Table of Contents

Letter from the Program Manager ............................................................................................................ 2
Photo Collage ........................................................................................................................................... 3
DSIP Research Poster Abstracts .............................................................................................................. 4
Melissa Alamo .......................................................................................................................................... 4
Daniel Hernandez Altamirano .................................................................................................................. 4
Alexa Beacham ......................................................................................................................................... 4
Austin Castellanos .................................................................................................................................... 5
Brianna Celix ............................................................................................................................................ 5
Ambre Flowers ......................................................................................................................................... 5
Alexis Harris ............................................................................................................................................ 6
Israel Jurado ............................................................................................................................................... 6
Nicholas Lacy ........................................................................................................................................... 6
Diana Lopez ............................................................................................................................................. 7
Gabriela Marmalejo ................................................................................................................................. 7
Wendy Miranda ......................................................................................................................................... 7
Foujan Moghimi ......................................................................................................................................... 8
Anthony Nicome ........................................................................................................................................ 8
Christine Okemkpa .................................................................................................................................. 9
Joseph Wilson, Jr. ..................................................................................................................................... 9
Acknowledgements ................................................................................................................................. 10
2018 Cohort Photos ............................................................................................................................... 11-13
DSIP Application Review Committee Members .................................................................................... 14
Established in 1995, the Diversity Summer Internship Program (DSIP), in the Bloomberg School of Public Health, provides a graduate level, independent research experience in biomedical and/or public health research to undergraduate students under the direct mentoring of established Johns Hopkins researchers. Opportunities are granted to students interested in careers in science and public health including those from underrepresented minority groups and economically disadvantaged backgrounds.

The 2018 DSIP cohort consisted of 16 undergraduates from diverse backgrounds. Over ten weeks, interns worked one-on-one with faculty and community preceptors on research projects in their fields of interest, attended public health awareness and professional development seminars, and a GRE workshop. The program provided interns with an academic experience similar to that of a first-year graduate student as they gained skills in preparing scientific abstracts, posters, oral presentations, and completing a research paper. In addition, interns had opportunities for personal growth and reflection as they attended peer-led leadership discussions and connected with current JHSPH graduate students. The culmination of the program included an opportunity to formally present their work before their peers and mentors, and a divisional poster session which afforded the interns multiple opportunities to display and describe their research projects. All of this year’s participants are eligible to receive a partial tuition scholarship upon matriculating into a qualified graduate program in the Bloomberg School of Public Health. We are fortunate to have awarded the scholarship to three former interns for the 2018-2019 academic year. We are also looking forward to awarding the scholarship to members of this cohort in the future.

This year’s booklet contains each intern’s summer research poster abstract and photo with their mentor(s). The 2018 DSIP interns join their predecessors as future biomedical sciences and public health professionals.

We would like to thank our sponsors, faculty, staff, graduate students, community members, and interns who helped make this year’s program successful. We sincerely appreciate your contributions and look forward to working with you again next year.

Jessica Harrington, MPA
DSIP Program Manager
Director of Student Life Services
Melissa Alamo  
**Undergraduate Institution:** Emory University  
**Mentor(s):** Caitlin Kennedy, PhD  
**Department:** International Health  
**Poster Title:** Interventions for Male Circumcision Uptake: A Systematic Review

This systematic review examines the evidence for two types of interventions, economic compensation and service delivery, to increase voluntary medical male circumcision (VMMC) uptake among adult and high-risk men. The review focuses on the acceptability and values and preferences of these two interventions from past and future people that will use VMMC services, their providers, partners, families, and communities. Utilizing five database searches, a total of sixty-eight included articles were identified and seven fell into the categories of acceptability and values and preferences. All seven articles fell into acceptability. Examples of highly effective and acceptable intervention methods include the use of peer advisors, transportation to the facility, a friend referral monetary system, and food vouchers. According to the evidence, there is a high acceptability of economic compensation and service delivery interventions to increase VMMC uptake. Some methods and incentives have higher rates of acceptability than others. The evidence presented in this systematic review will be used by the WHO Guideline Development Group in the decision-making process of whether to internationally recommend these two interventions.

