

Master of Public Health Program

Perelman School of Medicine
University of Pennsylvania



Capstone Presentation Program

Summer 2021

Tuesday, August 3, 2021

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10:05 am

Jennifer Myers

Mentors: Nina Joyce PhD; Evan Anderson JD, PhD; and Allison Curry, PhD, MPH

**Elimination of drivers' license suspensions for failure to pay:
A policy review**

Abstract:

More than seven million people have experienced having had their drivers' license suspended for offenses not related to driving, such as being unable to pay a ticket or failure to appear in court. These suspensions are often automatic and indefinite. Given that three-quarters of workers drive to work alone, losing one's license can result in loss of employment and limited career opportunities, especially for racial and ethnic minorities who live in areas that are increasingly distant from well-paying jobs. The harmfulness and injustice of these suspensions has been evident for decades. Only recently, however, have legal reforms advanced through state legislatures. Some of these efforts have succeeded and others have stalled. This study explores the features of legislative campaigns that succeeded and failed to understand how to accelerate the integration of evidence into lawmaking, especially, but not exclusively, targeting longstanding injustices in the criminal justice system. This exploration is guided by Kingdon's three stream theory of policymaking.

Jennifer Myers, RDMS, RVT, RT(R) graduated from Community College of Philadelphia Diagnostic Medical Imaging Program in 2017; received a Bachelor's in Science from Thomas Jefferson University's Medical Imaging and Radiologic Science Program in 2019; and will graduate from The University of Pennsylvania MPH program in 2021. She is currently working as a diagnostic medical sonographer at Mercy Fitzgerald Hospital as well as Hospital of the University of Pennsylvania- 54 Cedar. She plans to pursue a career in public health policy and advocacy.

10:25 am

Zoe Early

Mentor: Marilyn Howarth MD, FACOEM

**Enhancing utilization of employee assistance programs:
A toolkit for employers**

Abstract:

The U.S. labor force consists of 160 million individuals, of which 20% experience mental health concerns, 25% report personal financial distress, and 16% are also full-time care givers. Research has shown that personal stressors negatively impact job performance and employee satisfaction. As a result, companies have begun to promote employee wellness initiatives to enhance occupational health and well-being. Employee Assistance Programs (EAPs) are workplace-based services designed to offer employees and their families the assistance necessary to mitigate the impact of stressful life experiences. Services offered by EAPs include: work-life balance initiatives, financial planning, legal assistance, critical incident support, and behavioral health counseling. Companies that offer employee wellness programs report decreased healthcare spending costs, lower rates of absenteeism, increased employee productivity, and higher rates of life satisfaction. However, the current utilization of EAP services is approximately 5.5%. This disparity between the number of employees who use EAP services and number of employees who could benefit from EAP services offers an untapped opportunity for occupational health and wellness interventions. This project aimed to develop a toolkit, which will be implemented by employers, to enhance the utilization of services offered by EAPs. In order to understand best practices for EAP communication and marketing, a quasi-thematic review was conducted drawing on academic and gray literature. This review revealed the need for increased local engagement, personalized communication, and quality reassurance. Results will inform toolkit development by providing strategic approaches to enhance utilization of EAP services and thus increasing employee well-being and occupational satisfaction.

Zoe Early graduated from the University of Pennsylvania in 2020 with a BA in Health and Societies. After graduating with her Master of Public Health, Zoe will work as a healthcare consultant at Ernst and Young.

10:45 am

Julianna Catania

Mentor: Christine M. Forke, PhD, MSN, CRNP

Adverse childhood experiences and child health status in Southeastern Pennsylvania: A population-based study

Abstract:

Adverse Childhood Experiences (ACEs) have long been associated with negative adult health outcomes. Although early studies have shown more proximal effects of ACEs on childhood health, assessment of confounding is limited and may result in overestimated effects. The project aim is to compare associations between ACE exposure and child health while controlling for confounding adult proxy/child attributes. Data were collected from the 2018 Southeastern Pennsylvania Household Health Survey (n=1,164) — a representative sample of households with children (<18 years). An adult proxy reported ACE and health data for themselves and one randomly-identified child in their household. The majority of proxies (95%) were parents/legal guardians. Eight ACEs were tallied and categorized (0, 1-3, or ≥ 4). Health was categorized as low (poor/fair/good) vs. high (very good/excellent). Using multiple logistic regression ($\alpha=0.05$) and sensitivity analyses with E-value estimates, we modeled the association between ACEs and low child health adjusting for child's race, sex, age; proxy's employment, marital status, chronic illness status, county, <150% federal poverty level (FPL), and witnessing family violence during childhood. Participants (n=1,004) were 64% White and 18% Black, and half (50.6%) were male. Compared to those with no ACEs, children with ≥ 4 ACEs had significantly higher odds of low health (OR=3.79, 95% CI: 1.17, 12.33; $p<0.03$); E-value_{pointestimate}=7.04; E-value_{CI}=1.16. Controlling for proxy/child confounders, we found that high ACE exposure is associated with poor child health, and a strong unmeasured confounder is needed to negate this association. Future work should explore whether protective factors reduce the negative impacts of high ACE exposure.

Julianna Catania graduated from the University of Pennsylvania with a degree in the Biological Basis of Behavior in spring 2020 and will graduate from the MPH program in August 2021. She is currently a contract tracer with Campus Health and a graduate assistant in the MPH program. She plans to work in medical and scientific communications consulting in Boston following graduation and aims to pursue a career in psychiatric and social epidemiology research.

11:20 am

Elizabeth Donhauser

Mentors: Evan D. Anderson, JD, PhD and Courtney N. Summers, MSW

Examining public health infrastructure and COVID-19 vaccine rollout in Philadelphia

Abstract:

Local public health departments are often tasked with many responsibilities, especially during public health crises. A major responsibility of local health departments during the current COVID-19 pandemic has been planning and executing vaccination rollout. In order to strengthen the response to not only the current pandemic, but also future pandemics, it is essential to understand the impact of local public health infrastructure on COVID-19 vaccine rollout. A landscape of Philadelphia's public health infrastructure was examined by utilizing publicly available data through the city's website and newspaper articles. A financial analysis was conducted using the National Institute of Health's (NIH) Research Portfolio Online Reporting Tools Expenditures and Results (RePORTER) to describe funding trends for public health research at Philadelphia universities during the decade leading up to the COVID-19 pandemic. Philadelphia received \$1,494,000,000 towards Public Health/Behavioral Health efforts during fiscal years (FY) 2009 and 2019. Average annual funding during the time period was \$135,818,182. During the same time period, the NIH funded 65 grants amounting to \$44,416,430 to public health projects investigating physical activity and fitness, tobacco, and substance abuse at the University of Pennsylvania, Temple University, Drexel University, and Thomas Jefferson University. Our results suggest that public health funding trends in Philadelphia have increased in the decade leading up to the pandemic. More transparency and data availability are needed from the Philadelphia Department of Public Health in order to provide recommendations to improve infrastructure.

Elizabeth Donhauser graduated from Tulane University with a BSPH in Public Health and Psychology in 2017 and will graduate from the University of Pennsylvania MPH program in December 2021. She currently works as a Policy Coordinator for Penn's Leonard Davis Institute of Health Economics and previously worked at the Children's Hospital of Philadelphia.

11:40 am

Megan R. Osvath, MS

Mentor: Meredith Matone, DrPh, MHS

**Opioid use and overdose in pregnant and postpartum people:
Needs and policy recommendations across Pennsylvania**

Abstract:

Opioid use in pregnant and postpartum people has harmful effects on birthing people and their families. Accidental poisoning is the leading cause of pregnancy-associated death in Pennsylvania, and nonfatal opioid use is linked to physical, mental, and environmental challenges. While these impacts are well-defined, there are significant gaps in access to treatment and ancillary supports that could be influenced by state policies. The authors reviewed literature and data from the Pennsylvania Family Support Needs Assessment (PA FSNA), a report with county-level insight on health outcomes throughout the state. Through iterative discussion, the team selected indicators to evaluate the concentration of need, used ArcGIS software to visualize these data, and wrote a policy brief to present data and recommendations for Pennsylvania state legislators. Pennsylvania has high rates of opioid use, low rates of access to medication assisted treatment (MAT), and high rates of neonatal abstinence syndrome (NAS) compared the nation as a whole. There are disparities in the Northwest and Southwest regions where there is highest risk for opioid use in pregnant and postpartum people but lower numbers of substance use treatment facilities serving this population. The authors recommended policy interventions addressing access to treatment and increasing parenting and family support, including expanding Medicaid coverage, focusing on MAT access for pregnant and parenting persons, improving residential and childcare options in treatment facilities, increasing family-oriented services in the community, and addressing housing instability. These evidence-informed policy recommendations provide clear avenues to better support pregnant and postpartum people using opioids.

