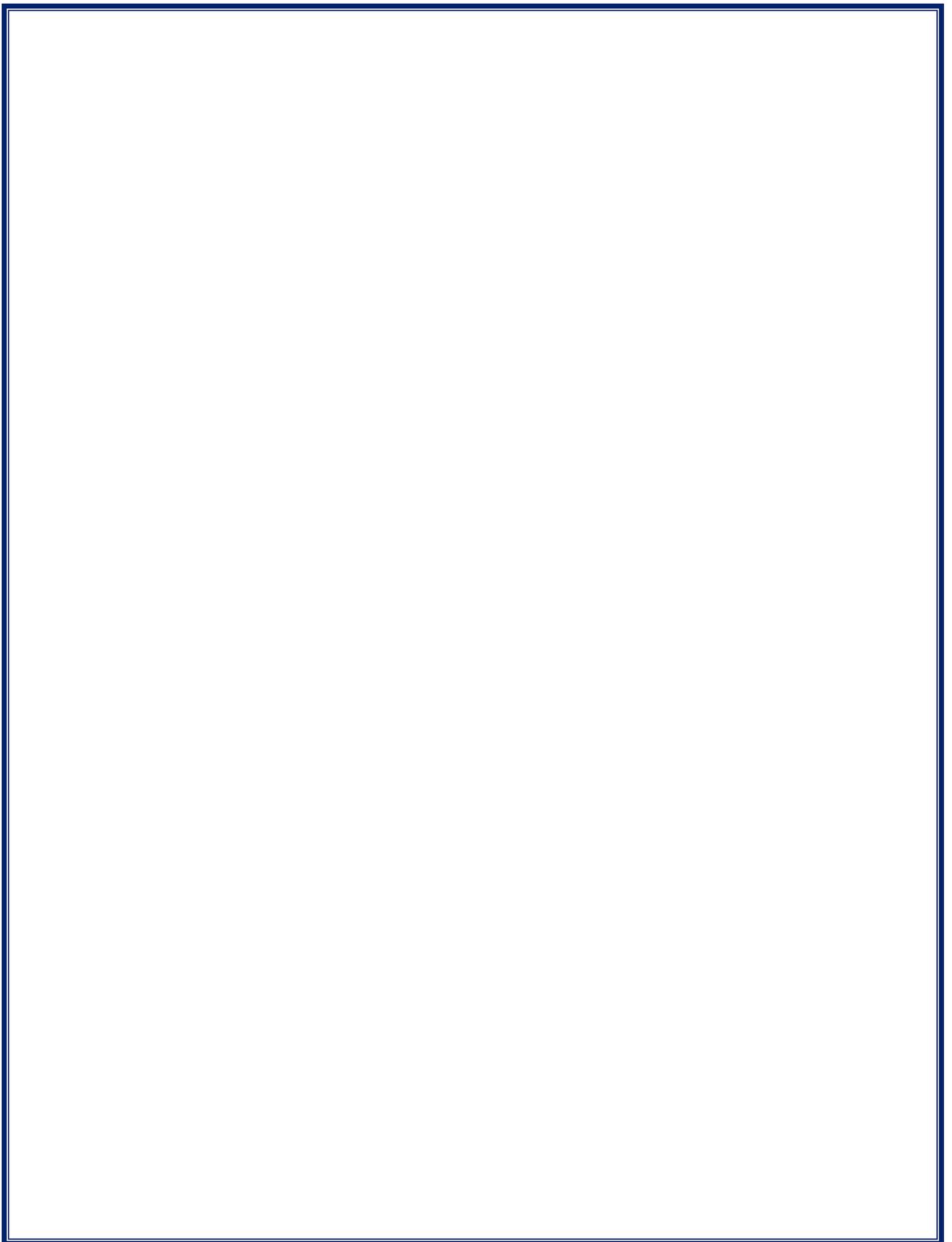
Master of Public Health Program

Perelman School of Medicine
University of Pennsylvania



Capstone Presentation Program

Spring 2018



Monday, April 30, 2018

Biomedical Research Building II/III, Room 252

10:00 am

Elaine Tran

Mentor: Heather Klusaritz. PhD, MSW

**Barrier and facilitators to implementation of the
*Walk with a Future Doc Program at U.S. colleges***

Abstract:

Walk with a Future Doc (WWAFD), a medical student-led walking program initiated in 2015, is an extension of the national program Walk with a Doc (WWAD), which encourages physical activity and provides valuable health information to its participants. WWAFD has nine chapters to date, and potential to expand to other medical schools. Despite many participant-reported success stories about improved blood pressure, mobility, and health knowledge throughout its 350 chapters, neither WWAD nor WWAFD has been formally evaluated. Thus, we conducted a study that aimed to explore barriers and facilitators to implementation of WWAFD and understand more about WWAFD implementation experiences. To do this, we conducted semi-structured qualitative interviews with five student leaders and four faculty advisors, representing six schools. Interviews were transcribed verbatim and the interview guide was developed using the Consolidated Framework for Implementation Research. A grounded theory approach was used to develop the initial codebook. Resultant codes were organized into barrier and facilitator themes. Participants described institutional characteristics and process strategies that facilitated or hindered program implementation. Institution cultures geared toward service and strong student interest in community engagement and patient interaction were primary facilitators for WWAFD implementation. Barriers included lack of time and difficulties navigating the legal paperwork necessary to become a recognized WWAFD chapter. Overall perceptions of WWAFD benefits for medical students, faculty, and patients were positive. The challenges and opportunities to WWAFD implementation identified in this study will guide future chapters as the program grows.

Elaine Tran graduated with a BS in Public Health from the University of Washington in 2013 and expects to receive her MPH from the University of Pennsylvania this May 2018. Prior to Penn, Elaine worked for the Centers for Disease Control in Columbus, OH, and Seattle, WA. Elaine currently manages health education initiatives, Walk with a Future Doc, the MPH Service Corp, and the Public Health Pipeline as a graduate assistant for the Center for Public Health Initiatives.

10:30 am

Abha Kulkarni

Mentor: Evan Anderson, JD, PhD

**Opt In to Opt Out:
A Case Series to Inform the National Discussion on Organ Donation Policy**

Abstract:

Current demand for organs greatly exceeds the supply. Currently, all US states operate under either opt-in or mandated choice systems; under both of these systems, registration for organ donation requires explicit consent. To address the organ shortage, legislators in seven US states have proposed switching to an opt-out system in which consent for organ donation is presumed unless an individual registers as a non-donor. Despite evidence that adopting an opt-out system could vastly increase organ donation rates, each of these attempts to pass opt-out legislation has failed. To inform the national discussion surrounding opt-out legislation and its feasibility, we conducted a case series study that examined three different instances of opt-out policy in Spain, Brazil, and New Jersey. Data sources included a literature review, primary sources, newspaper articles, and stakeholder interviews. We utilized these case studies to generate recommendations for policymakers and advocates who are considering opt-out as a potential method to increase organ donation rates.

Abha Kulkarni sub-matriculated into the Masters of Public Health program during her junior year and graduated from the University of Pennsylvania with a Bachelor's Degree in Health and Societies in May 2017. She will complete her Masters of Public Health this spring. Abha will be attending medical school after graduation and looks forward to combining her training and skills in public health and medicine toward a career in health policy.

11:00 am

Anjana Sevagamoorthy, MBBS

Mentors: Heather Klusaritz, PhD, MSW and Julia DeJoseph, MD

High emergency department utilization among patients in a federally qualified health center ACO: A descriptive study

Abstract:

Delaware Valley Community Health (DVCH), a private non-profit organization that encompasses seven federally qualified health centers, participates in the Delaware Valley Accountable Care Organization (DVACO). DVACO aims to improve the quality of care while simultaneously reducing healthcare costs, and provides healthcare coverage to chronically ill patients through an integrated and coordinated system of care. High utilization of the emergency department (ED) among DVCH patients have led the organization to initiate efforts to better understand patient care needs. The purpose of this retrospective study was to identify relevant demographic, medical, healthcare utilization, and social factors associated with frequent ED utilization among DVCH patients who have at least one chronic condition diagnosis. To do this, we abstracted and reviewed electronic medical record data between June 1, 2015 and May 31, 2017 for all 23 patients who were enrolled in DVACO between 1st June 2016 and 31st May 2017 and who had four or more ED visits annually. We abstracted into a REDCap database information on demographic factors, risk factors associated with chronic conditions, and primary care provider utilization. Results will be described using proportions for categorical variables and measures of central tendency (means or medians) for continuous variables. Study results will be used to inform DVCH's efforts to develop interventions targeted at the reduction of high ED utilization among their patients.

Anjana Sevagamoorthy, MBBS is a physician who completed her clinical training in India. Interaction with her patients and her experience volunteering at medical camps helped her gain a broader perspective of health, which then motivated her to pursue a Master's in Public Health degree at Penn. She plans to build a career which blends her expertise in clinical training and specific interest in infectious disease epidemiology.