Daniel Hernandez Altamirano  
**Undergraduate Institution:** University of Colorado-Denver  
**Mentor(s):** Sabriya Linton, PhD, MPH  
**Department:** Mental Health  
**Poster Title:** The Associations of Syringe Exchange Program Availability with Risky Substance Use Behaviors Among People Who Inject Drugs in Baltimore

Introduction: Syringe exchange programs (SEPs) in Baltimore have contributed to significant decreases in HIV transmission among people who inject drugs (PWID). Despite this progress, HIV is still a substantial public health issue and many barriers exist that prevent access to SEPs. Availability of SEPs may be one factor that influences risky injection behaviors among PWID.

Method: Using data provided by the National HIV Behavioral Surveillance Research Study (BESURE) in Baltimore, Maryland, a series of ANCOVAs were performed to assess the associations of SEP availability, using ZIP codes, with: 1) using a syringe that had been previously used by another person; 2) giving away a needle the participant had already used; 3) sharing used cookers, cotton, and/or water; 4) using drugs that were separated using a used needle.

Results: There were no significant relationships between SEP availability and any disposal method tested (p’s>.05). Similarly, there were no significant associations among SEP availability and all injection behaviors tested (p’s>.05).

Discussion: The results from the analyses performed suggest that, regardless of SEP availability, participants partook in the disposal and injection behaviors similarly. The lack of significant findings in this study could be explained by the lack of specificity from using zip codes to define SEP availability. ZIP codes capture large surface areas, which increases the possibility of misclassifying a participant’s actual availability to participate in a SEP. Future studies should consider collecting more accurate data like participant addresses or their block number, and their preferred SEP location to quantify distances traveled.

Alexa Beacham  
**Undergraduate Institution:** Ursinus College  
**Mentor(s):** Beth McGinty, PhD, MS  
**Department:** HPM, Center for Mental Health and Addiction Policy Research  
**Poster Title:** Solutions to the opioid epidemic in news media

**Objective:** Opioid misuse and overdose has increased in recent years. Despite this, relatively little is known about how frequently different solutions to the opioid crisis have been mentioned in news media sources. News media, and especially TV news media, is effective in communicating information to the public and agenda-setting. The current study seeks to evaluate how solutions to the opioid crisis in news media have changed from 2013-2017, and whether solutions to the epidemic differ in print vs. TV sources.

**Methods:** In order to analyze solutions in news media stories from 2013-2017 were included in a content analysis. A 60-item structured coding instrument was developed and used to measure how often specific solutions were mentioned in articles.

**Results:** The most frequently mentioned solutions were harm reduction solutions, treatment solutions and criminal justice-related solutions. Harm reduction solutions increased during the study period from 0% in 2013 and 27.69% of news stories in 2017. Treatment solutions increased during the study period as well from 0% in 2013 to 29.23% in 2017. Criminal justice-related solutions decreased during the study period from 60% in 2013 to 18.46% in 2017. Criminal justice-related solutions were more likely to be
featured in TV sources rather than print sources, and harm reduction and treatment solutions were more likely to be found in print sources.

**Conclusions:** Increased in mentions of harm reduction and treatment solutions have positive implications for improving public attitudes towards those with stigmatizing diseases like opioid use disorders. Even still, we found that criminal justice-related solutions were frequently mentioned even though the opioid crisis is a public health issue, not a criminal justice issue. Criminal justice solutions were concentrated among TV news sources. This is concerning since most Americans receive their news via TV sources, and TV sources are effective in agenda-setting. These findings highlight that news coverage of harm reduction solutions and treatment solutions have increased in recent years, though criminal justice-related solutions still linger in news media about the opioid crisis.

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**Austin Castellanos**  
**Undergraduate Institution:** Harverford College  
**Mentor(s):** Mario Caturegli, PhD  
**Department:** Pathology School of Medicine  
**Poster Title:** Identification of Novel Self Antigens in Patients with Secondary Hypophysitis Pre and Post Cancer Immunotherapies

