



THE UNIVERSITY OF ARIZONA

**Mel & Enid Zuckerman  
College of Public Health**

**Summer 2022**

**MPH Internship Virtual Presentations  
Abstract Booklet**

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# Virtual Presentations

We invite MEZCOPH faculty, staff, students, and alumni, as well as our wonderful internship preceptors and community members to view as many presentations as possible. These presentations highlight the depth and breadth of work that our students do with local, national, and global communities.

This page will be available for asynchronous viewing of student presentations until August 5<sup>th</sup>.

## **Presentation website:**

<https://publichealth.arizona.edu/summer-2022-mph-internship-presentations>

For each presentation viewed, please complete a brief survey to provide valuable feedback to the presenters. This feedback is anonymous.

## **Presentation Feedback form:**

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We appreciate your participation in the  
Summer 2022 Virtual MPH Internship Conference!

# Presenters

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## \*Concentrations

AE – Applied Epidemiology

HBHP – Health Behavior Health Promotion

HSA – Health Services Administration

PHPM – Public Health Policy & Management

# **MPH Applied Epidemiology**

## **ABSTRACTS**

EVALUATION AND PLANNING FOR ARIZONA YOUTH PARTNERSHIP & MARANA PREVENTION ALLIANCE. Mariah Albertie. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Arizona Your Partnership – Kelley Cornoado, MEd.

Introduction: This internship experience was with Arizona Youth Partnership (AZYP) and their sub-organization Marana Prevention Alliance (MPA). AZYP is focused on community issues such as substance abuse, homelessness, education, teen pregnancy, and family dynamics in rural parts of Arizona. The internship was focused on the youth substance abuse goals of AZYP and MPA through revamping an evaluation used for a youth diversion program, and developing a research-based report for planning. Methods: The Wake Up! evaluation was adjusted to better collect data from participants. The research report was split into three sections to maximize the different ways it could be utilized. Results: The new evaluation for Wake Up! cut out questions not applicable to the current program and redid the format for better participant engagement. The research report was developed to fit a few potential needs. The theory section is built for future grant applications and having a framework for developing a program from the ground up. The literature review was largely focused on function on youth substance abuse programming and coalitions. The program section outlines multiple intervention types that fit the goals or the organizations. Conclusion: The changes to the Wake Up! evaluation will help with the validity of results. This helps with immediate evaluations needs and can serve as a first step in considering how evaluations function across programming. The research report will be able to aid both MPA and AZYP for future planning. The document is meant to be a bit broad to aid in a few different aspects depending on what the organization chooses to prioritize moving forward.

ACCULTURATION LEVELS AND NAFLD RISK BEHAVIORS AMONG HISPANICS FROM NHANES (2017–2020). N. Brandon Barba. Online. Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: STEP–UP Summer Research Program – Karen Dickeson, BA.

Introduction: Non–alcoholic fatty liver disease (NAFLD) is a growing health concern among the general U.S. population, and significant disparities exist for certain racial and ethnic groups. For example, NAFLD rates are among the highest in Hispanic populations. However, it is unclear how acculturation levels and health behaviors influence NAFLD risk among Hispanic subpopulations. Methods: Using data from the 2017–2020 National Health and Nutrition Examination Survey (NHANES), we analyzed differences in NAFLD status and behaviors between acculturated and non–acculturated Hispanics (n=3,534). Acculturation was assessed using length of time in the U.S. or primary language spoken at home and NAFLD status using a continuous attenuation parameter (CAP) score of  $\geq 288$  dB/m from a FibroScan®. Regression analysis was used to assess the impact of acculturation on CAP score and NAFLD status, and chi–square analysis to measure differences in health behaviors. Analysis was performed in STATA 17.0. Results: Within Hispanics, the mean CAP score was 274.3 dB/M (95% CI, 265.9,262.8) for those who only spoke Spanish at home, compared to 260.5 dB/M (95% CI, 252.6.0,268.4) for those who only spoke English. Increasing use of English at home was associated with lower CAP score (P = .042). Among Hispanics not born in the U.S, there were increased odds of having NAFLD if they had lived in the U.S. for over 15 years (P <.001). Significant differences were found in risk behaviors between acculturated and non–acculturated Hispanics (P <0.05). Conclusions: Identifying the differences in risk behaviors of Hispanics with varying degrees of acculturation is an important step in understanding what factors are influencing NAFLD risk. Creating culturally relevant interventions for NAFLD will be important in addressing this health disparity.



CLIMATE & HEALTH: A PIMA COUNTY COOLING CENTER ASSESSMENT. Amber Davis. Online. Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Pima County Health Department – Mona Arora, PhD, MsPH.

