

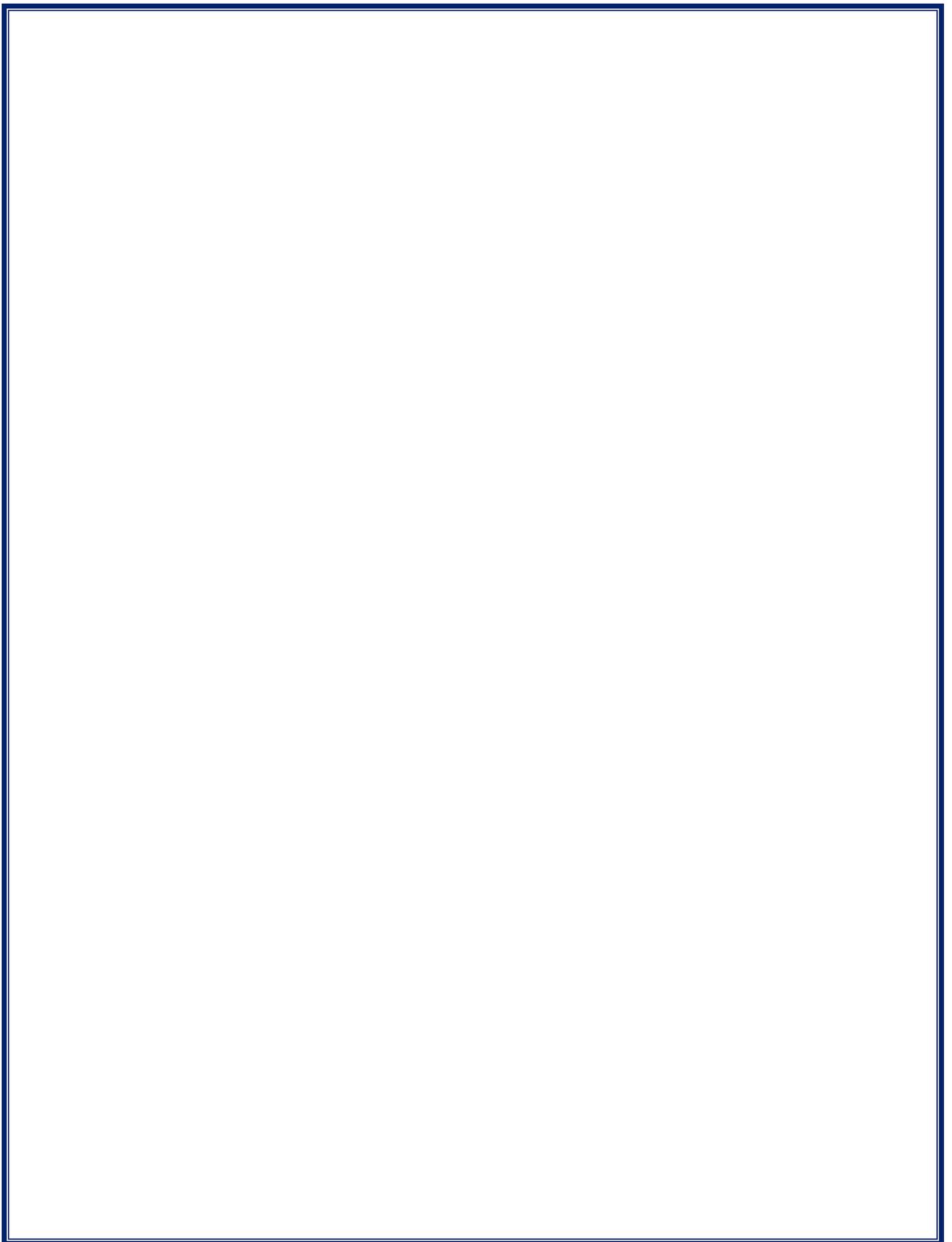
Master of Public Health Program

Perelman School of Medicine
University of Pennsylvania



Capstone Presentation Program

Fall 2018



Wednesday, December 12, 2018

Biomedical Research Building II/III, Room 251

10:15 am

Anthony Spadaro

Mentors: David Rubin, MD, MSCE and Jennifer Whittaker, MUP

**Exploring perceptions of single payer health insurance:
A qualitative study of rural primary care clinicians**

Abstract:

Single-payer health insurance reform is becoming more popular; however little is known about the perceptions of important stakeholders regarding this reform. As societal discussions of single-payer health insurance evolve, new studies are needed to understand perceptions of this topic, particularly among rural populations, where there has historically been a research gap and health outcomes are known to be worse than those of suburban and urban groups. Rural primary care clinicians in Pennsylvania are important stakeholders in health insurance reform as frontline providers taking care of this underserved population. A qualitative study of rural primary care clinicians was performed using semi-structured interviewing in order to understand their perspectives and beliefs regarding single-payer health insurance. Participants were recruited from a convenience sample of clinicians at Rural Health Clinics. Data from 8 interviews conducted over the phone were analyzed with open coding and thematic analysis by a team with background expertise in health policy, rural health, and qualitative research. Results suggest that rural opinions are diverse with many participants identifying benefits and drawbacks to single payer health insurance. Participants drew on their experiences of need in their community, opinions about past and current health care reform efforts, and normative beliefs about health care. Results indicate that our participants held nuanced views of single-payer health insurance, suggesting that support is malleable. This provides valuable information for policymakers to generate hypotheses regarding key stakeholders' perceptions in health insurance reform.

Anthony Spadaro is a dual-degree Master of Public Health and Medical Doctorate candidate expected to graduate in May 2019. He earned a Bachelor of Science degree in Biology from Carnegie Mellon University in 2014. Following completion of his degrees, he will pursue a residency in Emergency Medicine and hopes to continue researching and advocating for health policy.

10:35 am

Danielle Petsis

Mentor: Sarah Wood, MD, MSHP

Factors influencing HIV testing among adolescents and young adults with STIs

Abstract:

The United States has seen dramatic increases in rates of sexually transmitted infections (STIs) over the past decade. While adolescents account for only a quarter of sexually active people, they account for over half of the cases of STIs. This puts adolescents at high risk for HIV infection. Those positive for STIs are 2-5 times more likely to become infected with HIV. Because of this, the Centers for Disease Control and Prevention recommend that those with STIs be tested for HIV. The primary objective of this research was to examine prevalence of HIV testing among adolescents with STIs in two Children's Hospital of Philadelphia clinics. Furthermore, we sought to identify patient and provider factors that predict receipt of testing. This project was a secondary data analysis of a Quality Improvement dataset of positive STI episodes from July 2014 to December 2017. To test predictors of receipt of HIV testing, this project utilized STATA to perform mixed effect logistic regression models. Results of this study show that there is underutilization of HIV testing among adolescents with STIs. Approximately 54% of STI episodes were tested for HIV. Factors associated with receipt of HIV testing include having insurance, being male, having multiple STIs at diagnosis, provider other than a nurse practitioner, and being a primary care patient. Factors associated with the non-receipt of testing include having prior history of STIs and having a confidential visit at diagnosis.

Danielle Petsis received her BA in Health & Societies from the University of Pennsylvania and sub-matriculated into the MPH program during her senior year. She currently works as a Clinical Research Coordinator at Children's Hospital of Philadelphia on STI and HIV prevention studies. As a native Philadelphian, Danielle is dedicated to bettering health outcomes in the city. She will continue her work at CHOP upon the completion of her MPH degree in December 2018.

10:55 am

Katherine Dalldorf

Mentor: Victoria Vetter, MD, MPH, FAAP, FACC

When laws save lives: Impact of statewide legislation requiring CPR education in high schools

Abstract:

Out-of-hospital cardiac arrest (OHCA), experienced by more than 350,000 people each year in the United States, always leads to death without intervention by cardiopulmonary resuscitation (CPR) and Automated External Defibrillator (AED) use. It is important to have people trained in CPR and AED use in locations where witnessed OHCA's often occur in order to quickly intervene. While mandates for CPR/AED education have been present since as early as 1984, there has been a recent upsurge in the number of states requiring this training; up to 38 states and D.C. require such trainings as of November 2018. While there are data showing that survival rates are higher when CPR is performed and an AED is used, it is unclear if laws mandating CPR/AED training in schools impact survival rates. Even in states that have laws, there are disparities in implementation. There is currently no study measuring outcomes related to these laws. To this end, we conducted an analysis of an EMS-based database with 109,668 cardiac arrests occurring between 2013 and 2017. We compared the effect of statewide legislation requiring CPR and AED education in high schools on OHCA victims' outcomes, by exploring bystander CPR rates, AED use rates, survival, and favorable neurological outcomes. CPR/AED education state laws were associated with increased rates of bystander CPR, survival, and neurologically favorable survival. These results highlight a need for implementation of CPR/AED education laws in all states.