Immune checkpoint inhibition (ICI) - a method of antibody blocking regulatory elements of the immune system, is an emerging pharmacological treatment successfully utilized in cancer immunotherapies. However, cancer patients undergoing treatments with ICIs are at an increased risk of developing hypophysitis - chronic inflammation of the pituitary gland, secondary to ICI administration. Moreover, characterization of the mechanisms involved in the onset of hypophysitis secondary to ICIs remains unknown. In a recent case series, the zinc finger CCHC8 domain-containing protein 8 (ZCCHC8) was identified as a pituitary autoantigen in two cancer patients developing hypophysitis post-immune checkpoint inhibition. However, no study has investigated immunological activity against pituitary ZCCHC8 in a larger cohort of cancer patients secondary to ICIs. Therefore, we performed immunoblotting analysis of 17 cancer patients with ICI treatments and 4 cancer patients treated with a GVAX negative control, anticipating the identification of reactive antibodies against ZCCHC8 in patients developing hypophysitis. Total autoantibody repertoire was analyzed according to prescribed treatment and cancer type. Our experimentation demonstrated a corresponding relationship between cancer type and autoantibody repertoire. While these autoantigens remain to be defined with certainty, each cancer type yielded a distinct autoantibody profile. Further analysis of the autoantibody repertoire by PhIP-seq quantification is necessary to develop a comprehensive list of additional candidate autoantigens in hypophysitis secondary to ICIs.

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**Brianna Celix**  
**Undergraduate Institution:** Pacific Lutheran University  
**Mentor(s):** Fenna Sille, PhD  
**Department:** Environmental Health and Engineering  
**Poster Title:** The Impact of Prenatal and Early Life Arsenic Exposure on TLR Signaling

Arsenic causes immunosuppression and an increased susceptibility to a variety of diseases, including tuberculosis. This methodological study was performed to improve the protocols and information surrounding RT-qPCR, in order to determine the gene alterations arsenic causes in the TLR immune signaling pathway. This paper looks at the results of a variety of extraction methods and modifications, the acceptable quality of RNA to be used in RT-qPCR, primer optimization, and initial results of a small sample size of mouse lung run through RT-qPCR. The primers optimized in this study were primers for the genes for TLR2, TLR4, COX2 and cPLA2, as well as the housekeeping genes RPL19 and GAPDH. Results of the RT-qPCR process exhibit alterations in the gene expression of these components of the TLR pathway, within a small sample size.

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**Ambre Flowers**  
**Undergraduate Institution:** Spelman College  
**Mentor(s):** Yue Chu, MSPH and Li Liu, PhD  
**Department:** International Health  
**Poster Title:** Communication of Stillbirths and Neonatal Deaths

Communicating difficult news to patients is commonly practiced by many physicians. The sympathy, and content of physicians’ delivery impacts how the patients will respond to serious news. Failure to properly communicate life-changing information to patients influences their compliance and trust with the healthcare system. This paper investigates how birth outcomes are communicated to mothers. A literature review was performed in order to understand how birth outcomes are communicated to mothers amongst different countries. We first performed searches in peer-reviewed and grey literature on the misclassification between stillbirth and neonatal death. Then, in order to solely focus on the communication of birth outcomes, we used 13,993 articles to conduct a sub-study. This paper includes 8 studies after conducting a title and abstract screening and a full-text review of 13,993 articles. The results show the ways perinatal outcomes are communicated to mothers and whether the communication was sufficient.
Despite uncertainties regarding their safety, the use of electronic cigarettes is increasing in the U.S. Aerosol is produced through the heating of e-liquid using a metallic resistance coil that is capable of releasing harmful heavy metals that can be inhaled into the lungs. The FDA designates the flavoring agent ethyl maltol as generally recognized as safe, but this does not apply to its use as an inhalant in combination with heavy metals. Calu-3 cell line, derived from a human lung adenocarcinoma, we used to model lung airway epithelial cells to determine if metals enhance ethyl maltol-mediated cytotoxicity. Reagent grade ethyl maltol, Cu2+, and Fe3+ were used to treat Calu-3 cells. An MTT assay and a cell counting assay with the Hoechst fluorescent dye were used to measure cell viability. A significant decrease was observed in cell viability when cells were treated with Cu and ethyl maltol in comparison to Cu alone. Apoptosis was measured by counting the percentage of cells with apoptotic nuclei and measuring mitochondrial membrane potential with the JC1 dye. There was a significant increase in the percentage of apoptotic nuclei and a decrease in mitochondrial membrane potential for cells treated with Cu and ethyl maltol. No change in mitochondrial mass was observed using the mitotracker dye. Reactive oxygen species significantly increased in cells treated with Cu and ethyl maltol using the DCFDA assay. The rise in reactive oxygen species was attenuated in the presence of the anti-oxidant sodium sulfide. Overall, we found that Cu enhances ethyl maltol-mediated cell death, apoptosis is a potential mechanism of cell death, and Cu enhances ethyl maltol-mediated ROS production and attenuated by sodium sulfide.
Conclusions: Existing partnerships primarily focused on interventions targeting healthcare access, health literacy, and health attitudes and behaviors as barriers to organ donation and kidney transplantation. Future work is needed to identify practical methods for incorporating community-based partnerships that establish strong partnerships between stakeholders, health professionals, and communities burdened by kidney disease. Furthermore, exploration of faith-based partnership may provide additional insight for addressing disparities in kidney transplantations and organ donation in the US.

