

# Master of Public Health Program

Perelman School of Medicine  
University of Pennsylvania



Capstone Presentation Program

Spring 2016

University of Pennsylvania

**Tuesday, May 3, 2016**

Biomedical Research Building II/III, Room 251

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**2:15 pm**

**Natasha Sastry**

Mentor: Kristen Feemster, MD, MPH, MSHPR, FAAP

**Who gets treated for influenza:**

**An assessment of treatment practices for children with influenza in pediatric clinics**

**Abstract:**

The incidence of influenza is highest among children 0-17 years. Estimating the burden of influenza can be difficult, making it imperative for clinicians to understand treatment practices for influenza. This study aimed to determine whether variability is associated with influenza antiviral treatment in patients presenting an influenza-like illness (ILI) in outpatient settings. This was a secondary data analysis of a nested case-control study that used shared electronic medical records from the Children's Hospital of Philadelphia's primary care network of 31 pediatric clinics. Patients were <18 years who presented ILI symptoms during one of four consecutive influenza seasons (2010/2011 - 2013/2014). Characterization of the likelihood of treatment was determined based on age, gender, race, insurance, comorbidities, receiving an influenza test and clinic location. Multivariable logistic regression was used to identify predictors of receiving treatment. Of 46,809 ILI visits, 525 (1.12%) patients received an antiviral treatment. Only 24% of patients who received treatment were less than two years old. A lower proportion of patients with a history of any comorbidity were treated (18.5% vs. 42.5%). A patient with Medicaid was less likely to receive treatment than a patient with private coverage (OR 0.67, 95% CI 0.52, 0.86). Treatment was significantly associated with influenza testing (OR 12.73, 95% CI 8.99, 18.02). Only 14% of patients who tested positive for influenza received treatment. Insurance type may pose as a socioeconomic disparity in treatment practices for influenza in children. Increased efforts are needed among clinicians for awareness and consistency of influenza antiviral treatment guidelines.

Natasha studied Public Health as an undergraduate at Rutgers University. She has longstanding interests in epidemiology, disease surveillance programs, and vaccines. She hopes to contribute to disease surveillance initiatives carried out by the CDC. Natasha has accepted a full-time position at Ipsos Healthcare where she will participate in cancer treatment research.

**2:45 pm**

**Graceann Palmarella**

Mentor: Rosemary Frasso, PhD, MSc, CPH

**Youth Experiencing Active Homelessness (Y.E.A.H.) Info Philly:  
Web-based resources and support**

**Abstract:**

Youth experiencing homelessness (YEH) are at an increased risk for poor health outcomes, yet efforts to effectively and reliably provide health information, resources, and interventions to this group are especially difficult given their lack of permanent housing and other psychosocial challenges. Prior work by our team documented the needs of Philadelphia's YEH population and identified that this group has regular access to the Internet via public computers, free Wi-Fi, and smart phones. However, resources for YEH are not co-locating online and these youth have limited time to search the Internet. Our team developed a web-based intervention, creating a virtual hub of resources to meet the needs of YEH in Philadelphia. Resources were identified through web searches, and key informant interviews with youth, experts, and representatives of organizations serving this population. The website, [www.yeahinfophilly.com](http://www.yeahinfophilly.com), was then created on the Wordpress platform to communicate the resources in an organized, one-stop, accessible format. Ongoing evaluation of the site will be done via a Quality Improvement Survey, in-person feedback from YEH, and Google Analytics. The site will be updated monthly based on feedback. The Center for Public Health Initiatives at the University of Pennsylvania will maintain the website, with opportunities for MPH students to expand the project. A Wordpress Training Guide was created specifically for this site so that others can easily make updates. This one-stop website can serve as a best practice for others to implement in cities beyond Philadelphia.

Prior to the MPH program, Graceann graduated from the University of Maryland with a BS in Community Health where she held internships at The Administration for Children and Families and The Children's Inn at NIH. She currently works as a Research Assistant with the Center for Health Behavior Research at Penn. After graduation, Graceann plans to work with disadvantaged populations, specifically around health education.

3:15 pm

**Neloufar Rahai**

Mentor: Gary Smith, MA, MA, D.Phil, Cert. Ed.

**Risk factors for death in patients with Middle East Respiratory Syndrome (MERS) in Saudi Arabia: A case-control study**

**Abstract:**

Middle East Respiratory Syndrome (MERS) is a severe viral respiratory infection caused by the MERS coronavirus (MERS-CoV). Since 2012, there have been 1638 cases across 26 countries, predominantly in Saudi Arabia. Owing to the high case-fatality rate (35.8%), it is important to understand risk factors associated with MERS-specific mortality. This study used a case-control design to identify these risk factors, and to design an algorithm to predict the probability of death in MERS patients. Information on age, sex, comorbidities, previous hospitalizations, healthcare worker status, contact with infected individuals, and animal contact were collected on 490 patients identified from World Health Organization Disease Outbreak News reports between November 2013 and September 2015. Cases (n = 195) were symptomatic individuals who died as a result of MERS-CoV infection. Controls (n = 295) were symptomatic individuals who were not recorded as having died from MERS-CoV. In the final multivariate analysis, MERS-CoV mortality was associated with factors including having comorbidities (OR 2.18, 95% CI 1.16 – 4.10), hospitalization prior to symptom onset (OR 2.16, 95% CI 1.38 – 3.36), and being over the age of 50 (OR 1.91, 95% CI 1.18 – 3.08); being a healthcare worker was protective (OR 0.19, 95% CI 0.31 – 0.94). The area under the receiver operating characteristic curve was 0.73, indicating that the final model was an acceptable prognostic indicator of mortality. These findings continue to expand knowledge about MERS mortality risk factors. While it is unclear exactly how clinical protocols for these populations should be changed to reduce MERS-CoV mortality, these findings highlight the need for an improved course of treatment of infected individuals.

Nelou received her BS in Nutrition and Dietetics from New York University in 2014. She focused her public health studies on global health while in the MPH program. After graduating this spring, she will return to NYU to pursue a PhD in Epidemiology.

4:15 pm

**Maureen Lally**

Mentor: Evan Anderson, JD, PhD

**Rethinking the Philadelphia Refugee Health Collaborative Model:  
An organizational analysis**

**Abstract:**

Refugees face diverse and numerous challenges. Addressing the evolving health needs of resettled refugee populations remains an important public health priority. It is also an inherently difficult task. These populations have unique needs. Refugees often arrive in waves that differ not just by country of origin, but also by language, culture, and needs. Cities have struggled to develop systems that are flexible enough to deliver critical services to refugee populations, which evolve over time. Philadelphia exemplifies one particular type of model: a decentralized network of service providers, namely, the Philadelphia Refugee Health Collaborative. This paper explores the successes and challenges of such a dispersed system in addressing the important public health issue of refugee health.

Maureen will graduate from the MPH program this spring with a concentration in Global Health. She is also a fellow in Wharton's Social Impact Initiative, where she is conducting a capital scan to identify gaps between funding sources and entrepreneur need across all sectors in the five-county Greater Philadelphia region. During the MPH program, she completed fieldwork in refugee health at Sidney Kimmel Medical College and worked as a Teaching Assistant in the School of Nursing. Looking forward, Maureen hopes to apply sustainable business solutions to public health problems.

4:45 pm

## Onika Anglin

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

### Views on using oral PrEP among postpartum women attending a federally funded nutrition program

#### Abstract:

Every year 40,000 Americans become infected with HIV. The burden of the disease is not representative of the nation's population. As of 2013 the estimated incidence of HIV in Philadelphia is twice that of the national rate. Approximately 300,000 women live with HIV/AIDS in the US, with over 5,000 living in Philadelphia. Those who are most disproportionately affected are minorities. Pre-exposure prophylaxis (PrEP) for the prevention of HIV has been shown to be effective, yet uptake among at-risk women remains low. This study seeks to understand how young low-income postpartum women in Philadelphia perceive the acceptability of PrEP as a prevention tool for HIV.

