Master of Public Health Program
Perelman School of Medicine
University of Pennsylvania

Capstone Presentation Program

Spring 2017
Ishan Patel  
Mentor: Ross Koppel, PhD, FACMI  
Surveying clinicians on their use of Sunrise Electronic Medical Record (EMR) at the University of Pennsylvania Health System  
Abstract:  
Since the passage of the HITECH Act in 2009, over 95% of hospitals have implemented an electronic medical record (EMR) system. Most observers agree that the EMR is an upgrade over paper records despite lingering problems associated with inefficiency, lack of usability, and inaccessible information. The purpose of this study was to identify ongoing challenges with the Sunrise Clinical Manager (SCM) program at the University of Pennsylvania Health System. Results of this study could inform hospital executives and EMR vendors about ongoing software improvement. Forty-eight survey questions were developed through interviews, focus groups, and general observations of the SCM system. Each question asked whether the stated issue occurred daily, weekly, monthly, or never. Open-ended responses also were allowed. The majority of respondents were nurse practitioners and second-year residents. Differences in survey responses were examined by year and professional status. Analysis showed that measures of inefficiency, lack of usability, and inaccessibility to information increased over the study period. Reported scores associated with distracting alerts, illogical orders, frustrating workflow, and duplicate orders increased. Some results differed by physician type, which may reflect differences in responsibilities. Open-ended responses provided additional insights including that dosing and medication ordering are especially troubling for physicians. Continuous improvement is needed to ensure that SCM safely allows physicians to order medications and communicate essential patient information without affecting patient outcomes.

Ishan received his BS in Economics from the University of Michigan. As an MPH student at Penn, Ishan has pursued his interests in economics and healthcare. He is a team member of the Penn Biotech Group and has worked at Wharton as an assistant for J. Scott Armstrong. Ishan is interested in improving health outcomes through data analysis in a career in healthcare consulting.

Rebekah Choi  
Mentor: Renée Betancourt, MD  
Mental health training in U.S. family medicine clerkships  
Abstract:  
A growing number of Americans with mental health (MH) needs do not receive adequate care during their first contact appointment with a primary care physician. Physicians may not recognize and know how to treat MH problems in primary care settings because of a lack of relevant training. Thus, it is important that we better understand the degree to which U.S. Family Medicine (FM) clerkships include formal instruction on MH issues, and to understand to what extent clerkship directors value MH instruction, and if this is related to student instruction. To this end, we conducted a cross-sectional study using national survey data collected through a partnership with the Council of Academic Family Medicine (CAFM), which conducts annual surveys of FM clerkship directors in the U.S. and Canada. 118 responses (84% response rate) were used to assess the content and extent to which MH curricula exist at medical schools in the U.S. 13% of schools provided no formal training in MH. About 80% of schools had training in mood, anxiety, and substance abuse disorders, but instruction in impulse disorders is minimal. Directors reported that knowledge of disorders was more important than knowledge of intervention models and assessment tools. Clerkship directors’ attitudes about different components of MH training are related to the extent of MH instruction at schools. These results can help guide a renewed call to improve the degree to which family medicine physicians are trained to address mental health issues.

Rebekah earned a BA in Health & Societies in 2016 from the University of Pennsylvania and sub-matriculated into the MPH program during her senior year. Throughout her time at Penn, she has worked in several clinical research environments, investigating optimal therapeutics for children with type 1 diabetes and obesity. Following completion of her degree in May 2017, she will continue working with children and their caregivers to prevent and manage chronic diseases.
Abstract:
SNAP (formerly Food Stamps) is designed to help the 12.7% of food insecure U.S. families put food on their tables. SNAP benefits are distributed monthly, and both food spending and caloric intake among recipients decrease over the month following benefit receipt. This cyclic pattern, termed the “SNAP-cycle,” has potentially serious implications for the health and food security of lower income families. To understand better the SNAP-cycle, this study explored: 1) how the SNAP-cycle affects dietary quality and 2) how factors including access to food retail and use of emergency food resources moderate this relationship. Using the USDA’s Food Acquisition and Purchase Survey (FoodAPS), this study used multivariate linear regression to evaluate changes in diet quality as time from SNAP distribution increases. Diet quality was measured by the Healthy Eating Index-2010 (HEI-2010) total and component (e.g., fruit, vegetables, protein) scores. Overall mean HEI-2010 of foods acquired was low for SNAP households (n=1,377, HEI: 46.25 out of 100). Results indicated small, but significant decreases over the SNAP-cycle in total and component HEI-2010 scores. After controlling for common covariates, mean total score declined by 2.85 points in the final week of the SNAP-cycle compared to days 0-1 (p<0.001). Component scores for healthy food items including vegetables and whole fruits also decreased (p<0.001). Households reporting food insecurity had significantly lower diet quality scores in the final week of the SNAP-cycle compared with food secure households (p<0.01). Inconsistent nutritional adequacy has significant health implications. This study provides evidence of decreasing diet quality over the SNAP-cycle, which could inform SNAP policies, particularly those related to benefit distribution schedules.

Eliza is a Doctoral Candidate in the Department of City and Regional Planning in the School of Design. Her research interests include food insecurity, health disparities, and social determinants of health within urban populations. For her dissertation, Eliza is exploring the role of food assistance programs in the broader poverty coping strategies of lower income Americans. In addition to her doctoral work, Eliza is a research assistant with Dr. Carolyn Cannuscio’s Healthy Library Initiative. She received dual master’s degrees in 2013 from Tufts University in Nutrition and Urban Planning.

Abstract:
Obesity is associated with hypertension and heart disease in adults. It is present in 20% of school-aged children and tracks into adulthood. Obesity and hypertension result in electrocardiographic (ECG) changes, which could identify at-risk children. Using a community recruitment model, children 5-19 years were screened for cardiac abnormalities using history and ECG. We measured height, weight, blood pressure (BP), determined body mass index (BMI) and BP percentiles. The effect of age, sex, race, ethnicity, and maternal education on ECG abnormalities, obesity, and hypertension (HT) were measured, to determine if potential health disparities exist. To examine all associations, chi-square tests, correlations, and multivariable logistic regression models were used. We screened 4156 children, aged 12.1(3.4) years; Male, 57.5%; Caucasian, 77.6%; Black 15.9%; Asian 2.1%; Hispanic, 2.8%; Maternal education: high school (12.4%) and ≥college (84.5%); BMI percentile, median 63%; mean 59.3(28.3). Obesity (BMI percentile ≥ 95) occurred in 415 (10%). Obese subjects were more likely to have HT than non-obese subjects (13.3% vs. 5.2%; p<0.001). In a multivariable logistic regression model: obesity associated with Black (OR 1.8, p<0.001), Male (OR 1.5, p<0.001), maternal education (OR 1.5, p=0.006), and HT (OR 2.6, p<0.001). HT associated with maternal education (OR 2.3, p<0.001) and Black (OR=1.6, p=0.005). ECG abnormalities associated with HT (OR 2.2, p=0.005), and Male (OR 1.8, p<0.006). Overall, lower maternal education is a risk factor for obesity and hypertension in children. Public health efforts should focus on maternal education to strengthen healthy eating habits in children to alter cardiac risks. ECGs can screen for abnormalities.

Ashali is a Master in Public Health candidate, graduating in May 2017. Before starting her MPH, she completed her BA from Boston University in Biology. Her primary interests lie in understanding how socioeconomic status and cultural ideology can impact quality of care and attitudes towards screening. She currently serves as the President of the Global Health Society and is a Community Health Service Fellow. In the future, she hopes to help increase access to care in India.
Laura Barron
Mentor: Charles Branas, PhD and Dominique Ruggieri, PhD

Using street trees to address health disparities in vulnerable neighborhoods:
A geospatial assessment of urban heat islands in Philadelphia

Abstract:
Urban Heat Island (UHI) effect, which refers to the significantly warmer temperatures of a metropolitan area compared to its rural surroundings, is a phenomenon that impacts the health and environment of cities. It is expected to increase in prevalence as rapid urbanization and the impacts of climate change increase. In order to mitigate substantially the adverse impacts of UHI, strategic greening interventions must be utilized. One such intervention, the use of street trees, can assist this urban heat phenomenon by reducing ambient temperatures and decreasing the air pollution that can cause urban heat retention. Street trees facilitate positive health and environmental impacts, by not only decreasing the effects of Urban Heat Island but also by reducing storm water runoff, improving air quality, and decreasing greenhouse gas emissions. Importantly, street trees are a tool that the city of Philadelphia can use to combat the adverse impacts of climate change without relying on individual behavior change of Philadelphians. In an effort to design targeted interventions and identify those neighborhoods that are most vulnerable to UHI in Philadelphia to, a “Heat Vulnerability Index” (HVI) using demographic data from the American Community Survey was calculated at the block level. Adapting the HVI model to determine areas with the fewest street trees to map street tree vulnerability – a “Street Tree Vulnerability Index” (STVI) was also applied. By running a high-low cluster (Moran’s I) analysis areas of most significant vulnerability were identified at the block and neighborhood levels. Assessment of neighborhoods with the highest risk factors for both categories (HVI and STVI) will allow for more effective and targeted interventions and recommendations for planting street trees in the city of Philadelphia to reduce UHI in its most vulnerable neighborhoods.

Laura will be the first graduate of the dual degree master’s program in Environmental Studies and Public Health. Her research interests focus on urban health disparities, geospatial analysis, and environmental sustainability. She works full time at the Penn Institute for Urban Research where she is further able to pursue these topics. Recently she had the opportunity to work with the New Urban Agenda and Sustainable Development Goals (SGDs) as part of the United Nations Human Settlement Programme, UN-HABITAT.

2:30 pm

Courtney Barbera
Mentor: Alison Buttenheim, PhD, MBA

Impact evaluation design for Energize the Chain (EtC):
A vaccine cold chain intervention in Ghana

Abstract:
In many regions of the world, breakdown in the vaccine cold chain – the system for maintaining the temperature of vaccines between manufacture and point of administration – prevents thousands of children from being reached by life-saving vaccines each year. Energize the Chain (EtC) is a novel cold chain optimization intervention created by Harvey Rubin, MD, PhD, that will use the existing and ubiquitous cell phone tower infrastructure in Ghana to power vaccine refrigerators for use by remote clinics. EtC extends a viable, dependable vaccine supply to the “fifth child” – the 20% of children not currently covered by routine immunizations. A rigorous impact evaluation will be necessary to document the program’s effectiveness. For her Capstone, Courtney focused on selecting the most appropriate and feasible impact evaluation design for EtC. As is the case with many global health interventions, EtC’s operational methods, resources, and other constraints limits the feasibility of many traditional impact evaluation designs (e.g., RTC or difference-in-difference). Through research and detailed modelling of potential designs, Courtney identified a novel method known as the stepped wedge cluster randomized design as the most appropriate evaluation strategy for Energize the Chain.