Diana Lopez
Mentor(s): Laura Caulfield, PhD, and Susan Gross, PhD
Undergraduate Institution: Calvin College
Department: International Health (Nutrition) and Population Family and International Health
Poster Title: The Association Between CEP Participation, Language, and Food Security among Hispanic Families

The Community Eligibility Program (CEP) provides federal funding for breakfast and lunch at no cost to schools and school districts in low-income areas. While previous research has looked at the impact of CEP on food security, few studies have focused on this program’s impact within the Hispanic population or included language as a factor. Data from a pilot project involving Baltimore and Montgomery County schools was used to determine the association between CEP status and food security and the association between language and food security among this population group. Household food security was divided into two categories: High/marginal food security and low/very low food security (food insecurity). The sample includes 140 respondents who indicated that their child was Hispanic/Latino. Of the 140 respondents, 68.1% of those attending non-CEP schools and 42.9% of those attending CEP schools had food insecurity at the household level. In addition, 30.6% of those with English as their preferred survey language and 74.1% of those with Spanish as their preferred survey language had food insecurity at the household level. All models were estimated using logistic regression models. Individuals that received CEP had 0.35 times the odds of having food insecurity, meaning that they were 65% less likely to be food insecure in the unadjusted model. Individuals that selected Spanish as their preferred language had 6.5 times and 4.3 times the odds of having food insecurity in the unadjusted and adjusted models, respectively. Findings suggest that there may be differences in opportunities for social mobility that affect food security due to language. Thus, improving language and interpretation service may help to improve the disparity in food insecurity rates among Hispanic families.

Gabriela Marmolejos
Mentor(s): Ayodeji Awopegba, DMD, MPH
Undergraduate Institution: George Mason University
Department: Health Behavior and Society/Institute of Global Tobacco Control (IGTC)
Poster Title: Global Patterns in E-cigarette Legislation

Objectives: Determine the timespan and patterns of e-cigarette policy development around the globe.
Results: The study identified the effective or publication dates for 107 policies in 70 countries. The effective or publication dates for 93% of national policies (n=100) regulating e-cigarettes were between the years 2010-2020. 67% of policies in countries with sale bans on e-cigarettes (n=14) were effective or published between the years of 2011-2015. 79% of policies in countries which do not ban the sale of e-cigarettes (n=38) were effective or published between the years of 2016-2020. Countries within regions with harmonized policies (e.g. Eastern Mediterranean and Europe Regions) also tended to have similar effective or publication dates.
Conclusion: Overall, this study highlights contemporary trends in e-cigarette policy development globally. Effective and publication dates of e-cigarette legislation suggest a recent trend towards regulating rather than banning and restricting the sale of e-cigarettes.

Wendy Miranda
Mentor(s): Keri Althoff, PhD, MPH
Undergraduate Institution: California State University
Department: Epidemiology
Poster Title: Life Expectancy Disparities and the Effect of Drug and Alcohol-Related Mortality on People with HIV in the U.S.

The life expectancy of the U.S. general population has decreased by 0.1 years in 2015 possibly due to the opioid epidemic. People with HIV (PWH) may be affected by this due to more likelihood of opioid usage. The current study examined PWH from the NA-ACCORD (N=68,177) to examine disparities in life expectancy in key population and changes in life expectancy when using an agent-based simulation model with a specified-reduction in drug and alcohol mortality. Participants were followed from January 1, 2005 or ART initiation until date of death, loss of follow-up, or December 31, 2015. Results showed that White MSM (75.28 years), Black women (60.68 years), Hispanics (60.08 years), non-PWID (62.30 years), and non-PWID who are HIV-negative (67.13) had
a greater life expectancy than their counterparts. When reducing the number of drug and alcohol-related deaths by 10% and 20%, it was found that White MSM, White women, non-Hispanics, PWID, non-PWID, and non-PWID who are HIV-positive and HIV-negative had an increase in life expectancy which therefore indicates that they are dying more drug and alcohol-related deaths than their counterparts. Key populations of PWH have increased their life expectancy over time, however, disparities persist. The reference group (counterparts of key populations) have more drug and alcohol-related deaths than their counterparts. Our findings suggest that there may be possible intersection between the HIV and opioid epidemic.