Onika has two prior Bachelors degrees in Philosophy and Anthropology, with training in bioarchaeology. Upon completion of her first archaeological dig, she recognized a new interest in population health and decided to pursue her MPH. Outside of her master's studies, Onika works in clinical research focusing on women's health. After graduation from the MPH program this spring, she plans to continue her work in clinical research and ultimately pursue a PhD in Medical Anthropology to further understand and address health inequities and disparities, specifically as they concern minorities and women.

5:15 pm

## Sara Cifuentes

Mentor: Evan Anderson, JD, PhD

### Strengthening global health security: A systematic review of lessons learned from national implementation of the International Health Regulations

#### Abstract:

Recent outbreaks of Ebola and SARS highlight the continued importance of preventing the spread of infectious disease within and between countries. In 2005, the World Health Organization adopted a number of revisions to the International Health Regulations (IHR 2005). Countries must now demonstrate compliance with eight core public health capacities. Surveillance is one of these core capacities. Although it is the cornerstone for enhanced national and international public health security, many countries have not reported compliance with the required surveillance core capacities. We conducted a systematic review of studies that examine the barriers and facilitators to implementation of surveillance core capacities in African countries. Our research suggests that Africa has made important strides implementing surveillance requirements. However, compliance on many key indicators remains ongoing and incomplete. There are especially few studies exploring the barriers to implementation. Those studies that do exist suggest that underdeveloped information technology infrastructure is one of the major hindrances to more effective surveillance. Our findings underscore that more research is needed.

Sara is a native of Colombia. She graduated from Bryn Mawr College with a BA in Sociology. In 2010 she started her career as a Medical Case Manager, connecting patients with HIV to social services and resources. She is now Case Manager Coordinator for a HIV Perinatal Program. Sara is on the Global Health track. She plans to engage in cross-cultural work aimed at improving health in the global south.

6:15 pm

**Amanda Mauri**

Mentor: Evan Anderson, JD, PhD

**A comparative analysis of mental health service discrimination in five countries**

**Abstract:**

Access to high quality mental health services is an important public health priority. However, insurance coverage for these services remains inadequate in much of the world, particularly in comparison with coverage for the treatment of physical complaints. The WHO has criticized this imbalance as reflecting longstanding stigma about mental illness. Countries have employed a range of strategies to correct this disparity. We compared the development and determinants of strategies for increasing coverage in four countries: Australia, Canada, England and the United States. We systematically collected laws and policies relating to mental health and addiction since 1990 using keyword searches in legal databases and the WHO MiNDbank (a compilation of national laws and policies). This primary research was compared with secondary sources and reviewed with stakeholders from each country. The documents and discussions provided the basis for national case studies and subsequent comparative analyses. Each country has addressed inadequate access to mental health services through legislative reforms. Achieving equity in access between mental health and other health services is an aspirational component of all strategies, which has operationalized using different measures and modes of comparison. Implementation is incomplete and ongoing in each instance. This comparative analysis suggests that there are multiple strategies for improving access to mental health and addiction services and yields insights into campaigns aimed at addressing other health disparities.

Amanda will graduate from the MPH program in August 2016. For the past year and a half, she has worked with the Kennedy Forum and Scattergood Foundation on a variety of initiatives related to mental health and addiction policy. She plans to continue working in behavioral health policy after graduation. She also hopes to start law school in the next few years.

6:45 pm

**Kristen Constantine**

Mentors: Kathleen Noonan, JD & Evan Anderson, JD, PhD

**Child and animal maltreatment: Exploring links, perspectives, and cross-reporting**

**Abstract:**

Identifying child maltreatment remains an important public health priority. Unfortunately, it is a substantial challenge. Many victims are too young to seek help. Too often abuse is not apparent until lasting harm has occurred. In light of research establishing a strong relationship between maltreatment of animals and of children, some states have adopted cross-reporting legislation. These laws require mandated reporters of animal and child abuse to share evidence of suspected or confirmed cases with state officials. These requirements represent a potentially important tool in early detection and prevention of child abuse. However, although twelve states and the District of Columbia currently have some variant of cross-reporting legislation, there has been little research on their implementation or effects. This is the first study exploring the perspectives on cross-reporting legislation by involved stakeholders. Key informant interviews were conducted in California, Colorado, and Connecticut among professionals from child protective services, law enforcement, healthcare, and veterinary medicine. The interviews were transcribed and thematically coded to illuminate potential barriers and facilitators to the adoption and efficacy of cross-reporting requirements. Preliminary results suggest that cross-reporting is an inexpensive and potentially valuable tool in reducing the incidence and associated harms of child maltreatment.

Kristen Constantine previously studied Chemistry at Immaculata University. Her public health interest first began while working as a clinical microbiology technician at the University of Pennsylvania's Veterinary School where she identified zoonotic diseases, learned OneHealth concepts, and trended antibiotic resistance patterns. She has an interest in health policy, particularly around animal cruelty and child maltreatment. Kristen will pursue these interests in medical school at Lake Erie College of Osteopathic Medicine, participating in the Primary Care Scholars Pathway for family medicine. She hopes to stimulate communication between physicians and other public health practitioners.

7:15 pm

**Amy Rajan, RN**

Mentors: Neha Patel, MD & Rosemary Frasso, PhD, MSc, CPH

### **A content analysis of the secure text messaging between health care professionals**

**Abstract:**

High quality care is contingent on effective communication between health care professionals playing similar and different roles. Providers spend up to a third of their time communicating with healthcare professionals from other disciplines. Communication failures are the primary determinant of adverse events and poor patient outcomes. The mediums of communication have shifted from handwritten notes, face to face conversations to phone calls, pagers, and platforms such as emails and text messaging. Mobile secure text messaging has catalyzed shifts in the mediums of communication. The objective of this study is to explore the inter-professional use of mobile secure text messaging by examining common recurring themes and patterns of usage between health care professionals. We analyze the content of a sample of messages generated by users of the Cureatr application between May 1, 2013 and April 30, 2014 using a standard qualitative technique. The following will serve as preliminary results after we extracted text messages from the Cureatr data base for seven randomly selected days between May 1, 2013 to April 30, 2014. We will explore recurring care coordination themes and patterns of usage between health care professionals. Implications of this study may further reinforce the value of secure mobile text messaging and improvements in care coordination in the acute care setting.

Amy is an experienced nurse who has worked in diverse health care settings for the past six years. She is a joint student completing an MSN in Health Leadership program with a Wharton Health Care Management focus in addition to her MPH. She participated in the Wharton Collaborative Innovation Program with a team of MBA students on a real-time consulting project that focused on the development of innovative corporate strategies marketed to the diabetic and obese populations. Amy also worked for the mHealth Center at Penn Medicine studying apps that improved care coordination such as Cureatr. In July, she will begin working as a Nurse Consultant for the Accountable Health Communities Models Group at the Center for Medicare and Medicaid Innovation.