12:15 pm

Kathryn Scheffey, MSW, LSW

Mentor: Melissa Dichter, PhD, MSW

Provider perspectives on the application of patient sexual orientation and gender identity information in clinical care

Abstract:

Gender and sexual minority populations face numerous physical and mental health disparities and have higher rates of unmet health needs compared to their heterosexual and cisgender counterparts. The Institute of Medicine and US government have recommended that healthcare institutions document patient sexual orientation and gender identity (SOGI) in order to track and combat health disparities. The implications of this data collection on population-level health are understood. However, little is known about how the collection of SOGI impacts individual-level care decisions. The purpose of this study was to explore providers' perspectives on how patient SOGI information might be applied in clinical care. Qualitative in-depth interviews were conducted with 25 healthcare providers in family medicine, internal medicine, gynecology, and urology within a single healthcare system. In general, providers recognized the importance of tracking patient SOGI data for understanding population-level public health concerns, as well as the relationship benefits of understanding and respecting the context of patients' lives. However, providers emphasized the importance of knowing patients' sexual behaviors, physical anatomy, and transition-related practices for addressing health risk and preventive care needs. Further, they noted that these are not necessarily indicated by patient SOGI. Providers described ways in which their assumptions from the collection and documentation of patient SOGI may unintentionally obscure accurate profiles of patient behavior and anatomy. Findings support recommendations to collect and document SOGI while emphasizing that providers must be sensitive to the nuances in patient identities and avoid conflating orientation and identity with behaviors, anatomy, and other clinically-relevant characteristics.

Kate Scheffey, MSW, LSW graduated from the University of Pennsylvania's MSW program in May 2017 and will be graduating from the University's MPH program in May 2018. After graduation, she plans to pursue a career in reproductive justice, LGBTQ health, or sex and relationship education and counseling that allows her to utilize her complementary degrees.

12:45 pm

Edwin Nieblas-Bedolla

Mentors: Kent Bream, MD, and Frances Barg, PhD, MEd

**Residents' perceptions of diabetes
in a rapidly industrialized indigenous Guatemalan community**

Abstract:

Despite an incessant diabetes epidemic present across the country of Guatemala, little is known about the nature of rural Guatemalan residents' health beliefs regarding diabetes. In order to shed light on potential methods of intervention, we conducted a qualitative study in a small rural Guatemalan community to explore how pre-colonial history, Mayan and Spanish culture, the local economic environment, and the authority of the medical profession shape residents' perceptions of the etiology of, treatment of, and access to care for diabetes. To do this, we conducted over 40 hours of participant observation and semi-structured interviews with 15 residents across three different regions in rural Guatemala from June to July 2017. Study participants reported convictions on how they had acquired the disease, which included by way of acute emotional distress and other avenues that did not fit the traditional Mayan or Western health belief system. Participants also reported general distrust of healthcare professionals working in public health centers, which aligns with skepticism of government actions and their purported beneficence. Finally, participants reported positive views on natural treatments, which is likely due to an interplay of several historical and cultural factors. Study results suggest that future behavioral interventions should attempt to understand societal structures and the personal interactions of patients with these social elements. Doing so will produce context appropriate strategies to reduce the burden of diabetes and offer tangible positive outcomes. Interventions that do not account for these historical, cultural, and social factors may harbor or perpetuate inequity in diabetes care.

Edwin Nieblas-Bedolla graduated from the University of Arizona with a BA in Biochemistry and a BS in Molecular and Cellular Biology. He will be graduating with his Master of Public Health in Global Health in Spring 2018 and attending medical school in the fall.

1:15 pm

Matthew Miclette, MSSP, BSN, RN-BC

Mentor: Frances Shofer, PhD

Naloxone distribution in Pennsylvania: A survey of county-level coordinating entities

Abstract:

Pennsylvania has the fourth highest drug overdose rate in the United States. Opioids were identified in 85% of drug overdose deaths in the state. In order to increase access to the opioid reversal agent, naloxone (Narcan), the state invested \$5 million in October 2017 to fund the Pennsylvania Commission on Crime and Delinquency (PCCD) Naloxone for First Responders program. To participate in the PCCD program, PA counties must identify a centralized coordinating entity (CCE), an individual designated to receive doses of naloxone from PCCD and distribute them to county agencies. However, little is known about how CCEs are managing and distributing naloxone in their regions. Thus, we conducted a process evaluation in order to: (1) describe CCE practices used to distribute, track, and manage naloxone in Pennsylvania counties prior to and following the PCCD program; and (2) identify any unintended effects of the program. To do this, we developed and implemented an electronic survey of 39 CCEs across the state. In general, CCEs reported wide variation in naloxone funding, engagement with county officials, and reporting from county agencies. CCEs also identified barriers to providing EMS agencies and community programs with PCCD doses. Additionally, more than a third of CCEs in regions that previously purchased naloxone, stated their counties may purchase less naloxone in response to the additional PCCD doses. The report concludes with recommendations for future state-wide naloxone distribution programs in Pennsylvania.

Matt Miclette, MSSP, RN-BC will be completing his MPH degree in May, after graduating from the Master of Science in Social Policy (MSSP) program in August 2017. Matt co-founded and serves as the Operations Director at the nonprofit Action Tank and as a Policy Associate at the Leonard Davis Institute of Health Economics, specializing in substance use disorder policy. He will be attending the Bloomberg School of Public Health in June to begin a Doctor of Public Health (DrPH) in Health Policy and Management degree program.

2:00 pm

Julia Weatherly

Mentor: Allison Karpyn, PhD

**Exploring breakfast consumption among school children in Eleuthera, Bahamas:
A mixed-method study**

Abstract:

In 2017, the United Nations launched a Global Action Program to address the challenges Small Island Developing States (SIDS) face in relation to food security, nutrition, and climate change. In particular, the program has proposed national school lunch programs as a mechanism to address food insecurity. However, few studies have been undertaken in SIDS to understand whether these programs adequately address food insecurity and, further, whether additional programs such as a national breakfast program are needed. In order to inform the need for and feasibility of a national school breakfast program, we conducted a study that aimed to describe the current breakfast consumption patterns of children living on Eleuthera, Bahamas. To do so, we collaborated with a local nonprofit organization—the One Eleuthera Foundation—to distribute 365 surveys to students aged 9-15 years at 17 schools on the island. In addition, we conducted semi-structured interviews with 14 school principals and 11 national school lunch vendors. Results demonstrated that children do not regularly consume breakfast meals of high nutritional quality and have very limited fruit and vegetable intake. Findings suggest that opportunities remain for local and national stakeholders to fill gaps in policy implementation, and that a framework to establish an additional national breakfast program may be needed to address the nutritional needs of Eleutheran children. Key recommendations include creating a curriculum for both parents and children regarding the importance of eating a nutritious breakfast and paying school vendors on time so they are able to provide healthier meals to children.

Julia Weatherly graduated from Amherst College in 2014 with a double major in Psychology and Anthropology. Prior to coming to UPenn, Julia worked for KPMG's Federal Advisory group as a consultant to CMS and FDA. Julia is very passionate about how policies affect businesses and consumers' ability to access products, and hopes to work for a corporate government affairs, medical policy, or consumer insights organization.

2:30 pm

Obumneke (Ify) Obi

Mentor: Robin Stevens, PhD, MPH

**Building health: Can a new fitness center increase
physical activity and social capital among urban adolescents?**

Abstract:

Pennsylvania Although the reasons for physical inactivity are complex, the built environment has been shown to be an important factor. Low-income neighborhoods are more likely to experience crime and less likely to have access to bike lanes, parks, and other features of environments that encourage activity. Further, the built environment can improve social capital—trust, norms, perceived quality, and networks within a group—which has been shown in previous studies to increase physical activity. The introduction of structural interventions, specifically in vulnerable communities, has the potential to improve community health. The Salvation Army, funded by the Ray and Joan Kroc Foundation, seeks to improve health equity across the country by opening state-of-the-art community and wellness facilities in low-income neighborhoods. In 2014, the Kroc Center—a 120,000 square-foot community center with faith, arts, and fitness programs – was built in Camden, NJ. The Center was designed to be a community asset, giving residents walkable access to a facility that offers programs to increase physical activity and spaces for community gatherings. The objective of this study is to examine whether the Kroc Center improved physical activity and social capital among Camden's adolescent and young adult residents (aged 12 to 21). We administered electronic questionnaires to 98 parent-adolescent dyads before the facility was constructed and 12- and 24-months post-opening to assess changes in their physical activity and social capital. Study results will inform the future development of structural interventions in at-risk communities and ways in which these interventions may encourage physical activity and overall wellness.

Obumneke Ify Obi is a Master of Public Health candidate expecting to graduate in May 2018, having earned her Bachelor of Arts degree in Psychology and Photography at the University of Virginia in 2016. She is currently completing a Graduate Assistantship at the Health Equity and Media Lab at the Penn School of Nursing. After graduation, she will be working as an intern at USAID, with hopes of starting a career in global health research.