Introduction: Climate change has caused an increase in extreme heat waves throughout the Southwest for longer durations, which is detrimental to people with unreliable air conditioning, the elderly, and the homeless. Cooling centers where the public can congregate in air-conditioned spaces to escape the heat and hydrate is an adaptation strategy to manage the health risks of extreme heat. This internship with the Pima County Health Department aimed to assess the current capabilities of existing cooling center partners to inform the development of a Climate & Health strategic plan. Methods: A landscape analysis was performed to gauge the strengths and barriers of addressing community needs among other cooling center initiatives, particularly in Maricopa County. A survey was also designed for Pima community organizations on their perspectives, abilities, and collaborative network when initiating hydration and heat relief services. Results: A survey guided the informal interview process with cooling center partners. Results demonstrated similarities with community partners in Pima County and the landscape analysis. Staff was trained to recognize heat-related illnesses and had established protocols for heat-related illness emergencies. However, facilities were limited in their accessibility, hours of operation, staffing, and accommodations for animals. Conclusion: Excessive heat waves are predicted to start earlier in the season and persist for longer periods throughout the day. Therefore, the Pima County cooling center network needs to be expanded through partnerships with Faith-based organizations and local businesses that could help provide greater accessibility and increased hours of cooling center operations.

CREATING PUBLIC HEALTH CONTENT FOR ARIZONA PHYSICIAN MAGAZINE. Anna Hartman. Online. Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Arizona Physician Magazine – John McElligott, MPH, CPH.

**Introduction** The Arizona Physician magazine serves over 12,000 Arizona physicians with print & digital articles. My internship with them allowed me to conduct research, write articles, and publish content on important health issues. **Methods** I collected information on value-based care, vaccine hesitancy, and medical marijuana. To do this I reviewed scientific literature, spoke with local health professionals, and collaborated with other interns and internship advisors. **Results** I published three articles for the magazine on value-based care, vaccine hesitancy, and medical marijuana. Value-based care is a healthcare reimbursement model. In Arizona, only some physicians choose to use the value-based model. Challenges associated with transitioning to this model are systems integration, outdated workflows, and limited internal resources. Benefits of value-based care include knowledge sharing within physician networks, integrated patient care, and improved patient health outcomes. Vaccine hesitancy can sometimes stem from use of controversial cell lines like the HEK 293 fetal cells and the HeLa cells from Henrietta Lacks. Using controversial cell lines to produce and develop modern vaccines such as Moderna and Pfizer COVID-19 vaccines can present moral and ethical hesitancy for Americans. Medical marijuana was legalized in Arizona in 2010. Chronic pain is the most frequent qualifying debilitating condition in Arizona. Physicians can certify patients for debilitating conditions or serve as a medical director for a dispensary. **Conclusion** Articles I wrote were included in print and digital publications of the magazine. These publications increased awareness and facilitated further conversation about health topics in the physician and public health community.

INFLUENCING FACTORS IN RURAL AMERICANS' WILLINGNESS TO VACCINATE AGAINST COVID-19: AN EXPLORATORY STUDY. Iris LoCoco. Online. Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Online; Arizona Biomedical Collaborative – Alexis Koskan, PhD, MA.

Background: In the US, rural populations are the most hesitant population to receive COVID-19 vaccines. Guided by the Theory of Planned Behavior and the Health Belief Model, this qualitative study explored rural adults' COVID-19 vaccine perceptions and the role they play in vaccine hesitancy. Methods: We conducted phone-based semi-structured interviews with 30 adults living in rural Arizona, then coded and analyzed the data using a thematic analysis approach. Results: Results demonstrated that most older adults (86.6%, n=26) had been vaccinated against COVID-19. They reported that their willingness to vaccinate against COVID-19 was for the sake of protecting their health and the health of their community. The vaccine-hesitant participants were under age 60. Their chief concern was vaccine safety. These individuals reported a lack of trust in the current federal government and believed vaccine mandates infringed on their personal liberties. Regardless of vaccination status, most participants described the role of politicians and the media as leading to increased confusion about the vaccine. All participants reported trusting their primary care providers and pharmacists, and recommended taking a more local, coordinated approach to COVID-19 response communications. Conclusion: This research illustrates the concerns of rural Americans and explores strategies that can be used in future health communication campaigns aimed at decreasing vaccine hesitancy among rural-living populations.

EXPLORING THE ODDS OF COVID-19 INFECTION IN PROFIT AND NON-PROFIT SKILLED NURSING HOMES, WASHINGTON STATE 2020 AND 2021. Danielle Love. Online. Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Washington State Department of Health – Lynae Kibiger, MPH.