Katherine Dalldorf is a dual-degree Master of Public Health and Doctor of Medicine candidate expected to graduate in May 2019. She earned a Bachelor of Arts degree in Neuroscience from Vanderbilt University in 2014. Following completion of her degrees, she will start a pediatrics residency.

11:15 pm

Saumya Ayyagari

Mentors: Katy Mahraj, MSI and Dominique Ruggieri, PhD

Quality improvement for the Heart Safe Motherhood Program: Increasing engagement among women with perinatal hypertensive disorders

Abstract:

Perinatal hypertensive disorders are a significant contributor to maternal morbidity and mortality and obstetric readmissions. The American College of Obstetricians and Gynecologists (ACOG) recommends monitoring blood pressure for women with perinatal hypertensive disorders at 72 hours and seven to ten days postpartum. In the Heart Safe Motherhood Program (HSM) at the Hospital of the University of Pennsylvania, postpartum women with a perinatal hypertensive disorder monitor their blood pressure at home and text in the results for the first ten days after discharge. However, 16% of HSM participants do not meet ACOG guidelines. This quality improvement project was focused on increasing patient engagement in the HSM. Brief phone interviews and/or text messages via the HSM program were used to gather feedback from program participants representing varying degrees of program engagement: 24 nonusers, 10 minimal users, 13 moderate users, and 15 super users. Affinity mapping facilitated analysis of feedback, revealing themes related to program participation barriers and facilitators, including factors related to prioritization of HSM participation, postpartum transition, HSM configuration, and HSM design. Degree of engagement tended to coincide with ease of postpartum transition, with nonusers tending to have difficult transitions and super users tending to have easy transitions. HSM participation tended to be of low priority and HSM configuration tended to be inconvenient for all user groups. HSM design tended to be convenient for non-users and super users, but somewhat convenient for minimal and moderate users. Findings will be used to generate recommendations for improving HSM patient engagement.

Saumya Ayyagari is a nurse with Penn Family Planning. The majority of her nursing experience has been in postpartum care. She will graduate with both an MPH and a Master of Science in Nursing in Health Leadership in December 2018.

11:35 pm

Jesse Passman

Mentors: Daniel Holena MD, MSCE and Jessica Beard MD, MPH

Understanding Tanzania's task-shifting system: A survey of surgical training and experience of non-physician clinicians compared to medical officers

Abstract:

A workforce crisis exists in global surgery. One solution is task-shifting, the delegation of surgical tasks to non-physician clinicians or associate clinicians (ACs). While ACs have similar post-operative outcomes compared to physicians, little is known about their surgical training. This study aims to characterize the surgical training and experience of ACs compared to medical officers (MOs) in Tanzania. All surgical care providers in Pwani Region, Tanzania were surveyed. Participants reported demographic data, years of training, and procedures assisted and performed during training. They answered open-ended questions about training and post-training surgical experiences. The median number of training cases for commonly performed procedures were compared by cadre using Wilcoxon rank-sum and Student's t-tests. The researchers performed modified content analysis of participants' answers to open-ended questions on training needs and experiences. In all, 21 ACs and 12 MOs were included. ACs reported higher exposure to similar procedures prior to their first independent operation than MOs (40 vs. 17 cases, $p=0.031$). There was no difference in total training operative volume across common procedures between ACs and MOs (150 vs. 171 cases, $p=0.995$). Both groups reflected similarly upon their training. Each cadre relied on the other for support and teaching but noted insufficient specialist supervision during training and independent practice. Overall, associate clinicians report similar training and operative experience when compared to their physician colleagues in Tanzania. While surgical task-shifting represents an important tool to address human resource deficiencies in LMICs, adequate supervision is necessary to assure quality of care.

Jesse Passman received his BS from Rice University and is a fifth-year MD/MPH student currently applying to general surgery residency. His research interests include global surgery access and education, and the public health implications and clinical outcomes of trauma. He has spent time performing global surgery research projects abroad in Madagascar and Ghana and has presented research at the Academic Congress of Surgeons, the American Medical Association, the Global Surgery Conference in Stockholm, and the West African College of Surgeons.