3:00 pm

Maiki Paul

Mentor: Christina Roberto, PhD

**Comparison of beverage marketing in three regions
before and after implementation of Philadelphia's beverage tax**

Abstract:

Excess sugar consumption is associated with numerous dietary health risks. Currently, the leading source of sugar in the American diet is sweetened beverages. For this reason, policy makers are interested in interventions to reduce intake of these beverages. Philadelphia was one of the first large cities to implement a tax on sugar- and artificially-sweetened drinks. The tax is expected to reduce consumption of these beverages, but little is known about how it might influence the beverage industry's marketing practices with respect to marketing of both untaxed products and taxed sugary drinks. The objective of this study is to identify whether the amount and/or types of beverage advertising changed in independent food retailers in Philadelphia before vs. after the tax was implemented compared to Baltimore (control group) and the counties surrounding Philadelphia. We conducted observational assessments of beverage advertising in Philadelphia (n = 60 stores), Baltimore (n = 64), and four Pennsylvania counties (n = 63) at three time points: four months prior to the tax's implementation on January 2017, 6 months post-tax, and 12 months post-tax. Evaluators collected data on the amount and type of beverage advertising, including signs on store exterior, doors and windows, decals on refrigerators, and in-store point of sale displays. We conducted Poisson regressions to estimate changes in the number of indoor, outdoor, and total advertising in stores over time for taxed and untaxed beverages. These results illustrate how beverage taxes may influence the industry's marketing tactics.

Maiki Paul is a Master in Public Health candidate at Penn, where she has furthered her interest and competencies in population health policy and management. While completing her MPH, she worked in the Consulting department at The Food Trust, a nonprofit based in Philadelphia, which seeks to improve local food systems and increase food access for all. Maiki is a Philly native and received her Bachelor's degree from Brown University.

3:30 pm

James Baier

Mentor: Heather Klusaritz, PhD, MSW

A community-academic partnership model for health advocacy education

Abstract:

Many academic medical centers in the United States are developing opportunities for health professionals and students to learn community health advocacy skills through service-learning opportunities, educational tracks, and specific course offerings. However, such learning opportunities are not yet universally available at health professions schools in Philadelphia. To fill this gap, Physicians for Social Responsibility (PSR) Philadelphia, a 501(c)(3) non-profit organization, piloted a health advocacy skills training program using a community-academic partnership model. In collaboration with PSR, I designed the program and its evaluation, and co-chaired the interprofessional committees that organized the first two training events. These events were held on the campuses of Thomas Jefferson University and the University of Pennsylvania in 2017. Session topics included writing letters to the editor, speaking with elected officials, writing policy briefs, and the legal considerations of participating in direct actions. Between 73-95 attendees participated in each event, with professional representation from physicians, public health professionals, nurses, social workers, psychologists, and students from each of these fields. Over ten local organizations with active programs related to community health advocacy were also invited to discuss their initiatives. Follow-up surveys at 12 weeks post-event revealed that 53% of attendees who pledged to perform two advocacy-related activities were successful, and 60% who pledged to join a community group with active initiatives related to health advocacy were able to do so. This innovative partnership model is an effective way to generate both additional community engagement and concrete advocacy actions among health professionals and students.

James Baier is a dual-degree Master of Public Health and Doctor of Medicine candidate, graduating in May 2018. James has also been an active student board member of Physicians for Social Responsibility Philadelphia since 2016. Following completion of his education at the University of Pennsylvania, James will begin his residency training in psychiatry at Yale University.

Tuesday, May 1, 2018

Biomedical Research Building II/III, Room 252

10:00 am

Christopher Yao

Mentor: Mathias Basner, MD, PhD, MSc

**Healthy behaviors competing for time:
Association of sleep and exercise duration in working Americans**

Abstract:

More More than a third of Americans report less sleep than the recommended 7 hours. Waking activities that compete with sleep for time can contribute to sleep loss related health and safety risks. This study investigated the relationship between exercise duration and sleep duration. American Time Use Survey data from 2003 to 2016 were used to investigate the extent to which exercise at different times of the day is associated with sleep duration in a representative sample of N=47,862 working U.S. residents aged 18-65 years on weekdays. Models were adjusted for various sociodemographic variables and time spent working on the interview day. Both sleep duration and the likelihood to engage in exercise were negatively associated with work duration. On weekdays, respondents who exercised slept on average 15.5 min. less (95% CI: -18.4; -12.7, $p < 0.0001$) than those who did not exercise. Exercise duration was associated with less sleep in a dose-response dependent manner, especially for those who exercised before work in the morning. Those who exercised between 8 PM and 12 AM slept on average >100 min. less compared to those who did not exercise during the same time period. These results demonstrate negative associations between two health-promoting activities, time spent exercising and sleeping, especially if people exercise in the morning before work or late at night. Public health efforts should emphasize the importance of both exercise and sleep, and the necessity of a healthy balance that avoids sacrificing one activity for the other.

Christopher Yao graduated from Penn in three years with a BA with Distinction in Biology and is completing his MPH in his fourth year at Penn. He has worked with the faculty in the Unit for Experimental Psychiatry for the past two years on projects to understand the effects of sleep deprivation on people.

10:30 am

Gregory Baldwin, MD

Mentor: Jill Johnson, PhD, MPH

SWOT analysis of a primary school health education program in rural Uganda

Abstract:

Great strides have been made in community health in Uganda, however, Ugandans still greatly suffer from a number of preventable diseases. The Ministry of Education has created a strong network of schools that reaches almost every rural village, and previous research has shown the successful transfer of health knowledge from school children to their greater communities as a means of improving community health. This approach was utilized by OmniMed, a non-governmental organization in the Mukono District of Uganda. The current project is a SWOT (strengths, weaknesses, opportunities, and threats) analysis to assess OmniMed's program. The major strength of the program was the comprehensive and engaging didactic and hands on curriculum that targets the major killers Ugandans face. With the many community relationships already established by OmniMed, successful completion of the program could result in improved health literacy of many communities in the Mukono District. The main weaknesses of the program stemmed from a lack of in depth collaboration with the schools that led to scheduling delays and conflicts. There was also a very poor response rate on the assessments, which made quantitative analysis of the success of the program impossible. Potential opportunities include increased involvement of schoolteachers and incentivization of students to return the assessment materials. Continuing threats include a potential overestimation of reach and a lack of enforcement of students teaching their families and greater communities. If OmniMed follows the recommendations outlined here, they will serve as an example for future community education programs in rural Uganda.

Greg Baldwin is originally from Denver, Colorado, but has spent the last ten years on the east coast. Prior to coming to Penn, he studied English and Mathematics at Lafayette College in Easton, Pennsylvania and graduated from the Icahn School of Medicine at Mt. Sinai in New York City. He began his residency training in urology at Temple University Medical Center, but is now transitioning to a career in anesthesiology. Through his public health studies at Penn Greg has identified a passion for global health work.

11:00 am

Sarah Griggs

Mentors: Joseph Zorc, MD, MSCE and Jill Johnson, PhD, MPH

Characteristics of asthma patients who frequently utilize the Children's Hospital of Philadelphia Emergency Department

Abstract:

Asthmatic children over-utilize the Emergency Department (ED) at the Children's Hospital of Philadelphia. The objective of this quality improvement project was to identify characteristics of this population in order to target services that would improve asthma management in these children, thus decreasing ED utilization. This quality improvement study identified patients who have had at least two admissions and one ED visit in the past. Chart reviews were completed on a cohort of 142 high utilizers to gain insight into who these children are and what might make them over utilize the ED. Analysis included descriptive statistics of age, sex, race, smoke exposure, compliance and medical complexity. Results indicate an over representation of black or African American children, making this a health equity issue as well as an area for continued quality improvement. There is great value in understanding the characteristics of the asthma high utilizer population to better tailor interventions to improve health outcomes for these children.

Sarah Griggs is a Master of Public Health candidate expecting to graduate in May 2018. She earned her Bachelor of Science Degree in Biological Sciences from Drexel University in 2016 with a minor in Philosophy. She works as a project manager at the University of Pennsylvania managing a study working to leverage primary care networks to reduce inequalities in cancer risk. Following completion of her degree, she will continue to pursue a career working to decrease disparities in healthcare access and health outcomes.

12:15 pm

Gabriella Jackson

Mentor: Anne Teitelman, PhD, FNP-BC, FAANP, FAAN

Women and PrEP: The role of patient-provider communication

Abstract:

Although multiple advancements have been made in the fight against HIV and AIDS in the United States, the HIV epidemic among women remains a significant, yet often overlooked, public health concern. Previous studies have demonstrated that oral HIV pre-exposure prophylaxis (PrEP) - the use of antiretroviral medications by HIV-uninfected persons to prevent HIV acquisition - can reduce the incidence of HIV among women. However, there is a gap between recommended use of PrEP and actual PrEP uptake. The first step in acquiring PrEP requires a conversation with a healthcare provider; therefore, it is imperative to understand at-risk women's perceptions of their communication with their provider. We conducted a qualitative analysis of fifteen semi-structured in-depth interviews to explore the role of patient-provider communication for at-risk women considering PrEP in Philadelphia. We found that women tended to agree that patient-provider communication was a major deciding factor when considering PrEP use. Stigma, feeling embarrassed, ashamed and judged by providers, were all mentioned as barriers to effective patient-provider communication, especially when identifying reasons for or against disclosing sensitive information. Women also discussed the importance of provider support, longevity of the provider relationship, and the availability of the medication from their provider as factors when considering PrEP use. In conclusion, results from this study suggest that communication with a healthcare provider plays a pivotal role in a woman's decision to use PrEP. The identified themes will inform future communication interventions targeted towards this population.