Introduction: The Covid-19 pandemic has hit skilled nursing facilities (SNF) profoundly. This study examined if COVID-19 rates varied based on the business model (profit vs. non-profit). Methods: This study was a cross-sectional ecological study for 2020 and 2021. The main focus was residents and staff from SNFs in Washington state. Data was downloaded from publicly available datasets on the Centers for Medicare and Medicaid Website. The odds ratios of residents and staff deaths were calculated using R Studio. Results: The study consisted of 199 SNFs (142 profit and 58 non-profits). In 2020, the odds of a resident of a for-profit SNF becoming positive for COVID-19 were 1.52 times the odds of non-profit SNFs ( $p < 0.001$ ). Deaths for residents from COVID-19 were 1.19 times the odds in profit vs non-profit SNFs ( $p = 0.024$ ). There was no significant difference in staff cases and deaths ( $p > 0.05$ ). In 2021, there was still an increased odds of becoming positive for residents in profit vs non-profit SNFs (Odds Ratio 1.59,  $p < 0.001$ ), while there was no significant difference in resident deaths ( $p = 0.81$ ). The odds of staff becoming positive for COVID-19 in non-profit SNFs was 1.2 times the odds in for-profit SNFs ( $p < 0.001$ ). There was still no difference in the odds of staff deaths (0.21  $p = 0.131$ ). Conclusions: This study found increased odds for residents in profit SNFs contracting COVID-19 vs non-profit SNFs for 2020 and 2021. In 2020 profit SNFs also had an increased odds of the resident dying. While there was no difference in the odds of staff contracting and dying of COVID-19 in 2020 and 2021, non-profit SNFs showed an increased odds of staff contracting COVID-19. There is a need for future in-depth studies examining why there was a difference in the odds based on the business model of the SNF.

MENTAL HEALTH IN RELATION TO DIABETES IN EL BANCO POR SALUD. Katherine Mendoza. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: University of Arizona – Lindsay Kohler, PhD, MPH.

Background Type 2 diabetes (T2D) disproportionately impacts Latino communities. Latinos with diabetes experience more depression than non-Latinos with T2D which can negatively impact glycemic control. The purpose of this internship was to assess the association between diabetic status and depression in a biobank for Latinos in southern Arizona. Methods El Banco por Salud (El Banco) is a biobank at the University of Arizona composed of Latino patients from federally qualified health center (FQHC) partners: El Rio and Mariposa Community Health Centers. Enrolled participants completed medical history, biometric and clinical laboratory measurements and a questionnaire including the Patient Health Questionnaire–2 (PHQ–2) to assess for major depression. Descriptive statistics were generated, and logistic regression models were used to assess the association between diabetes and depression. Results As of September 2021, there were 968 participants in the biobank, 29% (n=281) reported a depression diagnosis (n= 239) or a PHQ–2 score in the major depressive range (n= 102). Nearly 70% (n=675) had a hemoglobin A1C  $\geq 6.5$  or fasting plasma glucose  $>126$ . Effect modification by enrollment site was significant. The odds of depression in participants with diabetes at Mariposa was 2.9 (95% CI: 1.11–7.39) times higher compared to those with no diabetes after adjusting for age, language, country of birth, insurance, married and education. No significant association was found between diabetes and depression at El Rio. Conclusion This internship illustrates that clinical diabetes management should incorporate depression screenings and treatments to improve diabetic outcomes for Latinos in partnered FQHCs.

THE ASSOCIATION BETWEEN SOCIAL CONTEXT FACTORS AND CONCUSSION EDUCATION AND SYMPTOM KNOWLEDGE AMONG BLACK AND WHITE MIDDLE SCHOOL PARENTS. Alicia M. Montalvo. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Injury Prevention Center, University of North Carolina – Chapel Hill – Zack Y. Kerr, PhD.

Context: Middle school (MS) parents may benefit from education supporting timely concussion identification and care-seeking in their young children. However, such education may not consider individual needs with varying social context factors, including lower socioeconomic status or different racial backgrounds. This study used data from a national survey of MS parents to examine the relationship between social context factors and previous concussion education and knowledge, while exploring race as a potential effect measure modifier. Methods: Data from this cross-sectional study originated from a nationally representative cross-sectional survey of MS parents. Survey Sampling International recruited a sample fitting inclusion criteria (US residents aged  $\geq 18$  years identifying as parents of MS children) from a pool of participants agreeing to participate in online survey research ( $n=1362$ ). Participants completed a self-administered online questionnaire that was previously validated and pilot-tested for face validity with MS parents. Results: Black parents were more likely than white parents to report previous concussion education (69.5% vs 60.5%,  $p=0.009$ ). Distributions of concussion symptom knowledge differed between black and white parents [Median (IQR)=37 (30–43) vs. 40 (34–44),  $p=0.001$ ]. Social context factors were not significant predictors in all individual multivariable models. Conclusions: Race may not serve as an effect measure modifier in the association between social context factors and concussion-related knowledge. However, differences were found between participants by race regarding previous concussion education and concussion symptom knowledge. Concussion education interventions may benefit from being tailored to specific groups and circumstances.

ALERT IN ARIZONA. Chase Redington. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: International Rescue Committee, Glendale, AZ – Alicia Winchel, BS.

Introduction: International Rescue Committee is a nonprofit organization based in the United States that assists foreigners affected by conflict and natural disasters. Specific goals include services to foreign national sex and labor trafficking survivors through the Arizona League to End Regional Trafficking or ALERT program. Through grant funding and community partnerships, survivors can access safety planning, education, housing, and more. To achieve the best results within this program, de-identified data needed to be collected, reported, and organized. Therefore, timely data collection, reporting, and organizational implementation were priorities. Methods: Specific goals that partners and stakeholders agreed to are the collection, reporting, and submission of grant deliverables by specific dates each month. Email communications and tools such as Excel, Box, and the Trafficking Information Management System database were key platforms for success. Results: Due to a lack of care or management from previous years, the need for an organizational system became apparent early on. That organizational system was developed by the intern and preceptor to best record the tracking of partner data and reported grant deliverables. Creating a simple yet effective long-term solution was vital for the success of the ALERT program. Conclusion: These issues gave insight into the poor organizational capacity some organizations encounter when providing services to severely underserved populations such as foreign trafficking survivors. Individual tasks, such as tracking grant deliverables, are substantial to the time, care, cost, and quality that organizations can provide. In addition, these individual tasks create ripples that impact higher levels of an organization, such as policy and community development.

