

Master of Public Health Program

Perelman School of Medicine
University of Pennsylvania



Capstone Presentation Program

Summer 2020

Thursday, August 6, 2020

Zoom Webinar: Click [Here](#) to Join

10:00 am

Kurt M. Kunz, MD

Mentors: Susan Coffin, MD, MPH and Kristen Feemster, MD, MPH, MSHPR, FAAP

Burden and epidemiology of influenza outbreaks in long-term care facilities in Philadelphia: A longitudinal surveillance study, 2012-2020

Abstract:

In the U.S., influenza contributes to a high burden of disease in long-term care facility (LTCF) residents. We aimed to characterize the epidemiology of influenza virus outbreaks in LTCFs and identify institutional, environmental, and public health interventions associated with outbreak outcomes and severity. We conducted a retrospective, longitudinal study of influenza outbreaks in LTCFs reported to the Philadelphia Department of Public Health (PDPH) over eight consecutive seasons (November 2012 through March 2020). Cases of influenza-like illness (ILI) and characteristics of individual outbreaks were reported to the PDPH, while quality measures and other facility-level data were obtained from the CMS Nursing Home Compare (NHC) database. A total of 131 influenza outbreaks were reported among 56 facilities, leading to 1196 cases of ILI, 227 hospitalizations and 20 deaths. A median of 4 (range, 0-52) residents were affected per outbreak, and the resident attack rate was 3.0% (IQR, 1.6-7.4). Outbreak occurrence was associated with a greater number of beds per facility. Lower overall attack rates were associated with public health surveillance, education, visitation restrictions, and vaccination policies. Smaller outbreaks were associated with droplet precautions, antiviral treatment and prophylaxis, and admission restrictions. This is the first large study of influenza outbreaks in Philadelphia's LTCFs. Larger facility size was associated with a greater frequency of outbreaks. Public health measures may reduce the size and severity of influenza outbreaks in LTCFs. These results support the consistent utilization of recommended infection prevention strategies.

Dr. Kurt Kunz is an Internal Medicine physician at the Philadelphia Department of Public Health. His clinical and research interests include the epidemiology and mathematical modeling of infectious diseases, healthcare-acquired infection, and antibiotic resistance. He hopes to continue to grow as a leader in public health in Philadelphia.

10:20 am

Eda Akpek

Mentors: Heather Klusaritz, PhD, MSW and Dominique Ruggieri, PhD

**Philadelphia's trashy attitudes:
A community engagement survey to clean up norms and behaviors about litter control**

Abstract:

Excess trash is a pressing, multidisciplinary public health issue in Philadelphia. Existing government-based initiatives have exacerbated disparities in trash and litter conditions, with varying levels of resources available to low-income versus high-income neighborhoods. Studying local trash and litter norms can inform the development of more targeted interventions to help reduce this disparity. Still, there are no validated instruments to measure local norms and inform litter outreach efforts in Philadelphia. The aim of this study was to create a survey that measures local litter-control norms to improve the litter-outreach approach for Not in Philly (NIP), a local non-profit organization dedicated to litter cleanup and control. The primary dataset and analyses from a previous Master of Public Health (MPH) Capstone project and additional concepts from the literature informed the survey development. The survey components include waste and litter-control resources, waste disposal and clean-up behaviors, trash and litter-related perceptions, residence characteristics, and community connection. The final survey design will be electronic via Google Forms, disseminated to members from beautification programs and neighborhood associations. The findings from this project have several implications with regards to public health practice and promotion, for NIP, and other stakeholders such as Philadelphia residents, nonprofits, and city government.

Eda Akpek graduated from Johns Hopkins University in December 2016 and will be graduating from the University of Pennsylvania MPH program in August 2020. She is currently a Research Coordinator at the Mixed Methods Research Lab at the Perelman School of Medicine. Eda is passionate about turning data into information for action to support grassroots, capacity-building initiatives in the Philadelphia community.