Gabriella Jackson is a dual-degree Master of Public Health and Master of Health Leadership Nursing student, expected to graduate in May 2018. She graduated from Drexel University in 2013 with a Bachelor of Science in Nursing. Prior to starting her program at Penn, Gabriella worked as a registered nurse on an adult acute care, infectious disease unit, where her passion for preventative health deepened. After graduation, she plans to utilize her degrees by creating sustainable health and wellness programs that aim to reduce chronic disease in minority populations.

12:45 pm

Taylor White-Welchen

Mentor: Robin Stevens, PhD, MPH

The roles of patient-provider communication and self-efficacy on glycemic control

Abstract:

Diabetes and poor glycemic control disproportionately affect vulnerable populations in the United States. For example, the prevalence of diabetes and the proportion of diabetics with poor glycemic control among non-Hispanic/African Americans is nearly double that of non-Hispanic/Whites. Research has identified patient-provider communication and self-efficacy as key indicators of glycemic control. Therefore, the aim of this study was to assess the relationship between patient-provider communication, self-efficacy, and glycemic control in patients with type 2 diabetes (T2D). In this cross-sectional study, patients with T2D from a federally qualified health center were recruited between October and December 2017. Participants completed two brief telephone surveys, the Interpersonal Processes of Care Survey-18 and the Diabetes Empowerment Scale-Short Form. Electronic health records were also reviewed to collect relevant T2D clinical information. Thirty-one patients enrolled; most were female (64%), non-Hispanic/African American (94%), and had at least a high school education (84%). Sixteen percent of participants had poor glycemic control, defined as having a HbA_{1c} greater than 9%. Most patients were satisfied with patient-provider communication (mean = 4.5 out of 5). Although not statistically significant, we found that patients with poor glycemic control were the least satisfied with patient-provider communication. Our findings suggest the most vulnerable patients are the least satisfied with overall communication. This study adds to the scientific literature analyzing the relationship between patient-provider communication and glycemic control. Though limited by the sample size and cross-sectional design, these findings support additional research to better understand this relationship within vulnerable populations.

Taylor White-Welchen is a Master of Public Health candidate expected to graduate in May 2018. She earned a Bachelor of Science degree from the College of William and Mary in 2016 where she was a Kinesiology and Anthropology double major. Through her work and personal experiences, Taylor has developed a true passion for and commitment to uplift vulnerable populations. Following completion of her degree, she will continue investigating the role of patient-provider communication on health as she pursues a PhD in Communication from Rutgers University.

1:15 pm

Kristen Ward

Mentor: Catherine C. McDonald, PhD, RN, FAAN

Characteristics of newly licensed adolescent cellphone use while driving

Abstract:

Cell phones are a major source of distracted driving and contribute to adolescent crash risk, yet few studies have observed the characteristics of teens' phone use while driving. Using data from a pilot intervention study, this study describes the characteristics of when, where, and how often newly licensed adolescents engage in handheld cellphone use while driving. Newly licensed adolescents in Pennsylvania installed a windshield-mounted device that paired with a smartphone application to collect data on cellphone use while driving over a two-week period. Descriptive statistics and GIS spatial analyses were used to characterize handheld cell phone use ("unlocks") by speed, time of day, and roadway factors. The analytic sample included 16 adolescents (50% male), age 16.95 years (standard deviation: 0.36), licensed for 39.69 days (sd: 24.02). The sample drove 5624 miles in 705 trips across 7 states. There were 964 unlocks while driving (1.23 unlocks per trip). The mean speed at unlock was 25.00 mph (sd: 16.63). Across the adolescents, mean highest speed at unlock was 53.33 mph (sd: 19.68). There were 210 unlocks between 8pm-5am (21.78%) and 33 between 11pm-5am (3.42%). Over 15% of unlocks occurred on highways or other roadways with a posted speed limit of 55 mph or greater. Data from this study indicate frequent engagement in hand-held cell phone use while driving in a sample of newly licensed adolescent drivers. In-vehicle monitoring devices should be used in large diverse populations to further understand characteristics of adolescent phone use while driving.

Kristen Ward is a Master of Public Health student expected to graduate in May 2018. Prior to pursuing her Master's degree, Kristen developed a passion for global health and health policy through her work developing water, sanitation, and hygiene and health systems strengthening programs in Africa. She came to Penn looking to broaden her knowledge, skills, and expertise through diverse public health research and practice experiences.

2:00 pm

Emily Paterson

Mentor: Heather Klusaritz, PhD, MSW

Perceptions of student-athlete mental health: A survey of UPenn coaches

Abstract:

Current research indicates collegiate student-athletes experience similar rates of mental illness as their non-athlete peers but utilize mental health services at significantly lower rates. While mental health among college athletes is receiving more attention, limited research exists involving stakeholders beyond the students themselves. Coaches play a critical gatekeeper role between student-athletes and health service utilization. We developed a 16-question survey that was distributed to Division 1 coaches (n=85) at the University of Pennsylvania. The survey aimed to measure coaches' perception of: (1) mental health in student-athletes, (2) their role in monitoring athlete's well-being, and (3) their mental health education/training. The survey response rate was 75.29% (N=64). The majority of participants responded that mental health was a concern on their team (82.81%). On a scale from not at all (1) to extremely (10), coaches identified that they were responsible for ensuring that a student experiencing a mental health issue/concern will seek services (mean=7.84); however, 53.22% of participants responded, "Very little" or "Somewhat" in regard to the sufficiency of the training they had received in mental health. The results of this survey suggest a greater need mental health awareness and training at the University of Pennsylvania athletic department and may help inform policy among other athletic departments across the country.

Emily Paterson completed her Bachelor of Arts in 2016 while competing as a varsity gymnast at the University of Pennsylvania. She submatriculated into the Master of Public Health program and will graduate in Spring 2018. After graduation, she plans to continue working in mental health research at the National Center for Integrated Behavioral Health in Penn's Department of Family Medicine and Community Health, where she currently works as a Research Coordinator.

2:30 pm

Gaurav Majmudar

Mentors: Evan Anderson, JD, MPH and Jill Johnson, PhD, MPH

A systematic review of the emotional response of student athletes post-concussion

Abstract:

The estimated incidence of sports related concussion has increased from 300,000 in 2007 to over 1.6 million in 2017, with a large percentage occurring in youth athletes. There are growing concerns about the cognitive and emotional wellbeing of young athletes during concussion recovery. The purpose of this review was to evaluate how concussion relates to changes in emotion and mood in high school and college athletes. Relevant articles from 1997-2017 were retrieved on PubMed using keywords searches. English language articles were included for analysis if they measured concussed high school or college athletes using a validated instrument for assessing emotion and mood. Ten published studies met the inclusion criteria. Five studies measured changes in emotional response in athletes after concussion. The other studies compared emotional response in athletes after concussion to the emotional response in athletes after non-concussive sports injury, such as musculoskeletal or orthopedic injury. Despite heterogeneity in methods and limitations in the literature, our review suggests growing consensus that concussions result in altered emotions and mood. However, current research shows conflicting results on whether alterations in emotional response are different post-concussion than post non-concussive sports injury.

Gaurav Majmudar is a Master of Public Health student expected to graduate in May 2018. He received his BS in Psychology from the Morrissey College of Arts and Sciences at Boston College. Outside of the MPH program, Gaurav has worked with nonprofit organizations on grassroots international development, engaged in promotion and innovation in science and medicine, and contributed to clinical research projects. Gaurav is an avid NYC sports fan, Bollywood film fanatic, and a former contributor to the Huffington Post. He plans on attending medical school after graduation.

3:00 pm

Ruth Shefner

Mentor: Evan Anderson, JD, PhD

**Interactions with the criminal justice system
for individuals who fatally overdosed in Philadelphia in 2016**

Abstract:

Fatal drug overdoses have increased dramatically in Philadelphia and across the United States. The causes of this epidemic are complex. It is clear, however, that intervening earlier in the course of opioid abuse is important for preventing deaths and reducing harm. However, identifying early intervention opportunities is difficult. There is an established relationship between opioid abuse and contact with the Criminal Justice System, yet no research has explored whether these contacts can illuminate early intervention strategies. This study sought to enhance understanding about how the Philadelphia criminal justice system can better address substance abuse and associated harms by examining patterns of interaction with the Criminal Justice System among all individuals who fatally overdosed in 2016. Names and birthdates of all individuals who fatally overdosed in 2016 were obtained from the Philadelphia Medical Examiner's Office. Criminal histories were retrieved from the District Attorney's Office and abstracted from records by study authors. Collected data included: dates of arrest and convictions, specific criminal charges, types/duration of sanctions, and program participation/completion. Contacts with the criminal justice system were common. The patterns of these contacts reveal a number of criminological trends among subjects, demonstrating common pathways through substance use and the criminal justice system in Philadelphia, including homelessness, transitions in substance use, and participation in the drug market economy. These pathways provide potential points for intervention and suggest a need for criminal justice processes that facilitate better and earlier interventions to reduce preventable opioid-related harm.

Ruth Shefner graduated with a Master of Social Work from Penn in May 2017 and will graduate with her Master of Public Health in May 2018. She earned a BA in Public Health from Brown University in 2013, and worked for a Health Policy consulting firm in Washington, DC prior to moving to Philadelphia. Ruth currently works for the Goldring Reentry Initiative (GRI), an organization that supports individuals pre and post release from the Philadelphia county jails. Her research interests focus on the intersections of criminal justice, public health, and law.