Wednesday, May 4, 2016

John Morgan Building, Reunion Auditorium

2:15 pm

**Phoebe Cruz**

Mentor: Alison Buttenheim, PhD, MBA

**Development of a survey instrument to assess household willingness to participate in vector control campaign**

**Abstract:**

Chagas disease, a vector-borne disease caused by the *Trypanosoma cruzi* parasite carried by triatomine bugs, affects 6 to 7 million people worldwide, mostly in Latin America. Household participation in vector control campaigns are vital to decreasing disease burden in affected areas. Arequipa, Peru has low participation rates in vector control programs, threatening control of Chagas disease in Peru. A survey instrument was developed to understand household participation decisions for a Chagas disease indoor residual spraying (IRS) campaign in Arequipa, Peru. In order to develop this survey instrument, a qualitative thematic analysis was conducted on previously-collected data from focus groups (n=17) and interviews (n=71). This analysis investigated barriers and motivators for households to participate in the IRS campaign. Using the Theory of Planned Behavior, thematic codes informed the development of a 20-question survey about participants' decisions to have their homes sprayed. The survey was piloted with 6 field staff at the study site to inform feasibility, acceptability, fidelity, and relevance. Feedback from field staff was used to improve the questionnaire for the IRS campaign. Based on their input, several versions of the survey were created for further field testing, incorporating different graphical representations of a Likert scale (numbers, facial expressions, hand gestures), different item constructions (interrogative vs. declarative), and two methods of survey dissemination (electronic tablet and paper). The most efficient survey layout for field operations will be determined from the 12 versions of the survey instrument created.

Phoebe is a second year MPH student. She earned a BS in Biochemistry and a minor in nutrition from North Carolina State University in 2012. While at NCSU, Phoebe lead Alternative Service Break trips to the Dominican Republic, where her interests in public health developed. After graduation, Phoebe plans to attend to medical school, with the ultimate aim of serving impoverished populations domestically as well as internationally.

2:45 pm

**Shannon Ogden**

Mentor: Sarita Sonalkar, MD, MPH

**A comparison of second-trimester medical and surgical abortion complication rates**

**Abstract:**

The purpose of this study was to compare the complication rates associated with dilation and evacuation (D&E) and induction of labor (IOL) abortion performed between 14 and 24 weeks of gestation. We performed a retrospective cohort study of 465 women who underwent a second-trimester abortion at UCLA from January 1, 2007 to December 31, 2008. We compared proportions of patients who experienced any complication and any serious complication in the D&E and IOL procedures, and assessed for clinical covariates associated with complications. Any adverse event or incomplete abortion was considered a complication. We defined serious complications as any admission or readmission to the hospital, any damage to the uterus or other organ, blood transfusion, cardiopulmonary arrest, and death. Statistical methods included the Student t-test,  $\chi^2$  test, Fisher exact test, Wilcoxon rank-sum test, and logistic regression. Twenty-three percent of women in the IOL group experienced at least one complication, as compared to 7% of women in the D&E group ( $p < 0.001$ ). Three percent of patients in the IOL group had one or more serious complications and compared to 1.5% in the D&E group ( $p = 0.25$ ). Covariates that influenced rates of any complication in logistic regression analysis included gestational age and procedure type. Although D&E has fewer overall complications as compared to IOL, rates of serious complications are not different between the two procedures. Either procedure is a viable option for a second-trimester abortion.

After graduating with a degree in Integrative Biology from UC Berkeley, Shannon served as a Peace Corps Volunteer in Mozambique. It was there that she discovered her enthusiasm for public health education. Her work with a county Department of Health and Human Services fostered her interest in health policy. She hopes to continue working on issues related to women's health after she graduates from the MPH program.

**3:15 pm**

**Kiahana Brooks, RN**

Mentors: Peter Cronholm, MD, MSCE & Rosemary Frasso, PhD, MSc, CPH

**Comparisons of African immigrant women and physician perceptions of intimate partner violence: A free-listing study**

**Abstract:**

This study used free-listing to compare physician perceptions of intimate partner violence to those of African immigrant women in hopes of providing the groundwork for increased communication and linkages to intimate partner violence care for African immigrant women. Intimate partner violence affects one in three American women, and African immigrant women are thought to have an increased risk for experiencing intimate partner violence due to their lack of social contacts and the high prevalence and acceptability of intimate partner violence in the countries from which they emigrated. Given that victims of intimate partner violence often have frequent contact with the healthcare system, doctors need to be able to effectively screen and provide linkages to services for women experiencing intimate partner violence. This study asked twenty African immigrant women and ten physicians to list terms that they believe defined physical, emotional, sexual, and economic intimate partner violence as well as resources for women who wish to end the violence. Through a comparison of the salience of words listed by the two groups, we found that physicians and African immigrant women had high levels of agreement on terms defining economic intimate partner violence, moderate agreement in physical and sexual intimate partner violence and on resources for victims, and low levels of agreement on emotional violence. This highlights a potential for significant difficulties in communication between physicians and African immigrant women on intimate partner violence and the need for studies which validate the effectiveness of current screening tools in this population.

Kiahana received her BA in Evolutionary Biology from Harvard University in 2010 and completed her BSN in nursing at the University of Pennsylvania in 2012. She worked as a program manager and mother-baby nurse at the George Washington University Hospital before entering the MPH program. After graduation, she will pursue her interests in health care policy as a Presidential Management Fellow at the U.S. Department of Health and Human Services.

**4:15 pm**

**Darra Finnerty**

Mentors: Elizabeth Prout, MD, MSCE & Rosemary Frasso, PhD, MSc, CPH

**Perceptions of severely obese adolescents utilizing social media as a peer support tool: A qualitative study**

**Abstract:**

Adolescent obesity (body mass index (BMI) > 30 kg/m<sup>2</sup>) is a major preventable health problem in the United States and is difficult to treat. Little research has been done in adolescents with severe obesity (BMI ≥35 kg/m<sup>2</sup>) around the use of social media as a peer support tool. Social network science has helped explain how diffusion of information can also impact a broad range of behavioral and emotional changes; however social media approaches are underexplored in today's research literature, particularly in adolescents. Capitalizing on adolescents' use of social media for peer support may be a method to promote engagement and meet health goals. The aims of this study are to understand the constraints and needs of adolescents and provide evidence-based support techniques through a social media outlet. We employed a qualitative content analysis approach to examine Facebook posts made by severely obese adolescents (age groups 14 to 16 and 17 to 21 years). Thematic analysis was facilitated by NVivo11. We identified themes around Facebook user experience as a support tool, goals and motivations around weight loss, and experiences of positive and negative social support, attempts and stalls to weight loss, and barriers to participating in and tracking nutrition and physical activity. These research findings will be used to inform behavioral health researchers about social media interventions that enhance engagement of peer support in adolescents with severe obesity and decrease barriers associated with weight loss.

Darra is a Project Manager for the Center for Health Incentives and Behavioral Economics at the Leonard Davis Institute here at Penn. Prior to joining CHIBE, Darra worked at the Children's Hospital of Philadelphia and worked on Obesity Prevention Studies. Darra attended the University of Delaware for undergraduate studies and received her BS in Health Behavior Science. She plans to continue her career in research.

4:45 pm

**Vivienne Okafor**

Mentor: James Guevara, MD, MPH

### **Adapting a parenting intervention to Facebook for mothers with postpartum depressive symptoms**

**Abstract:**

Postpartum depressive symptoms are common among women following the birth of a child and can affect a mother's ability to care for her child. Evidence-based parent coaching programs can help guide mothers to care for their infants but do not address specific effects of depression and are not available in a format that facilitates participation by women with depressive symptoms. The aim of this study was to develop and explore this alternative parent-coaching program and explore the outcome measures related to each format (social media vs. traditional in-person). New mothers >15 years screening positive for postpartum depressive symptoms at their child's 2-month well visit were randomized into traditional in-person (n=12) or social media (secret Facebook group, n=12) treatment. Participants completed measures of depressive symptoms (Becks Depression Inventory-II) and parenting competence (Parenting Sense of Competence Scale). The study intervention included an 8-week parenting-coaching program adapted from the Parenting Interacting with Infants (PIWI) program compared to a Facebook platform with the in-group format. 24 mother-infant dyads were recruited with a mean age 26.3 years (mothers) and 2.6 months (infants) respectively. Preliminary analysis (N=20) of measures of parenting competence and depressive symptoms showed that 65% reported an increase in parenting competence, while 70% reported a decrease in their depressive symptoms over the 8-week intervention. Most participants reporting a change in parenting competence and depressive symptoms were randomized to the Facebook intervention format. Data analysis continues and will provide information on the effects of this alternative parent-coaching format on a new mother's depressive symptoms and her sense of parenting competence.