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**Foujan Moghimi**  
**Undergraduate Institution:** Caldwell College  
**Mentor(s):** Barbara Detrick, PhD  
**Department:** Environmental Health and Engineering/ SOM Pathology  
**Poster Title:** Evaluation of Cytokines in Hepatitis E Viral Infection

**Objective:** Hepatitis E virus (HEV) is the leading cause of viral hepatitis worldwide. However, many aspects of the mechanisms of viral pathogenesis elude the scientific community. Particular problems arise in the immunocompromised host, such as, pregnancy and organ transplantation. Cytokines are key orchestrators of immune reactivity and can play an essential role in many aspects of immunity and viral pathogenesis. The purpose of this project is to identify cytokines in the sera from HEV patients and determine if they may participate in this disease process.

**Materials & Methods:** Sera were collected from 23 Bangladesh Patients with HEV and from 11 Bangladesh patients with symptoms other than hepatitis. Normal individual sera were collected at the JHU Hospital. Sera were analyzed for the presence of anti-HEV antibodies (IgM or IgG) and ALT levels. Sera were also tested for the presence of IFN-α, IFN-δ, and CXCL8 by multiplex analysis and for the presence of IL-6 by EIA.

**Results:** IL-6 is detected in sera from 96% of HEV patients while CXCL8 is detected in 39% of patients. These cytokines are detected less frequently in non-HEV patients and are not detected at positive levels in normal individuals. Sera ALT levels (indicates acute infection) correlated with the presence of anti-HEV IgM antibodies. IFN-α, and IFN-δ were not frequently detected in HEV patient sera.

**Conclusion:** IL-6 and CXCL8 are inflammatory cytokines that are present in a high percentage of HEV patients. These molecules may participate in viral pathogenesis since IL-6 can induce cirrhosis and CXCL8 recruits neutrophils to the liver resulting in hepatocyte death. Interferons (IFNs), key anti-viral cytokines are downregulated in HEV infection.

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**Anthony Nicome**  
**Undergraduate Institution:** Texas Christian University  
**Mentor(s):** Norma Kanarek, PhD  
**Department:** Environmental Health and Engineering/ SOM Oncology  
**Poster Title:** County Lung Cancer Mortality: An Updated Decision Tree Analysis of Control and Prevention

**Objective:** Being thoroughly proven by research institutions and academia across the globe, cigarette smoking has overwhelmingly been considered to be the leading cause of lung cancer. The goal of the study was to execute an update of an already published paper surrounding variables associated with important factors of counties that are useful to public health professionals; specifically, in purpose of using most recent data to analyze incidence change over time and strongest indicators of lung cancer mortality, by county and year.

**Methods:** Most recent quantitative variable data was gathered from reputable scientific sources. Once collected, databases were developed and then transferred to statistical software(s) in aim of generating relevant calculations and displaying change over time regarding phenomena associated with lung cancer mortality. Additionally, data was entered into both tables and a decision tree, previously developed, via classification and regression tree (CART) analysis. Using mapping software, CARTO, maps were created in purpose of visual and spatial analysis of updated research findings.

**Results:** In contrast to the previous study done, prevalence of smoking decreased, lung cancer mortality due to smoking decreased, and smoking prevalence in rural counties decreased. In comparison, poverty remained the highest indicator for smoking out of the variables chosen for the study.

**Discussion:** In performing an update of an already published paper, findings revealed that county lung cancer mortality incidence and smoking prevalence, experienced decline over time. While this decline in mortality may indicate an increase in healthier communities across the nation, vulnerable communities such as those that make up rural populations, still remain. While the lower 48 states have seen decreases in mortality, policy, research, and initiatives must continue to be implemented in goal of continued improvement of control and prevention efforts.
Type-1 diabetes (T1D) is an autoimmune disease where autoreactive immune cells destroy insulin producing beta-cells. The purpose of this study is to discover what mechanisms play a part in the destruction of the healthy tissue, and to overall find a cure for the disease. Using peripheral blood mononuclear cells (PBMC), we were able to isolate autoreactive T cells along with identifying a novel cell that dually expresses both a B-cell receptor and a T-cell receptor, labeled as the X cell; it is abundantly present in the PBMC’s of T1D patients. We created a tetramer to bind to different peptides and analyzed this cell through CFSE and flow cytometry in order to determine the role of this X cell in the development of the disease. We used a healthy control, natural insulin, the full peptide (synthesized from X cell), and FMO as a negative control to see the binding affinity of the tetramer to these T cells. Our data showed that the peptide produced from the B-cell receptor excites T cells the most by binding them efficiently and causing them to proliferate and attack healthy tissue. We conclude that the discovery of this dual expresser cell could have further implications in not only T1D, but also immunology as a whole.
Acknowledgements