Courtney earned her BS degree in Biology from the University of New Hampshire in 2013 and will graduate from the University of Pennsylvania in May 2017 with her MPH in Global Health. Within the field of public health, her interests include social impact analysis and strategy, program evaluation, and expanding access to health care for children in low and middle-income countries.
3:15 pm

Stephen Jean
Mentor: Alison Buttenheim, PhD, MBA

Habit formation for antiretroviral adherence: Evidence from a cohort of HIV positive adolescents at The AIDS Support Organization in Kampala, Uganda

Abstract:
Over one million Ugandans are HIV-infected. Anti-retroviral therapy (ART) has improved the life expectancy of HIV-infected patients dramatically, yet the success of these drugs is dependent on high medication adherence. Studies reporting youth adherence to ART are sparse and mostly qualitative in nature, but indicate adherence problems among youths. Patient behavior has emerged as a key factor for adherence. Additional studies have found that when a habit is strong, individual intention has little effect on behavior; however, there is a gap in this body of literature dealing with HIV related behaviors. The concept of habits offers a mechanism to establish sustainable change in behavior. The SMS as an Incentive to Adhere study (SITA) is an ART adherence improvement intervention for a sample of 120 clients aged 15-24 years using a device that electronically records the date/time pills are taken. This rich data offers a way to quantify and define the formation of habits for ART adherence that has not been attempted yet. We conducted a secondary analysis of the SITA data to define and score three experimental measures of habit over the course of the intervention: 1. Pill intake within 12/24 hours of last intake; 2. Pill intake at the modal hour (i.e. the usual time); and 3. Pill intake every day. Preliminary results indicate that across these three experimental measures, habits formed and become stronger over the course of the intervention. Additional work will assess the relationship between the three measures of habit and a well-defined weekly adherence variable.

Stephen graduated from New York University with a BA in East Asian Studies and Public Health. While pursuing his MPH, he has conducted research domestically and internationally through Penn’s Center for Health Incentives and Behavioral Economics. Broadly, his research focuses on improving community health outcomes and sexual health using theory and principals from behavioral economics.

3:45 pm

Justin Clapp, PhD
Mentor: Fran Barg, PhD, MEd

An ethnographic examination of surgical decision making and informed consent

Abstract:
In recent decades, the medical community has devoted significant attention to clinical decision-making and informed consent. Prominent authors have called for the expansion of shared decision making (SDM)—a mode of interaction that moves away from paternalism by seeking to solicit the concerns and desires of patients while ensuring rigorous informed consent to enhance patient autonomy. It has been posited that SDM’s institutionalization could generate improvement in several areas of public health, including health communication, healthcare access, and quality of life. Meanwhile, however, a body of empirical research has demonstrated that shared decision making infrequently occurs and can be problematic for patients. This discordance suggests that better, more comprehensive theories of how and why patients undergo certain procedures are needed before prescribing normative models of physician-patient interaction. This project sought to take an initial step in the development of such a theory by using ethnographic methods to examine how preoperative consults between surgeons and patients result in the pursuit (or not) of particular interventions. This analysis identified several components of the preoperative interaction that contribute to the treatment pathway ultimately undertaken. Further, its findings suggest that many of the interactions most influential in contributing to the treatment decision occur upstream of the surgical consult. This result emphasizes the need for spatiotemporal breadth in descriptions of medical decision making and consent. Important sociocultural dynamics that contribute to the decision happen during every component of the consult and in settings well beyond the clinic.

Justin is a medical anthropologist who researches the organization and enactment of medical and health-related expertise in both clinical and non-clinical settings. His recent projects include qualitative examinations of surgical decision-making, interactions between Superfund communities and the EPA, the education of anesthesiology residents, and the practice of ethics oversight by IRBs.
4:15 pm

Ashlee Murray, MD
Mentor: Cynthia Mollen, MD, MSCE and Rosemary Frasso, PhD, MSc, CPH

Caregiver adverse childhood experiences and their association with frequent non-urgent pediatric emergency department utilization

Abstract:
Almost 30 million children seek medical care in emergency departments (ED) across the country every year and as many as 50% of these visits are triaged as low acuity, and therefore may be considered non-urgent uses of emergency services. Both caregiver and child bio-psychosocial factors, specifically adverse childhood experiences (ACEs) have been noted in prior studies to influence adult health care utilization. The primary objective of this study is to examine the relationship between caregiver ACEs and frequent non-urgent pediatric ED utilization. The secondary objectives of this study are to examine the relationship between other bio-psychosocial factors and frequent non-urgent pediatric ED utilization. We conducted a retrospective case-control study at The Children’s Hospital of Philadelphia (CHOP) ED. Caregivers with patients aged 1 to 12 years of age, up to their thirteenth birthday, that were registered for care in the CHOP ED during enrollment hours and triaged as Emergency Severity Index (ESI) level 4 or 5 were screened to determine eligibility. Participants that met all inclusion criteria were invited to participate in this study. Approximately 140 cases (high non-urgent pediatric ED utilizers with 3 or more level 4 or 5 CHOP ED visits in the previous year, inclusive of current visit) and 140 controls (low utilizers with only 1 level 4 or 5 CHOP ED visit in the previous year, inclusive of current visit) were enrolled in this study. Preliminary results will be shared.

Ashlee is an attending physician in the Department of Emergency Medicine at The Children’s Hospital of Philadelphia (CHOP) and currently co-directs the Intimate Partner Violence (IPV) Taskforce at CHOP. Her areas of interest also include adverse childhood experiences, psychosocial determinants of health, healthcare access, emergency preparedness, and pediatric ER utilization.

5:30 pm

Shireen Matloubieh
Mentor: Rosemary Frasso, PhD, MSc, CPH, and Joyce McNeill, MPH, MN, CNM

UTIs – The “middle child” infection on college campuses: Using the L.E.A.D. framework to inform an intervention

Abstract:
Urinary tract infections (UTIs) take a heavy burden on university-attending women across the country with one third of U.S. women experiencing a UTI by the age of 24. Few interventions or programs are in place to reduce the risk of UTI infection across college campuses and, to date, no behavioral interventions to prevent UTIs have been conducted among college-age women. By describing the existing evidence regarding methods to promote HPV vaccination in this population, this report seeks to inform an intervention to be used by a student health service on a college campus to reduce the incidence of UTIs at universities. Using the L.E.A.D. framework, evidence was systematically collected and organized in order to inform decision-making. Peer-reviewed journal articles were examined for research regarding preventive measures to promote HPV vaccination to inform policy change. HPV vaccination was used as a comparable model to provide a theory-driven approach to creating an intervention. Given the evidence-based findings, we recommend university student health services distribute materials before the fall semester of each year, emphasizing simple behavioral changes such as lubricated condom use, urinating after sexual intercourse, and drinking liquids and urinating regularly throughout the course of the day. Method of delivery should be based on the Health Belief Model to increase self-efficacy, perceived susceptibility and severity, and the Exemplification Theory should be used as a model for intervention communication and delivery.

Shireen is a Master of Public Health candidate expecting to graduate in May 2017. In 2014, she graduated from Temple University with a BS degree in Public Health. Currently, she works as a Senior Research Coordinator at the Center for Health Incentives and Behavioral Economics (CHIBE) at the Leonard Davis Institute of the University of Pennsylvania working on payment transformation research for health insurance companies across the United States. Following the completion of her degree, Shireen will continue her work at CHIBE.
6:00 pm

Beverly Lange, MD
Mentor: Rosemary Frasso, PhD, MSc, CPH

Insuring motherhood in the twenty-first century

Abstract:
Before 2010, many insurance companies excluded pregnancy from coverage because it was “a preexisting condition.” On March 23, 2010, Congress passed the Patient Protection and Affordable Care Act (ACA). ACA’s goals are to: 1) reduce numbers of uninsured citizens; 2) reduce disparities in access, utilization, and outcomes; 3) shift focus from treatment to prevention; and 4) reduce healthcare costs. The ACA mandated that insurance plans cover prenatal care, delivery, newborn care and all forms of contraception. This retrospective review of federal, state, and non-governmental databases evaluates how perinatal care in Pennsylvania pre-ACA (2000-2004; 2005-2009) compares to that post-ACA (2010-2014) with respect to achieving ACA goals. Percentages of first trimester prenatal care were unchanged among all births, but significantly improved among Asian/Pacific Islanders (PI) and Hispanics. Breastfeeding increased in all groups and maternal and neonatal mortality declined in all groups. Low birth weight declined overall and among blacks and whites, but prematurity was unchanged in all. Caesarian section increased every year, as did neonatal substance abuse. Asians/PIs had the most favorable scores in teen pregnancies, breast-feeding, maternal and neonatal mortality, and prematurity. In 8/10 analyses, outcomes among blacks were significantly inferior. Blacks had the highest percentage reductions in maternal mortality and teen pregnancies. If 2010-14 rates of change continue, teen pregnancy and maternal mortality rates will be in the same range as those of Whites within 5 years. Improvements in prenatal care, teen pregnancy, low birth weight, and maternal and neonatal mortality are temporally related to the ACA while breast-feeding and prematurity show sustained improvements during the ACA and Caesarian section and neonatal substance abuse show sustained failure throughout the 21st century and need new approaches.

Beverly Lange is an Emeritus Professor of Pediatrics at the University of Pennsylvania Perelman School of Medicine. After over 30 years in pediatric oncology at the Children’s Hospital of Philadelphia, Dr. Lange is pursuing a Master in Public Health with a goal of working for a non-governmental organization with a mission to improve access to healthcare for women and girls and to continue the struggle for women’s reproductive rights.
11:15 am

Ashley Tanz
Mentor: Douglas Wiebe, PhD

**Gentrification and health: The impact of economically changing environments on indicators of chronic disease and community belonging in Philadelphia, Pennsylvania**

**Abstract:**
The question as to whether gentrification brings positive change to individuals and their neighborhoods and/or contributes to the disruption of social networks has long been debated. This study assesses whether the degree of neighborhood gentrification has a differential effect on health, food access, and sense of community belonging within the city of Philadelphia among racial and rent v. own subgroups. Degree of neighborhood gentrification was operationalized and linked to demographic and health data obtained from the 2014-2015 SEPA Household Health Survey. The hypothesized effect of gentrification was tested on multiple outcome variables using univariate linear modeling with covariates. Among the 384 census tracts that were determined eligible to gentrify, we found that the degree of gentrification has a significant effect on difficulty affording housing and comfort in visiting a park. In addition, significant disparities were noted in racial/ethnic subgroups in number of visits to emergency room, comfort in visiting a park, and having worked together to improve neighborhood between gentrification levels. Renters also reported a significantly lower sense of belonging in low-gentrified neighborhoods compared to owners but no notable differences were observed in high-gentrified neighborhoods. This study highlights the need to further explore and consider to what extent the health effects of gentrification are effectuated by the change in neighborhood racial composition brought about by new in-movers rather than the displacement of the groups that have resided in the neighborhood previously.