Vivienne entered the MPH after completing her undergraduate studies at Albright College in Reading, PA. She is a native of Abuja, Nigeria with an interest in global health systems, maternal and child health, and infectious diseases. Following graduation, Vivienne hopes to start medical school in fall 2017.

5:15 pm

**Arden McAllister**

Mentor: Alison Bутtenheim, PhD, MBA

### **The impact of postcard reminders on childhood immunizations in Philadelphia: A randomized controlled trial**

**Abstract:**

Despite the proven effectiveness of vaccination against preventable diseases, underimmunization remains prevalent in the United States. Approximately one in four children in Philadelphia aged 19-35 months are not up to date (UTD) according to the Center for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) recommended schedule. Our primary objective was to evaluate the effectiveness of a postcard reminder developed by the Philadelphia Department of Public Health (PDPH) for children who were not UTD on their immunizations. The PDPH KIDS Plus immunization information system (IIS) was used to identify children residing in Philadelphia who were aged 14-17 months, not UTD on immunizations, and not assigned to other PDPH outreach (n=1,915). Children were randomized to the control group (n=480) or postcard intervention group (n=1,435). The primary outcome was UTD by 19 months of age, assessed by documentation of UTD status in the PDPH KIDS Plus IIS (n=1,915). In total, 21.5% of the study population was UTD by 19 months according to the registry (411 of 1,915). There was no difference in the proportion UTD by 19 months between groups after controlling for baseline age, sex, race, poverty, and number of vaccinations. Despite evidence in support of vaccine recall programs, our postcard intervention did not significantly increase UTD vaccination status by 19 months among underimmunized children in Philadelphia, compared to the control group. Public health interventions must be rigorously evaluated in their target populations so that funding may be directed toward effective programs and services.

Arden will complete her Master of Public Health this spring. She acts as the research project manager at the Penn Family Planning and Pregnancy Loss Center. She plans to continue focusing her career on issues of reproductive health and family planning, with the belief that reproductive choice is at the root of many social and health inequities.

6:15 pm

## Ralph Pietrofesa

Mentor: Evan Anderson, JD, PhD

### Usefulness of chemopreventive strategies for asbestos-induced malignant mesothelioma: Justification, appropriateness, and value

#### Abstract:

Asbestos refers to six fibrous silicate minerals. Inhalation of asbestos fibers is a major factor in the development of neoplastic diseases such as malignant mesothelioma (MM) and lung cancer. MM causes approximately 3000 deaths per year in the United States and an additional 5000 deaths per year in Western Europe. Although asbestos use has been restricted in many western countries, it is still being actively mined and used in many countries around the world. In the developed world, occupational and environmental exposures are still common. Unfortunately, there is currently no effective screening or chemopreventive approach for these at-risk populations. Recent research studies have indicated that the pathogenesis of asbestos-induced cancers involves the generation of reactive oxygen species (ROS), which leads to subsequent oxidative tissue damage and chronic inflammation caused by persistent asbestos fibers in the pleural space. An agent with anti-inflammatory and antioxidant properties could potentially disrupt the development of MM. Chemoprevention involves the administration of a natural or synthetic chemical compound to prevent disease development. Several agents have been evaluated for their usefulness in preventing MM development; however, all have failed to show clinical effectiveness. An ideal chemopreventive agent must be cheap, easily accessible and administered, and must function as safe, non-toxic chemopreventive agent for asbestos-exposed individuals. The goal of this review article is to summarize the current literature and published findings related to the usefulness of chemopreventive approaches to delaying or inhibiting MM development among asbestos exposed individuals with emphasis placed on the appropriateness and value that such an approach offers to MM.

Ralph currently works with Dr. Melpo Christofidou-Solomidou and Dr. Steven Albelda as a trainee member of the University of Pennsylvania's Superfund Research and Training Program (SRP) Center. He will complete Master's Degrees in Public Health and Bioethics this spring. His current research focuses on the usefulness of flaxseed and flaxseed lignans, specifically secoisolariciresinol diglucoside (SDG), in the chemoprevention of asbestos-induced mesothelioma using murine models of accelerated mesothelioma development.

6:45 pm

## Tigist Hailu

Mentors: Carolyn Cannuscio, ScD, ScM & Jason Karlawish, MD

### What's a typical day? Using photo-elicitation to understand living with Mild Cognitive Impairment

#### Abstract:

Cognitive impairment is an important public health issue. As life expectancy has lengthened, the proportion of adults suffering from cognitive impairment has increased. Mild Cognitive Impairment (MCI), which some studies suggest is a risk factor for Alzheimer's disease, affects as many as 20 percent of Americans age 65 and older. The goal of this study was to understand the perspectives and experiences of living with MCI. Participants in this study were given cameras to capture images to represent aspects of everyday life that frustrate, facilitate, or challenge their memory. In-depth interviews were conducted with 12 participants diagnosed with MCI from the Penn Memory Center's research database. Interviews incorporated photo-elicitation techniques. The interviews were transcribed and, using NVivo software, were coded and reliability was assessed using inter-coder agreement practices. Preliminary results suggest that participants used techniques such as technology and note-taking to assist with their memory. Other ways participants live with MCI include companionship with partners, loved ones, and pets. Participants also referenced activities such as walking, bicycling, and reading as coping strategies. Some participants are fearful of what may come as they age: "I'm very conscious that I'm gradually losing my memory, or can't immediately recall certain words." An additional study goal is to raise awareness about cognitive impairment through an online and a rotating community exhibit of participants' images and stories, alongside professional portrait of each person.

Tigist is a staff member at the Outreach and Recruitment Core and the Clinical Core of the Penn Memory Center. As the Coordinator for Diversity in Research and Education, she leads and collaborates with the Center's leadership in the development and strategic planning of recruiting and retaining African American research participants. She also leads the outreach and training work of the Penn Prevention Research Center's Healthy Brain Research Network Center. She hopes to continue working Alzheimer's disease research.

7:15 pm

**Sara Li**

Mentor: Tanja Kral, PhD

### **The association between children's mealtime behavior and parental stress among caregivers of children with Autism Spectrum Disorder**

**Abstract:**

Children with Autism Spectrum Disorder (ASD) have been known to exhibit a greater number of problematic eating behaviors compared to typically developing children (TDC). Evidence shows that these issues can not only increase the risk of nutritional deficits among children with ASD but also increase the risk of stress among their caregivers. This exploratory pilot study aimed to examine the relationship between children's eating behaviors and parental stress among caregivers of children with ASD. We hypothesized stronger and more frequent associations between parental stress and domains of child eating behaviors among caregivers of children with ASD compared to caregivers of TDC. We conducted a cross-sectional study with 25 caregivers of ASD and 30 TDC in which we administered the short form of the Parenting Stress Index (PSI-SF) and the Child Eating Behavior Questionnaire (CEBQ) to caregivers. Caregivers of children with ASD scored significantly higher on all PSI-SF subscales ( $p < 0.001$ ) and one CEBQ scale (food fussiness;  $p < 0.001$ ) compared to caregivers of TDC. However, contrary to our original hypothesis, we found a greater number of statistically significant positive correlations between parental stress and children's eating behaviors among TDC (9 correlations) compared to ASD (4 correlations). We conclude that parental stress levels among caregivers of children with ASD were less frequently associated with children's eating behaviors than those of caregivers of TDC.