3:30 pm

Shloka Joshi, JD

Mentor: Evan Anderson, JD, PhD

Designing an evaluation of Philadelphia's Police Assisted Diversion program

Abstract:

Philadelphia's Police Assisted Diversion (PAD) program is a Pre-Arrest Diversion model that takes a health-centered approach to law enforcement. It involves a unique, active collaboration between police officers, social service providers, and local government. PAD connects people who come into contact with law enforcement for low-level, non-violent offenses to targeted social services in lieu of arrest. It is part of a comprehensive reform initiative to safely reduce the city's jail population as well as the rate of racial, ethnic, and economic disparities across the criminal justice system as part of the MacArthur Foundation's Safety and Justice Challenge. This capstone project designed the Program Evaluation that will enable the PAD program to gauge its success upon implementation. The Program Evaluation Plan includes a literature analysis, data inventory and logic model, methodology related to the creation of control populations, and a power analysis that is based upon six areas of impact anticipated by PAD stakeholders.

Shloka Joshi is a Master of Public Health candidate expected to graduate in May 2018. She earned a Bachelor of Arts degree in Psychology from Emory University in 2009 and a Juris Doctorate degree from Widener University School of Law in 2012. She is licensed to practice law in Pennsylvania and New Jersey and currently serves as Assistant Counsel for Community Behavioral Health, a Medicaid managed care organization serving Philadelphia's Medicaid recipients with mental health, behavioral health, and/or substance use challenges.

Wednesday, May 2, 2018

Biomedical Research Building II/III, Room 252

10:00 am

Olenga Anabui, MBA

Mentors: Shreya Kangovi, MD, MSHP and Dominique Ruggieri, PhD

**Putting the right rungs on the ladder:
Understanding what community health workers seek in career development**

Abstract:

Community health workers (CHWs) extend beyond the walls of formal health structures to help patients, who often are low-income, tackle real-life issues that fuel chronic diseases and hospitalizations. Despite a strong evidence-base for their success, limited attention has been given to creating options for CHWs to build long-term careers within the field. We conducted a qualitative study of focus groups with CHWs employed at Penn Center for Community Health Workers to explore what they desired in career development and required to be satisfied in their role. Participants expressed that not having career development options available within the organization, even if no immediate plans existed to pursue them, was a reason to leave. In contrast to prior research exploring career paths for CHW advancement, we discovered that participants were most attracted to work that closely resembled core attributes of their role as CHWs. Using our findings, we co-built a career ladders program with CHWs. The program provided a four-level structure for CHWs to expand their skills and move up in the organization based on performance, skills proficiency, and seniority. Three career track options that aligned to specialized interests CHWs expressed also were established. Six months following program implementation, CHWs reported feeling better about working in the organization and their opportunities to grow. However, they were not satisfied with time requirements for promotion eligibility. Our research informs CHW program leaders who are seeking new CHW retention strategies, way to expand organizational capacity, and a means to elevate CHW professional standing to secure grant funding or payer reimbursements.

Olenga Anabui, MBA is the Director of the Penn Center for Community Health Workers. Her professional healthcare journey began in information technology at a Fortune 50 company. Today, Olenga is harmonizing her career with her core value of helping vulnerable groups have better access to resources that enable full participation in life.

10:30 am

Tunmise Fawole

Mentors: Kristen Feemster, MD, MPH, MSHPR and Tonya Arscott-Mills, MD, MPH

**An educational intervention to improve chest radiograph interpretation accuracy
among non-radiologist clinicians in Botswana**

Abstract:

Over 99% of pneumonia-related deaths among children occur in low and middle-income countries (LMICs). World Health Organization (WHO) guidelines for identifying radiological pneumonia are important for fostering agreement in case identification. However, chest radiographs are most frequently read by clinicians without formal radiology training in LMICs, which may impact accurate diagnosis. The objective of this study was to develop an educational intervention to improve chest radiograph interpretation skills among medical students and non-radiologist clinicians. The intervention consisted of an in-person training session with PowerPoint materials led by a board-certified radiologist at Princess Marina Hospital. Participants were medical students and non-radiologist clinicians at Princess Marina Hospital Department of Pediatrics. Endpoint pneumonia, endpoint consolidation, and endpoint effusion were classified using standardized WHO criteria; final chest radiograph classification was 1) primary end-point pneumonia, 2) other infiltrate/abnormality, or 3) no significant pathology. Univariate logistic regression evaluated associations between level of training and the identification of primary endpoint pneumonia on chest radiograph, and kappa (κ) statistics measured variability in interpretation of the chest radiographs within and between groups pre and post intervention. Participants improved agreement across all three endpoints when compared to the radiologist after the intervention was complete. Participants had fair agreement with the radiologist for endpoint consolidation ($\kappa=0.365$) and endpoint effusion ($\kappa=0.256$), and moderate agreement for endpoint pneumonia ($\kappa=0.487$) post-intervention. Results indicate that short, targeted trainings have the potential to improve chest radiograph interpretation accuracy in resource-limited settings.

Tunmise Fawole graduated from the University of Pennsylvania with a Bachelor of Arts in Health in Societies last May. She has done research in infectious diseases, vaccine policy, and rheumatology. After completing her Master of Public Health degree this May, she plans to start medical school this August.

11:00 am

Jason Hammer

Mentor: Chad Thomas, MPH

Mapping sociodemographic and health sensitivity to extreme heat events: An interactive tool to examine Philadelphia's heat vulnerability index

Abstract:

Exposure to extreme heat has contributed to more deaths in the past decade than any other climate-related hazard, driven largely by mortality among vulnerable populations in urban environments. Extreme heat can lead to a wide range of health issues and exacerbate chronic medical conditions. Cities experience higher temperatures on average than their rural surroundings due to the urban heat island effect. We sought to identify the neighborhoods in Philadelphia most vulnerable to extreme heat events and the community assets available that may assist in mitigating its effects and preparing its residents. We developed a heat vulnerability index (HVI), which summarizes the most important factors associated with the adverse health effects of extreme heat. A literature review was conducted to determine the most prevalent factors included in city and state HVIs. Twelve sociodemographic and health variables were included in the final factor analysis, based on their relevance to the population of Philadelphia. Sensitivity scores for each census tract were calculated and mapped using ArcGIS, with surface temperature data overlaid to illustrate overall vulnerability. A publically available, interactive website was created to display the maps and allow users to navigate the data with links to potential resources. Maps indicate that the most vulnerable neighborhoods are concentrated in areas of North, West, and South Philadelphia. Community assets in these areas present potential partnerships, which may enhance adaptive capacity. These study results can help inform future preparedness initiatives and aid in communicating the risk of heat vulnerability to residents throughout the city.

Jason Hammer is a Master of Public Health candidate expected to graduate in May 2018. During his time at Penn, he has worked as a graduate research assistant on issues related to high impact philanthropy and global health. Some of his interests include the health impacts of climate change, emergency preparedness and planning, and political ecology.

12:15 pm

Patrick Moeller

Mentors: Frank Leone, MD and Sarah Evers-Casey, MPH CTTS-M

Predictors of poor recovery and loss to follow-up in a tobacco cessation treatment program using the Transtheoretical Model (TTM)

Abstract:

Effective, theory grounded methods to help tobacco users quit are vital, but users of existing supportive therapies quit in only 8-21% of cases. We report the results of 10 years of a comprehensive smoking treatment program at the University of Pennsylvania Medical Center, using a substage framework of the transtheoretical model to guide evaluation. Examinations of electronic medical records systems revealed 1508 patients treated from 2007 through 2017. Median age was 56 (IQR 49-62) and 59.3% were female. Demographics and comorbidities were compared between those returning in a positive theoretical substage, those returning in a negative theoretical substage, and those lost to follow-up using multinomial logistic regression. Significant relative risk ratios for positive substage versus negative substage on return included increased age (1.02, 95%CI: 1.01-1.04), bipolar disorder diagnoses (2.0, 95%CI: 1.13-3.53), prescription of varenicline (0.47, 95% CI: 0.27-0.83) and bupropion (0.56, 95% CI: 0.32-0.99). Significant relative risk ratios for positive versus lost to follow-up included other household smokers (1.46, 95%CI 1.10-1.93), COPD diagnosis (0.67, 95%CI: 0.51-0.90), and prescription of varenicline (0.51, 95%CI: 0.53-1.00) or bupropion (0.42, 95%CI: 0.26-0.69). These results represent the early exploratory analyses of a new data source for the Comprehensive Smoking Treatment Program. Future work to extend these analyses to later recovery and measures of abstinence are underway.

Patrick Moeller is a Master of Public Health candidate, graduating this spring. Currently, he works for the Aortic Surgery Research Program at the Hospital of the University of Pennsylvania as a data analyst, coordinating the program's retrospective research efforts. His public health interests include research methodology and program evaluation, areas of knowledge he hopes to apply after graduation.