12:35 pm

Olivia Bernal

Mentor: Hillary Bogner, MD

Patient satisfaction and perceived quality of care among younger Medicare beneficiaries according to activity limitation stages

Abstract:

Patient satisfaction is commonly used as an indicator for measuring quality of care. Previous work examining the relationship between dissatisfaction and functional impairment found that patient dissatisfaction increased as disability increased in older Medicare beneficiaries (over the age of 65 years). While adults over the age of 65 make up the majority of Medicare beneficiaries, younger beneficiaries (under the age of 65 years) represent an important and understudied group. Relatively little research has been conducted on satisfaction measures in younger Medicare beneficiaries to understand their experience with medical care. To this end, we conducted a cross-sectional study examining community-dwelling Medicare beneficiaries less than 65 years of age who participated in the Medicare Current Beneficiary Survey (MCBS). Persons were classified into an activity limitation stage based on self-reported difficulty performing activities of daily living (ADL) and instrumental activities of daily living (IADL). Their responses to MCBS questions in five patient satisfaction domains were analyzed for association. We found that beneficiaries with higher activity limitation stages, representing greater disability, reported less satisfaction with access to medical care. Dissatisfaction with access to care was especially pronounced in persons with mental/psychiatric disorders. These findings are important, as the proportion of younger Medicare beneficiaries has grown over the last several decades with persons with mental/psychiatric disorders comprising a sizable subset of these younger beneficiaries. These findings highlight a need to find new approaches to overcome access barriers to improve the health and satisfaction in this vulnerable group of Medicare beneficiaries.

Olivia Bernal is a dual degree MD-MPH student in the Master of Public Health program at the Perelman School of Medicine at the University of Pennsylvania. She is applying to residency in Internal Medicine and will graduate in 2019. She plans to pursue a career in Geriatrics.

12:55 pm

Memphis Madden, MSSP

Mentor: Sarah Jacoby, PhD, MPH, RN

**Little HOPE, big dreams:
A literature review of the Housing Opportunities for People Everywhere policy**

Abstract:

From 1993 to 2014, the Housing Opportunities for People Everywhere (HOPE VI) program has been used in cities across the United States to demolish the most severely distressed public housing developments. The policy combines relocation and redevelopment as a means to accelerate the mobility of public housing residents away from concentrated poverty, and transform run-down developments into sustainable and economically secured mixed-income communities. While the physical transformations of demolition are undeniably positive, questions remain about whether the involuntary relocation is sound public policy. HOPE was not designed to directly improve health outcomes, but there are significant implications on many social determinants. To better understand the relationship between relocation and health outcomes, this literature review evaluated environmental contexts of health in new neighborhoods. We conclude that HOPE, while well-intentioned, has not achieved its proposed objectives. Results of previous research are inconsistent, suggesting that HOPE's methodology of relocation is not a one-size-fits-all policy solution to improve resident lives. Improvements and declines in health outcomes are highly dependent on individual residents, the state of the family, age, residential location, level of poverty, access to support services, and more. Given the potential of urban housing policies to negatively impact the social determinants of health, this review concludes that health equity should be a critical component of future housing policy conversations.

Memphis Madden received her BS in Neuroscience in 2015 from Rhodes College and is a recent graduate of the Master of Science in Social Policy (MSSP) program at the University of Pennsylvania. Her primary interests in the field of public health focus on understanding how tools of public policy and law sustain racial health disparities. In her future career, Memphis hopes to address system-wide health inequities, particularly for the Black community.

1:15 pm

Michelle Chung, MSW

Mentor: Heather Klusaritz, PhD, MSW

**Comparing medication assisted treatment (MAT) curricula for opioid-use disorder:
Development and implementation among rural medical training institutions**

Abstract:

Rural areas have disproportionately high rates of opioid addiction and overdose, but many of these areas do not have sufficient addiction services to support demand. Medication assisted treatment (MAT), one of the most effective treatments for opioid use disorder (OUD), is especially rare in rural localities largely due to a lack of trained and federally waived prescribers. To increase MAT treatment capacity, the Health Resources and Services Administration (HRSA) funded select medical training institutions in 2017 to create MAT training programs for their students specializing in primary care. The Perelman Medical School at the University of Pennsylvania was among the HRSA supplemental MAT grant awardees and partnered with HRSA to interview 24 other awardees about the progress and extent of their MAT training program. There is limited information about the practices and conditions that support or limit a viable MAT training program. This project focused on the experiences of medical training institutions in rural communities specifically because they remain under-resourced and medically underserved even as their need for health and addiction services continues to rise. Using a qualitative secondary data analysis of interviews with nine HRSA supplemental grant recipients representing rural medical training institutions, we describe the characteristics of rural MAT training programs and the factors that facilitate or impede successful implementation, uptake, and sustainability. This project describes the ways that rural medical education institutions are positioned to address the opioid crisis and offers recommendations on how to better assist them.