Ashley is a dual degree Master of Public Health and Master of Bioethics student at Penn graduating this semester. After receiving a BS degree in Communicative Sciences and Disorders from New York University as well as an Associate’s Degree in Deaf Studies, she worked at WIC (Women, Infants, and Children) where she supervised over 3,000 WIC vendors throughout New York City. She has also worked at the Mayor’s Office of Community Empowerment and Opportunity and the Philadelphia Department of Public Health. Ashley is the single mother of a two-year-old boy, Luka, and plans to pursue a career in social geography.

11:45 am

Aaron Tatad
Mentor: Evan Anderson, JD, PhD

**The role of focusing events in public health law: A descriptive study**

**Abstract:**
Law is an important tool for promoting population health. The Centers for Disease Control and Prevention have identified legal interventions as essential to all ten of the major public health achievements of the last century. Unlike many public health interventions, however, there is relatively little research exploring why evidence-based legal interventions are adopted in some instances but not others. Some practitioners and researchers have explained the adoption of public health laws in terms of the availability of so-called “focusing events,” dramatic occurrences, which raise the profile of an issue, crystallize understanding about the nature of a problem, and mobilize political support for law-making. Some researchers have also observed that such events often stimulate lawmaking but not always in ways that are consistent with available evidence or even the event itself. This study explored the role of focusing events in public health-related lawmaking. Laws named after individuals (e.g., Sarah’s Law) with the 10 most popular female and male names were retrieved through legal databases for the years between 1990 and 2015. The resulting laws were analyzed and compared with media reports about the related event (i.e., the event involving Sarah). Narrative summaries of each law and related media reports were produced. These case studies were then analyzed as a group for patterns including whether the law corresponded in design with the event and with the underlying public health evidence. Results suggest that focusing events are common and influence lawmaking. However, in some instances laws did not accurately reflect the focusing event, demonstrating both the value and danger of disaster-driven lawmaking.

Aaron received his bachelor’s degree from the University of Arizona in Public Management and Policy with minors in Business Administration and Public Health. While a student in the MPH program at Penn, Aaron has taken advantage of several opportunities outside the classroom to develop his skills and interests. Aaron has worked as a consultant for the Penn Science Diplomacy Group and Penn Biotech Group in addition to being a research assistant in the Center for Clinical Epidemiology and Biostatistics and at CHOP. Upon graduation, Aaron plans to continue his work in pediatric research and pursue medical school.
12:15 pm

Kristin Harkins
Mentors: Allison E. Curry, PhD, MPH and Jason Karlawish, MD

Association of co-morbid conditions and health behaviors with cognitive decline among older adults in Pennsylvania

Abstract:
An increased understanding of risk factors for cognitive impairment in older adults, particularly modifiable factors such as health behaviors, could help inform potential targets for prevention efforts. The objective of this study was to identify comorbid conditions and health behaviors independently associated with cognitive decline in older adults. We analyzed data from 4,769 adults age 60 and older from the 2014 Pennsylvania (PA) Behavioral Risk Factor Surveillance System, a state-based, random-digit-dialed telephone health survey of community-dwelling adults. Cognitive decline was defined as self-reported confusion or memory loss happening more often or getting worse over the previous 12 months. Multivariate logistic regression modeling was used to identify independent predictors adjusting for demographic characteristics; analyses were adjusted to account for the complex sampling design. Overall, 10.2% of community-dwelling older adults in Pennsylvania reported cognitive decline. Prevalence of cognitive decline varied by race, marital status, and level of education completed. After adjusting for demographic factors (age, sex, race, education, and marital status), the odds of cognitive decline were independently associated with diagnosis of depression, sleeping less than 7 hours per night, and not engaging in any physical activity in the past 30 days. The adjusted odds of cognitive decline did not vary by overweight status, smoking status, heavy drinking, having a regular medical checkup, or diagnosis of diabetes, cardiovascular disease, or COPD. Three potentially modifiable factors—depression, inadequate sleep, and physical inactivity—are independently associated with cognitive decline in older adults and may be appropriate targets for prevention efforts.

Kristin will complete her Master of Public Health degree this spring. She graduated summa cum laude from Truman State University with a BA in psychology. Kristin is a senior research coordinator at the Penn Memory Center and a Healthy Brain Research Scholar. She is interested in public health strategies to maintain cognitive health throughout the lifespan.

1:30 pm

Quadeera Jackson
Mentors: Bridgette Brawner, PhD, APRN and Jill Johnson, PhD, MPH

Exploring associations between ethnic identity, sexual behaviors, and HIV/STI knowledge among heterosexual, black adolescents

Abstract:
Few studies have examined the role of ethnic identity in sexual decision-making among Black adolescents. This study aims to determine whether a Black ethnic identity score is predictive of sexual attitudes and HIV/STI knowledge among heterosexual, Black girls and boys between 14 and 18 years old. This study was a secondary data analysis of 109 adolescents attending outpatient mental health clinics in Philadelphia, PA between January 2013 and October 2013. The Adolescent Survey of Black Life was used to calculate Black ethnic identity scores from the constructs of pro-Black, anti-White and racism awareness, and data on sexual attitudes and knowledge were obtained from the Minority HIV/AIDS Research Initiative 2015 baseline survey. These surveys were administered in focus groups or computer-assisted personal interviews. Logistic regressions were used to calculate associations between the three ethnic identity constructs and the primary outcomes of condom use attitudes, concurrent sex partner patterns, and HIV/STI knowledge. The study population included 68 boys and 41 girls who self-identified as Black. No associations were found between the pro-Black, anti-White and racism awareness constructs with any of the outcome variables. These results do not provide strong evidence for a role of ethnic identity in explaining Black adolescent sexual behavior patterns. Public health programs aimed at promoting sexual attitudes and HIV/STI knowledge among Black adolescents may need to focus beyond ethnic identity.

Quadeera graduated from Stanford University with a BA in Human Biology in 2014. She plans to complete her Master of Public Health degree this spring. With her public health degree, Quadeera hopes to address health inequities and their roles in the perpetuation of chronic diseases within the Black community.
2:00 pm

Deshaun B. Parris
Mentors: Robin Stevens, PhD and Jill Johnson, PhD, MPH

#TBH (To be Honest): Conversations about sex, condoms, & HIV/STIs on social media among African-American and Latino youth

Abstract:
Sixty-nine percent of youth use social media daily. On social media, youth communicate with their peers about sex and sexual health. This study examined how these youth communicate about sexual health on social media and how these communications differed by sexual experience. Over a twelve-month period, 60 Black and Latino youth (ages 13-24 years) from a northeastern U.S. city shared Facebook and Twitter posts and completed two computer-assisted self-interviewing surveys. We used natural language processing to identify relevant text from the 80,000 posts in the sample, and then conducted traditional content analysis assessing meaning and content on a sample of sex related posts (n=8). We found that over 85% of youth discuss sex on social media. Less than 7% of users mentioned sexual risk reduction, but 63% of youth intend to have sex in the next six months. The qualitative analysis highlighted that sexual risk was often discussed in terms of sex positivity, “slut shaming” and humor to promote sex. Our findings suggest that social media is an important communication platform for youth; however, the amount of accurate, sexual health information shared by youth is minimal. Sex is not a taboo topic online and this venue may serve as an excellent channel to communicate about HIV prevention to African American and Latino youth, who are at a disproportionate risk of contracting HIV. Future interventions should mirror current usage patterns, including peer-to-peer conversations.

Deshaun is a University of Pennsylvania Master of Public Health candidate and holds a BS in Public Health from Temple University. He has a passion for utilizing health communication tools to deliver culturally competent health education messaging to those in underserved communities.

2:30 pm

Rhae Ana Gamber
Mentor: Alison Buttenheim, PhD, MBA

Preeclampsia and poor birth outcomes: A mediation analysis

Abstract:
Preeclampsia is a leading cause of maternal mortality and is characterized by high blood pressure and proteinuria in pregnancy. Research has identified a multitude of risk factors (age, parity, hypertension, and diabetes) and outcomes (eclampsia, organ failure, preterm birth, and maternal or infant death) associated with preeclampsia. Its cause, as well as its role linking risk factors to poor birth outcomes, remains unknown. In this secondary data analysis of a large observational cohort study, we assessed preeclampsia’s mediating role in the etiology of poor birth outcomes. Data for the final sample of 1,677 women were obtained by medical chart abstraction and the validated Perceived Stress Scale. Mediation analysis was conducted using logistic regression and a difference in coefficient approach. A secondary analysis of planned status of pregnancy utilized a smaller data set of 1,064 women and identical statistical methods. We found the association between chronic hypertension and preterm birth (difference in OR= 1.12), as well as gestational diabetes and preterm birth (difference in OR = 0.25) was mediated by preeclampsia. We found the association between chronic hypertension and NICU admission was mediated by preeclampsia (difference in OR= 0.45). No mediating effect was found for caesarean delivery. Planned status of pregnancy was significantly associated with NICU admission (OR=1.52, 95% CI 1.02-2.26) without preeclampsia mediation. In conclusion, we found that preeclampsia has a small role in the causal pathways from maternal characteristics to poor birth outcomes. Future studies should study preeclampsia directly.

Rhae Ana is a Master of Public Health candidate expected to graduate in May 2017. She earned a BS degree in Psychology from Drexel University in 2014 with a minor in Business Administration. She works in the Maternal and Child Health Research Center at the University of Pennsylvania coordinating several outpatient research studies investigating preterm birth and other high-risk pregnancies. Following completion of her degree, she will continue to pursue her career in maternal child health and healthcare delivery.
3:15 pm

Angela N. Ddamba
Mentor: Chyke Doubeni, MD, FRCS, MPH

Trends in uninsured rates and physician-population ratios in US counties: 2010-2013

Abstract:
Major aims of the Affordable Care Act (ACA), which became law in 2010, included increasing insurance coverage and improving access to primary care. The main objective of this study was to determine trends in under-65 uninsured rates and in primary care physician-population ratios in U.S. counties in the early years of the ACA (2010-2013). All data were retrieved from the Health Resources and Services Administration’s warehouse. Results show wide variation in uninsured rates and physician-population ratios by sub-region and primary medical care shortage designation, reflecting unequal access to the healthcare system on a geographic level. Nonparametric tests for trend were performed to determine whether trends in mean uninsured rates and mean physician-population ratios between 2010 and 2013 were significant. Significant downward trends in uninsured rates for 2010-2013 were observed in: the no-shortage counties of the East North Central (p<0.001), South Atlantic (p<0.001), and West South Central (p=0.001) regions; the partial-shortage counties of the Middle Atlantic (p<0.001), East North Central (p<0.001), West North Central (p<0.001), South Atlantic (p<0.001), East South Central (p<0.001), West South Central (p<0.001), and Mountain (p=0.029) regions; the full-shortage counties of the Middle Atlantic (p<0.001), West North Central (p=0.003), East South Central (p=0.03), and Mountain (p=0.004) regions. Notably, significant downward trends in physician-population ratio from 2010-2013 were observed in East North Central (p=0.047) and West South Central (p=0.032) sub-regions. This informational study provides a base from which to interpret future trends in uninsured rates and physician-population ratios in the era of the ACA.