Sara graduated from the University of South Florida in 2013 with a BS degree in Health Sciences. She is currently working towards her Master degree in Public Health and is expected to graduate in May of 2016. She is passionate about mental and behavioral health and hopes to work in research upon graduation.

**Thursday, May 5, 2016**

Biomedical Research Building II/III, Room 251

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**2:45 pm**

**Andrew Wiemken**

Mentor: Heather Klusaritz, PhD, MSW

**Population approach to mental health: Establishing the case for physical activity intervention in early schizophrenia**

**Abstract:**

Schizophrenia is a chronic and disabling brain disease with considerable personal and social costs. The disease has an extended preclinical phase, which provides potential opportunities to slow the onset of the severe symptoms that characterize the disease in later stages of progression. However, diagnosis in this preclinical phase remains difficult, with an especially high rate of false positives. This complicates the deployment of current pharmacologic therapies, many of which carry substantial side effects. This project explores the utility of a population approach to Schizophrenia prevention and treatment. Specifically, we systematically review the evidence about the efficacy of exercise in slowing the onset and addressing the symptoms of Schizophrenia. There has been an avalanche of studies about this relationship in the last decade. We limit our review to recent meta-analyses focused on exercise interventions in adults with diagnosed schizophrenia. These meta-analyses collectively review 78 unique randomized controlled trials. Overall, our review of these meta-analyses suggests that exercise is effective in the treatment of Schizophrenia. We situate our findings in a public health perspective using Geoffrey Rose's dichotomy between high risk and population approaches to prevention.

Andrew has been working in the Neuropsychiatry Department here at Penn since 2012. He is interested in updating and improving preventive interventions for serious mental illness, as well as evaluating the utility of physical activity interventions in various populations.

**3:15 pm**

**Kimberly Eng**

Mentor: Rosemary Frasso, PhD, MSc, CPH

**Role of technology in managing social networks and social support among university students: A qualitative study**

**Abstract:**

Adapting to college life is associated with numerous challenges for many undergraduate and graduate students. Young adults pursuing post-secondary education experience many stressors in the university setting that may negatively impact their mental health. Evidence shows that strong social networks and support systems can buffer stressor effects. Considering the ubiquity of technology, our objective was to examine how students used technology to manage their social networks and support. We used photo elicitation to elucidate the role of technology in the daily lives of 25 students at a large urban university. The students were instructed to take photographs to guide conversations about their experiences. We analyzed the transcripts using a priori codes extracted from key constructs of the social networks and support model. Specifically, we looked at how technology moderated emotional, informational, instrumental, and appraisal support. Interviews were recorded and transcribed verbatim. Analysis was facilitated by NVivo 11 (52% of the transcripts were double-coded, mean kappa = 0.99). Our findings suggest that technology acted as both a facilitator and inhibitor to maintaining social networks and support. Students experienced stress in their academics, employment, and interpersonal relations. Technology conveniently offered ways to maintain connections within social networks but occasionally diminished the quality of social support by acting as a stressor and discouraging in-person interactions. Our work illustrates the resilience of university students when confronted with cognitive and social demands. It also provides direction for universities by highlighting the potential role of technology in facilitating counseling, psychological services, and other means of support.

Kimberly graduated from Johns Hopkins University with a BA in Public Health Studies in 2014. She will complete her Master of Public Health degree this spring. After graduation, Kimberly hopes to continue conducting public health research in Philadelphia.

4:45 pm

**Zhi Pan**

Mentor: Kathleen Noonan, JD

### **Should Pennsylvania adopt the Accountable Care Organization Framework for its Medicaid Program? An open-end health policy analysis**

**Abstract:**

To tackle the problems of low quality and high cost in healthcare, the Accountable Care Organization (ACO) model has been used as a systematic approach to reform healthcare delivery and payment across the country. Since 2011, nine states have passed legislation establishing Medicaid Accountable care organization and/or pilot programs. This evidence-based policy analysis examines whether Pennsylvania should also adopt the ACO model as a statewide strategy for its Medicaid program to improve quality and cover the rising cost of healthcare for its vulnerable low-income populations, based on the experience of other states experience and its own particular needs. Specifically, evidence from four early-adopter states was located, evaluated and assembled. This included the two earliest adopter states that already published their findings (Colorado and Oregon) as well as the two states of the nine with the most similar demographic characteristics (New Jersey and Illinois). Additionally, evidence on Pennsylvania was examined based on its existing Medicaid program. Our results showed that all four states created regional-based Medicaid ACOs to improve population health and were able to reach their major quality targets. However, they differed in regard to cost savings and many design features including program autonomy, infrastructure, scope of coverage, and payment features. Therefore, we recommend that Pennsylvania not adopt the ACO framework as a statewide approach for Medicaid.

Zhi has been a graduate research assistant working in the Center for Health Behavior Research at the University of Pennsylvania since 2014 while completing her MPH. She is interested in prevention of chronic diseases through improving healthcare system performance as well as through intervening health behaviors at the population level.

5:15 pm

**Saira Huq**

Mentor: Heather Klusaritz, PhD, MSW

### **Empowering Bhutanese teens through collaborative development of a sex education program**

**Abstract:**

Reducing teenage pregnancies is a community-identified priority of Bhutanese refugees in Philadelphia. Bhutanese teenage girls ages 16-20 lack knowledge about their contraceptive options, sexually transmitted diseases (STDs), pregnancy options, and reproductive health services. Our objective is to provide the Bhutanese American Organization of Philadelphia (BAOP) with options for evidence-based teen pregnancy prevention programs to implement and to pilot a sexual and reproductive health (SRH) session with Bhutanese teenagers. Evidence-based programs were selected from teen pregnancy and HIV/AIDS/STDs prevention databases. Selection criteria included programs that are community based and target high school teens. Exclusion criteria included programs that require parental involvement or lack privacy. A pilot sex education session was developed in collaboration with members of the Bhutanese community. The sessions were evaluated with an anonymous written survey administered to all participants. Eight evidence based teen pregnancy prevention programs were selected as a good match for the Bhutanese community. In the pilot sessions Bhutanese teens responded well to discussion, activity, and case study Q/A formats. Middle school aged girls reported a preference for hands on activities. High school aged boys reported a preference for learning about STDs and did not report a gender preference for a sex education teacher. Input from Bhutanese teens and Bhutanese partners can be used to develop a culturally appropriate teen pregnancy prevention program for Bhutanese teens.

Saira is from the global health track. This summer she will work at PolicyLab on a childhood obesity prevention intervention. She is passionate about program implementation and hopes to continue working on community engaged projects.

6:15 pm

**Rahul Darwar**

Mentor: Marsha Gerdes, PhD

**Incidence of expulsions and suspensions among Philadelphia childcare centers**

**Abstract:**

The Administration for Children and Families (ACF) recently issued recommendations on banning expulsions and suspensions in childcare centers. Pennsylvania is in the process of creating its own recommendations to licensed childcare centers operating in the state. The Children's Hospital of Philadelphia (CHOP), in partnership with Community Behavioral Health (CBH) and Southeast Regional Key/Public Health Management Corporation (SERK/PHMC) are interested in the current incidence of expulsions and suspensions so they can plan and implement a system of behavioral and social-emotional supports for children and families. Licensed childcare providers in Philadelphia were surveyed to determine the incidence of children who have been expelled or suspended and the types of behavior challenges that they experience. The survey was sent to by email and mail to 765 Pennsylvania Office of Childcare Development and Early Learning (OCDEL) licensed Child Care Centers and Group Child Care Homes centers in Philadelphia. Preliminary findings indicate a high rate of expulsions and suspensions in Philadelphia childcare center, with a majority of childcare centers reported their primary reason for expulsion was aggressive behavior.