12:45 pm

Caroline Stark

Mentor: Evan Anderson, JD, PhD

Meditation-based interventions for migraine: A systematic review

Abstract:

Migraines affect 1 in 9 adults and represent the sixth largest source of disability globally, yet there is inadequate funding for research on headache-related disorders and limited understanding of migraine. Common efforts to prevent and treat migraines can have harmful side effects. Given the challenges of pharmacological interventions for migraines among children, and pregnant or nursing women, there has been growing interest in integrative, non-pharmacologic methods although evidence supporting the effectiveness of these methods is inconclusive. This project is a systematic review of meditation-based interventions for migraine. Texts were assessed for methodological quality and stress- and pain-related outcomes. Significant effects were demonstrated across meditation types and diverse populations for various outcomes including: heart-rate variability increases indicative of parasympathetic regulation, pain frequency and severity, migraine disability, self-efficacy, pain acceptance, pain catastrophizing, hours of pain per day, and quality of life. However, study quality was predominantly suboptimal considering issues such as small N sizes, potential confounders, definitions of “success” that may not directly relate to real-life headache pain, and selection bias. Nevertheless, the overall positive effects demonstrated suggest that more high-quality research is warranted to assess the efficacy of these interventions.

Caroline Stark is a MPH candidate graduating in May 2018. She plans to contribute to research in behavioral health interventions, pain and painkiller addiction, and addiction- and pain-related stigma.

1:15 pm

Caroline Stark

Mentor: Evan Anderson, JD, PhD

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Michael S. Weinstein, MD, MBE, FACS, FCCM is an associate professor of surgery at Sidney Kimmel Medical College of Thomas Jefferson University in the division of Acute Care Surgery. Board certified in Surgery, Surgical Critical Care, Neurocritical Care and Hospice and Palliative Medicine, his clinical and academic interests relate to medical ethics, physician wellness, palliative care, communication and language in medicine, diaphragmatic dysfunction, and global surgery. Weinstein is a fellow of the American College of Surgeons and the American College of Critical Care Medicine.

2:00 pm

Kira White

Mentors: Jill Johnson, PhD, MPH and Justin Clapp, PhD, MPH

A qualitative study of mood effects from hormonal contraceptives in adolescent users of long-acting reversible contraception (LARC)

Abstract:

Today's adolescents have more contraceptive options than ever before, and smartphones provide instant access to medication information from healthcare providers and peers. Despite these advances, dissatisfaction with the most frequently used and the most effective methods remains among adolescent users and contributes to discontinuation of use. This study examines an under researched factor in contraceptive discontinuation: mood effects. Conflicts and controversy exist in the body of literature surrounding the potential for hormonal contraception to influence mood or affect, with most systematic reviews concluding that there is likely no association. However, mentions of mood effects are consistently present in studies that allow contraceptive users to identify their reasons for discontinuing a specific method. The author and their qualitative research team analyzed twenty interview transcripts, collected by researchers from the University of Colorado Denver for a previous study, with the focus of identifying themes related to perceptions of and experiences with contraceptive mood effects. The transcripts were analyzed using NVivo 11 software, and a codebook was created through an iterative process within the team. Themes that emerged included distinct categorization of side effects, expected effects as compared to those experienced, social influence of peers, and method preferences. These findings may contribute to a greater understanding of the lived experiences of adolescents using hormonal contraception and provide clinicians with context for the concerns that patients may bring regarding these medications.

Kira White completed a Master of Social Work at University of Pennsylvania in 2017 and is a Licensed Social Worker in Pennsylvania. They intend to graduate the Master of Public Health program this spring. They have most recently worked as a school social worker and intend to continue working with adolescents. Kira's professional interests include reproductive justice, youth mental health, criminal justice reform, and education policy.

2:30 pm

Eric Villeneuve

Mentors: Linda Fleisher, PhD, MPH and Justin Clapp, PhD, MPH

Researcher perspectives regarding barriers and facilitators to implementation of a cancer clinical trial decision making tool

Abstract:

Despite the abundance of information on the efficacy of evidence-based interventions, little is known on how to deliver health and public health based interventions effectively. It takes, on average, roughly 17 years for research evidence to be implemented into practice. Through five semi-structured interviews, this study sought to: 1) develop an implementation data tracking tool utilizing the consolidated framework for implementation research (CFIR) to assist with tracking the implementation of a mobile health application to improve informed decision making surrounding the treatment process in recently diagnosed cancer patients (myChoice) and, 2) explore the myChoice research team's perspective of the facilitators and barriers to the implementation planning for Fox Chase Cancer Center and exploring the myChoice research team's perspective of the impact of implementation challenges on the development of the myChoice mobile health application. The study utilized the myChoice research team's perspectives to explore the barriers and facilitators to implementation. This study will help to improve implementation at other research sites and serve as a guideline for widespread implementation.

Eric Villeneuve graduated with a BA in criminology from the University of South Carolina and decided his plans had changed from a career in law enforcement. He is now a Master of Public Health candidate at the University of Pennsylvania. His future goals are to further upon implementation science to incorporate it as part of research best practices to assist with translating health research to practice. After graduation, Eric will be moving to the Raleigh-Durham area in search of a career in implementation science.

2:30 pm

Liam Foster, MD

Mentors: Jeane Ann Grisso, MD

An assessment of the readability of HIV education materials

Abstract:

Readability - the level of reading required to comprehend a piece of text - is a key characteristic of written health education materials. Readability is particularly important in relation to disease areas such as HIV, which disproportionately affect patients with low health literacy. This study assesses the readability of written HIV education materials and describes factors associated with appropriate or inappropriate readability. Written HIV education materials were collected from a clinical site, transcribed into digital form, and analyzed using the Flesch-Kincaid Grade Level (FKGL) and Simple Measure of Gobbledygook (SMOG) formulae. Across all materials, the mean FKGL was 8.6 (95% CI 7.8- 9.4) and the mean SMOG was 8.1 (95% CI 7.5 - 8.8). These scores exceed current readability targets by 2.6 and 2.1 grade levels, respectively. Written health education materials intended for an HIV-positive audience were significantly harder to read than those for an HIV-negative audience ($P = 0.008$). Readability of written health materials did not significantly vary by date of publication or type of author organization. These findings indicate that most written HIV education materials - and in particular those intended for HIV-positive audiences - fail to be comprehensible to the average patient.

Liam Foster is an international student from the United Kingdom. He gained his BA in Biological & Biomedical Science - and later his MD - from the University of Cambridge. He has worked as a physician for four years in London, with a particular interest in Infectious Diseases. He is interested in health literacy, epidemiology, and digital health.

Thursday, May 3, 2018

Biomedical Research Building II/III, Room 252

10:00 am

Adam Segueni Adnane

Mentor: Carolyn Cannuscio, ScD and Jason Karlawish, MD

Photo-elicitation case studies of Alzheimer's caregivers

Abstract:

More than 1 in 6 working Americans report assisting with the care of an elderly or disabled family member, relative, or friend. The literature makes clear caregivers face many obstacles and suffer significantly higher prevalence rates of adverse health outcomes compared to the general public, facing higher risks for depression, stroke, coronary heart disease, and more. The reasons for these disparities are unclear and warrant further exploration. Thus, we aimed to address this gap through a qualitative case study project using photo-elicitation techniques with 8 participants. By asking participants to take photos that reflect features of their life that frustrate or challenge them, as well as the tools they use to overcome those challenges, we gained a deeper understanding of their experiences living as a caregiver. Themes that presented themselves consistently throughout the interviews included notions of optimism related to future research and policy development and pessimism related to their distinct situation (emotionally & financially). Interviews universally stressed the importance of support to the caregiver (financially/emotionally/physically). The reasoning for providing their caregiving fluctuated from cultural to moral to religious justifications. Finally, each participant indicated a myriad of emotions ranging from emotional pain, suffering, and trauma to joyful, pleasant, and jubilant memories. This photo-elicitation study helps future researchers and policy leaders better understand the perspective caregivers adhere to and potential solutions to mitigate the challenges of caregiving, including internalized/spill-over stigmatization, absence of support, emotional/psychological health, financial burdens, dilemmas of morality, and more.

Adam Adnane earned a BA in Biology in 2017 from the University of Pennsylvania and sub-matriculated into the MPH program during his senior year. In his time at Penn, he has worked under Dr. Willi at the Children's Hospital of Philadelphia, investigating optimal therapeutics for children with type 1 diabetes and obesity. Following the completion of his degree in May 2018, he will attend the Emory School of Medicine in pursuit of his medical degree.

10:30 am

Jakob Dobrowolski

Mentors: Jill Johnson, PhD, MPH, Adam Greenberg, MSN, Sophia Jan, MD, MSHP, and Caren Steinway, MSW, MPH

Transition from pediatric to adult healthcare: An evaluation of current quality improvement efforts at the Children's Hospital of Philadelphia

Abstract:

Despite national guidelines for transitioning adolescents and young adults to adult healthcare, challenges persist. This quality improvement project at the Children's Hospital of Philadelphia (CHOP) aimed to assess the frequency that pediatricians engaged in transition-related discussions with patients, evaluate the perceived quality of these dialogues, and test the effectiveness of an Electronic Medical Record (EMR)-based tool to improve care transfer. The "Best Practice Alert" (BPA) tool prompts providers to add "Counseling for Transition from Pediatric to Adult Care Provider" to the patient's problem list. Additionally, the BPA includes bundled orders and transition resources to be included in the patient's After Visit Summary. To assess the BPA's efficacy of prompting transition discussions during visits, patients aged 16 years and older were surveyed after their visit to determine if transition-related topics were discussed. Survey topics included transfer to adult healthcare, self-efficacy, system changes, speaking privately with the provider, and receipt of a written transition plan. Surveys were collected one week/month for two months at baseline and continued to be collected monthly after BPA initiation. This study was carried out at two large, urban, pediatric primary care centers and one epilepsy specialty clinic. Survey analysis showed that even though patients reported low frequency of receiving transition support at baseline, after the BPA intervention was instituted, a greater share of patients reported having talked about transition during their visit. Therefore, EMR-based tools may be effective at improving transition discussions for adolescents and young adults. Future work will focus on increasing provider uptake of such interventions and efforts.