Angela will complete her Master of Public Health degree this spring. She is a research specialist in the Veterinary School at the University of Pennsylvania, employing genetic techniques on mouse models to study how the immune system and microbiome are implicated in colorectal cancer. She is pursuing the MPH to develop a set of tools that will link basic science research and public health priorities and plans to obtain an MBA to acquire knowledge that will be useful for a career in healthcare, research innovation, and leadership.

3:45 pm

Steven Brooks
Mentors: Joel Fein, MD, MPH and Evan Anderson, JD, PhD

Receptiveness to trauma-informed policing among Philadelphia law enforcement

Abstract:
Early life trauma has been identified as an important risk factor affecting long term health outcomes, risky behaviors (e.g. drug use), and mental illness. Many of the signs and symptoms of early life trauma, such as hypervigilance, can be interpreted by police officers as being adversarial or not cooperating. We explored the role of trauma in interactions between police officers and community members in order to inform the development of a “trauma-informed” policing model. We conducted 9 semi-structured interviews with police officers in Philadelphia between November 2016 and May 2017. Interview protocols were designed to elicit discussion of factors influencing childhood development and police-community interactions. We performed qualitative content analysis using a deductive approach after saturation was reached. Themes that emerged from the interviews included factors affecting childhood and regarding trauma during interactions. Although the officers interviewed had an understanding of how trauma (e.g., experiencing shootings, violent crime, and poverty) can play a role in childhood development and poor long-term outcomes, the officers also commented about the limited extent to which these factors can be regarded in their work environment. However, officers also endorsed the role that on-duty trauma (e.g. officer-involved shootings/assault and officer suicide) can play in community interactions. Trauma-informed policing strategies, which include the recognition of the signs and symptoms of trauma, may provide police with a tool to de-escalate tensions with the community and improve police-community relationships. Understanding how this model will work in the context of existing police training and organizational culture will improve effectiveness and uptake.

Steven is a Master of Public Health candidate expecting to graduate in May 2017. He earned a BS degree in Psychology from the University of Pittsburgh in 2007 and previously worked in real estate and education. He currently works as a Data Analyst for the Department of Otorhinolaryngology at the University of Pennsylvania performing database management and statistical analysis for NIH and Cystic Fibrosis Foundation funded studies exploring the role of taste receptors on the innate immune response of the upper airway. Following completion of his degree, he will use data analytics and information management to improve public health outcomes in Philadelphia.
4:15 pm

**Tuhina Srivastava**  
Mentor: Gary Smith, DPhil, CertEd

**Modeling the transmission dynamics of Angola’s 2016 yellow fever outbreak and implications for vaccination**

**Abstract:**
In 2016, an outbreak of yellow fever, a viral, hemorrhagic mosquito-borne disease, resulted in over 4000 suspected infections and 372 suspected deaths in Angola, Africa. Outbreak-associated cases of yellow fever spread from Angola to the Democratic Republic of Congo, Kenya, and China making this outbreak a global health security concern. Studying this yellow fever outbreak was urgent and important because although yellow fever is endemic in over forty countries around the world, an outbreak this size had not been seen in recent years. This outbreak exposed yellow fever vaccine stockpile, access, and coverage shortages, and modeling analyses can help predict differences in disease transmission dynamics given various scenarios. WHO epidemiological data from outbreak situation reports were used to create a modified SEIR model to help understand the interplay between vaccination coverage and disease dynamics. Berkeley Madonna modeling software was used to implement the analyses. Analyses showed the different ideal conditions of vaccination coverage and potential use of dose-sparing in resource-limited, low access settings. These results can establish suggested baseline numbers that similar countries where yellow fever is endemic can use as guidelines. This can also help inform public health preparedness and response strategies to prevent and control future outbreaks. Identifying high-risk areas and stocking those areas with adequate vaccines can help prevent the duration and magnitude of future outbreaks, with the goal of decreasing future lives lost due to yellow fever.

Tuhina will complete her Master of Public Health this spring. She has worked globally in both rural India and urban Botswana. During her time at Penn, she worked in a virology laboratory studying HIV and Hepatitis C and performed qualitative research at CHOP’s Vaccine Education Center. Her public health interests include infectious diseases, vaccines, outbreaks, and epidemiology in a global health setting.

5:00 pm

**Grace Stockbower**  
Mentor: Rosemary Frasso, PhD, MSc, CPH

**Urban gardening in Philadelphia: Keeping it safe, healthy, and fun**

**Abstract:**
Urban community gardening (UCG) has important public health and community benefits. It is associated with increased intake of fruits and vegetables, access to fresh produce, financial savings, and mental health benefits. Additionally, UCG has been associated with increased social cohesion, community pride, collective efficacy, and decreased violence. Efforts to promote UCG have inspired many novices to take on the task, creating a need for accessible training opportunities and educational materials to encourage safe gardening. This is important in urban settings where garden sites are often developed on vacant lots where soil can be contaminated from industrial processes, leaving behind heavy metals like lead and other trace elements in soil. Exposure can occur through soil contact or eating produce that absorbed contaminants. Responding to findings from a qualitative evaluation of Philadelphia Department of Public Health’s (PDPH) Soil Safety Workshop Series carried out in spring of 2016, our team developed an accessible handbook for use by gardeners with low literacy or low English proficiency. The handbook was informed by a review of the literature and online/print resources and addresses concerns identified by participants in the evaluation of PDPH’s Workshops. **Results:** The handbook addresses best practices for UCG soil safety. To address potential language and literacy barriers, the handbook uses accessible language (<3rd grade), incorporates photos, diagrams and illustrations and links gardeners to needed local resources. **Discussion:** While this online/in-print, accessible handbook is tailored to gardeners in Philadelphia, it can be used as a template for other cities.

Grace is a part-time MPH student expecting to graduate from the program in August 2017. She works full time at the Penn Memory Center as a clinical research coordinator where she coordinates an Alzheimer’s drug trial. Her interests include healthy aging, access to nutrition and community health.
5:30 pm

**Amanda Cole**

Mentors: Rosemary Frasso, PhD, MSC, CPH; Evlambia Hajishengallis, DMD, DDS, MSc, PhD; and Dafna Benadof, DMD

**Oral literacy demand in the pediatric dental clinic: A pilot study**

**Abstract:**

Oral health literacy is measured by a person’s ability to obtain, process, and understand important oral health related information. It has been demonstrated that the oral health literacy of a parent is directly related to their child’s overall oral health status. The ability of pediatric dentists to effectively assess parental health literacy and adjust their communication with the parent accordingly is crucial to maximize parent comprehension and patient care. This pilot study assessed the relationship between oral literacy demands placed on parents by dentists, and parents’ understanding of dental information given to them during their child’s first dental visit. Thirty-one consenting primary care givers of children attending their first dental visit completed a demographic survey, a REALD-30 test, and a final survey to test understanding of dental information. Dental appointments, performed by eight first and second-year pediatric dental residents, were audio-recorded and transcribed for qualitative analysis and descriptive statistics. Factors associated with language complexity were significantly higher in dental residents than participants. Dialogue structure factors, like speaking turns, did not differ between resident and parent. Although the dialogue between the participating dentists and parents was highly unequal, parents understood about 86% of the information provided by the resident. This research indicates that, while pediatric dental residents tend to use simple terminology, more efforts are needed to engage the parent within the conversation. Future research is necessary to evaluate communication between practitioners and parents within the pediatric dental setting in order ultimately to maximize patient care.

Amanda is a dual-degree Master of Public Health and Doctorate of Dental Medicine candidate, graduating in May 2017. She received her BS in Biology and BA in Economics from Syracuse University in 2012. Following completion of her education at the University of Pennsylvania, Amanda will begin her residency in pediatric dentistry at Temple University.

6:00 pm

**Jessica Weisbrot, MSW**

Mentor: Rosemary Frasso, PhD, MSC, CPH

**The value of combining social work and public health training: A qualitative study**

**Abstract:**

The implementation of the Affordable Care Act in 2010, and the subsequent change in the American healthcare delivery system, allowed for job growth in the healthcare field. As a result, dual degree graduate programs combining various health disciplines have become more attractive to students seeking to enhance their marketability in the healthcare field after graduation. This study explores the value of a combined graduate training experience with two complementary health disciplines, social work and public health. A convenience sample of ten graduates from five different combined social work and public health programs participated in semi-structured phone interviews. Program contacts were obtained from the 2015-2016 leadership roster of the public health social work member section within The American Public Health Association (APHA). The primary aims of the interviews were to explore graduates’ motivation for pursuing the dual degree, experiences during training in the classroom and the field, perceived role in the healthcare field as a dually trained professional, and employment opportunities after graduation. Interviews were double-coded to assure quality and inter-coder reliability and analyzed using NVivo 11 software. Emergent themes identified in the data included training decisions, training experiences, professional identification, and social work and public health in practice. Findings could inform the structure of combined social work and public health degree programs to provide more competitive offerings for potential students, and help program graduates develop a strategy to frame their job search.

Jessica graduated from the School of Social Policy and Practice at the University of Pennsylvania with a Master of Social Work in the spring of 2016 and will earn her Master of Public Health this spring. Jessica is currently a clinical research coordinator at The Center for Interdisciplinary Research on Nicotine Addiction (CIRNA) in the Department of Psychiatry at the Perelman School of Medicine.
Lessons from the field: The conduct of randomized controlled trials in Botswana

Abstract:
Randomized controlled trials (RCTs) are critical to evaluating the impact of interventions and have been widely used in research around the world. However, the conduct of RCTs in lower-resource settings may present unique financial, logistic, and process-related challenges. Middle-income countries that have comparable disease burdens to lower-income countries, but greater availability of resources and capacity, may be more conducive settings for RCTs (e.g., Botswana, Colombia). Indeed, Botswana is a country currently experiencing a rapid increase in the conduct of RCTs. Our objective was to explore the experiences of individuals conducting RCTs in Botswana to gain an understanding of the barriers and facilitators to their work. Data were collected through in-depth interviews with 14 national and international individuals working on RCTs in Botswana. Interviews were audiotaped, transcribed verbatim, and coded for thematic analysis. Resultant codes were organized into two overarching themes: barriers to the conduct of RCTs and the practices being used to facilitate research. These themes were then analyzed with the ecological model, identifying the individual (personal motivators), relationship (retention of staff and study recruitment), institutional (exchanges with the HRDC), community (community engagement), and policy (lack of resources and capacity) level interactions and their unintended consequences. This study highlights the unique challenges to conducting RCTs in Botswana, a nation that is experiencing a rapid increase in research activities. Findings suggest the need for further evaluation so that the conduct of research does not outpace the ability of the host country to manage, support, and regulate it.