Michelle Chung is a dual MSW/MPH student. Her research interests include organization and delivery of mental and behavioral health services and barriers to healthcare for low-income, immigrant, and refugee communities. After receiving her degrees, Michelle plans to work as a therapist in community mental health or addictions treatment settings.

1:35 pm

Tomas Andersen

Mentors: Frances Shofer, PhD and César Briceño, MD

Seeing a brighter future: Creation and validation of a survey to assess vision-related quality of life for homeless populations

Abstract:

Homelessness is a widespread public health problem associated with adverse health outcomes for homeless individuals. While homeless populations have numerous well documented health care needs, one compelling unmet need is vision care. Indeed, multiple prior studies have demonstrated that homeless individuals have higher rates of ocular pathology as compared to the general population. While the literature supports the correlation between homelessness and ocular morbidity, a validated survey instrument to assess visual functioning quality of life in homeless populations does not yet exist. Whereas existing gold-standard surveys such as the National Eye Institute Visual Functioning Quality of Life Survey (NEI VFQ) demonstrate validity with respect to clinical markers of ocular pathology, their limitation in the context of homeless populations stems from inclusion of questions about household activities and driving, which may not be broadly applicable to people experiencing homelessness. The purpose of this project is to prospectively validate a novel screening tool for assessing visual functioning quality of life in people experiencing homelessness. The novel survey is based off of the NEI VFQ, as well as another validated survey called the Timor-Leste Vision-Specific Quality-of-Life Instrument (TL-VSQOL), which is validated for use in low resource countries. The new survey combines problematic questions with potentially superior alternative questions. The survey was administered in the Penn emergency departments, and a weighted kappa was calculated to assess the inter-question reliability between the original questions and the proposed alternatives.

Tomas Andersen graduated from Dartmouth College and is currently a combined-degree MD/MPH student at the Perelman School of Medicine at the University of Pennsylvania. He is interested in eye health outcomes in underserved populations.

2:15 pm

Rachel Feuerstein-Simon

Mentor: Carolyn Cannuscio, ScD

Variations in naloxone distribution strategies: A national survey of county health departments

Abstract:

Drug overdose is the leading cause of accidental death in the United States and a majority of these deaths are due to opioids. The prescription medication naloxone is an opioid antagonist that is used to reverse opioid overdoses. A recent analysis in the American Journal of Public Health estimated that, over the next 10 years, naloxone-related interventions will save more lives than any other policy or public health intervention. Public health officials at all levels of government have prioritized naloxone distribution and training as a response to the opioid overdose crisis. Although naloxone is a cornerstone to the public health response, little is known about best practices for financing, distributing, and tracking naloxone within counties. We conducted a national survey of 180 county health departments to identify variation in naloxone implementation strategies. We surveyed the 30 counties with the highest overdose mortality rates within the National Center for Health Statistics' (NCHS) six-level urban-rural classification scheme for U.S. counties and county-equivalent entities. The overall response rate was 30%. Study results will help inform best practices and information sharing among national health departments for naloxone implementation.

Rachel Feuerstein-Simon is a Master of Public Health candidate expected to graduate in December 2018. She also graduated from of Penn's Master of Public Administration in May 2017. Before pursuing her MPA/MPH, Rachel spent five years working for an international humanitarian aid organization in India and New York. Following graduation, Rachel will continue to work in public health research at Penn.