DOES BABYWEARING IN INFANCY PROMOTE SECURE ATTACHMENT INTO EARLY CHILDHOOD? USING STORY STEMS TO EVALUATE A LONGITUDINAL RCT. Emily Rodriguez. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Arizona State University School of Social Work – Lela Williams, BSH, MS, PhD.

Background and objectives. Currently, there is little research on the effects of babywearing (holding or carrying an infant in a cloth carrier worn on the body). For this reason, this study examined how close proximity to their babies increases a mother's awareness of her baby and promotes the neuropeptide oxytocin associated with maternal behavior. Methods. In this study, we examined the long-term effect of babywearing on a group of young mothers who are at greater risk of child maltreatment and may have a harder time bonding with their infants than other mothers. As a research assistant for the Arizona State University School of Social Work, I transcribed, coded, and contributed to the literature review for the Newborn Attachment and Wellness Study. Results. Wearing a baby was found to be an effective intervention to improve mother-child bonding and attachment. Aside from being effective in promoting attachment between mothers and their children, babywearing is also cost-effective and culturally relevant. Conclusions. My time working on this study with ASU has been very valuable and allowed me to better understand how resources and tools are implemented into a study. In addition, being able to contribute my time to the Newborn Attachment and Wellness Study has been important to me as maternal and child health is something that I care immensely about, and I know that the skills and lessons I have learned will translate into my future endeavors.



DEVELOPING A SMOKING PROTOCOL FOR BARIATRIC SURGICAL PATIENTS, QUALITY IMPROVEMENT PROJECT. Molly P. Ryan. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: Banner University Medical Center– Phoenix, The Institute for Obesity and Metabolic Disorders – Melissa M. Davis, DNP, ANP-BC, CNS, FAANP.

Introduction: There is a gap in the literature researching existing clinical smoking protocols for bariatric surgical patients who smoke within twelve months of bariatric surgery. With the increased risk of potential complications post-bariatric surgery for patients who smoke, it is critical that Banner University Medical Center–Phoenix (BUMCP) conducts a quality improvement project and develops a smoking protocol that can be implemented clinically. Methods: The quality improvement project followed the DMAIC methodology and consisted of three main parts: literature review, data analysis, and developing the written smoking protocol. The goal of the literature review was to determine and reinforce the gap in the literature and the lack of data on this target population. The data analysis was performed using STATA and Microsoft Excel with the goal of defining the target population rate and demographic characteristics. The written smoking protocol was developed through combining the findings from the literature review and data analysis. The smoking protocol was presented and approved from a multidisciplinary team before implementation. Results: The literature review found inconsistencies for the rate of bariatric surgical patients who smoke and minimal studies utilizing formalized smoking protocols for pre- and post-bariatric surgery for the target population. The data analysis found that BUMCP's target population (15.95%) was higher than the national average (6.87%–8.21%). Conclusion: BUMCP developed a formalized written smoking protocol for the target population. The protocol includes a step-by-step process for identifying the target population, how surveillance data is collected pre- and post-bariatric surgery, and interventions for decreasing the rates of postoperative complications.

UNITED STATES PUBLIC HEALTH SERVICE COMMISSIONED OFFICER DENTAL HYGIENIST OFFICER SHIP ACTIVITIES. Tanya L. Sumner. Online. MPH Internship Advisor: Halimatou Alaofè PhD, MSc. Site and Preceptor: United States Public Health Services – LCDR Marie–Elena Puleo, MSDH.

Introduction: The United States Public Health Services' (USPHS) mission is to protect, promote, and advance the health and safety of the nation while utilizing its core values of leadership, integrity, service, and excellence. Officers within USPHS serve in various agencies with a focus on public health. As commissioned officers, we are responsible for encouraging others to adopt healthier habits and informing fellow officers about ongoing public health issues. Dental Hygienists make up less than 1% of the Commissioned Corps, so it is important to ensure their needs are met to continue serving their agencies and commissions. For this reason, the internship developed was called the United States Public Health Service Commissioned Officer Dental Hygienist Officer ship Activities. Methods: Within this internship two deliverables were developed. The first deliverable assessed the current needs of dental hygienists within the commissioned corps and provided two brief literature reviews based on the assessment. The second deliverable was based on a USPHS symposium theme of "Preparing for the Future". A public health topic was selected and a literature review was completed. Results: Due to limited participation in the cross-sectional survey, results were not statistically significant and had a large margin for bias. However, the results indicated that the two primary concerns among current dental hygienists within the commissioned corps were back pain and blood-borne pathogen exposure. Literature reviews concluded the same issues. The second deliverable topic for "Preparing for the future" was vaping, and a literature review was developed. Conclusion: The two deliverables were published to the USPHS Dental Hygiene communication Newsletter for educational purposes.