Megan Osvath, MS is currently an Associate Director of Development for Biomedical Research at Penn Medicine. After graduating from the Pennsylvania State University with a BS in Psychology in 2015, Megan earned her MS in Nonprofit Leadership from the University of Pennsylvania in 2020. She plans to graduate with a Master of Public Health in December 2021 and has strong interests in maternal and child health, social determinants of health, and public health policy and communication.

12:00 pm

Kathryn Schoenauer

Mentor: Lara Weinstein MD, MPH, DrPH

**“I stay away from everybody:” COVID-19 vaccine intentions among
Pathways to Housing PA program participants receiving buprenorphine**

Abstract:

People who use drugs (PWUD) are uniquely impacted by the COVID-19 pandemic and face risks for adverse effects. Understanding perspectives regarding COVID-19 vaccination in this population is critical to vaccine uptake. The aim of this study was to understand the attitudes towards COVID-19 vaccination among PWUD participating in a medication for opioid use disorder (MOUD) treatment program in Philadelphia during the COVID-19 pandemic. We conducted 19 interviews between January and April 2021 with PWUD on medication for opioid use disorder with a high burden of mental health conditions. Interviews captured attitudes and experiences on various topics (i.e. mental and physical health, housing, drug use, etc.) during the pandemic, including vaccination perspectives. Data from vaccination nodes were coded and analyzed using directed content analysis. In this analysis we found that participants were vaccine-willing (n=11), not vaccine-willing (n=5), and vaccine-hesitant (n=3). Most planned to/had already received the COVID-19 vaccine. Motivations for receiving a COVID-19 vaccine included not wanting to be infected with COVID-19 and fearing adverse outcomes if infected; barriers included vaccine side effects concerns and governmental distrust. Overall, concerns among PWUD were similar to the general population. Due to increased risk for COVID-19 morbidity and mortality in this population, targeted information and vaccines should be brought to locations where PWUD congregate. Future research will include analyzing the remaining interview data to elucidate experiences during the pandemic and to inform support programs for PWUD and persons who are housing-insecure in a post-pandemic world.

Kathryn Schoenauer earned her BS in Health and Societies with a concentration in Global Health and a minor in History from the University of Pennsylvania in 2020. Alongside her MPH studies, she completed an AmeriCorps year-service term with Project HOME as a care coordinator within the medication for opioid use disorder program at Stephen Klein Wellness Center. After graduation, Kathryn will be working as a healthcare analyst at Huron Consulting Group within the Performance Improvement vertical to enhance care optimization and patient access to care.

1:00 pm

John Seman

Mentor: Courtney N. Summers, MSW

**Moving away from soft money:
Barriers and facilitators to institutionalizing a community-based program at the
University of Pennsylvania**

Abstract:

Community-based public health programs can provide benefits to the community that they serve as well as the institution that offers the program by saving money from reduced hospital admissions, increased health literacy of the community, and lower childhood mortality rates. The beneficiaries of these programs experience reduced hospital readmissions, increased health literacy, and lower childhood mortality rates. The objective of this study was to explore the barriers and facilitators to getting a community-based program funded at the University of Pennsylvania (UPenn). This information will then be written into a list of best practices for the purpose of disseminating to community-based programs operating at UPenn. This study consisted of conducting semi-structured qualitative interviews with 10 individuals who have knowledge of community-based programs that either were successful or unsuccessful in securing funding from UPenn. The interviews were recorded, transcribed, and then coded using NVivo 12 by a single coder. Interviews suggested that facilitators to securing funding from UPenn included reducing hospitalization rates, saving the University money, portraying the University in a positive light, and improving the health of the surrounding community. Barriers to securing funding from UPenn included high operation costs, duplicative programs, and low return on investment. In addition to prioritizing the facilitators while minimizing barriers, programs should argue that benefitting the community is also benefitting UPenn as many of the employees reside in the surrounding communities. This work would benefit from more concise interviews and a central list of programs to choose from.