Jakob Dobrowolski received his BSc in Biology from Cornell University. While completing his MPH at Penn, he also conducted Multiple Sclerosis research with Dr. Eric Williamson at Penn Medicine. Jakob, an international student from Germany, is interested in following his passion for the business of healthcare with a career in healthcare consulting or the biotechnology industry.

11:00 am

Danielle Kennedy

Mentors: Melissa Dichter, PhD, MSW and Frances Shofer, PhD

Lessons learned: Evaluation of a teen dating violence prevention program

Abstract:

Teens who experience dating violence are at a higher risk of experiencing intimate partner violence later in life. Teen dating violence can include emotional, physical, psychological and sexual components. Students Talking About Relationships (STAR) is a community-based program that aims to change knowledge, attitudes, and behaviors linked with dating violence and to develop skills needed to build healthy relationships for teens and young adults through interactive workshops. This project aimed to develop a tailored evaluation to identify the program's impact on students' attitudes, subjective norms, perceived behavior control, and intentions to intervene as a bystander. This project also explored the strengths and challenges of performing evaluations in a community-based setting. A questionnaire based on the theory of planned behavior (TPB) was utilized to evaluate students pre- and post-intervention. Overall, the post-group experienced higher scores across the TPB constructs compared to the pre-group. Study findings will help inform future STAR program cohorts and community-based evaluations.

Danielle Kennedy earned her BA in Biological Basis of Behavior from the University of Pennsylvania in 2016 and sub-matriculated into the MPH program during her junior year. Currently, she works in clinical research at the Center for Interdisciplinary Research on Nicotine Addiction. Following completion of her degree, Danielle hopes to further pursue her interest in program evaluation and gender-based violence.

12:15 pm

Abigail Blauch

Mentor: Jill Johnson, PhD, MPH

Evaluation of CHOP's Complete Eats Summer Food Service Program for emergency department patients

Abstract:

Government-funded food assistance programs like the Summer Food Service Program (SFSP) play a key role in reducing childhood food insecurity. However, there is a substantial participation gap. The CHOP Emergency Department (ED) piloted the SFSP, named Complete Eats, to increase the accessibility of the program. To evaluate the success of Complete Eats, the study aimed to assess the feasibility of the program in the ED, measure the caregiver's experience with the SFSP before and during their child's visit, and assess the caregiver's intention to use other sites in the community. Complete Eats operated as a closed site; therefore, only CHOP ED patients and their siblings 2-18 years old were eligible to receive a free meal. The caregivers of the recipients were asked to complete a survey to provide feedback in order to evaluate the success of the program. During the seven weeks of operation, 367 meals were distributed. Eighty-six caregivers agreed to complete the survey. The mean age of the caregivers was 32.5 (SD 12.7) years and 74% reported being the mother of the child. Of the 86 respondents, only 37.2% reported knowing about the SFSP before their child's visit. Caregivers agreed that the process of their child(ren) receiving the meals was easy and felt comfortable with the SFSP in the ED and confident that they knew where to access other sites. Piloting the SFSP at the CHOP ED demonstrated that the program was feasible in a clinical setting, acceptable to families and providers, and encouraged caregivers to seek and utilize community-based resources.

Abby Blauch earned her BA degree in Anthropology with a concentration in Human Biology from Temple University and will graduate from the University of Pennsylvania in May 2018 with her MPH. Currently she works full-time as a Clinical Research Coordinator at the Abramson Cancer Center of the University of Pennsylvania. Following the completion of her degree, Abby plans to shift her research and career focus to identifying and addressing the nutritional health needs of communities.

12:45 pm

Christina Mancheno

Mentor: Ashlee Murray, MD, MPH

Screening for intimate partner violence in a pediatric emergency department: A quality improvement initiative

Abstract:

Intimate partner violence (IPV) affects 1 in 3 women and 1 in 4 men in their lifetime. IPV is a serious public health issue because this form of violence impacts the entire family unit, particularly children. In an effort to address this issue, the Children's Hospital of Philadelphia (CHOP), in collaboration with Lutheran Settlement House, conducted a quality improvement (QI) initiative to implement an IPV screening and referral program in CHOP's pediatric emergency department (ED). The QI process was based on the PDSA (plan-do-study-act) cycle, an iterative model for implementing change. Interventions included education, cultural initiatives, feedback, and process changes. Nurses in the pediatric ED administered a non-verbal, IPV screening card to the caregiver, documented the result in the patient's medical chart and referred the caregiver to resources if needed. The primary outcome measure was the percentage of caregivers screened in the ED over time; additional measures included: number of providers screening, provider reasons for not screening, and total number of referrals. Balancing measures included overall referral rate and length of stay. After the IPV screening and documentation process was streamlined, screening rates increased to 30% and have remained consistently at or above that rate during the post evaluation phase. This increase illustrates that this multi-phase QI initiative to increase IPV screening and documentation rates in the pediatric ED demonstrated greatest improvement and sustainability following process improvements over educational and cultural initiatives.

Christina Mancheno is a Master of Public Health candidate at the University of Pennsylvania and obtained a dual Bachelor of Arts degree in Psychology and Hispanic Studies at the University of Pennsylvania in 2012. She is a full-time clinical research coordinator at the Penn Medicine Center for Digital Health, managing a randomized controlled trial that leverages Twitter to influence the health outcomes and disease management of hypertensive patients. Her interests include analyzing and influencing health behavior through social media, the social determinants of health, and psychology.

1:15 pm

Genevieve Nesom

Mentor: Evan Anderson, JD, MPH

Operational characteristics of U.S. institutional review boards

Abstract:

Research is essential to public health and medical practice. Research is also a source of potential harm. Federal Law requires approval from an Institutional Review Board (IRB) prior to the conduct of human subjects research to ensure ethically distributed potential benefits and harms. Surprisingly, there is relatively little systematic research describing the key attributes of IRBs. The majority of published studies are investigator or sponsor reported; few are IRB-reported. Firsthand knowledge is of key importance during the ongoing Common Rule revisions, which seek to amend the burden, delay, and ambiguity faced by research investigators when navigating the IRB submission and approval process (HHS, 2011). In this study, 55 IRB directors or their delegates, the majority located at top NIH funding recipient institutions in 2017, completed a REDCap survey of 77 questions. The variable of interest was the time necessary for the board to approve a study, separated by three study categories: full board, expedited, and exempt. IRB representatives estimated the median number of days from study submission to review, and from submission to IRB approval or determination, depending on study category. In addition, we performed principal components analysis extracting 3 components that describe core features: size, method of assigning protocols to IRB staff and boards/committees for review, and a focus on biomedical research.

Genevieve Nesom is a dual-degree Master of Public Health and Master of Bioethics candidate. She earned her Bachelor of Arts in Religious Studies, with a focus on Jungian Symbolism, at Hendrix College in 2012. She is currently a CHOP-based Research Coordinator at the University of Pennsylvania and is primarily involved with lysosomal storage disorders and orphan disease research.

2:00 pm

Rose Kessler, MBA

Mentors: Harvey Rubin, MD, PhD and Jill Johnson, PhD, MPH

**Business process mapping:
Development of a *Happy Flow* for the vaccine cold chain in Ghana**

Abstract:

The vaccine cold chain is a system used to distribute and store vaccines in potent condition with rigorous temperature control, ensuring the uninterrupted availability of life-saving vaccines to newborn infants and children, wherever they live. Although Ghana has made great strides in their immunization programs, there are still inadequacies, especially for the “fifth child”: the one child in five who does not receive all of the needed basic vaccines and is most marginalized. *Energize the Chain* is a not-for-profit organization founded by Harvey Rubin, MD, PhD whose mission is to ensure that every “fifth child” receives life-saving vaccines. Their strategic approach is to target operational processes within the vaccine cold chain. Business Process Mapping (Happy Flow) is a way to diagram Ghana’s vaccine cold chain in graphical notation, following a distinct path based on known input. The output illustrates an overall view of operations and makes workflows visible as a catalyst to monitor, measure, and improve processes. Working across borders requires an understanding of the people and their culture. It requires a deep understanding of the environment, building a business plan, implementing processes, and mobilizing teams. The Happy Flow should be used as a business tool to engage local teams to help them see their work as part of the shared goal to reach the “fifth child”. They are the unsung heroes whose contributions make the world a happier and better place.

Rose Kessler has professional experience in the private and public sector that has vested her with the skills to catalyze ideas with action, enhancing alliances at global and local intersections. Rose is pursuing a Master in Public Health with the aim to support health promotion and disease prevention to underserved communities, sustaining public health programming abroad and here at home.