Rahul currently works as a Clinical Research Assistant at the Center for Interdisciplinary Research on Nicotine Addiction at Penn. He works on a multi-site clinical trial examining different approaches to reducing the level of nicotine in cigarettes, which has allowed him to put into immediate practice the skills he developed in the MPH program. Rahul graduated from the University of Connecticut in 2014 with dual degrees in Molecular and Cell Biology, and Psychology.

6:45 pm

**Bridget Keogh**

Mentor: Cynthia Zubritsky, PhD

**Addressing loneliness in deinstitutionalization:  
Experiences of loneliness after leaving the state hospital**

**Abstract:**

The Olmstead Supreme Court decision of 1999 held that unjustified segregation of persons with disabilities constitutes impermissible discrimination and prohibits the segregation of individuals with disabilities, including psychiatric disabilities. Social integration is understood to be an important component of community integration and refers to the engagement with a social network that includes reciprocal social relationships with others in the community in nonclinical settings. People with serious and persistent mental illness (SPMI) often cite feelings of loneliness. This is partly due to the effects of stigma: internalized and external stigma affecting self-concept and behavior; negative symptoms in schizophrenia, such as social withdrawal; and positive symptoms such as hallucinations and delusions that alienate others. Physical and psychological sequelae have also been associated with loneliness. Individuals with SPMI have the same social needs and desires shared by the general public, including the desire for satisfying relationships, to feel useful and for social inclusion. This study examines the extent to which feelings of loneliness are associated with barriers to community integration. A descriptive analysis, using primary interview data and secondary data, of a group of individuals with SPMI who have transitioned into community programs as a result of an Olmstead Consent Decree in July 2012 will be presented. These research findings may inform mental health systems about which interventions might enhance community integration, decrease rehospitalization, and reduce loneliness in individuals with SPMI who have histories of institutionalization.

Bridget is a Senior Research Coordinator at the Center for Mental Health Policy and Services Research at the University of Pennsylvania. Bridget plans to continue working in the behavioral health field, primarily in the areas of behavioral health policy evaluation and older adult behavioral health.

7:15 pm

**Al Golinkoff**

Mentor: Rosemary Frasso, PhD, MSc, CPH

**“It’s hard, with me being who I am.”  
Shedding light on the reentry experiences of transgender women of color**

**Abstract:**

The burden of incarceration falls disproportionately on the most disadvantaged social groups, including transgender populations (rates of 37-65%). However, transgender individuals’ experiences with the criminal justice system have been understudied, in particular health-related issues centered around the reentry process. By describing the reentry experiences of transgender women of color, this study aims to shed light on the programs, services, and/or individuals that facilitated the process and the barriers that impeded successful reentry, with special attention to trans-specific issues. We conducted semi-structured interviews with a convenience sample of ten transgender women of color living in Philadelphia. Women were recruited through a community behavioral health center and interviewed on site. Interviews were audio recorded, lasted  $\pm$  1 hour, and were transcribed verbatim. Thematic analysis was facilitated by NVivo 10 software. Analysis yielded several important themes that improve our understanding of the reentry experience, including issues related to physical and mental health and healthcare, the role of faith and religion, housing and economic instability, substance abuse, and sex work. By highlighting for the first time the lived experience of these women, this work exposes the trauma specific to this population, informing programs and interventions to improve health outcomes post-reentry.

Al will complete a Master of Public Health this semester. Before pursuing public health, Al graduated from the University of the Arts with a BFA in Multimedia and worked in web design and development for many years. Some of Al’s interests include health inequities affecting transgender populations, community-based participatory research, and alternative research dissemination methods.

**Friday, May 6, 2016**

Biomedical Research Building II/III, Room 251

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**2:15 pm**

**Elizabeth Gurney, MD**

Mentor: Courtney Schreiber, MD, MPH

**Expulsion of postplacental copper IUDs at six months: A prospective cohort study**

**Abstract:**

Long-acting reversible contraceptive placement immediately postpartum has significant advantages, but precise estimates of TCu380A (ParaGard®) intrauterine device (IUD) expulsion rates are lacking. This knowledge gap may limit its use. Postpartum adult women who received a postplacental TCu380A IUD during routine care for vaginal delivery after 33 weeks' gestation were enrolled in this prospective observational study beginning in April 2015, and followed clinically at 6 weeks and 6 months postpartum. Our target is to enroll 195 subjects; to date, 184 have enrolled. Of 103 subjects who have completed 6-week follow-up, 79 (75.7%, 95% CI [67.4%, 84.0%]) had a correctly positioned IUD. Malposition or expulsion occurred in 20 participants (19.4%, 95% CI [11.8%, 27.0%]). Among 120 subjects who have completed the follow-up satisfaction survey, 97 (80.8%, 95% CI [73.8%, 87.9%]) reported being happy or extremely happy with their immediate postpartum IUD placement. Risk of TCu380A expulsion is higher when placed immediately after vaginal delivery than if placed outside of pregnancy, but three in four retain the IUD, and most women are happy to have had this option. Our prospective study design enables us to avoid biases associated with self-reported outcomes and retrospective data collection. Future analyses will estimate expulsion outcomes at 6 months postpartum and examine risk factors for IUD expulsion. Results can inform patient care and healthcare policy decisions.

Liz is a graduating Fellow in Family Planning, in the Department of Obstetrics and Gynecology at the Hospital of the University of Pennsylvania Perelman School of Medicine. She looks forward to remaining in the Philadelphia area in her new role as the Director of Family Planning at Albert Einstein Medical Center after completing her MPH and fellowship.

**2:45 pm**

**Tara Fulton**

Mentor: Gary Smith, MA, MA, D.Phil, Cert. Ed.

**Transmission dynamics of Middle East Respiratory Syndrome:  
An investigative modeling study**

**Abstract:**

The goal of this study is to propose and evaluate a hypothesis concerning the predominant transmission modalities of Middle East respiratory syndrome coronavirus (MERS-CoV) in Saudi Arabia and the Republic of Korea. There is good evidence that the virus infects camels and that it is found in items of animal origin that are being consumed. However, other coronaviruses are known to be directly transmitted person-to-person. This study examines the notion that in some locations MERS is characterized by sustained chains of person-to-person transmission and in other locations by mainly sporadic zoonotic introductions into the human population with occasional outbreaks involving direct person-to-person transmission. Three lines of evidence are presented: (1) a literature survey of the typical transmission modality of other coronaviruses; (2) a comparative survey of case reports and epidemic curves of other pathogens for which the transmission modalities are well known; and (3) an attempt to mimic the observed MERS case reports using mathematical models that incorporate explicitly represented transmission modalities. We hypothesize that the MERS outbreak in the Republic of Korea consisted of sustained chains of direct person-to-person transmission whereas the MERS outbreak in Saudi Arabia consists of predominately zoonotic introductions into the human population with episodes of horizontal person-to-person transmission within hospital-like institutions. Findings of this study underscore the importance of educational programs for MERS prevention targeting food hygiene and hygiene when working around camels in addition to infection control in institutional settings.

Tara is completing her Master of Public Health degree this spring. She earned her Bachelor's Degree in Biology with a minor in Anthropology from Temple University in 2009 and was a food safety microbiologist prior to coming to Penn. Tara is especially interested in how social and cultural factors play a role in the emergence of zoonotic diseases.