John Seman has a Bachelor of Science in technical communication from Drexel University. He worked in the Division of Geriatric Medicine at the University of Pennsylvania for nine years before moving to the University of Pennsylvania School of Nursing, where he has worked for the last year and a half. His research interests include geriatrics and food security.

1:20 pm

Theresa Kash

Mentor: Heather Burris, MD, MPH

**Housing and neighborhood exposures and risk of preterm birth phenotypes
at two Philadelphia hospitals from 2013 – 2016**

Abstract:

Research has shown that exposures during pregnancy, including those caused by housing conditions and neighborhood quality, may be associated with preterm birth. However, prior preterm birth studies of housing and neighborhood characteristics do not consider specific preterm birth phenotypes. Preterm birth can occur spontaneously (sPTB) as a result of preterm labor or rupture of membranes, or it can be medically indicated (mPTB) due to conditions such as preeclampsia or poor fetal growth. In this study, we aimed to examine associations of housing/neighborhood characteristics with preterm birth phenotypes in a diverse birth cohort in Philadelphia. We focused on housing/neighborhood characteristics that affect physical environmental exposures as well as property value including housing age, neighborhood walkability, housing vacancy, and neighborhood elementary school performance. We found that patients living in census tracts with a higher proportion of older houses were significantly more likely to have mPTB but not sPTB. Given racial residential segregation in Philadelphia, we explored whether housing/neighborhood characteristics might be partially responsible for preterm birth in two ways. First, we examined whether there were significant race/ethnicity*housing/neighborhood characteristic interactions. Second, we performed causal mediation to quantify the extent to which exposures might explain racial/ethnic disparities. We found significant interactions for Black race/ethnicity with walkability ($p=0.03$) and school performance (math PSSA scores: $p=0.02$, ELA PSSA scores: $p=0.01$) with mPTB; walkability and school performance was protective for white patients but not Black patients. Old housing may mediate 4% of the Black-white disparity in mPTB ($p=0.048$). Addressing housing/neighborhood characteristics may improve birth outcome equity.

Theresa Kash graduated from Widener University in 2019 with a BS in Biochemistry and a minor in Political Science. She will graduate with a Master of Public Health with a concentration in Environmental Health in summer 2021. Her interests include environmental justice and how changes in environmental health impact health risks in underprivileged and vulnerable communities.

1:40 pm

Mary Hubert, MSW (they/them)

Mentor: Amy Hillier (*she/her*), MSW, PhD

Supporting gender diversity: Providing transgender-affirming education to Philadelphia middle and high school students

Abstract:

There is strong evidence indicating poor social determinants of health for transgender teenagers as a result of stigma, alienation and lack of support. Despite this, limited research has been done to find effective resources that promote transgender-affirming learning environments. We conducted a qualitative study using a survey and interviews to assess what the current gaps within Philadelphia's middle and high schools are, as pertains to gender-diverse education. Using our findings, we built an online resource that provides various supports to gender nonconforming middle and high school students in Philadelphia. Our research expands literature on educational gaps within Philadelphia schools and provides a means to bridge these failings in order to set transgender students up for success.

Mary Hubert, MSW graduated from the University of Washington in 2013 with a dual Bachelor's degree in Drama Performance and Classical Studies, and graduated from the University of Pennsylvania in 2021 with a Master of Social Work degree. They are currently an affiliate of the SexGen Policy Lab of the University of Pennsylvania and work full-time as a bicycle messenger. Their fields of interest include improving experiences for transgender and gender nonconforming young adults, combatting homelessness, and influencing local policy.

2:00 pm

Rebecca Doyle

Mentor: Rebecca Huxta, MPH

Up all night: The effect of the COVID-19 pandemic on insomnia among college students

Abstract:

Beginning in March 2020, the U.S. saw rapid disturbances in traditional modes of education due to the COVID-19 pandemic. These changes in lifestyle and environmental factors have the potential to contribute to sleep problems. This study aimed to investigate the pandemic's impact on sleep, specifically insomnia, in college students. Students were eligible for this study if they registered for Refresh, an online sleep-health program. A pre-intervention survey was distributed via an online survey platform. Insomnia was assessed using the Insomnia Severity Index (ISI) and COVID-19 factors such as learning location and quarantine/isolation status were assessed during the pandemic using a COVID-19 questionnaire. Baseline ISI scores from students enrolled in 2020-2021 were compared to scores from students enrolled in 2018-2019 using a two-sample t-test to determine if COVID-19 had any influence on baseline scores. A chi-square test was conducted to determine if there were associations between insomnia and COVID-19 factors. During the pandemic, 273 students participated in Refresh compared to 1,131 students in 2018-2019. Comparing 2018-2019 baseline ISI scores to those collected during the pandemic, we observed no significant difference as both are considered subthreshold insomnia (11.87 to 11.53, $p = 0.274$). There was a statistically significant association between having insomnia and a student's learning location ($p = 0.006$) as well as self-reported disturbances in sleep caused by the pandemic ($p = 0.026$). Our results indicate that the COVID-19 pandemic did not worsen baseline insomnia, but a student's learning location and reported sleep disturbances may be associated with having insomnia.

Rebecca Doyle graduated from the University of Pittsburgh in 2019 with a BS in Neuroscience and a BA in Economics. She is currently a graduate assistant in the nursing school and serves as a fellow for Campus Health at Penn. After graduating in August, Rebecca plans to pursue a career where she can enrich the lives of others with her public health degree.

Thursday, August 5, 2021

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10:05 am

Morgan O'Donald

Mentors: Lauren O'Malley, MPH and Emma Sartin, PhD, MPH

**A comparison of harness tightness in child safety seats
among parents of single and multiple children**

Abstract:

Motor vehicle crashes are a leading cause of serious injury and death for infants and children in the United States. The child safety seat harness is the main source of protection for a child's head during a motor vehicle crash as it minimizes head excursion. Despite this, incorrect harness tension continues to be the most common misuse of the child safety seat system. Data for this secondary analysis were taken from the ongoing Automatic Harness Tensioner study conducted at the Center for Injury Research and Prevention at the Children's Hospital of Philadelphia. The original goal of this study was to test a newly developed harness tensioner device that is able to visually alert a parent or caregiver when they have adequately harnessed their child into the child safety seat based on harness tension. This secondary analysis compared a parent or caregivers' number of children (one versus multiple) and their pinch test success rate, in order to determine which parent population should have better targeted child safety seat education. Data were analyzed using a Fisher's exact test in STATA BE version 17.0. The sample consisted of 38 parent-child dyads; none were excluded from the analysis. Primary outcome results indicated no significant association between passing the pinch test for parents with one child compared to parents with more than one child ($p = 1.000$). Forthcoming analysis with a completed dataset will provide for a greater understanding of if number of children affects pinch test success rate.

Morgan O'Donald, NRP completed her Bachelor of Science in Emergency Medicine at the University of Pittsburgh in 2018 and is currently a fulltime paramedic in Berks County, as well as graduate research assistant at the Center for Injury Research and Prevention (CIRP) at CHOP. After graduation she will be staying at CIRP as a clinical research coordinator as well as working part time on the ambulance. She is especially interested in first responder mental health and child passenger safety.

10:25 am

Priya Rajagopalan, PhD

Mentors: Allison Curry, PhD, MPH and Dominique Ruggieri, PhD

**India's unmet need for family planning and abortion:
Evaluation across six states**

Abstract:

Recent studies have shown most pregnancies in India were unplanned and that more than half of the abortion-related deaths in the country were due to lack of access to appropriate health care. Although studies have individually investigated unmet needs for contraceptives, abortion, and sterilization, no studies have examined these issues together to explore the potential relationship between abortion and unmet needs for family planning. This study was aimed at exploring women's self-reported access to contraceptive care, sterilization, and abortion services across six states in India. We obtained recent data from the Women's Questionnaire of the National Family Health Survey (NFHS-4, 2015-2016) from six states to examine whether abortions are used as a substitute for unmet family planning needs. Using logistic regression, we examined the association of sociodemographic characteristics, unmet needs for family planning, and abortion care. We found that the odds of women reporting an abortion is .33 lesser among women who report knowing modern contraception methods ($OR = 0.67$, $p\text{-value} = 0.000$, 95% C.I [0.60, 0.75], compared to women reporting traditional methods of contraception. In addition, women who were married, widowed, or divorced between the age 20-39 years, and faced with unmet needs for family planning, were associated with a higher odds of having an abortion. This analysis demonstrated a need for policymakers to invest and educate both men and women about contraceptives. Future public health interventions in India should be focused on sexual and reproductive rights for women and young girls.