10:40 am

Claire Bocage

Mentor: Robert E. Burke, MD, MS, FHM

Skilled nursing facility administrators' perceptions of how patient characteristics can impede outcomes related to high quality performance

Abstract: Medicare's \$30B spending on skilled nursing facilities (SNFs) will rise with the increasing number of older US adults. In an effort to mitigate unnecessary spending, policymakers are experimenting with value-based payments (VBPs) in SNFs, which tie a facility's reimbursement to patient outcomes measured by quality ratings. However, VBPs could potentially penalize SNFs that serve predominantly minority patients and an examination of the processes, barriers, or facilitators to quality data reporting in SNFs serving primarily minority patients has not yet been conducted. This qualitative, exploratory study aimed to elicit how vulnerable populations impact quality ratings. Semi-structured interviews were conducted with six administrators at three Philadelphia metro-area SNFs that served predominantly minority patients. All facilities served more than the national average of Hispanic or Black SNF patients; SNFs were stratified based on their Nursing Home Compare Star rating. Interviews suggested that several patient characteristics, including poor mental health, cognitive decline or dementia, multiple co-morbidities, and limited social support, could negatively impact patient outcomes important to VBPs, such as a prolonged stay or rehospitalization. Participants also discussed how evidenced-based care guidelines for falls and anti-psychotic usage directly conflicted with quality ratings. The results of this study could inform how policymakers risk-adjust VBPs to account for SNFs that serve predominantly minority patients. Accounting for specific features in the post-acute care setting, such as proportion of patients with dementia or those with mental health needs, could better evaluate the quality of care provided by facilities.

Claire Bocage is a Master of Public Health candidate expected to graduate in December 2020. She earned a BA degree in Political Science from George Washington University in 2013 with a minor in Economics. She works as a Research Project Manager at the University of Pennsylvania's School of Nursing School, supporting community engagement and injury prevention projects. Following the completion of her degree, she hopes to pursue a career in health services research and policy, addressing issues of social determinants of health, aging, and healthcare administration.

11:20 am

Allison Bautista

Mentor: Ashlee Murray, MD, MPH

**Trauma-informed hospital security:
A policy for intimate partner violence for Children's Hospital of Philadelphia**

Abstract

Pediatric hospitals are often the first intervention point for children and adults affected by intimate partner violence (IPV). While most hospitals have IPV policies and procedures for healthcare providers, there is a dearth of these policies for hospital security. Oftentimes, hospital security policies and practices do not incorporate trauma-informed approaches, which promote the notion that anyone may have a history of trauma and are important for preventing retraumatization among individuals who have experienced IPV. To promote the physical and emotional safety of IPV survivors within the hospital environment, the security leaders at Children's Hospital of Philadelphia (CHOP) expressed the need for a trauma-informed IPV security policy. The policy was developed over a period of 6 months from January to July 2020, and it addressed how to: 1) ensure safety for all individuals affected by IPV, 2) refer these individuals to resources, 3) maintain confidentiality, and 4) report to local law enforcement. Three job aids were also created to foster a trauma-informed security culture and support security officers' workflow. Engagement from security leaders proved to be the most important factor for crafting a trauma-informed IPV security policy, since they are change agents who can shift perceptions and attitudes towards a more trauma-informed lens and contribute to a hospital-wide culture supportive for IPV survivors. While the primary goal of this project was to create a trauma-informed IPV security policy, we also aim to inform other healthcare institutions on developing trauma-informed security policies and better integrating security's role into the healthcare team.

Allison Bautista is a dual-degree Master of Public Health and Master of Science in Nursing, Health Leadership candidate at the University of Pennsylvania, graduating in August 2020. She received her Bachelor of Science in Nursing from Rutgers University in 2017. Following completion of her degree, Allison plans to pursue a career in violence prevention, specifically related to supporting survivors of childhood trauma, sexual assault, and intimate partner violence.

11:40 am

Patrik Garren

Mentors: Marina Serper, MD, MSc; Aneeza Agha, MA; and Dominique Ruggieri, PhD

COVID-19's impact on telehealth services: A qualitative analysis of provider perceptions across the national veterans' healthcare network

Abstract:

COVID-19's impact on telehealth as a standard of medical care delivered by specialty clinicians within the Veteran Health Administration to its large population of liver disease patients is multi-faceted and unexplored. This research investigates providers' roles across the VHA's national network, information regarding the medical treatment of VHA patients, and the use of telehealth at VHA sites, both before and during the COVID-19 pandemic. Provider perceptions were collected through qualitative interviews conducted by researchers at Philadelphia's Corporal Michael J. Crecezn VA Medical Center. Seven sites across the VHA service network completed interviews. In total, 36 interviews took place; 24 were conducted prior to COVID-19 restrictions and 12 participants were re-interviewed during the pandemic to capture their perceptions of telehealth and liver care at baseline versus how they were subsequently impacted as a result of COVID-19. Our findings suggest that as a result of COVID-19 related restrictions, major changes occurred within the clinical follow-up process that affected the availability of specialty care services. In addition, significant challenges and successes throughout the implementation of telehealth were noted by all participants. Telephone visits were recorded as the primary form of communication, compared to face-to-face video consultation. These results will inform the current use of telehealth as well as improvements to telehealth services after the COVID-19 pandemic. Telehealth is currently being utilized as a supplementary form of specialty care for providers within VHA liver clinics, though its status for future VHA medical care is still unknown.

Patrik Allen Garren is a Clinical Research Coordinator and Penn MPH graduate student. His contribution to clinical medicine extends to his management of ongoing clinical research between Penn Medicine, Philadelphia's Corporal Michael J. Crecezn VA Medical Center and the Children's Hospital of Philadelphia. Patrik spends his free time coaching at Beat the Streets, a youth development and wrestling organization that offers after-school programming for adolescents in multiple cities across the United States.

12:00 pm

Tasnim Salam

Mentors: Holly Fernandez Lynch, JD, MBE; Richard James, MLS; and Justin Clapp, PhD, MPH

Examining oncologists' perspectives on Expanded Access to investigational drugs

Abstract:

Expanded Access (EA) is a regulatory pathway offered by the U.S. FDA to permit patients with serious and life-threatening diseases and conditions to access investigational products outside of clinical trials and prior to marketing approval. Oncologists play an important role in mediating Expanded Access requests between patients, pharmaceutical companies, the FDA, and IRBs. Single-patient Expanded Access requests, in particular, highlight the challenge of balancing the interests of patients in desperate need against the FDA's overarching mission to protect the public's health by precluding access to investigational products until they are demonstrated to be safe and effective for their intended use. This qualitative study is a subset of an ongoing research study and explored the perspectives and experiences of 4 oncologists at PENN and Children's Hospital of Pennsylvania (CHOP) regarding Expanded Access. In-depth interviews were conducted with oncologists who submitted at least 1 single-patient EA request to their IRB since 2014. The interviews were audio-recorded, transcribed, anonymized, and analyzed for unique public health themes. Findings included oncologists working to avoid false hope in their patients (and families) and balancing benefits and risk when considering EA requests, expressing concern over fairness and inequality of access, prioritizing the needs of current individual patients over considerations regarding future patients, and adopting different approaches when considering EA for adults v. pediatric patients. Results from this study and the ongoing project will provide valuable insight on the public health and ethical implications to inform institutional and regulatory policymakers.

Tasnim Salam is a dual-degree candidate expecting to complete her Master of Public Health and Master of Bioethics in Summer 2020. Currently, she works as a Research Coordinator at the Penn Center for Community Health Workers at the University of Pennsylvania to better serve vulnerable, low-income patients and address their social determinants of health. Upon graduation, Tasnim plans to pursue a diverse career path in public health and bioethics.

1:00 pm

Kelsey Johnson

Mentor: Dominique Ruggieri, PhD

Taking food anxiety off the daily menu: Development of an online nutrition education curriculum

Abstract:

Negative cognitions surrounding food, or *food noise*, can lead to chronic dieting, over-exercising, perfectionism and rigidity around food, and mental health complications. Food noise and disordered eating behaviors have been experienced by two-thirds of all women aged 25-45, making this a significant public health issue. To date, however, the issue of food noise and negative food cognitions has not been addressed through a public health lens; cognitive psychology journals and texts have been the only educational materials available to assist individuals experiencing food noise. In an effort to address this critical gap, the *BonVie Health and Nutrition Consulting* team collaboratively created an online course focused on addressing food noise in a user-friendly, accessible, affordable, and culturally-informed manner. Our course includes four comprehensive chapters, each with unique objectives, presentations, and self-guided activities. An audio lecture component will also be included to ensure this course is inclusive for all learning types and literacy levels. The finalized course will be uploaded to our public health nutrition education platform—*The Good Living Academy*— in fall 2020. A beta testing survey will be developed and distributed to those who have completed the course in order to garner feedback for quality improvement prior to a wider course launch. Our course development utilizes best practices from public health education and public health nutrition. The course is aimed at helping individuals to make small, realistic steps towards a life of food freedom, self-acceptance, and overall health, while simultaneously encouraging participants to reject traditional weight-loss and dieting approaches.