2:30 pm

Nicole Cowan

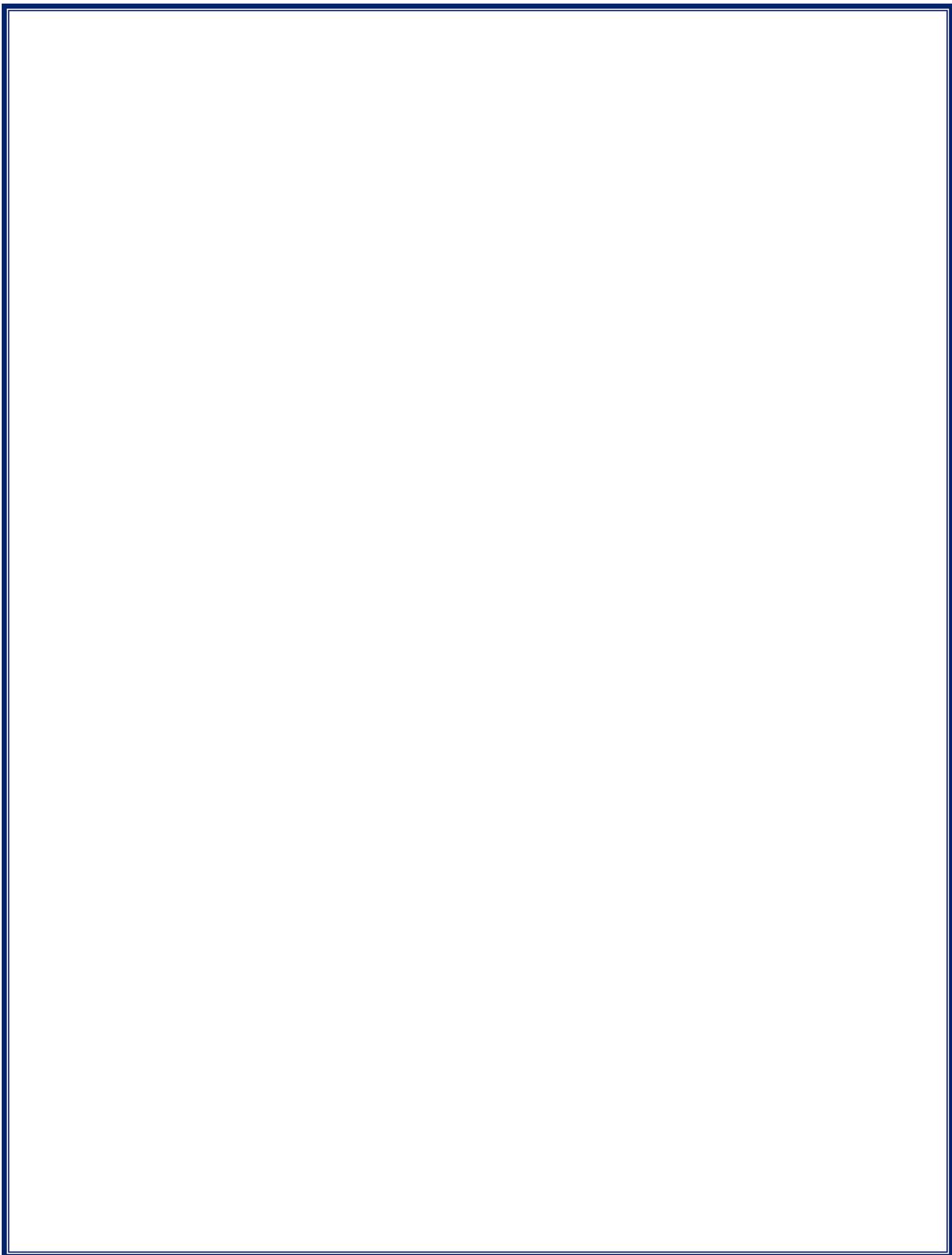
Mentors: Jill Johnson, PhD, MPH and Jethro Heiko

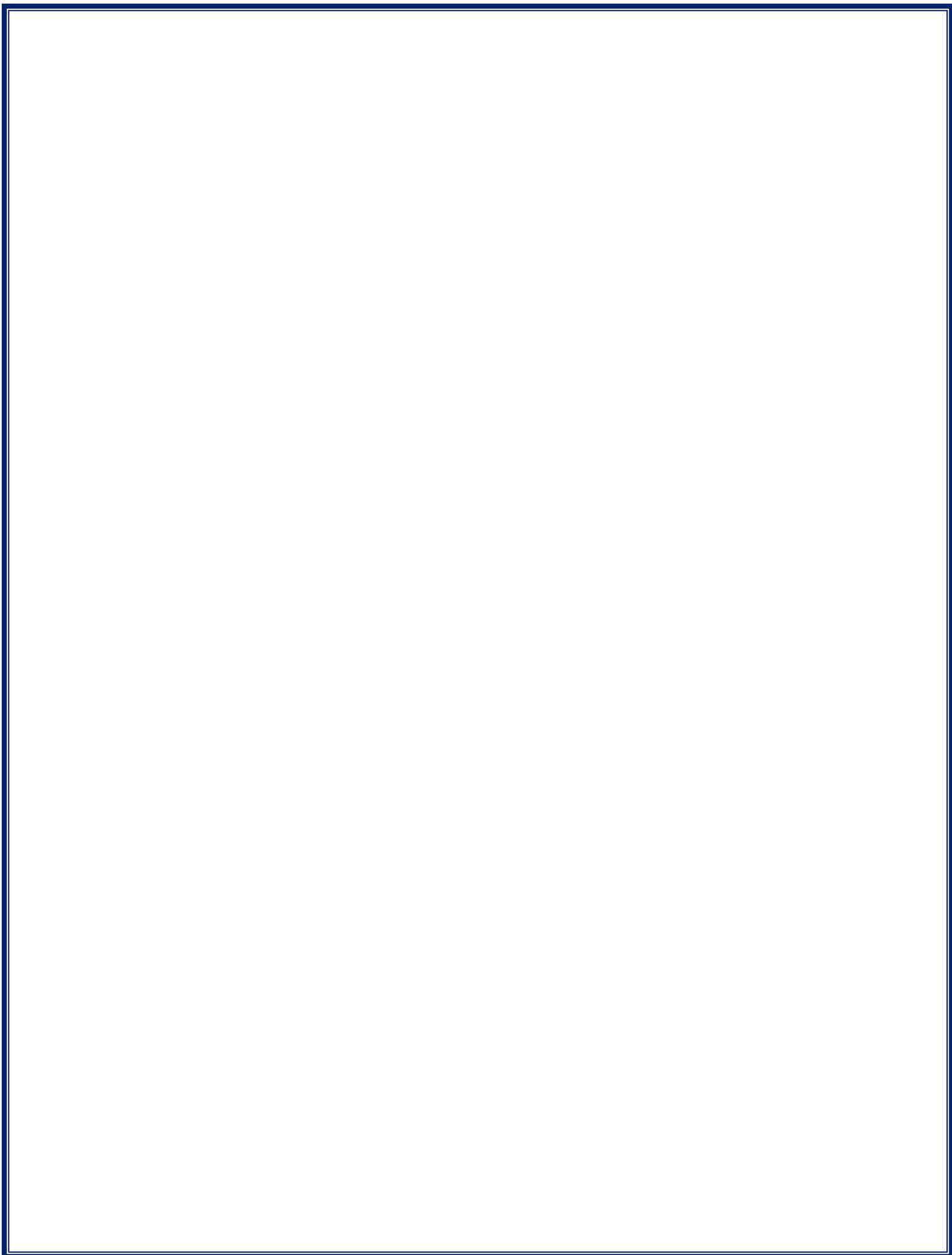
**Training community health workers in an end-of life conversation game:
A pre-program plan and recommendations report**

Abstract:

Conversations with loved ones and healthcare providers about serious illness and death can be challenging, and thus are often deferred and perfunctory. But advance care planning (ACP) is really important to individuals, families, healthcare providers, and systems. Discussion and documentation of one’s values and priorities for end-of-life in an advance directive (AD) ensures self-determination and patient-centered care in the case of decisional incapacity and eases the psychological and financial burden on patients, families, and providers. Despite the resounding benefits of ACP, engagement in end-of-life communication and rates of AD completion are low overall nationally, and particularly within vulnerable communities. The objective of this project was to formulate a pre-program plan and recommendations report for the training of community health workers (CHWs) in *Hello*, an evidence-based conversation game designed to facilitate end-of-life conversations and ACP. Interviews were conducted with members of the Penn Center for Community Health Workers as well as Common Practice, the Philadelphia-based healthcare innovation company that designed the game. A pre-program plan and recommendations report were generated from the logic model and needs assessment, indicating multiple avenues for incorporation of this tool and collaboration between these organizations. These included team manager training, CHW peer game play at monthly professional development sessions, and game facilitation at weekly patient support groups.

Nicole Cowan is a dual-degree Master of Public Health and Master of Social Work student. She expects to complete both programs in May 2018. Her research and clinical interests are focused in grief, loss, death, and dying. After graduation, Nicole plans to continue her work with those who are dying and grieving and the professionals and systems that support them.







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