Janice graduated from Johns Hopkins University with a BS in Neuroscience in 2015. While earning her Master of Public Health at Penn, she has had internships at the Center for High Impact Philanthropy, Penn Medicine Center for Healthcare Innovation, and Center for Research Injury and Prevention at the Children’s Hospital of Philadelphia. She will be starting medical school this fall.
11:15 am

Jean Carlos Padilla Aponte
Mentor: Carmen Guerra, MD

**Patient perspectives: Challenges to enrollment in a patient navigation program for colorectal cancer screening**

**Abstract:**
Multiple studies have indicated that patient navigation programs are successful in increasing the cancer-screening rates, particularly of vulnerable populations heavily burdened by colorectal cancer. However, many patients decline free patient navigation services, limiting the effectiveness of these programs. This exploratory, qualitative study was performed to identify the reasons why patients decline participation in a patient navigation program and what might make patients more likely to participate. To evaluate the challenges to enrollment, researchers conducted semi structured interviews with patients who declined to enroll in the University of Pennsylvania Gastrointestinal Health Outreach and Access Program. Twelve participants were interviewed to identify salient themes related to not enrolling in the program. Through content analysis, three levels of barriers emerged: (1) individual factors such as low perceived risk of colorectal cancer, (2) navigation specific factors such as limited knowledge about the program, and (3) procedure specific factors such as fear or stigma of a colonoscopy. Participants additionally expressed that (1) financial incentives and (2) inclusion of other screening modalities would serve as facilitators to enrollment. Our findings suggest that participation rates in colorectal cancer screening programs may increase by incorporating other non-invasive cancer screening modalities or by using financial incentives.

Jean Carlos graduated from University of Puerto Rico in 2012 with a BA in Biology and will receive his MD/MPH this summer. Given his clinical interest in Gastroenterology, Jean’s public health research project sought to improve colonoscopy screening rates in West Philadelphia. Jean Carlos will be continuing his medical training at Penn as an Internal Medicine resident.

11:45 am

Bardia Nabet
Mentor: Meredith Matone, DrPh, MHS and David Rubin, MD, MSCE

**Expenditures associated with state Medicaid expansion status may impede community benefit spending among nonprofit hospitals**

**Abstract:**
The Affordable Care Act’s amendments to the Internal Revenue Code expanded the obligations of tax-exempt hospitals, making the almost 4,000 nonprofit hospitals in the United States key community health actors. However, it is unclear how community benefit expenditures and bad debt (a portion of uncompensated care) have changed for nonprofit hospitals over time as Medicaid expansion was implemented. Therefore, we estimated the impact of Medicaid expansion on overall community benefit expenditures and on individual components of community benefits (net Medicaid, charity care, community health improvement and bad debt expenditures) using difference-in-difference methods, comparing changes in the 3 early Medicaid expansion states to changes in the 8 late expansion states. During this time, unreimbursed Medicaid expenditures, as a percent of total expenditures, increased in states that expanded Medicaid early in 2011. Average community health improvement expenditures, as a percent of total expenditures, were small – less than 1%. Charity care expenditures, as a percent of total expenditures, were also small and showed evidence of decreasing expenditures in early expanding states relative to control states. Between 2010 and 2013, bad debt expenditures increased across all states, but were, on average, greater for early expansion states. Our findings suggest that as hospitals in expansion states allotted a greater proportion of their expenditures towards Medicaid, they also increased their bad debt, while crowding out their community health improvement and charity care expenditures. Overall, there was limited growth in community benefit expenditures over time across all states in the sample.

Bardia will complete his Master of Public Health at the University of Pennsylvania in December 2017. Bardia received his BA in Health and Societies from the University of Pennsylvania in 2013. He is also a communications and policy associate at PolicyLab at Children’s Hospital of Philadelphia (CHOP). His professional and research interests include children’s health policy and the interactions between public systems and how they impact health care coverage, quality and access.
Vanamala Narasimhan
Mentor: Gary Smith, DPhil, CertEd

Do environment factors impede cholera vaccination strategies? 
A mathematical modeling study of the Haitian cholera epidemic

Abstract:
The 2010 cholera epidemic continues to ravage post-earthquake Haiti. Since the importation of cholera by foreign aid workers, the epidemic has exploded due to poor sanitation and repeat natural disasters. Disease control interventions since have targeted direct human transmission, however there is increased evidence of environmental transmission. The effects of climate change can exacerbate the environmental transmission of cholera to humans as *V. cholerae*’s adaptations allow it to survive in a variety of aquatic environments. These effects, including increased natural disasters, rising sea levels, and warmer waters all contribute to the presence and growth of *V. cholerae* in the environment. This study considers the natural ecology of *V. cholerae* and assesses the effects of environmental transmission on existing disease control interventions in Haiti. Through the derivation of three mathematical models, the basic reproduction ratio of human disease transmission (R0) as well as minimum vaccination threshold (p) can be calculated and compared. The preliminary results show that environmental presence and growth of *V. cholerae* increases R0 and p beyond exclusive direct transmission. Ideal vaccination campaigns take into account the environmental factor models to predict accurately transmission and timelines for effective prevention strategies. Next steps include assessment of current vaccination campaigns in Haiti using Berkeley Madonna simulations to evaluate interventional effectiveness based on study models. These results can guide thinking about control strategies, especially when a disease demonstrates such clear human transmission from environmental sources, and can ensure that resources are used for proper disease control.

Mala is a May 2017 MPH candidate with a strong interest in infectious disease epidemiology and disease control. Her undergraduate degree was in microbiology and community health from the University of Maryland in 2014. Her interests include disease modeling, antimicrobial resistance, and the interplay between environment and disease transmission. After graduation, she will be staying at Penn conducting clinical research at the Harron Lung Center. Eventually, she plans to pursue a doctorate in epidemiology and work in disease surveillance and prevention.

Dare Henry-Moss
Mentor: Kathleen Noonan, JD

Creating a breastfeeding friendly workplace: 
Strategic program planning recommendations for Penn Medicine

Abstract:
This Master of Public Health (MPH) Capstone project explores workplace accommodations for breastfeeding at Penn Medicine (PM). PM’s Faculty Wellness Committee identified lactation support as a key priority through a 2016 Your Big Idea Challenge. Mothers are advised to breastfeed for at least one year and to feed infants nothing other than human milk until they are 6 months old. Breastfeeding has significant proximate and distal health effects for infants and mothers, and benefits are increased by longer breastfeeding. Significant barriers to breastfeeding continuation are posed by return to work. Workplace lactation support programs have been demonstrated to increase breastfeeding continuation and work satisfaction and reduce costs related to healthcare and productivity. This project included a needs assessment with 137 employees who had recently breast pumped while working in Penn Medicine facilities. Findings included employee experiences and preferences for lactation space amenities and locations. A report synthesized evidence, best practice guidance, expert opinion, and feedback from the needs assessment in a recommendation for a Breastfeeding Friendly Workplace Program at Penn Medicine. Recommendations focused on supporting faculty, staff, and students with the resources necessary to meet their personal breastfeeding goals, including access to sufficient time, space, and permission through three strategic domains of the work environment: physical, policy, and social. Proposed activities included upgrading existing lactation rooms with pumps, clarifying responsibility for rooms, and creating education for managers and staff. The report will be presented to the Penn Medicine Faculty Wellbeing Committee, UPHS HR, and Facilities.

Dare earned a Bachelor’s degree in Anthropology with a minor in Philosophy from Temple University. She has worked for almost fifteen years in reproductive, women’s, and adolescent health research and program management, including at the Family Planning Council (now Access Matters) and Penn. She pumped over 18 months for two children while working at Penn Medicine and pursuing her Master degree.
2:00 pm

Jeré Hutson
Mentor: Surbhi Grover, MD, MPH

Compliance to CAP (College of American Pathology) standards in breast cancer reporting: An analysis of narrative records in Botswana

Abstract:
By 2020, it is estimated that 70% of the 20-million annual new cancer cases will originate in low-and-middle-income countries. Breast cancer is the most frequently diagnosed cancer among women and in its early stages is potentially curable with proper treatment. A complete and timely pathology report forms the basis for diagnosis and treatment decisions. We surveyed the pathological reporting of breast cancer specimens in a tertiary care pathology department in Botswana to assess the completeness of relevant pathology elements necessary to make clinical decisions about adjuvant postmastectomy radiotherapy (PMRT) and chemotherapy. The College of American Pathology (CAP) synoptic reporting guidelines were used as a reference. To begin, we identified reports of breast cancer specimens from a five-year period (January 2011 to December 2015) in Botswana’s Princess Marina Hospital. Gross and microscopic descriptions were analyzed for lumpectomy and mastectomy specimens and compared with CAP synoptic reporting guidelines for important staging and prognostic features. In total, 219 breast specimen reports were analyzed. Features most commonly reported included histological type, number of lymph nodes (LN) examined, and nodal status. Several histological features were underreported or not reported at all. The least commonly reported features were LN sampling method, response to neoadjuvant therapy, and LN extracapsular extension. Completeness of reports from 2011 to 2015 for adjuvant chemotherapy and adjuvant PMRT increased from 17.3% to 83.9% and 3.9% to 58.8% respectively. Many significant prognostic features were unreported. Previous research has shown that education and synoptic pathological reporting significantly improves the quality of oncology care. Future steps should be taken to incorporate synoptic reporting methods in Botswana.

Jeré is a graduating MPH student on the global health track. For the past year, she has worked with Penn Medicine in their electronic health record integration department and will continue such work post-graduation. In the future, she plans to work in the area of infectious disease control and prevention.

2:30 pm

Elina Tonkova
Mentor: Katherine Yun, MD, MHS

Awareness of HPV as a cause of non-cervical cancers in a nationally representative sample of U.S. adults

Abstract:
The objective of this study was to assess awareness of human papillomavirus (HPV) as a cause of non-cervical cancers (penile, anal, or oral). Data reflecting a nationally representative sample of US adults (N=3,628) from the 2014 cohort of the Health Information National Trends Survey were used to describe the rates of and sociodemographic factors associated with awareness of HPV as a cause of non-cervical cancers. The results showed that, among adults who had heard of HPV (N=2,236), one-third (39%, weighted) were aware that HPV could cause non-cervical cancers, 13% inaccurately reported that HPV could not cause non-cervical cancers, and the remainder were unsure. Sociodemographic characteristics associated with having heard of HPV (e.g., college education) were not further associated with increased awareness of HPV as a cause of non-cervical cancers. Respondents at higher risk for HPV-related non-cervical cancers (men) and respondents recently eligible for the HPV vaccine (individuals 18-34 years) were no more likely to be aware that HPV can cause non-cervical cancers. These patterns of awareness indicate that health care and public health practitioners should not assume that populations aware of HPV as a cause of cervical cancer or those at risk of HPV-associated cancers are aware that HPV causes penile, anal, or oral cancer.