Priya Rajagopalan earned her B.A from University of Madras, India and is currently an MPH student at the University of Pennsylvania with a focus on Global Health. After graduation, she will pursue opportunities to address health disparities for maternal and children's health living in India.

10:45 am

Alicia Jen

Mentors: Christine M. Forke, PhD, MSN, CRNP; Dominique Ruggieri, PhD; Peter F. Cronholm, PhD, MSCE; and Rachel K. Myers, PhD, MS

Student perceptions of online campus resources for survivors of intimate partner violence: A focus group assessment at the University of Pennsylvania

Abstract:

Most colleges and universities provide resources for students experiencing intimate partner violence (IPV), but prior research shows that student survivors of IPV rarely seek formal help despite the serious harm it can cause. The COVID-19 pandemic's disruption to campus life heightened the need for student support services, including in the realm of IPV, while also necessitating schools to implement novel online and remote resource offerings to reach off-campus students. As part of a focus group study assessing student perceptions of IPV resources during the 2020-2021 school year, 34 undergraduate and graduate students at the University of Pennsylvania were asked about their awareness and opinions regarding online campus resources for IPV survivors as they were offered in the context of COVID-19, as well as their reception towards the continuation of such resources once campus reopens. Most participants did not have much knowledge about specific online resources, citing ineffective promotion from the school. Participants had mixed opinions when comparing online resources with previous in-person options; in-person formats were found to be safer and more personable in certain contexts, while online formats were recognized for their accessibility, privacy, and reduced emotional burden. However, participants agreed that online IPV resources should be retained after the end of the pandemic alongside the return of in-person resources. Online campus IPV resources may circumvent some of the barriers students face when seeking help for IPV, an implication that can be applied to increase utilization of student wellness resources as a whole.

Alicia Jen submatriculated into the Master of Public Health program after graduating from the University of Pennsylvania with a BA in Health & Societies and a minor in Statistics. She also works as a Clinical Research Coordinator at Penn Medicine's Division of Family Planning. Alicia hopes to pursue a public health research career studying the impact of social upbringing and interpersonal relationships on health beliefs and resource utilization.

11:20 am

Janakiram Rameswaran

Mentor: Danielle Cullen, MD, MPH, MSHP

Creating surveys to assess the "Fresh Start" produce delivery program among families at a West Philadelphia pediatric clinic

Abstract:

In 2019, food insecurity (FI) among Philadelphia's households with children reached 24% and increased to 32% the following year due to the COVID-19 pandemic. Food insecure families rely on less expensive, nutrient-poor, calorie-dense diets. Evidence strongly suggests an association between childhood FI and acute and chronic health conditions that last through adulthood. With the highest poverty rate among America's ten largest cities, one-third of Philadelphia's residents use Supplemental Nutrition Assistance Program (SNAP), a publicly funded benefit. Other government programs like the Farmer's Market Nutrition Program (FMNP) within the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) intend to increase healthy food intake among vulnerable populations. Yet, FMNP benefits went largely unclaimed in Philadelphia in 2020. The Fresh Start study aimed to understand the reason behind benefit underuse. It explored barriers to fresh produce access among families of WIC-eligible children served by a pediatric clinic in West Philadelphia. Based on those findings, the Fresh Start study created a produce delivery intervention to alleviate those barriers to produce access. Outcome objectives for the intervention included 1) decreasing FI, 2) increasing perceived diet quality, 3) increasing perceived produce access, 4) increasing perceived caregiver self-efficacy related to home-cooking with produce, and 5) improving related program satisfaction. This capstone project focused on developing a survey tool that helped enroll participants in the intervention study and evaluated target outcomes. The data collected from these surveys could inform quality improvement, future publications, policy-advising documents, and future community programs.

Janakiram Rameswaran, BSN, RN graduated from The University of Texas at Austin's Nursing Honors Program in 2012 and has practiced as a pediatric critical care and emergency nurse for the last nine years. He most recently worked at the Children's Hospital of Philadelphia as a pediatric/neonatal critical care transport and cardiac intensive care unit nurse. After graduating from the dual-degree MPH/MSN program, he plans to work as a pediatric nurse practitioner in the critical care environment and continue to advocate for children's health policy and community programming.