Kelsey Johnson graduated from Rider University's Norm Brodksy College of Business in 2019 with a bachelor's degree in Healthcare Management and will be graduating from the University of Pennsylvania MPH program in 2020. She is currently a full-time COVID-19 Contact Tracing Coordinator with the Philadelphia Department of Public Health and is concluding a study with both CHOP's Center for Autism Research and Penn's Center for Weight and Eating Disorders. After graduation, Kelsey plans to gain professional experience in infectious disease control, prevention, and social epidemiology through her current role with the City.

1:20 pm

Katie Chockley

Mentors: Melissa Dichter, PhD, MSW; Beth Stelson, MPH, MSW; Tony Lapp, LCSW

Measuring changes in beliefs, attitudes, and behaviors of participants in a therapeutic treatment program for intimate partner violence perpetration

Abstract:

Intimate partner violence (IPV) is a serious public health problem in the United States. Intervention programs for people who use violence against their intimate partners, historically called "Batterer Intervention Programs" (BIPs), have existed since the 1970s, and a number of meta-analyses of these types of programs have found mixed results. Menenergy, a program for people who harm or hurt their partners in the Philadelphia area, began offering surveys before and after clients participate in 9 sessions in order to evaluate their work. Both the first and second surveys included identical Likert scale questions about the client's attitudes and beliefs regarding their own behavior towards their partner and/or towards their children, as well as their attitudes and beliefs about their ability to change their behaviors. Fifty-two clients took the first and second surveys between November 2019 and June 2020. Based on the results of these surveys, after participating in nine sessions with Menenergy, clients were more likely to acknowledge that they have a history of harmful behavior towards their partners, more worried about the impact of their behavior, more aware of which behaviors are harmful to their partners, as well as other positive changes. These results will help inform Menenergy's work, and as the organization continues collecting data from these surveys, they will be able to examine differences in groups and subpopulations.

Katie Chockley graduated from Yale University in 2014 and will be graduating from the University of Pennsylvania MPH program in 2020. She currently is the Program Coordinator with Penn Violence Prevention, where she works to prevent sexual and relationship violence at the University. After graduation, she will pursue a Master of Social Service degree at Bryn Mawr College.