Student Life Services is grateful to the dedicated Hopkins faculty, staff, graduate students, community mentors, internship participants, and DSIP committee members, and funding sponsors who cooperatively helped to make this year’s Diversity Summer Internship Program successful, uniquely memorable, and educationally enriching. Student Life Services would like to acknowledge the following JHSPH graduate students and DSIP alumni for their support and mentorship this summer:

Sherri-Chanelle Brighthaupt  
Kevin Casin (DSIP 2014)  
Henri ‘Garrison Desany  
Naomi Greene  
Justin Jacob  
Miranda Jones, PhD (DSIP 2007, 2008)  
Crystal Perez  
Alex Schmall (DSIP 2016)

Student Life Services is especially grateful to the following organizations for their contributions in funding DSIP 2018:

**American Autoimmune Related Diseases, Inc. (AARDA)** is dedicated to the eradication of autoimmune diseases and the alleviation of suffering and the socioeconomic impact of autoimmunity through fostering and facilitating collaboration in the areas of education, public awareness, research, and patient services in an effective, ethical and efficient manner.

**The Johns Hopkins Bloomberg School of Public Health (JHSPH)** is dedicated to the education of a diverse group of research scientists and public health professionals, a process inseparably linked to the discovery and application of new knowledge, and through these activities, to the improvement of health and prevention of disease and disability around the world. DSIP receives support from the JHSPH Office of Student Affairs, and the Center for American Indian Health.

**The National Institute of Environmental Health Sciences**’ mission is to reduce the burden of human illness and disability by understanding how the environment influences the development and progression of human disease. This year’s EHS interns were sponsored by NIH Grant #1R25ES022865 as part of NIEHS Short-Term Educational Experiences in Research through Michael Trush, PhD, Professor, Environmental Health Sciences Division of Toxicology.

**The Health Careers Opportunity Program (HCOP)** summer internship provides experience in research laboratories to students from economically or educationally disadvantaged backgrounds that have completed one - two or more years of college. The purpose of this exposure to biomedical and public health research is to encourage students to consider careers in the health care workforce. Students in the HCOP division work in labs in both School of Medicine and the Bloomberg School of Public Health.

In addition to the sources above, many students were sponsored by various federal programs and awards from their home institutions. A complete list of names and sponsors are on the following page directly beneath each intern’s photo.

**Thank you to our funding sponsors and everyone (faculty, alums, and students) who contributed to the success of DSIP 2018!**
Melissa Alamo  
**Undergraduate Institution:** Emory University  
**Mentor(s):** Caitlin Kennedy, PhD, MPH  
**Department(s):** IH  
**Poster Title:** Interventions for Male Circumcision Uptake: A Systematic Review  
**Sponsor:** JHSPH Office of Student Affairs

Daniel Hernandez Altamirano  
**Undergraduate Institution:** University of Colorado-Denver  
**Mentor(s):** Sabriya Linton, PhD, MPH  
**Department(s):** MH  
**Poster Title:** The Associations of Syringe Exchange Program Availability with Risky Substance Use Behaviors Among People Who Inject Drugs in Baltimore  
**Sponsor:** JHSPH Office of Student Affairs

Alexa Beacham  
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**Mentor(s):** Beth McGinty, PhD, MS  
**Department(s):** HPM, Center for Mental Health and Addiction Policy Research  
**Poster Title:** Solutions to the opioid epidemic in news media  
**Sponsor:** JHSPH Office of Student Affairs

Austin Castellanos  
**Undergraduate Institution:** Haverford College  
**Mentor(s):** Mario Caturegli, PhD  
**Department(s):** Pathology School of Medicine  
**Poster Title:** Identification of Novel Self Antigens in Patients with Secondary Hypophysitis Pre and Post  
**Sponsor:** AARDA/ American Auto Immune Related Diseases Association