Thursday, December 13, 2018
Biomedical Research Building II/III, Room 252

11:15 am

Roopali Kulkarni

Mentors: Evlambia Hajishengallis, DMD, DDS, MSc, PhD and Jill Johnson, PhD, MPH

**The relationship between chronic disease status of pediatric dental patients
and oral health literacy of their caregivers**

Abstract:

Chronic diseases and the medications prescribed to manage them have a direct impact on oral health. Given this and the emerging importance of the oral-systemic health connection, patient education in oral health is essential in maintaining overall health. A person's ability to obtain, process, and understand oral health information is known as oral health literacy. In particular, the oral health literacy levels of caregivers may impact pediatric patients. As caregivers interact with different healthcare providers, including pediatricians, pediatric dentists, and specialists, the amount they understand about oral and systemic health can directly influence their child's oral health status. To date, no prior study has addressed the relationship between chronic disease status in children and the oral health literacy of caregivers. Therefore, the aim of the study is to assess a child's chronic disease status and its impact on a primary caregiver's oral health literacy, using the oral health status of the child as a mediator. This study will recruit up to sixty consenting primary caregivers of child patients at Penn, who will complete a self-report survey. Health and oral health literacy will be measured via three validated instruments (REALM-30, REALD-30, OH-LIP), and the child's oral health status will be categorized based on the dmft Index. The study hopes to assess how the chronic disease status of a child may influence the understanding that a caregiver has of their child's oral and systemic health. This may lead to further implications of how a caregiver's understanding of systemic health can impact their child's oral health

Roopali Kulkarni is currently a fourth-year dual-degree student at the University of Pennsylvania, pursuing her DMD and MPH degrees. She currently serves as the national President of the American Student Dental Association. After graduation, she hopes to attend a residency program in Oral Medicine.

11:35 am

Kristel Emmer, PhD

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

**Provider perspectives on recent changes to
Pennsylvania's school vaccination requirements**

Abstract:

Vaccines are one of the most effective tools for the prevention of infectious diseases. In the United States, mandatory vaccination of children is regulated at the state level and is usually implemented as a requirement for school entry. Children who are provisionally enrolled in school without full immunization compliance are, at best, under-vaccinated and, at worst, unvaccinated. Under- and unvaccinated students often result in immunization levels below the threshold needed to confer protective herd immunity on their schools and communities. To address this, the state of Pennsylvania implemented several changes to immunization requirements for school entry for the 2017-2018 school year. One of the most significant changes was decreasing the provisional period for students to become up-to-date with vaccinations from 8 months to within the first 5 days of school. The primary objectives of this study were to evaluate implementation of the new Pennsylvania school-entry vaccination mandates from the perspective of health care providers at primary care locations and to evaluate the impact on immunization and provisional enrollment rates for school-age children in the greater Philadelphia area.

Dr. Kristel Emmer received her Bachelor's degree in Biochemistry and Molecular Biology from Stockton University and completed her PhD in Cell and Molecular Biology in 2018 at the University of Pennsylvania. For her doctoral thesis, Kristel worked on the induction of antibodies to HIV-1 envelope using simian adenovirus vaccines. Following graduation, she is looking for a job that combines her passion for global health and vaccines.

11:55 am

Su Fen Lubitz

Mentor: Heather Klusaritz, PhD, MSW

**Stakeholder perspectives on a new safety net clinic in Northeast Philadelphia:
A community needs assessment**

Abstract:

We conducted a community needs assessment in Rhawnhurst, a Northeast Philadelphia neighborhood, to inform the services of a free safety net clinic that the Roosevelt Boulevard Seventh Day Adventist Church is opening in January 2019. This new health center will help alleviate the strain on Health Center 10, the only Federally Qualified Health Center in Northeast Philadelphia. We conducted ten key interviews with community stakeholders between April and October 2018; study subjects included individuals who self-reported either that they resided or worked in the Rhawnhurst community. Upon completion, the interviews were transcribed and coded for themes; a random 50% sample was selected and coded by two coders in order to establish a strong interrater reliability. Three primary themes were extracted from the interviews: (1) access to health care; (2) barriers to receiving care; and (3) challenges to staying healthy. While there are other health resources in Rhawnhurst, including two large hospitals around its borders and many urgent care centers, participants reported that some community members are not aware of them or cannot access them due to certain barriers like finances, transportation, and language. These barriers are especially magnified for immigrants and older adults, who both make up large subpopulations of the Rhawnhurst's demographics. Participants emphasized the growing need of behavioral health services and discussed how the Northeast is often overlooked when funds are being allocated for health initiatives. We will report findings to the clinic's board of directors for consideration as they finalize the services that will be offered to the Rhawnhurst community.

Su Fen Lubitz graduated from The College of New Jersey in 2015 with a degree in psychology and worked in behavioral health policy before moving to Philadelphia. Upon graduating from the MPH program in the spring, she plans to continue working as a project manager at the Center for Interdisciplinary Research on Nicotine Addiction.