1:40 pm

Elizabeth Rovit

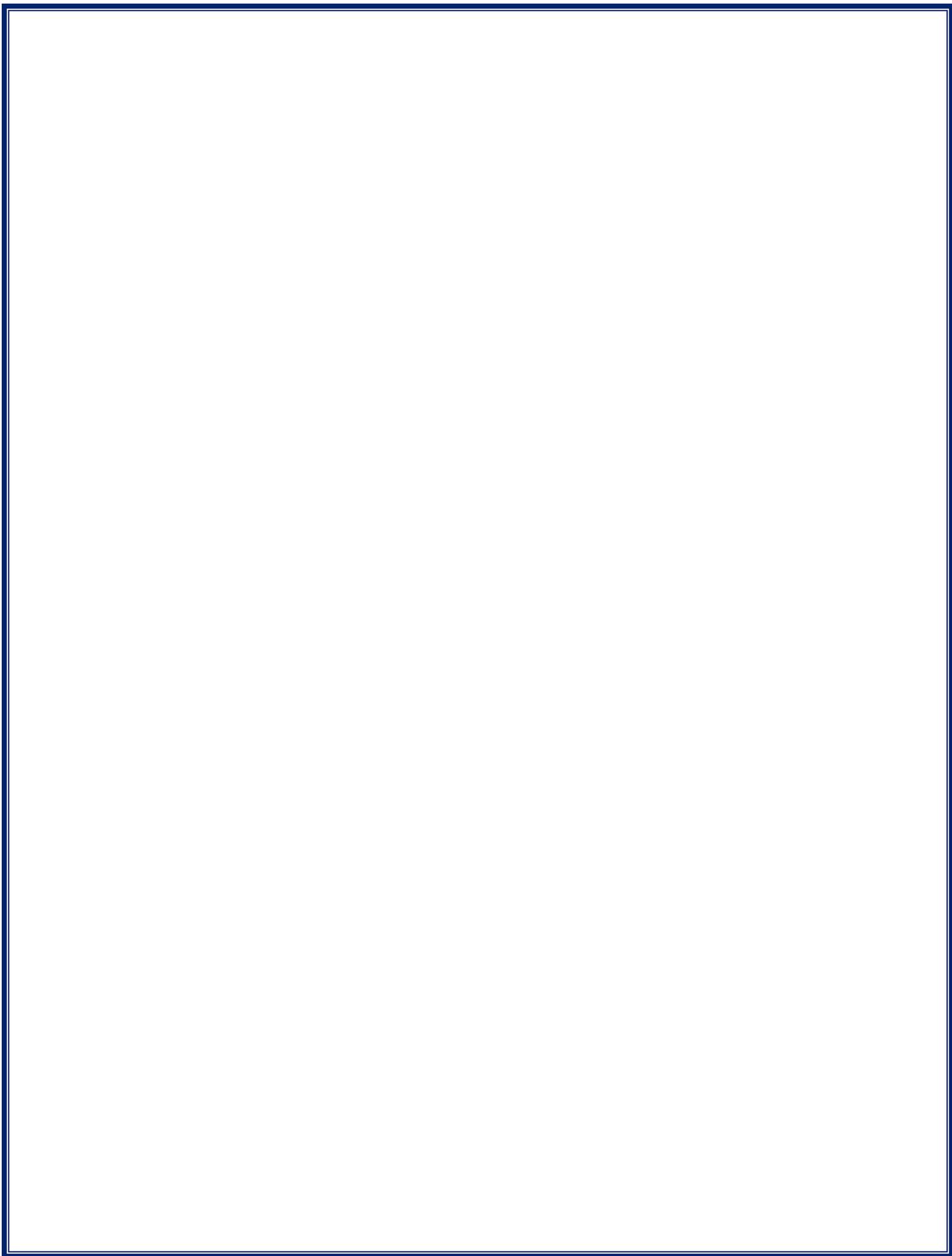
Mentors: Ariana M. Chao, PhD, CRNP and Sherry Morgan, PhD, MLS, RN

Food insecurity and adverse maternal gestational outcomes: A systematic review

Abstract:

Food insecurity is a significant public health problem in the United States that manifests in many health-related problems. Pregnancy, in particular, is a sensitive time period where women are specifically vulnerable to food insecurity. Additionally, food insecurity among pregnant women has been linked with compromised maternal health. Understanding the role that food insecurity plays in adverse maternal gestational outcomes can better inform both food insecurity and maternal health interventions and policy. This systematic review aimed to critically evaluate the available research on food insecurity and maternal gestational outcomes. Literature searches of four databases were performed for cross-sectional and observational cohort studies conducted in the United States measuring food insecurity during pregnancy and specific maternal gestational outcomes. Seventeen articles were included based on inclusion criteria and were assessed for methodological quality and risk of bias. It was concluded that there are associations between experiencing prenatal food insecurity and unfavorable maternal gestational outcomes, specifically the risk of excessive/suboptimal gestational weight gain and maternal depression. This synthesis highlights the importance of food insecurity surveillance during pregnancy; these women may be particularly susceptible to pregnancy-related health complications. Identifying food insecure and pregnant women and developing and implementing programs that specifically target gestational weight gain and maternal depression may help to reduce food insecurity and adverse gestational outcomes in the United States. Future research is warranted to study the effects of interventions such as the Special Supplemental Nutrition Program for Women, Infant and Children (WIC) and Supplemental Nutrition Assistance Program (SNAP) on such gestational outcomes.

Elizabeth Rovit will be graduating with her MPH from the University of Pennsylvania in August 2020. She completed her undergraduate degree in Environmental Studies from the University of Pennsylvania in 2019. In the future, she hopes to continue her research as she begins medical school at the Lewis Katz School of Medicine at Temple University.





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