Brianna Celix  
**Undergraduate Institution:** Pacific Lutheran University  
**Mentor(s):** Fenna Sille, PhD  
**Department(s):** EHE  
**Poster Title:** The Impact of Prenatal and Early Life Arsenic Exposure on TLR Signaling  
**Sponsor:** AARDA/ American Auto Immune Related Diseases Association

Ambre Flowers  
**Undergraduate Institution:** Spelman College  
**Mentor(s):** Yue Chu, MSPH, Li Liu, PhD  
**Department(s):** IH  
**Poster Title:** Communication of Stillbirths and Neonatal Deaths  
**Sponsor:** JHSPH Office of Student Affairs
Alexis Harris  
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**Mentor(s):** Joseph Bressler, PhD  
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**Sponsor:** NIH Grant #1R25ES022865/ Dr. Michael Trush, Professor, Environmental Health Sciences Division of Toxicology

Diana Lopez  
**Undergraduate Institution:** Calvin College  
**Mentor(s):** Laura Caulfield, PhD, Susan Gross, PhD  
**Department(s):** International Health (Nutrition) and Population Family and International Health  
**Poster Title:** The Association Between CEP Participation, Language, and Food Security among Hispanic Families  
**Sponsor:** JHSPH Office of Student Affairs

Isreal Jurado  
**Undergraduate Institution:** University of California-Berkeley  
**Mentor(s):** Terri Powell, PhD  
**Department(s):** PRFH – Center for Adolescent Health  
**Poster Title:** Assessing Factors Related to Program Implementation Quality in Baltimore Public Schools  
**Sponsor:** Health Careers Opportunity Program (HCOP)

Gabriela Marmalejos  
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**Mentor(s):** Ayodeji Awopegba, DMD, MPH  
**Department(s):** Health Behavior and Society/ Institute of Global Tobacco Control (IGTC)  
**Poster Title:** Global Patterns in E-cigarette Legislation  
**Sponsor:** JHSPH Office of Student Affairs

Nicholas Lacy  
**Undergraduate Institution:** North Carolina State Univ  
**Mentor(s):** Tanjala Purnell, PhD, MPH  
**Department(s):** Surgery, Epi and Health Behavior and Society  
**Poster Title:** Academic-Community Partnerships to Address Disparities in Kidney Transplantation and Organ Donation in the United States: A Systematic Review  
**Sponsor:** JHSPH Office of Student Affairs

Wendy Miranda  
**Undergraduate Institution:** California State University  
**Mentor(s):** Keri Althoff, PhD, MPH  
**Department(s):** Epidemiology  
**Poster Title:** Life Expectancy Disparities and the Effect of Drug and Alcohol-Related Mortality on People with HIV in the U.S.  
**Sponsor:** JHSPH Office of Student Affairs
Foujan Moghimi
Undergraduate Institution: Caldwell College
Mentor(s): Christopher Heaney, PhD
Department(s): EHE/ SOM Pathology
Poster Title: Evaluation of Cytokines in Hepatitis E Viral Infection
Sponsor: Caldwell University

Anthony Nicome
Undergraduate Institution: Texas Christian University
Mentor(s): Norma Kanarek, PhD
Department(s): EHE/ SOM Oncology
Poster Title: County Lung Cancer Mortality: An Updated Decision Tree Analysis of Control and Prevention
Sponsor: NIH Grant #1R25ES022865/ Dr. Michael Trush, Professor, Environmental Health Sciences Division of Toxicology

Christine Okemkpa
Undergraduate Institution: Morgan State University
Mentor(s): Abdel Hamad, PhD
Department(s): Pathology School of Medicine
Poster Title: Pathogenic relevance of BCR-encoded autoantigen in T1D subjects
Sponsor: AARDA/ American Auto Immune Related Diseases Association

Joseph Wilson, Jr.
Undergraduate Institution: Williams College
Mentor(s): Tanjala Purnell, PhD, MPH
Department(s): Surgery, Epi and Health Behavior and Society
Poster Title: Association between Physician Trust and Hypertension Treatment Adherence among Living Kidney Donors: The WHOLE Donor Hypertension Study
Sponsor: JHSPH Office of Student Affairs
2018 DSIP Application Review

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