12:15 pm

Rania Mansour

Mentor: Paul Lu, MD

**Perspectives of low- and middle-income country hosts on working with medical
personnel from high-income countries: A systematic review**

Abstract:

The majority of medical programs in high-income countries (HICs) offer global health experiences (GHEs) in low- and middle-income countries (LMICs). Most studies examining the outcomes of GHEs have focused on the educational benefits among visiting trainees, such as improved medical knowledge and procedural skills. Challenges faced by trainees have also been documented, often describing ethical, clinical, and cultural obstacles. Few studies have sought to summarize perceptions of LMIC host personnel who work with visiting HIC medical personnel. Such insights are crucial in achieving the ultimate goal of GHEs: to strengthen partnerships and ensure reciprocal benefit. Thus, we conducted a systematic review of the scientific literature assessing the perspectives of individuals from LMICs who host and work with visiting medical personnel from HICs. We utilized the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines to prepare the review. Eight databases were searched to identify peer-reviewed studies using keywords developed based on a modified PICO framework. Eligible studies included original research that involved participants primarily residing in LMICs and were related to visiting medical personnel from HICs; thirteen studies were included in the review. The Downs & Black and COREQ checklists were used to assess the quality of the studies. Seven analytical themes emerged and were further classified into one of three categories: (1) Frameworks of GHEs, (2) Interpersonal Factors of GHEs, and (3) External Factors of GHEs. Results will inform the development and improvement of pre-departure training for medical trainees who partake in global health experiences in LMICs.

Rania Mansour graduated from the University of Toronto Honors Bachelor program in 2017 and will graduate from the University of Pennsylvania MPH-Global Health program in 2019. She is currently a research assistant at the Center for Injury Research and Prevention at CHOP and is also working with the Penn Center for Global Health. After graduation, Rania plans to pursue a career in global health epidemiology research and training.

12:35 pm

Jade McKnight

Mentor: Peter F. Cronholm, MD, MSCE, FAAF

Hepatitis C patients' perceptions of social support during three stages along the care continuum

Abstract:

Nearly 5 million adults in the United States have Hepatitis C virus (HCV) infection. Philadelphia has seen an increase in new cases, widely attributed to the opioid epidemic. In the Kensington section of Philadelphia, Prevention Point Philadelphia (PPP) partners their already robust HCV testing and linkage program in partnership with the Philadelphia Department of Public Health order to usher those affected with chronic HCV to cure. Previous research has shown that social support positively effects HCV treatment engagement and adherence. However, there is no data that examines the patient's perceptions of support as they progress through the HCV care continuum. This project was designed to provide insight into how HCV patients with a history of injection drug use utilize social support to achieve the desired health outcome of curing their infection. The goal of this project was to examine social support for patients at 3 distinct moments in the HCV care continuum: (1) having linked to a medical provider, (2) initiated treatment, and (3) cured the infection. Participants in each phase were recruited by Program Coordinator and Case Manager. Participants self-reported demographics including housing status, injection drug use history, and HCV diagnosis information. Each participant completed a Medical Outcomes survey on social support and a brief semi-structured interview. The reflections of the patients in this study will assist providers in creating a supportive space for patients as they move through the treatment process toward curing their HCV infection.

Jade McKnight is a part-time MPH student at University of Pennsylvania and received her bachelor's degree in Anthropology from Amherst College. Currently, she works at Prevention Point Philadelphia and Northeast Treatment Centers as a Hepatitis C Navigator with C Change: Philadelphia's Plan to End Hepatitis C Among Injection Drug Users. After graduation, she hopes to return to her home state of California and work within local and state level health departments to create systems and programs to increase primary healthcare services and health literacy for all Californians.

1:35 pm

Nancy Ejike

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

Provider perspectives on a video intervention designed to prevent the transmission of influenza-like-illness in CHOP pediatric waiting rooms

Abstract:

Influenza-like-illness (ILI) is a serious respiratory disease with a high attack rate in children. Pediatric ambulatory settings, such as waiting rooms, are significant facilitators for the transmission of ILIs. Although video-based interventions can easily and inexpensively dispense consistent infection, prevention, and control (IPC) information at a high-volume, video-based interventions are poorly developed in pediatric ambulatory settings. Thus, the purpose of this study was to use qualitative methods to elicit feedback from healthcare personnel on a video-based intervention designed for pediatric waiting rooms that promotes respiratory etiquette and discusses the transmission of ILIs. We conducted 3 focus groups using a semi-structured interview guide with a diverse population of patient service representatives, medical assistants, nurses, and physicians at CHOP. Healthcare personnel were asked to assess the acceptability and feasibility of the video-based intervention. All focus groups were audio recorded, transcribed verbatim, and de-identified. Transcripts were uploaded to NVIVO 11, a program used to facilitate qualitative analysis. A rigorous analysis of the data revealed strengths of the intervention as well as areas to improve. The feedback will inform revisions to video-intervention intervention prior to piloting the intervention in waiting rooms throughout the CHOP network.