Elina will graduate from Penn’s Master of Public Health program this spring. Her public health interests include prevention, community capacity-building, global public health, high-impact philanthropy, and social innovation. Her research has included awareness of human papillomavirus, prevention of mother-to-child transmission of HIV, and complex chronic conditions in refugee children. She is the Assistant Director of Development Communications at the Penn Libraries and was previously a Science Writer at Dana-Farber Cancer Institute. She graduated from Johns Hopkins University in 2012 with her BA in Biology and a minor in Writing Seminars.
Kayla Sandler
Mentor: Kristen Feemster, MD, MPH, MSHPR, FAAP

Immunizations for college students:
A qualitative study of knowledge, attitudes, and vaccine decision-making

Abstract:
The high population density of college campuses makes them a prime target for outbreaks and a critical setting for the uptake of vaccinations. In recent years, several U.S. colleges have reported outbreaks of infectious diseases including mumps and serogroup b meningococcal disease. To address the changing epidemiology of vaccine-preventable diseases, new immunizations have been recommended for adolescents and young adults. Pre-matriculating students are at a critical point; they have turned 18 and can make vaccine decisions for themselves for the first time. Many are unaware of recommended vaccines or elect not to receive them, and barriers to implementation are well documented. However, there is a gap in literature addressing college students’ knowledge and perceptions of recommended vaccinations and university vaccine policy. This study aimed to measure knowledge, attitudes, and beliefs about vaccines required for school entry and vaccine-related behavior among college students enrolled at 4-year universities. A cross-sectional qualitative study was conducted using semi-structured interviews. The sample was composed of 34 full-time undergraduate students, ≥ 18 years old, enrolled at universities in the greater Philadelphia area. Participants were asked about experiences with student health services, knowledge of immunization requirements and recommendations, overall perceptions of vaccines, and vaccine behavior. Results from this study revealed the salient attitudes and beliefs about vaccines among college students and barriers to uptake of recommended vaccines. Results will also inform the development a survey instrument to measure vaccine-related beliefs and behaviors across a larger population of students to help shape future vaccine policy on college campuses.

Kayla will earn her Master of Public Health degree this spring. She received her Bachelor’s degree in Neuroscience from Franklin & Marshall College in 2013. Her public health passions include epidemiology, health policy, and vaccine research and education. She looks forward to pursuing these public health interests after graduation.

Manikaa Nayee
Mentor: Aletha Akers, MD, MPH, FACOG

Developing a targeted health coach curriculum to reduce unintended pregnancy among adolescents in Philadelphia

Abstract:
Adolescents tend to be disproportionately affected by unintended pregnancy, a concerning public health problem in Philadelphia. A contributing key factor has shown to be high rates of contraception discontinuation, though reasons as to why are still somewhat unknown. Teen pregnancies pose substantial costs to the health and social welfare systems, while also negatively affecting the educational, economic, and health outcomes of teen mothers and their children. This prospective qualitative study, which will be run through the Policy Lab at CHOP, aims to reduce the unintended teen pregnancy rate by focusing on the side effects adolescents experience and can potentially lead to discontinuation of birth control. One-on-one health coaching sessions will be conducted at three health clinics in the Philadelphia area, targeting women, ages 14-21, at high risk of unintended pregnancy, who will also be initiating a new contraceptive method. The health coaching program will provide an educational component using eleven psychoeducational modules and additional curriculum tools: health coaching guide, health coaching training manual, and health coaching training guide. A team consisting of a pediatric physician, psychiatrist, public health, social work graduate students, and other health care professionals created these program materials. These tools have been tailored to assist participants identify motivators to contraception adherence, along with ideas that will be brought up during the semi-structured APRIME (Adapted PRIME) interviews. The health coaching program intends to focus on identifying the teens’ values, goals, and key barriers for contraceptive use with help of the curriculum material.

Manikaa received her bachelor’s degree in Public Health, with a focus in preparedness and emergency management planning from Rutgers University - New Brunswick. She next worked within the clinical trials department at Memorial Sloan Kettering Cancer Hospital for two years. Her interests include maternal and child health, human rights, and water systems. Manikaa will graduate this May and plans to move back to New York City to work in areas related to program planning and community outreach.
Stress and burnout in nurses: Qualitative findings to inform a mindfulness intervention at the University of Pennsylvania Penn Presbyterian Medical Center

Abstract:
Stress and anxiety are critical consequences of the high-intensity work environment that nurses face. Nurses have a higher burnout rate than most other professionals, and one nurse in five surveyed had plans to leave the profession. An intervention that could reduce stress levels in nurses would have important effects on the cost-effectiveness of healthcare, the well-being of nurses, and on patient outcomes. This qualitative study will be used to inform a mindfulness intervention at Penn Presbyterian Medical Center (PPMC) in Philadelphia, PA. Three focus groups were conducted with a total of 32 participants, all nurses at PPMC. Participants were asked about their experiences with stress at work and its perceived effects. The transcripts of the focus groups were coded and scrutinized using NVivo 11 and five themes emerged: value judgment of stress, effects of stress, coping, and job specific stressors. The findings of this study suggest that an intervention targeting stress in this nursing population would have a positive impact on the nurses themselves as well as their abilities to do their jobs and ultimately on patient outcomes. The findings also present sufficient material from which to tailor the intervention itself.

Group Capstone Project
This work represents a collaborative project between Pooja Garg, Kelly Buckshire, Maya Thompson, and Rebecca Ivins. Pooja, Kelly, Maya and Rebecca will address questions as a group at the end of their presentations.

Oral health at Philadelphia FIGHT:
A qualitative study examining oral health in marginalized groups

Abstract:
Access to oral healthcare (OH) has been a persistent challenge in the US, especially for low-income individuals. While recent efforts have been made to examine OH disparities across racial and ethnic groups, the research is limited on OH utilization among sexual and gender minority (SGM) individuals, including those who identify as lesbian, gay, bisexual, transgender, or queer. Students in a DMD-MPH program conducted a qualitative study to explore the lived experience of SGMs seeking care at Philadelphia FIGHT Community Health Center, which provides primary care, HIV treatment, and OH to underserved groups. This research team conducted freelist and in-depth interviews with SGM adults (>18 years) to better understand their needs and identify barriers to OH. Results highlighted by this presenter include: perceived barriers to dental care and how the Health Belief Model can be applied to increase positive oral health outcomes, especially among adults 18-35 years old, who are the least likely to visit the dentist. This study aims to inform interventions to improve OH experiences, access, and outcomes for the LGBTQ community.

Pooja is currently working towards a dual-degree Master of Public Health (MPH) and Doctor of Dental Medicine (DMD) at the University of Pennsylvania and will graduate in 2018. She completed her Bachelor’s degree from Northwestern University in Chicago. Pooja plans to integrate public health practices into her future clinical career.
**5:20 pm**

**Kelly Buckshire**  
Mentor: Rosemary Frasso, PhD, MSc, CPH

**Oral health at Philadelphia FIGHT:**  
A qualitative study examining pain, fear, and anxiety

**Abstract:**  
Access to oral healthcare (OH) has been a persistent challenge in the US, especially for low-income individuals. While recent efforts have been made to examine OH disparities across racial and ethnic groups, the research is limited on OH utilization among sexual and gender minority (SGM) individuals, including those who identify as lesbian, gay, bisexual, transgender, or queer. Students in a DMD-MPH program conducted a qualitative study to explore the lived experience of SGMs seeking care at Philadelphia FIGHT Community Health Center, which provides primary care, HIV treatment, and OH to underserved groups. We conducted freelist and in-depth interviews with SGM adults (≥18 years) to better understand their needs and identify barriers to OH care. Results will inform interventions to improve OH experiences, access, and outcomes for the LGBTQ community. Results highlighted by this presenter include findings from the analysis of freelist data where respondents identified "pain" as the most salient term provided. Fear, pain, and anxiety emerged as a ubiquitous theme of the qualitative interviews. These data shed light on how pain plays a dual role, serving as both a motivator and barrier to OH care. These findings can be used to inform interventions to promote utilization of OH care in this population.

Kelly earned a bachelor's degree from the University of Virginia in Economics, concentrating in Public Policy, and Sociology. She is a dual degree DMD/MPH student, with a planned graduation date of 2018 from Penn Dental Medicine. After graduation, Kelly will serve as a dentist in the United States Air Force.

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**5:35 pm**

**Maya Thompson**  
Mentor: Rosemary Frasso, PhD, MSc, CPH

**Oral health at Philadelphia FIGHT:**  
A qualitative study of the temporal dental care experiences in the LGBT Community

**Abstract:**  
Access to oral healthcare (OH) has been a persistent challenge in the US, especially for low-income individuals. While recent efforts have been made to examine OH disparities across racial and ethnic groups, the research is limited on OH utilization among sexual and gender minority (SGM) individuals, including those who identify as lesbian, gay, bisexual, transgender, or queer. A team of DMD-MPH students conducted a qualitative study to explore the lived experience of SGMs seeking care at Philadelphia FIGHT Community Health Center (PFCHC), which provides primary care, HIV treatment and OH to underserved groups. The team conducted freelist and in-depth interviews with SGM adults (≥18 years) to better understand their needs and identify barriers to OH. Results highlighted by this presenter include the factors that impact care across the life course for members of the LGBT community. Additionally, issues that may affect continuity of care or serve to motivate participants to seek OH care will be discussed. Results will inform interventions to improve OH experiences, access, and outcomes for the LGBTQ community.

Maya earned a bachelor's degree from Villanova University in Chemical Engineering, and worked for several years in the oil industry. She is a dual degree DMD/MPH student, with a planned graduation date of 2018 from Penn Dental Medicine. After graduation, Maya hopes to pursue a career in pediatric dentistry.
5:50 pm

**Rebecca Ivins**  
Mentor: Rosemary Frasso, PhD, MSc, CPH

**Oral health at Philadelphia FIGHT: A qualitative study examining the impact of service integration in the SGM community**

**Abstract:**
Access to oral healthcare (OH) has been a persistent challenge in the US, especially for low-income individuals. While recent efforts have been made to examine OH disparities across racial and ethnic groups, the research is limited on OH utilization among sexual and gender minority (SGM) individuals, including those who identify as lesbian, gay, bisexual, transgender, or queer. A team of DMD-MPH students conducted a qualitative study to explore the lived experience of SGMs seeking care at the Philadelphia FIGHT Community Health Center (PFCHC), which provides primary care, HIV treatment and OH to underserved groups. The team conducted freelist and in-depth interviews with SGM adults (>18 years) to better understand their needs and identify barriers to OH. Results highlighted by this presenter address co-location of services. All respondents spoke of factors facilitating their access to dental care. In the absence of a direct question, over half of the LGBTQ respondents at PFCHC mentioned the benefits of co-locating health services under one roof. Having referrals from primary care physicians who they see in the same building helped patients make and keep appointments. Respondents appreciated receiving multiple health services in a familiar and culturally-competent environment. Results will inform interventions to improve OH experiences, access, and outcomes for the LGBTQ community.

Rebecca will complete her dual degree in Doctor of Dental Medicine (DMD) and Master of Public Health (MPH) in May 2018. She received her BS in biology at Fordham University. Rebecca plans to incorporate public health into her practice in the future through community outreach and advocacy.