3:15 pm

**Jessica Zha**

Mentors: Rosemary Frasso, PhD, MSc, CPH & Chyke Doubeni, MD, MPH, FRCS

### **Choosing a path: A qualitative study exploring the medical student experience**

**Abstract:**

Physicians are key members of the healthcare workforce yet there is very little qualitative literature describing the influence of medical education on student career choice. This study explores the factors that influence medical student career choice at the University of Pennsylvania's Perelman School of Medicine. We conducted 7 focus groups with medical students (n=32) representing each year of training. All focus groups were audio recorded and transcribed verbatim. Thematic analysis was facilitated by NVivo11 software. Analysis yielded 11 themes, which were then organized using a modified ecological framework into 4 concentric categories: 1) individual, 2) relational, 3) institutional, and 4) societal/structural. Individual factors included: pragmatic and emotional reasoning, personal mission and values, and finding balance in success. Relational factors included: mentors and role models and peers. Institutional factors encompassed: the importance of clerkship year, pressure to perform, and perception of misaligned priorities. Finally, societal/structural factors included: popular perceptions of specialties, structural drivers of healthcare and education, public health and community. Many participants described tensions between individual factors and institutional factors and offer suggestions for institutional improvement. These data provide insight into the factors that motivate career choice among students at a leading US institution and suggest the need for greater responsiveness among institutional leaders toward growing student interest in structural determinants of health.

Jessica is a combined degree student in medicine and public health at the University of Pennsylvania. She received her bachelors degrees in Philosophy and Environmental Science from Johns Hopkins University in 2009, and was a proud AmeriCorps VISTA for two years before starting medical school. After graduating from Penn, she will start a residency program in Family Medicine in Denver where she also plans to apply her knowledge of public health.

4:15 pm

**Matthew Kearney**

Mentor: Heather Klusaritz, PhD, MSW

### **Medical resident engagement with a school-based health education program: Lessons learned from an academic-community partnership**

**Abstract:**

In an era of complex education standards and limited resources, urban public schools often lack the capacity to meet basic health education standards for their students. Since 2014, the University of Pennsylvania's Department of Family Medicine and Community Health has collaborated with a local Philadelphia School District K-8 school to address such curricular gaps, particularly within the area of sexual health education. Community-academic partnerships provide opportunities for medical residents to expand their reach beyond the clinic and to engage in health promotion in innovative ways. Family medicine resident physicians developed and implemented an evidence-based curriculum as part of a health promotion partnership embedded in the residency's community medicine rotation. Lesson plans and activities were developed to align with the CDC's and Philadelphia School District's health education standards for the target population of middle school students between the ages of 10-14. We evaluated the process of developing and implementing this curriculum, specifically assessing the medical residents' engagement during that process. Semi-structured interviews were conducted with participating family medicine resident physicians following implementation of the program in early 2016. Audio recordings were transcribed verbatim and coded for thematic content based on a modified grounded theory approach using NVivo 10. The interviews highlighted facilitators and barriers to effective school-university partnerships, training needs of resident physician health educators, and provided valuable feedback, lessons learned, and best practices for future improvement of the partnership program. The findings support the notion that community-academic partnerships have the potential to meet sexual health education needs through connecting qualified professionals-in-training with underserved and at-risk student populations. Future research is necessary to determine the effect of such programming on student education and sexual health outcomes.

Matthew will complete his Master of Public Health this spring. He graduated from Union College with a Bachelor of Science in Biology and taught high school students prior to Penn. Matthew's primary interests center around adolescent sexual health education and program evaluation. While at Penn, he had the honor of working under the mentorship of Dr. Heather Klusaritz as a research assistant. When Matthew graduates from Penn, he will begin a Doctor of Public Health in Community Health and Prevention at Drexel University.

4:45 pm

**Cagla Ozden, JD**

Mentor: Evan Anderson, JD, PhD

### **An evaluation of the Philadelphia drug treatment court**

**Abstract:**

Reducing illicit drug use and exposure to the criminal justice system are important policy priorities. Each is associated with numerous individual and communal harms. These harms are especially acute and intertwined for individuals with drug addiction. The process of sustaining an addiction and associated periods of intoxication expose individuals to a cycle of criminal activity, incarceration, and relapse, diverting scarce resources in the criminal justice system away from other important uses. Drug Treatment Courts are designed to break the link between drug addiction and minor criminal activity by addressing them within a judicial process that accounts for their co-occurrence. Since 1997 the Philadelphia Drug Treatment Court has provided eligible non-violent drug offenders with a therapeutic alternative to the traditional adjudication process. Participants who complete the prescribed court-monitored program avoid incarceration, and are often eligible for dismissal and expungement of charges. The program supports participants with intensive wrap-around services. The Philadelphia Drug Treatment Court has not been evaluated for over a decade. This project explored the level and correlates of recidivism for program graduates. To improve inferences about the relative effects of the program, recidivism rates were also compared against individuals who were eligible but did not participate in the program.

Cagla graduated from the University of Michigan, Ann Arbor with a Bachelor of Arts in Political Science and in Intellectual History of Law. She earned her Juris Doctorate from the Benjamin N. Cardozo School of Law, Yeshiva University in New York City. Broadly speaking, Cagla's academic and clinical interests lie at the intersection of law, public policy, and public health. More specifically, she is interested in therapeutic justice programming and policy advocacy for individuals who encounter the criminal justice system.

5:15 pm

**Janet Sung**

Mentor: Joan Gluch, RDH, PhD

### **An assessment of global oral health education in US dental schools**

**Abstract:**

Dental schools need to produce graduates who are adequately prepared to respond to the complex needs and challenges of this increasingly diverse and interconnected world. In order to enhance discussions about the coverage of global oral health competencies in dental education, this study aims to assess how global health education is currently incorporated into pre-doctoral dental training in the United States and identify which, if any, of these global oral health competencies are being covered. Survey questionnaires were e-mailed to all 64 accredited US schools of dentistry during the 2015-2016 academic year. A total of 52 dental schools completed the survey (response rate 81%). The survey revealed several key areas of global health curricula that were often overlooked by dental schools, or covered rarely. The survey also revealed that despite current dialogue on the addition of global oral health competencies to dental school curricula, less than half of dental programs (41%) are currently planning to expand global oral health curricula at their dental school. The authors conclude that it may be feasible for dental programs to add recommended global oral health competencies into their curricula by incorporating such didactic content into already established courses.

Janet will graduate from Penn Dental Medicine this year along with her MPH. She is heading to University of California, San Francisco to start her residency in oral & maxillofacial surgery this July.

6:15 pm

**Melisa Leighton, MSN, RN-BC, OCN**

Mentor: Linda Fleisher, PhD, MPH

### **Cancer 101: A dissemination and evaluation plan**

**Abstract:**

Cancer was reported as the second leading cause of death in the United States in 2013. Despite significant progress in cancer treatment, cancer health disparities in breast, prostate, kidney, liver, and cervical cancers have persisted in certain populations. The Cancer Disparities Research Network (CDRN) is comprised of 28 institutions across 15 states tasked with the goal of reducing cancer health disparities among racial/ethnic minority and medically underserved populations. 11 institutions within the CDRN adapted, translated, and evaluated Cancer 101 Module 8: Biospecimens and Biobanking for a change in knowledge, attitude, and intent towards donation within six population groups: South Asian, African American, American Indian, Appalachian, Hispanic, and Chinese. A web-based dissemination package was created to make the adapted modules available and accessible throughout the country. Prior to creating the dissemination package, key personnel from the 11 CDRN institutions were invited to participate in a focus group, aimed at determining what, if any, background and supportive education materials would be needed in order to be successful. This dissemination package includes: population specific implementation guides, a one-page resource reference document, and an evaluation plan.