# **MPH Epidemiology**

## **ABSTRACTS**

INVESTIGATING PANDEMIC-INFLUENCED SUBSTANCE MISUSE AND OVERDOSES –  
RECOMMENDATIONS FOR INDIGENOUS POPULATIONS IN ARIZONA AFTER THE FIRST-WAVE OF  
COVID-19. Riley Johnson. Tucson. MPH Internship Committee Chair: Heidi Brown PhD, MPH.  
Site and Preceptor: Inter Tribal Council of Arizona, Inc. – Jamie D. Ritchey, PhD, MPH.

Prior to the COVID-19 pandemic, federal government-tribal relations, historical trauma, and social determinants of health have contributed to the disproportionate prevalence of substance misuse, addiction, and overdoses experienced by American Indian/Alaska Native (AI/AN) communities. This internship synthesized information available on pandemic-influenced substance use and offers potential solutions, specifically for AI/AN communities. First, a key word media search for COVID-19 and substance-use was used to identify and categorize scientific literature from news articles. Second, search terms were entered into Google Scholar to identify articles written between January 20, 2020 and August 31st, 2021; yielding 78 results. The media mentions and the peer-reviewed journal articles identified through Google Scholar were summarized as deliverable 1: a literature review. Deliverable 2 is a technical paper that includes information from the literature review and expands to relevant policy recommendations published by tribal organizations. Based on this work, we concluded that an increase of public health activities focusing on community connection should be prioritized. Access to emergency services, such as naloxone kits, fentanyl testing strips, and suicide/crisis hotlines will reduce mortality. Integration of traditional healing methods offered at healthcare sites should be expanded to increase trust with healthcare providers and increase participation in treatment plans. The intersection between the COVID-19 pandemic and substance use has yet to be fully understood. Resources for substance misuse and addiction must be re-evaluated for accessibility to AI/AN communities.

A MIXED METHODS APPROACH TO PROGRAM EVALUATION: PROJECT SHARE. Heather Kenning. Tucson. MPH Internship Committee Chair: Zhao Chen PhD, MPH. Site and Preceptor: University of Arizona Center for Rural Health – Alyssa Padilla, MPH.

Health insurance is a vital for affordable and accessible health care, however the curriculum for health professions training programs rarely includes health insurance topics, leaving these students unprepared to provide necessary comprehensive care to their future patients. To address this gap, Project Students Helping Arizona Register Everyone (SHARE) trains University of Arizona Health Sciences (UAHS) students about health insurance and provides service-learning opportunities. SHARE also provides all first-year medical students with a “Health Insurance 101” training. A mixed-methods evaluation approach was used to assess three program goals: 1) do SHARE students improve their health insurance literacy, 2) do UAHS students improve their health insurance literacy after attending the Health Insurance 101 training, and 3) are SHARE students satisfied with the program. Goals were assessed using a pretest-posttest surveys and individual interviews with current SHARE students. SHARE students demonstrated an increase in health insurance knowledge based on survey scores. Current SHARE student’s mean knowledge score increased from 75.5% to 90.8% ( $p = .04$ ). Students also reported increased comfort with discussing health insurance topics. Student interviews supported the qualitative findings, and students reported a high level of satisfaction with their participation. First year medical students scores improved after the presentation, however there was not a statistically significant difference. Project SHARE demonstrates that students were able to increase their health insurance literacy and that students are satisfied with their participation in the program. Project SHARE may allow for more informed decisions between these future health professionals and their patients.

# **MPH Health Behavior Health Promotion**

## **ABSTRACTS**

ARIZONA CEAL COVID CONSORTIUM: PROMOTING HEALTH EQUITY DURING THE COVID PANDEMIC; DEVELOPING AND DISSEMINATING TRUSTED COVID-19 MESSAGING. Ayodele Bimbola Adeyemi. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Mayo Clinic Arizona – Farhia Omar, MPH.

Title: Arizona CEAL COVID Consortium: Promoting Health Equity during the COVID Pandemic; Developing and Disseminating Trusted COVID-19 Messaging Introduction: Arizona Community Engagement Alliance Consortium's objectives are to emphasize, understand, and inform individuals of various backgrounds to disrupt COVID-19 misinformation in rural Arizona communities and to provide a wealth of trusted resources that are shared with the community members. Methods: An analysis of Arizona county vaccination rates was conducted to determine Arizonian counties with the lowest vaccination rates. A literature review of best practices for community education was also conducted. The results were shared with stakeholders, including FQHCs, CHCs, AZDHS, and AzCHOW, to provide trusted COVID-19 information to the community. Multiple town hall events were held to address concerns regarding COVID-19 vaccines, and newsletters were used as a channel of communication for vaccine hesitancy and mental health during a pandemic. Results: The Consortium targeted rural communities with lower vaccination rates by working with concerned stakeholders and agencies. This project created a community of practice to distribute trusted COVID-19 messaging and resources that revolved weekly via Mailchimp, an email subscription service. Additionally, a resource library was created for community members that need essential information and updates on COVID-19 information. Conclusion: Further research is needed to evaluate if the communications reached their intended audience in Arizona. Secondly, implementing bimonthly pre-and post-surveys of newsletters containing COVID-19 education to determine an increase in knowledge.