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6:20 pm

**Andrea Segal, MS**  
Mentors: Rosemary Frasso, PhD, MSc, CPH and Dominic Sisti, PhD

**County jail or psychiatric hospital?: Ethical conflicts in correctional mental health care**

**Abstract:**
Correctional facilities now operate as mental health care institutions, with roughly 2.5 million individuals incarcerated in the U.S. Approximately 20% of those incarcerated have a serious mental illness, and 30 to 60% have substance abuse problems. Because of their illnesses, far too many people commit a minor offense, end up incarcerated, and languish in correctional settings without appropriate treatment. Jails and prisons are not designed nor equipped to be therapeutic facilities, yet so many individuals sentenced to live there are in need of mental health treatment. The main goal of this study was to investigate how health care workers, security personnel, and administrative personnel on the inside reconcile the seemingly opposite objectives of punishment and rehabilitation. Four focus groups and one group interview were conducted with employees (n=24): nurses, clinicians, correctional officers, administrators, and sergeants at a suburban Philadelphia county jail between August and November 2016. All interviews were audio-recorded and transcribed, with content analysis facilitated by NVivo 11 software. Results show that the jail employees felt there are too many inmates with mental health issues in jail who would benefit from more comprehensive treatment elsewhere, but, given their limited resources, the employees reported they are doing the best they can for inmates with mental illness. Nurses and clinicians reported challenges related to medication delivery and time constraints. Other staff reported a need for more comprehensive mental health training. The findings have implications for broad national mental health policies, as well as for how mental health care should be managed within a correctional setting.

Andrea is a Master of Public Health candidate expecting to graduate in the summer of 2017. She holds a Master of Science in Experimental Psychology from Drexel University, and a BA in Psychology and Government from Cornell University. She currently works as a Senior Research Coordinator for the Scattergood Program for Applied Ethics of Behavioral Health Care in the Department of Medical Ethics and Health Policy at the University of Pennsylvania.
11:15 am

Bernadette D’Alonzo
Mentor: Carolyn Cannuscio, ScD

Training librarians as community health specialists: Multi-phase results from an ongoing partnership with the Free Library of Philadelphia

Abstract:
Libraries across the US host over 1.5 billion visits annually, exceeding physician office visits by over 50%. Libraries often support vulnerable populations seeking health information. In partnership with the Free Library of Philadelphia, the research team sought to identify the most pressing public health issues in Philadelphia neighborhoods and to develop, implement, and evaluate a “Community Health Specialist” training curriculum for library staff. Our interdisciplinary team interviewed library staff and residents in South and West Philadelphia in 2014/15. A case-based training curriculum was designed to help staff “recognize” high-risk patrons, “engage” with them, and “refer” them to community services. Training topics - homelessness, mental health, immigration, and trauma - were based on needs assessment findings. Training effectiveness was evaluated via pre/post-surveys (paired t-tests) regarding participants’ self-efficacy for aiding vulnerable populations. Participants were interviewed post-training; interviews were transcribed and analyzed in NVivo 11.0 using an iterative process. Thirty-five library staff completed the training and evaluation. Seven participants completed follow-up interviews. Findings highlight the challenges of serving vulnerable populations in an urban setting, the perceived value of the training program, and suggestions for curriculum refinement. Participants’ self-efficacy improved significantly across all four topic areas. Participants found the trainings highly useful and were very likely to recommend to colleagues. This multi-phase study documents the successful development and implementation of a novel training program for public librarians as community health specialists, suggesting the potential for public libraries as partners for population health.

Bernadette will complete her Master of Public Health degree this spring. She was one of three initial students to submatriculate into the MPH program prior to graduating with her BA from Penn in 2015. She has worked as a research/graduate assistant in collaboration with a core, interdisciplinary group at the Center for Public Health Initiatives and she plans to pursue a PhD in the near future. Some of her interests include community health, social epidemiology, and mixed methods research design.

11:45 am

Esha Khurana
Mentor: Rebecca Ashare, PhD

The roles of working memory, time perception, and withdrawal-related craving in impulsive decision making

Abstract:
Cigarette smoking is a major cause of morbidity and mortality worldwide, accounting for 6 million deaths every year. In the United States, 7 out of 10 smokers desire to quit smoking, which can reduce risk of heart disease, cancer, and stroke. To better understand why individuals have difficulty quitting, it is essential to characterize the mechanisms underlying decision-making. Indeed, delay discounting - or the preference for smaller, immediate rewards over longer, delayed rewards - has been shown to correlate to smoking-related behavior. This project proposes and tests a new model based on a behavioral economics framework for understanding the neurocognitive and subjective factors that affect decision-making. Specifically, we focus on the association of working memory, time perception and withdrawal-related craving with outcomes of delay discounting – an index of impulsive decision-making. We hypothesize that better working memory and ability to perceive time accurately correlates with preferences for delayed rewards due to a shift towards higher executive order pathways. The goal of this study is to understand how changes in working memory, time perception, and withdrawal-related craving between smoking and abstinent states predict delay discounting and smoking cessation. Fifty male and female smokers completed two neuropsychological testing sessions, once while smoking as usual and once following 24 hours of abstinence (order counterbalanced). Testing included measurement of delay discounting, subjective craving (Questionnaire on Smoking Urges-Brief; QSU-B), time perception, and working memory. Understanding neuropsychological models of decision making and impulsivity around health behaviors such as smoking may allow for innovative approaches in interventions for behavior change.

Esha is a dual-degree Master of Public Health and Doctor of Medicine student at the Perelman School of Medicine who obtained her BS in Neurobiology and Science in Human Culture at Northwestern University. She is interested in pursuing a combined research and clinical career in primary care medicine and psychiatry, using insights from neuroscience and cognitive science to inform public health and policy.
12:15 pm

Lea Hecht
Mentor: Steven Marcus, PhD

Homelessness and mental illness:
Examining the association between housing status and mental health diagnoses among individuals who seek care in the emergency department

Abstract:
Over 600,000 people experience homelessness on any given day in the United States, and those who do have much higher rates of chronic physical and mental health conditions. Mental illness is of particular concern in people who are homeless, as mental health disorders are both a risk factor for and exacerbated by a lack of housing. While prior research has examined the characteristics and prevalence of mental illness among individuals who are homeless, it has yet to be established to what degree homelessness is associated with mental illness independently of other risk factors. Such information will support public health policy aimed at reducing the burden of mental health disorders among people who are homeless. To address this gap, we conducted a secondary analysis of a publicly available database complied by the Centers for Disease Control to determine the association between homeless status and mental health diagnosis independent of demographic characteristics. The National Hospital Ambulatory Medical Care Survey, Emergency Department (NHAMCS-ED) is a nationally representative sample of emergency department visits. We analyzed 24,079 visits to emergency departments that occurred in 2013, the most recent NHAMCS-ED data available. Associations were estimated via univariate and multivariate analyses. Results indicated that, after adjusting for other factors, homelessness was strongly associated with mental health diagnoses. Study findings will help promote public health programs such as Homeless First housing models, which prioritize immediate permanent housing access for people who are homeless over treatment and rehabilitation as a prerequisite for housing.

Lea is pursuing a Master of Public Health and a Doctorate of Medicine. She graduated from Wesleyan University in 2009 with a BA in Film Studies. She will graduate in the spring of 2017 and subsequently begin her residency in Psychiatry at the Hospital of the University of Pennsylvania. Lea hopes to maintain her interests in community mental health and palliative care.

1:30 pm

Casey Maeve Baginski, MSW
Mentors: Robert Sterling, PhD, and Allison E. Curry, PhD, MPH

Assessment of individual-level predictors of one-year retention in medication-assisted treatment

Abstract:
Opioid use is a major public health problem that has drawn increased attention due to a surge in opioid-related overdose deaths nationwide. Medication-assisted treatment with methadone (MMT) remains one of the most effective approaches to addressing opioid use disorders. Despite MMT’s effectiveness, premature termination of MMT remains one of the most vexing problems confronting treatment providers. Although some predictors of one-year retention in treatment have been identified, there remains a need to identify predictors across diverse MMT settings. The objective of the current study was to describe a cohort of individuals seeking care at a university-sponsored, community-based MMT facility in Philadelphia, Pennsylvania and identify whether select demographic, psychiatric, and legal history factors predict retention. A retrospective chart review was used to collect admission and retention data on 93 individuals admitted to the MMT facility between 2/1/2014-2/1/2015. We compared the distribution of factors between individuals who remained in treatment 0-364 days vs. 365+ days using Wilcoxon Rank Sum and Pearson $\chi^2$ tests. Multivariate logistical regression was used to identify independent predictors of one-year retention. In bivariate analyses, those who had longer incarceration histories, were on parole at admission, had a psychiatric disability pension, or were retired/disabled were significantly less likely to remain in treatment for 365 days. However, after accounting for other variables in the model, no variables were found to independently predict retention, although previous MMT approached significance ($p=0.056$). Further evaluation of predictors of retention will help optimize MMT so that the benefits of treatment are more broadly experienced.

Casey received her BA in psychology from Vassar College in 2012 and her Master of Social Work from the University of Pennsylvania School of Social Policy and Practice in 2016. She currently practices Dialectical Behavior Therapy at the Ebright Collaborative in Wilmington, Delaware. After graduation, Casey intends to supplement her clinical practice with public health quality improvement initiatives that focus on evidence-based community-based mental health and substance use treatment.
2:00 pm

Kimberley Sterner-Stein, MSW
Mentor: Christina Roberto, PhD

Increasing the effects of menu labeling: Bringing the numbers to life

Abstract:
To promote healthier eating and decrease obesity, restaurant calorie labeling laws have been developed to aid consumers in nutritional choices. Little effect of numeric calorie labeling has been found with parents of young children. We aimed to contribute a deeper understanding of parents’ use of numeric calorie labeling when ordering for themselves and their children, and insights into what types of supplemental messaging would increase knowledge and use of calorie labeling. We conducted focus groups with 58 parents of children 6-12 years of age who frequent chain restaurants. Parents were asked to order from fast food and sit-down chain restaurant menus and to discuss their food choices, including their use of numeric calorie labeling. Parents then were asked to look at public service messages and discuss their reactions, including what aspects would motivate them to use calorie labeling in making healthier food choices. We analyzed the data to identify common themes and message characteristics that may help improve existing menu labeling policy.

Kimberly entered the MPH program after a 20+ year career as a clinical social worker at The Children’s Hospital of Philadelphia. She is currently a research assistant with the Penn PEACH Lab, and will complete her MPH studies next spring. Kimberly hopes to combine her social work experience and public health education to advance chronic disease and injury prevention at the population level.