Melisa is currently the Director of Professional Practice and Nursing Outcomes at Penn Presbyterian Medical Center. Prior to this role, she was a nurse educator for 2 years and an oncology nurse for 6 years. She has an MSN in Nursing Leadership from the School of Nursing at the University of Pennsylvania. She is also certified in oncology nursing and nursing professional development.

6:45 pm

**Lisa Connors, RN, CLC**

Mentor: Alison Bутtenheim, PhD, MBA

### **Continuous quality improvement in the Nurse-Family Partnership**

**Abstract:**

Each Maternal, Infant, Early Childhood Home Visiting (MIECHV) program in New York state is required to demonstrate quantifiable improvement in performance measures developed by the state. This project describes the process by which a quality improvement (QI) process was implemented to address benchmarks of the Nurse-Family Partnership (NFP), one of New York's MIECHV programs. The project was implemented between 5/2015-1/2016. Using the Institute for Healthcare Improvement's Model for Improvement and other QI tools, we developed a process that included selecting a benchmark to target, determine ways to improve upon it, and evaluate the effectiveness of implemented changes. The team chose the benchmark: "percent of postpartum women who received instruction about optimal birth spacing or family planning during at least one home visit <6 months postpartum." After identifying errors in the existing process, we worked to optimize the process for recording the benchmark measure and test the proposed change. Before the project's inception (10/14-2/15), the state reported that 82.1% of postpartum women within our site received instruction during at least one home visit <6 months. After implementation, benchmark totals for the entire reporting year (10/14-9/15) indicated that 92.6% had received instruction. These findings resulted in a permanent process change within our site. This project demonstrates that implementing a QI process can result in tangible improvements to a program and the development of a QI culture within an organization.

Lisa returned to Penn to complete an MPH and MSN in Health Leadership with a minor in Quality Improvement. She previously worked as a nurse home visitor for the Nurse-Family Partnership (NFP) program in the Bronx, NY. She is currently working in a nurse supervisor role for the NFP program in Nassau County, NY. Her career interests include finding opportunities to support public health nursing programs in underserved communities.

7:15 pm

**Sarah Leinwand**

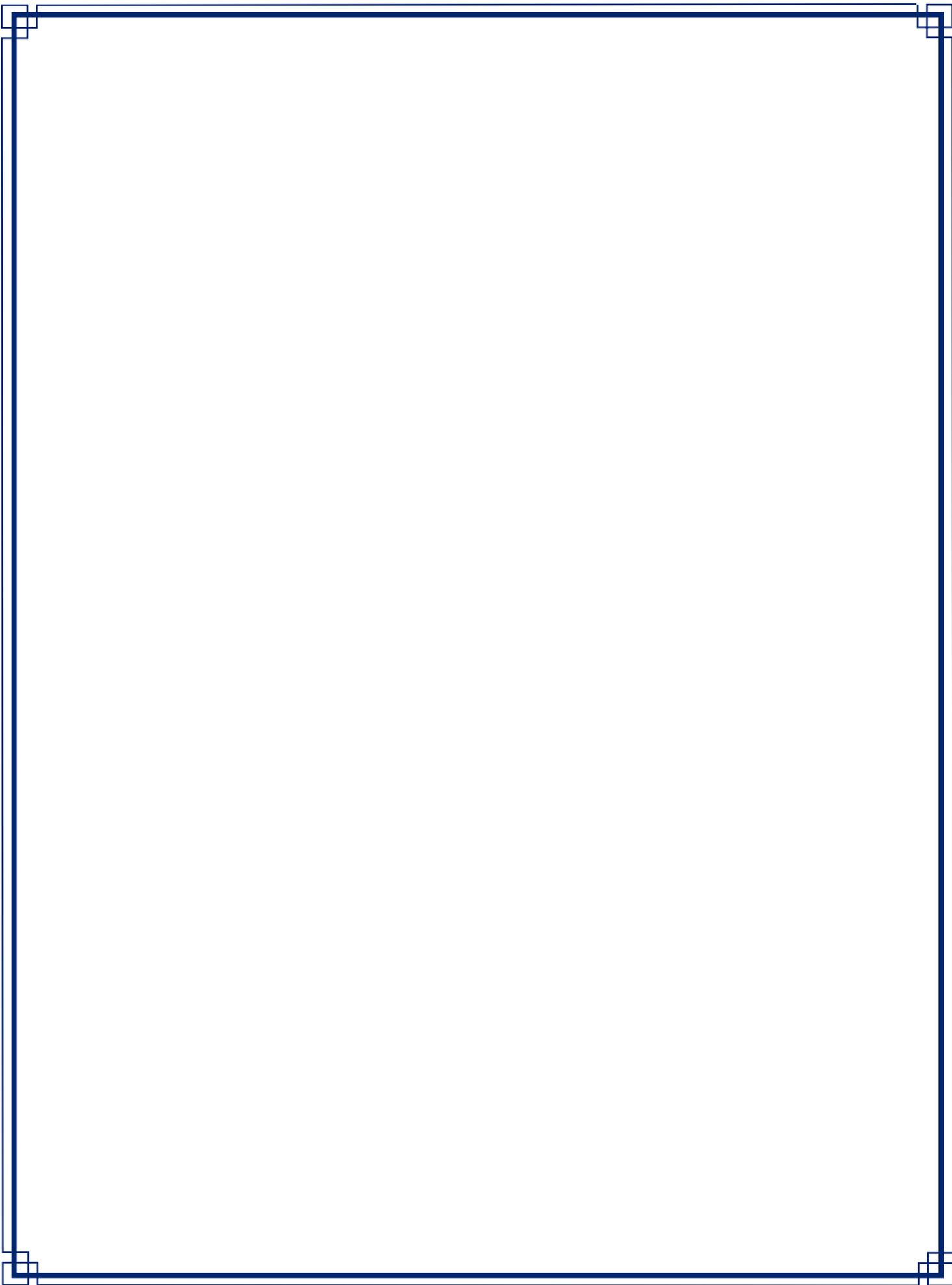
Mentor: Charles Branas, PhD

**The impact of inspection frequency and sociodemographic factors on food safety violations in chain versus non-chain restaurants**

**Abstract:**

This study assesses whether external factors, specifically inspection frequency and sociodemographic variables, are more strongly associated with restaurant inspection outcomes in chain versus non-chain restaurants. For this project, results of restaurant inspections from 2013-2014 were obtained and categorized by restaurant chain status and inspection frequency in the City of Philadelphia. Additionally, block group-level sociodemographic census data were collected for the year 2013. Nested mixed-effects linear regression was used to determine the relationship between restaurant status, external factors, and total food safety violations found at each inspection. Statistical analysis revealed that inspections in chain restaurants resulted in significantly fewer total violations than in non-chain restaurants ( $p < 0.0001$ ). Increasing inspection frequency was also significantly correlated with decreasing total violations among non-chain restaurants ( $p < 0.0001$ ); however, no association was found among chain restaurants. Among sociodemographic variables, significant associations were seen between percent Black residents across non-chain restaurants, indicating decreased foodborne illness violations ( $p < 0.0001$ ) but increased good retail violations ( $p < 0.001$ ). These findings indicate that non-chain restaurants may warrant additional scrutiny over chain restaurants in terms of food safety protocols. Sociodemographic composition of neighborhoods around the establishments may also differentially relate to restaurant practices and food safety violations in chain versus non-chain restaurants.

Sarah is a Philadelphia native who has been working on her MPH part-time over the past three years while also working as a research coordinator in the sleep medicine department here at Penn. Her public health interests include environmental health and infectious diseases and she plans to continue working in research.





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