PROMOTING HEALTH AND WELLNESS, AND UNDERSTANDING THE IMPACT OF THE COVID-19 PANDEMIC ON THE RUNNING AND WALKING COMMUNITY OF SOUTHERN ARIZONA. Karyn Bloxham. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Southern Arizona Roadrunners – Lauren Erdelyi, MPH, CAPM.

Title: Promoting Health and Wellness, and Understanding the Impact of the COVID-19 Pandemic on the Running and Walking Community of Southern Arizona Introduction: Southern Arizona Roadrunners (SAR) is a not-for-profit organization that aims to promote health, fitness, and wellness within Tucson and the surrounding southern Arizona (SoAZ) region through walking and running events. The purpose of the internship project is to follow-up to a previous SAR survey conducted in December 2020, assess the impact of the COVID-19 pandemic on the running and walking community (R&WC), and evaluate the race participant demographics. Methods: A literature review of Tucson and SoAZ demographics, health & wellness and running surveys informed the online 2022 Running, Walking & Wellness Survey deployed via Constant Contact in Spring 2022. A survey summary report was generated through analysis of the de-identified data and presented to the SAR board members to convey notable findings. Recommendations on how to further promote health and wellness within the SoAZ R&WC, engagement strategies to expand SAR's impact, and updates to the SAR COVID-19 guidelines were presented. Results: An online follow-up survey was deployed to assess the SoAZ R&WC. Participation of contacts was limited to 112 individuals. The survey participants' demographics and health & wellness were assessed. A summarizing report, multiple recommendations to improve community engagement, and recommended changes in SAR COVID-19 policy guidelines were presented to stakeholders. Conclusion: It was found that the COVID-19 pandemic minimally impacted the surveyed communities' running routines and motivation. SAR could further improve the health, fitness, and wellness within SoAZ R&WC with guided warm-ups and cooldowns and providing sunscreen and shade at SAR events.



THE LIFESTEP RESEARCH EXPERIENCE. Brandon Bowers. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: The LifeSTEP Program – Julie Feldman, PhD.

**Title:** The LifeSTEP Research Experience Introduction: This internship was designed to spark undergraduate student interest in the research process and reviewing peer-reviewed journal articles as well as provide suggestions to potentially improve peer-mentoring within the program. **Methods:** This semester long course was taught through weekly Zoom meetings and consisted of discussions about assigned journal articles covering the impact of poverty, and other factors, underlying behavioral and mental health problems for youth. These discussions were accompanied by PowerPoint presentations about the process of developing a research proposal and how to effectively read a journal article. These presentations were designed to breakdown complex topics into smaller sections over the course of several weeks, to increase the students understanding. The presentations were utilized to direct conversation about the covered topics and enhance the peer learning environment. The course began with teaching students the process of reading a journal and practicing critical thinking to understand how to derive the main points of each article and ultimately culminated with each student conducting a literature review and designing a research proposal that was presented to the director of the LifeSTEP program. **Results:** Each student submitted a research proposal about a public health topic related to youth peer mentoring. These research proposals were designed to provide potential avenues to improve peer mentoring practices within the LifeSTEP program. **Conclusion:** As a result of this internship, it became clear that there is insufficient data regarding peer mentorship programs. Additional research is needed to continue growing and developing life skills training mentorships.

RESEARCH AND DEVELOPMENT OF WEB-BASED FOOD ALLERGY AND STOCK EPINEPHRINE AUTO-INJECTOR TRAINING PROGRAM. Tori Coria. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Kyah Rayne Foundation – Michelle Notrica, PharmD, JD, MPH.

Introduction: The Kyah Rayne Foundation (KRF), located in Phoenix, AZ, is dedicated to advancing food allergy awareness and education while increasing Epinephrine Auto-Injector (EAI) availability. Methods: As a member of the KRF outreach team, local Arizona schools were contacted to inform them of the of the School Surveillance and Medication Program (SSMP) and Kyah's EPICourse. Interested schools were enrolled in both programs. In addition, social media strategy was developed and content was produced and posted on KRF's social media accounts. As a member of the KRF's research and development team, a literature review was conducted that informed the development of a new curriculum: Kyah's EPICourse for Food Handlers. This web-based food allergy and EAI course addressed the unique needs of food handlers in Arizona restaurants. Results: Internship results included further implementation of Kyah's EPICourse into all public, private, and charter schools in Maricopa and Pima County and creating Kyah's EPICourse for Food Handlers to be implemented by future KRF interns in Arizona restaurants. Conclusion: To successfully implement a health promotion program, an organization must be aware of the political climate, build relationships with important political figures, and work with a variety of individuals and organizations to gain resources. KRF was able to successfully implement Kyah's EPICourse into the SSMP because of advocacy and developing and changing policy. In order to implement Kyah's EPICourse into all AZ schools, legislation and relationships must be made at the district and state level, making it a requirement to carry EAIs. If it is not a requirement, schools will continue to opt out of the program, even if the program has the potential to save student lives.