11:40 pm

Selamawit Bekele

Mentor: Kevin Ahmaad Jenkins, PhD

Racial disparities in age at screening and diagnosis of cancer

Abstract:

Racial disparity in the screening, diagnosis, and mortality of cancer has persisted through the decades. Despite the medical and technological advances made in the diagnosis and treatment of cancers, Black populations continue to experience lower uptake of screening, limited access to treatment, and higher rates of mortality. Thus far, studies have identified socioeconomic factors, genetic risk factors, as well as access to health care as the causes of the existing racial disparity. However, it is not known whether age thresholds in national screening guidelines serve as facilitators or barriers to earlier access to cancer screening for Black patients. Therefore, we conducted a quantitative analysis of racial differences in the age at diagnosis of breast, cervical, prostate, and colorectal cancers among Black and White populations. The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System database was used to analyze national de-identified health and demographic information. Where applicable, chi-square and student's t-tests were conducted to ensure that the two comparison groups were similar. Then, multivariate regression was used to account for known confounding factors and examine associations between race and age at diagnosis of breast, cervical, prostate, and colorectal cancers. The quantitative findings were compared against the latest national cancer screening guidelines released by the United States Preventive Services Task Force. Results of this analysis will assess whether national cancer screening recommendations address the early onset and late-stage diagnosis of cancer among Black Americans or reinforce structural racism and neglect that exacerbates the health outcome disparities.

Selamawit Bekele graduated from the University of Pennsylvania in Health and Societies with a concentration in Global Health in 2017 and will graduate from the University of Pennsylvania's MPH program in 2021. She is interested in health disparities research as well as the intersection of clinical medicine and public health in the U.S. and sub-Saharan Africa.

12:00 pm

Jessica Davis

Mentor: Krisda H. Chaiyachati, MD, MPH, MSHP

Acceptability of screening for social risk factors among oncology patients

Abstract:

Social risk factors, such as food insecurity or financial hardships, limit patients' access to care, prevent desired clinical outcomes, and reinforce health disparities. Recognition that oncology patients may also encounter social risks while undergoing treatment has prompted cancer care providers to explore how to identify and help the most vulnerable within this clinical patient population. Conducting social risk screening assessments is one intervention method. For oncology providers piloting this measure, it is critical to examine whether oncology patients find social risk screening acceptable and assess how patients' social risks interact with their cancer care. Thus, we designed, pretested, and piloted a cancer-specific social risk screening tool and acceptability survey among adult oncology patients within the University of Pennsylvania Health System over a 19-month period. Patients self-reported exposure to twelve social risks across four domains: technology, environmental, emotional, financial. Screening acceptability was determined through questions about perceived appropriateness of and comfort with screening. Patients also indicated their interest in receiving future risk-specific assistance and their expectations of clinicians to act on identified social risks. Of 343 study participants, 81% encountered social risks. We found strong screening acceptability; the majority expected clinicians to facilitate connections to social care interventions/resources. Interest in assistance was higher among those who screened positive for any social risks than those who screened negative to all. Our findings support the integration of a cancer-specific social risk screening tool into routine cancer care and inform the patient-centered targeting of social care interventions/resources to address patients' most pertinent social risks.

Jessica Davis graduated from the University of Pennsylvania in 2020 with a degree in Health and Societies and a minor in Survey Research and Data Analytics. Throughout her MPH, Jessica has worked as a Research Coordinator within Penn Medicine's Division of General Internal Medicine where she developed her passion for health services research, and as a Graduate Assistant working on variety public health law projects.

1:00 pm

Carleigh Melofchik, VMD

Mentor: Sherrill Davison, VMD, MS, MBA, ACPV

Backyard bird biosecurity: An online tool for poultry owners

Abstract:

The onset of the SARS-CoV-2 (COVID19) pandemic led to an extreme increase in food insecure homes. One food source alternative, backyard poultry flocks, became more abundant as families tried to cope. With this increase in backyard poultry, came an increase in food-borne disease cases such as *Salmonella*. The Center for Disease Control (CDC) reported the highest ever number of *Salmonella* cases from contact with backyard poultry in 2020 compared to the 15 years prior. Thus, the objective of this project was to develop a tool for poultry owners to improve biosecurity practices and minimize zoonotic disease risks. To begin, a literature search on poultry owner perceptions and knowledge was performed. Multiple studies concluded individuals with backyard poultry prefer searching for guidance on how to care for birds through online sources. Individuals surveyed from Spanish speaking households were found to be less aware of the link between *Salmonella* and poultry. Therefore, a webpage available in English and Spanish was determined to be the optimal tool to develop. After a few weeks of being live, the website has over 100 distinct visits. The pages visited most often are those regarding specific zoonotic infectious diseases, how to recognize sick birds and biosecurity practices respectively. The COVID19 pandemic continues to challenge individuals worldwide. Part of that reality is high food insecurity rates and increased backyard poultry flocks serving as a food source. This project provides a critical resource to poultry owners to put in place biosecurity practices to minimize zoonotic disease risks.