2:30 pm

Jeanette Elstein
Mentor: Christina Roberto, PhD

Arguments for and against a sugar-sweetened beverage tax in Philadelphia: A content analysis of public testimonies to City Council

Abstract:
Sugar-sweetened beverages (SSBs) have been increasingly implicated in the obesity epidemic due to their high sugar content and low nutritional value. Taxes are a common policy lever used to influence health behaviors, and evidence from taxes on SSBs in Berkeley and Mexico suggest they do significantly reduce consumption. In 2016, Philadelphia passed a one and half cent per ounce tax on SSBs for distributors. This tax was unique because it was proposed primarily as a funding mechanism for educational initiatives. Despite widespread support for these initiatives from public health advocates, educators, and the public, the tax faced fierce opposition from the beverage industry and small businesses. We conducted a quantitative content analysis of a 44% random sample of public testimony delivered to Philadelphia City Council regarding the 2016 SSB tax proposal, with the goal of identifying the key arguments for and against the tax. We coded the source of each testimony, whether it was primarily in support of or in opposition to the tax, as well as key communication strategies such as citing research and statistics, or mention of equity or disparities. We then coded each individual argument within the testimonies and grouped arguments into related themes based on content area. Results from this content analysis will inform key policymakers and stakeholders of the main arguments and communication strategies on each side of the SSB policy debate. Study results will aid other cities considering similar tax proposals in developing their messages and strategies for driving their SSB tax policy agendas.

Jeanette is passionate about improving access to and appeal of healthy foods through changes to the built environment and policy. She currently works with the Penn Positive Psychology Center’s World Well-Being Project as a project manager, and as an intern with Get Healthy Philly evaluating efforts to improve access to vacant land and soil safety education for urban gardening. Jeanette is graduating with her Master’s in Public Health in May, and she plans to transition into a career in public health nutrition or food policy upon graduation.
3:15 pm

Amani Abdallah
Mentor: Andrea Nicholson, MPH and Dominique Ruggieri, PhD

Barriers and facilitators to receiving follow-up care after an abnormal mammogram: A qualitative study to improve patient navigation experiences for under-insured women

Abstract:
Women of lower socioeconomic status (SES) are less likely to complete follow-up care after an abnormal mammogram. Delays in follow-up are associated with later stage of breast cancer, substandard treatment, and poorer prognosis. Patient navigation aims to eliminate barriers by providing individual-specific assistance. Thus, we aimed to identify factors that contribute to uninsured women not seeking follow-up care and understand how patient navigation can be improved to reduce delays in follow-up care. We conducted semi-structured interviews with a sample of 10 uninsured/underinsured female patients who received an abnormal mammogram from the Penn Medicine Breast Health Initiative patient navigation program. Participants were asked questions related to their understanding of the screening process and need for follow-up mammograms, experiences with patient navigators, and barriers and facilitators to receiving a mammogram. Interviews were transcribed, double-coded using NVivo software, and analyzed through open coding to conduct a thematic analysis. Half of patients interviewed had received timely follow-up care (≤ 30 days from abnormal mammogram) and half received delayed care (>30 days). Pertinent themes presented in the interviews included: fear of cancer diagnosis, support from loved ones, attitudes/experiences to screening, subjective norms influenced by others, and family history. Greater understanding of the barriers and facilitators to follow-up screenings for women of lower SES is necessary to improve targeted programs, patient navigation experiences, and provider-patient communication. Future research should focus on individual-specific barriers and policies that impact seeking follow-up care for this population.

Amani is completing her Master of Public Health at the University of Pennsylvania this spring. She earned her B.S. in Public Health Sciences at San Jose State University and then completed a professional certificate in community health and prevention from the Stanford Prevention Research Center at Stanford University. Amani founded the MPH Community Service Fellows program and hopes to continue being a pioneer in the field of population health.

3:45 pm

Megan Reilly
Mentor: Evan Anderson, JD, PhD

The relationship between team sports participation and current depression in adults

Abstract:
Depression is a common source of considerable harm in the United States. The estimated prevalence of moderate and severe depression exceeds 7% among Americans age 12 and above. Depression complicates the activities of life that are essential to social, economic, and physical health. Although there have been many efforts in recent years to increase access to clinical treatment, the prevalence of depression has not decreased. Research has documented an inverse relationship between physical activity and depression. There is also research that suggests that participation in team sports is especially beneficial to mental health among adolescents. This study explores the relationship between participation in team sports and current depression in a nationally representative sample of adults. Using data from the 2015 Behavioral Risk Factor Surveillance System, we compare the rate of current depression as measured by the PHQ-8 among respondents who participate in team sports as well as individual and class-based physical activity. Logistic regression was used to estimate odds ratios and 95% confidence intervals adjusted for sex, age, education, income, and overall physical activity. Overall, 13% of the sample reported current depression. The percentage reporting current depression among those who participated in team, individual, and class physical activities was 5.5%, 10.0%, and 8.2%, respectively. In adjusted analyses, only the relationship between team sports and current depression remained significant (OR=0.56, p=0.022). Preliminary results suggest that participation in team sports may confer benefits beyond those attributable only to exercise.

Megan will complete her Master of Public Health this spring. She graduated from Haverford College in 2014 with a BA in Psychology. A former college athlete, she has worked as a field hockey coach in many settings, most recently as an assistant at Bryn Mawr College. After graduation, Megan plans to pursue more training in social epidemiology.
4:15 pm

Devon Taylor
Mentor: Evan Anderson, JD, PhD

**Death with Dignity and Cultural Cognition: Reframing the Conversation in Pennsylvania**

**Abstract:** Improving end-of-life care is an important public health priority. Patients often receive care during the final phase of their life that is inconsistent with their preferences. The disconnect is especially acute for patients with terminal diseases, some of whom endure substantial discomfort and considerable loss of autonomy. In recognizing the primacy of patient-centered care, some states have adopted Death with Dignity (DWD) laws that authorize physicians to prescribe death-hastening drugs to terminally ill adults. Pennsylvania legislators have repeatedly proposed a similar law but each time the legislation has stalled. This project uses the campaign to enact DWD legislation in Pennsylvania to explore the utility of Cultural Cognition Theory in understanding health policymaking. We used the Cultural Cognition Theory heuristic to categorize all 50 states on a variety of controversial laws including those involving abortion, gun control, sex education, tuberculosis quarantine, climate change, and short-term civil commitment. This categorization identified state tendencies on hierarchy-egalitarianism and individualism-communitarian axes, which were plotted. Plots also indicated states that adopted DWD laws and state characteristics like political ideology. Cultural Cognition Theory yields insights about state health policymaking that extend beyond conventional explanations like religiosity and political ideology. Results suggest that DWD legislation should be reframed to account for Pennsylvania’s strong hierarchist and individualist impulses. The theory provides a valuable way of understanding why individuals and groups of voters react differently to the same policy arguments. Lessons learned about DWD are likely to apply in other controversial areas like vaccination mandates.

Devon graduated from Lehigh University with a BS in Biology and Spanish minor in 2013. She joined the Penn family at the Center for Health Initiatives and Behavioral Economics (CHIBE) in 2014 and currently holds the role of Way to Health Operations Specialist. Simultaneously, she is completing her Master of Public Health part time and intends to graduate in May of 2017. Devon is passionate about improving care for our aging population, with a focus on palliative and end-of-life care and decision-making and its intersection with research and policy.

5:00 pm

Jessica Richardson
Mentor: Rosemary Frasso, PhD, MSc, CPH

**University of Pennsylvania students’ perceptions of the university-community relationship: A photo elicitation study**

**Abstract:** Universities are large employers of and major economic contributors to their surrounding communities. Unlike private for-profit corporations, universities have an assumed responsibility to conduct their growth and business in a way that empowers and respects those communities. There is a distinct need for researchers to study the perceived influence of university systems on communities from a multitude of perspectives. This study achieves the first step in addressing this gap by engaging with University of Pennsylvania students about their perceptions of the university-community relationship within Philadelphia. Twenty-five undergraduate and graduate students were recruited from October 2016 to December 2016 to participate in photo elicitation interviews. Participants were asked to document with their smart phone or camera moments they thought about the relationship between the university and community. These photographs were used to guide photo elicitation interviews, which were then transcribed, coded, and analyzed using a directed content analysis approach. Emergent themes highlight the concurrent positive and negative impacts of the University of Pennsylvania on its community. Encapsulated by the concept of a double-edged sword, these themes include gentrification, safety, volunteering, research, and access to resources. Results of this study emphasize the intricate and delicate relationship that exists between a university and its surrounding community and suggest the need for thorough reflection and analysis of how effectively to execute a university’s mission while respecting the community that is its home.

Jessica graduated from the University of North Carolina – Chapel Hill in 2013 with a degree in Environmental Health. Following completion of her Master of Public Health this May, she hopes to work in qualitative public health research and apply for a PhD in 2018.
Examining the distribution of women’s health services within the Veteran’s Health Administration

Abstract:
The number of women in the US Armed Forces has increased exponentially over the past several decades. Military servicewomen are a vulnerable population, facing a myriad of challenges related to reproductive health. They experience higher rates of unintended pregnancies, STIs, and pregnancy complications. High-risk environments and rates of sexual assault make military servicewomen more susceptible to mental health disorders that can impact their reproductive health outcomes. In 2010, in an effort to improve comprehensive primary care for women, the VA issued a policy that created three new models of primary care that include “designated women’s health providers” (DWHP). The first model involves having DWHPs in a gender-neutral clinic with referral to gynecological services. The second model involves having DWHPs in a separate but shared space, with gynecological and mental health services co-located. The third model involves having DWHPs in a separate space with a separate entrance, and gynecological, mental health, and social work services co-located. This study involves analysis of VA facility data to look at the geographic distribution of women’s health services across the VHA and how the availability of services varies by facility characteristics.

Shimrit is currently the Associate Director of Operations at the Center for Evaluation of PACT (CEPACT), which focuses on improving patient-centered care and reducing racial disparities in patient-centered care at the VA. She is a dual degree student and is working on a PhD in Social Welfare at the School of Social Policy and Practice.

Penn’s Center for Public Health Initiatives: The Fellows’ Perspectives

Abstract:
Since 2007, the Center for Public Health Initiatives (CPHI) has served as a hub for public health information, education, and activity at the University of Pennsylvania. Due to the center’s significant purpose on campus and in the community, it is essential to evaluate CPHI’s work regularly to ensure optimal quality. This project examines the perceptions of key stakeholders to gauge the center’s perceived value and performance, as well as suggestions for future directions. Semi-structured interviews were conducted with 15 CPHI Fellows. Audio recordings of the interviews were transcribed, and transcripts were coded and analyzed using NVivo 11. Themes include the Master of Public Health program, motivations for becoming fellows, and CPHI-hosted events. CPHI administration will use these findings to guide strategic planning and improve the center’s programming.

Melissa is pursuing a Master of Public Health degree and intends to graduate in August 2017. She graduated from Fordham University, Lincoln Center in 2011 with a bachelor degree in Communication and Media Studies. Melissa is particularly interested in the areas of chronic disease prevention and health disparities. After graduation, Melissa plans to work in public health program planning and evaluation.