ORAL HYGIENE FOR ORTHODONTIC PATIENTS . Holly Daverin. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Southeast Alaska Regional Health Consortium (SEARHC) – Katie C. Julien DDS, MS.

Title: Oral Hygiene for Orthodontic Patients Introduction: Southeast Alaska Regional Health Consortium (SEARHC), is a non-profit health consortium serving the health interests of Southeast Alaskan residents. SEARHC's vision is to partner with communities to promote a healthy balance of mind, body and spirit through 5 main values: Respect, Cultural Identity, Service, Professionalism, Compassion. Methods: A literature review was completed to assess effective, evidence-based interventions to increase and improve oral hygiene for orthodontic patients. Health education content was created via a written medium intended to be accessible as a hard-copy and digitally to increase access for the target population: SEARHC orthodontic patients. Education content was gathered from researching peer reviewed journals, government organizations, collaborative meetings with licensed dental professionals, and engaged planning and professional networking with various SEARHC department experts. Results: Two deliverables were created, including a literature review and an oral hygiene education pamphlet accompanied by recommendations for further methods to improve oral hygiene for orthodontic patients. Conclusion: SEARHC would benefit from an in-depth, formal development of dental education material, in written and digital formats. SEARHC would also benefit from expanded staff training on oral hygiene education, as well as internal clinic operation adjustments to increase recall appointments and increase continuity of care, thereby improving oral hygiene. Further research and strategic planning with stakeholders are needed to accomplish proposed recommendations.

POPULATION-FOCUSED ISSUE BRIEFS BASED ON THE 2020 ARIZONA STATEWIDE MATERNAL CHILD HEALTH NEEDS ASSESSMENT. Stephanie Michelle Henry, RN, BSN. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Arizona Department of Health Services, Bureau of Women and Children's Health, Office of Assessment and Evaluation – Martín Celaya, MPH.

Title: Population-focused issue briefs based on the 2020 Arizona Statewide Maternal Child Health Needs Assessment. Introduction: The internship was conducted with the Arizona Department of Health Services, Bureau of Women and Children's Health, Office of Assessment and Evaluation. The purpose of the internship was to create two population-focused issue briefs. Methods: The issue briefs were created under the direction of the ADHS site preceptor and Title V Block Grants Manager. Children and Youth with Special Health Care Needs and Adolescents were the populations identified for the briefs. A timeline was created and literature review performed. A template was developed to provide consistency and guide how the content was presented. An Excel Data Visualization course was completed and enabled the creation of charts and graphs for the briefs. Population experts provided feedback for edits and recommendations. The briefs were then formatted within Piktochart. Results: Two issue briefs were created. A template for the brief was created which will be used in future briefs for the remaining three populations of the Statewide MCH Needs Assessment. The template included an introduction, an overview of the 2020 AZ Statewide Maternal Child Health Needs Assessment, a population focus, identified key health issues of the specific population, recent and ongoing ADHS efforts to support the populations, and recommendations. Conclusion: The briefs provided an example of the importance of collaborative effort within public health. The briefs created required a collaborative effort and will be able to provide population specific information to statewide stakeholders. Data can "tell a story." Data visualization can highlight the importance of the findings and clearly communicate a message.

EVALUATION OF THE NATIONAL KIDNEY FOUNDATION'S (ARIZONA CHAPTER) MEDICATION ASSISTANCE PROGRAM FOR END STAGE RENAL DISEASE AND KIDNEY TRANSPLANT PATIENTS. Araceli Loera. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: National Kidney Foundation of Arizona – Renee Hynds, MBA, MPH.

Title: Evaluation of the National Kidney Foundation's (Arizona Chapter) Medication Assistance Program for End Stage Renal Disease and Kidney Transplant Patients  
Introduction: The National Kidney Foundation of Arizona aims to prevent kidney disease through education and research across Arizona. Review of existing programs and needs is essential in improving services provided for those facing kidney disease. Methods: A literature review was completed to provide a greater understanding of medication adherence in patients most at risk of developing chronic kidney disease. Findings and recommendations were presented via Zoom meeting to the Patient Services Committee for their comments and consideration. Feedback from the committee was integrated into the recommendations. An evaluation and quality improvement report was then created to encourage medication adherence within the existing educational components of the foundation. A flyer discussing the importance of managing blood pressure and kidney disease was produced to be shared at future educational events. Results: Four deliverables were created including a literature review, an oral presentation, a quality improvement plan, and an educational flyer. Conclusion: The National Kidney Foundation is currently providing sufficient services for ESRD and transplant patients, however, further educational components should be included to create a greater awareness of medication adherence and its potential to slow the progression of kidney disease and, in some cases, potentially prevent it.