Carleigh Melofchik, VMD earned her Honors Bachelor of Science in Pre-Veterinary Medicine and Animal Biosciences from the University of Delaware in 2014. She earned her Doctorate in Veterinary Medicine from the University of Pennsylvania in 2019. Carleigh is currently a Master of Public Health candidate with a concentration in One Health.

1:20 pm

Stacy Lee Pundock

Mentors: Jennifer Pinto-Martin, PhD, MPH and Sofia Carreno, MSN, RN

Attitudes toward incorporating fresh produce into an employee-based food pantry at a university hospital: A mixed method pilot study

Abstract:

In 2018, 37 million people were reported to be food insecure in the US, and the COVID-19 pandemic has only amplified this number. Prior to the pandemic, food insecurity was already a problem for families in Philadelphia. In the midst of the pandemic, food insecure households in Philadelphia increased from the 16.3% in 2018 to 18.8% in July of 2020. In response to the economic stress of food insecurity due to COVID-19, the Nursing Department at the Hospital of the University of Pennsylvania (HUP) established a food pantry for its employees and families who were experiencing food insecurity due to the pandemic. This quality improvement assessment (QIA) aimed to determine if incorporating fresh produce from the Penn Farm improved participants desire to partake in the HUP food pantry. This QIA used a mixed-method study design that included both qualitative and quantitative data via administering qualitative surveys and calculating excess produce waste. Surveys asked participants questions regarding their wants, needs, and desires for the produce. Results from the surveys and produce waste analysis demonstrated that participants had strong desire for the produce, and that it enhanced the quality of their experience at the pantry. Future student projects at the HUP food pantry and Penn Farm can include program sustainability, expanding the reach of the pantry to other vulnerable populations, and collecting more informative data to provide to stakeholders in order to secure long term funding for the pantry and farm.

Stacy Lee Pundock is an MPH candidate at the University of Pennsylvania who will graduate in August of 2021. Stacy is currently working as a Clinical Research Coordinator at the University of Pennsylvania as well as interning for the Penn Food and Wellness Program and the HUP Food Pantry. Upon graduation, Stacy plans to obtain a Juris Doctor Degree (JD) to create and advocate for public health policies.

1:40 pm

Montserrat Ganderats-Fuentes

Mentors: Christina A. Roberto, PhD and Sherry Morgan, PhD, MLS, RN

Front of Package nutrition labeling and food industry responses: A narrative review

Abstract:

Obesity is a neglected public health problem. According to the World Health Organization, obesity has tripled worldwide in the last four decades and, within the same period, it has quadrupled for children between 5 to 19. The food supply is a significant driver in the obesity epidemic, and there is an urgent need to create healthier environments and food options. Thus, many countries have implemented different designs of Front-of-Package (FOP) labels to encourage healthier food choices. This narrative review examines studies evaluating the effect of FOP implementation on food industry practices. Following PRISMA guidelines, a search was conducted using 1 Spanish and 7 English databases to identify relevant literature from 1990 to 2020. This process resulted in a citation list of 33 articles deemed appropriate for inclusion. Results show that after FOP implementation, all studies found an effect on product reformulation, regardless of FOP design. Voluntary FOP labeling results in low uptake and adopters tend to lean towards store-branded and healthier products. The most common outcomes in reformulation are sodium, sugar, and calorie reduction. Mandatory policies report more significant and consistent product reformulation compared to voluntary approaches. This review shows that the food industry responds to FOP introduction strategically by making healthier products or labeling healthier choices. By building on previous studies analyzing the effects of FOP in numerous areas, findings from this study can be used to inform future public health research and policymaking. This review provides recommendations to address this public health problem with the urgency it demands.

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