Nancy Ejike is a Georgia native with a bachelor of science degree in Anthropology and Human Biology from Emory University. She will be graduating from the University of Pennsylvania MPH program this year. Post-graduation, Nancy looks forward to a fulfilling career that includes contributing to the quality of pediatric primary care in the south.

1:55 pm

Nora Hennesy

Mentor: Gary Smith MA, MA, D.Phil., PGCE

**Transmission modeling of the 2013-2016 West African Ebola epidemic:
Estimating the impact of early interventions utilized in the
2018 Democratic Republic of Congo outbreak**

Abstract:

The Democratic Republic of the Congo (DRC) has experienced two outbreaks of Ebola Virus Disease (EVD) this year, of which the current one has been called the worst outbreak ever to have occurred in the DRC. The control strategies implemented in the DRC are different from those used in previous outbreaks in that they include ring vaccination using an effective vaccine cleared by the WHO for emergency use, as well as very detailed attention to the adoption of safe and dignified burial practices. Despite the extensive use of these interventions, at the time of this writing, the current DRC outbreak is still not contained. While these interventions were informed by lessons learned during the largest ever EVD outbreak in West Africa from 2013-2016, it is worth investigating the effect these new control measures are truly having in the DRC. The purpose of this study is to use an elaboration of a model of EVD transmission based upon one by Althaus et al (2015) to ask what additional benefits may or may not accrue in the current DRC outbreak from the implementation of ring vaccination and more efficient burial practices and how best they could be utilized. Modified to account for post-mortem EVD transmission, the SEIR (susceptible-exposed-infected-recovered) compartmental model was validated using data from the 2013-2016 EVD outbreak in West Africa and used to simulate the effects of these interventions. Results will reveal the most effective practices and inform future outbreak response.

Nora Hennesy will be completing her Masters of Public Health degree in Spring 2019. She currently works in Quality Control for Phase I/II CAR T-cell cellular clinical trials at the University of Pennsylvania and will intern with the Philadelphia Department of Health in Spring 2019. She is currently applying to PhD programs in Global Public Health and Infectious Diseases and plans to pursue a career in the public sector working in infectious disease control in sub-Saharan Africa.

2:15 pm

Kelly Courts

Mentor: Heather Klusaritz, PhD, MSW

**Food insecurity status transitions in pediatric primary care:
Implications for screening**

Abstract:

The American Academy of Pediatrics recommends screening for food insecurity (FI) at all well-child visits due to well-documented negative effects of experiencing FI in childhood. However, healthcare providers are challenged with incorporating this directive into well visits, which are expected to cover numerous topics and assessments in a very short time span. Little is known regarding the optimal frequency for FI screening in pediatric populations. Thus, we conducted a retrospective cohort study to identify the optimal time interval for screening by exploring the pattern of transitions in FI status using EHR-derived data. We identified 3,466 distinct patients who had two or more documented FI screens conducted between April 2012 and July 2018 and were age 0-3 years at first screen. Analyses were stratified by age to account for age-based well visit frequency. Overall, transitions of FI status (i.e., from food insecure to secure, or vice versa) were infrequent, particularly transitions from food secure to insecure. Time since last screen was predictive of transition to FI. Patients whose last screen was more than a year ago were more likely to experience a transition in FI compared to those last screened 0-6 months prior. Results suggest that screening more than annually may not contribute substantially to the identification of transitions to FI in kids under 3 years. For practices struggling to conduct FI screening at all visits, a protocol of annual screening may prove feasible and effective.

Kelly Courts is the Director of Hunger-free Initiatives at St. Christopher's Hospital for Children, a leader in the field of addressing social determinants of health in the clinical setting. She is also an appointed member of the Mayor's Food Policy Advisory Council. Kelly will graduate with her Masters of Public Health in the spring of 2019.



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