GROWING GIRLS: PLANNING AND MANAGING AN EARLY ADOLESCENT PSYCHOSOCIAL HEALTH PROGRAM. Elsa Loya. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Growing Girls Program | Estes Elementary & Quail Run Elementary Schools in Marana, AZ – Lindsay Bingham, MPH, CHES.

Adolescents aged 10 to 12 years old experience significant physical, social, and cognitive changes important to their overall human development and health. These changes can affect their friendships, mental health, self-esteem, problem-solving skills, and how they navigate social media. Growing Girls provides 5th and 6th-grade girls with support and education to aid in the transition through early adolescence. This internship involved monitoring Group Leaders during program sessions to ensure adherence to protocols and educational curriculum while observing participant engagement. Additional management duties included co-leading weekly debrief meetings with the Program Director and providing weekly feedback on written reflections. In spring 2022, the Program Manager planned and coordinated the annual field trip to UArizona to foster community and inspire participants' goals for the future. Based on a parent survey, participants who regularly attend Growing Girl program sessions enhanced emotional support and increased communication skills. The internship with ZFCPHP's Growing Girls program provided oversight in program management including day-to-day coordination, communication with multiple stakeholders, principles of health education, and enhancing participant engagement through effective facilitation and retention strategies. Managing Growing Girls led to the development of Standard Operating Procedures (SOP) to improve the systematic implementation of the program with the goal to increase sustainability and expand reach in the future. Additional deliverables created through the internship will be used as tools for the Growing Girls team to continue to support program stakeholders and improve UArizona programmatic efforts in Marana, AZ.

WILDCAT MARATHONERS PROGRAM'S IMPACT ON HEALTH BEHAVIORS. Casey McCormick. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Southern Arizona Roadrunners – Lauren Erdelyi, MPH, CAPM.

Title: Wildcat Marathoners Program's Impact on Health Behaviors. Introduction: Southern Arizona Roadrunners (SAR), a nonprofit based out of Tucson, AZ, has a mission to promote health and fitness through walking and running while collaborating with Wildcat Marathoners to implement health promotion programs in Pima County elementary schools. The goal of this program is to increase exposure to health promotion program opportunities for elementary-aged students. Evaluating the impact of the Wildcat Marathoner's program on students' health behaviors gains insight into the effectiveness of the program. Methods: Literature reviews were conducted to determine the appropriate questioning/methods of surveying elementary-aged children for health behaviors/perceptions. Previously deployed programs provided evidence-based information and were used to create appropriate surveys for both 2nd/3rd graders and 4th/5th graders. Specific questions were tailored based on the desired health-related topics for the corresponding age group. Emails were drafted and sent to the school staff who were facilitating the program as well as to the parents to provide consent for their child's participation. Surveys were sent through Constant Contact and were completed digitally and all results were deidentified. Results: Three deliverables were created including literature reviews, survey tool development, and an evaluation report. The program deployment was delayed approximately four months due to COVID-19 which affected the anticipated timeline. Conclusion: Wildcat Marathoners would benefit from allocating more time by having multiple timeline options, in the case of a future delay. Although there was a minimal drop-off in pre/post survey responses, the total number of respondents for each age group was low.

CULTURAL & INCLUSIVE EXPERIENTIAL LEARNING OPPORTUNITIES (CIELO). Belen Alejandra Mejia. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Cultural & Inclusive Experiential Learning Opportunities (CIELO) – Dan Xayaphanh.

Introduction: CIELO targets historically marginalized student populations to participate in multicultural educational and service-learning programs. CIELO seeks to provide students with valuable experiences in the form of short-term programs either at the local, domestic, or international level. By providing students with affordable opportunities to experience interdisciplinary learning students develop deeper connections, knowledge, and fundamental skills that can be utilized in their academic careers and beyond. Methods: A literature review was conducted on evidence-based findings regarding experiential learning for historically marginalized students specifically, students of color, low socioeconomic status, and first-generation students. A needs assessment followed to further understand the limitations and beneficial outcomes that global experiential learning programs have on marginalized students. This informs CIELO in the evaluation, development, and implementation of their cultural relevant curriculum. Results: The literature review results support known theoretical evidence that global experiential learning holds beneficial value in the form of service learning, applied learning, or cooperative education. Students who participate in global experiential learning have multiple academic and long-term benefits. The needs assessment data is currently under review and will be included in the program evaluation once complete. Conclusion: Institutions of higher education representing historically marginalized students need to ensure that their experiential learning programs are widely promoted and affordable. In addition, these institutions need to remember their responsibility for mentor representation of underrepresented students as they participate in and experience the benefits associated with experiential learning.



DEVELOPMENT OF ARIZONA YOUTH PARTNERSHIP'S MENTORSHIP PROGRAM FOR THE STARTING OUT RIGHT (SOR) SCHOLARS PROGRAM. Samantha Reeves. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Arizona Youth Partnership – Laura Pedersen, RN, MSN.

Title: Development of Arizona Youth Partnership's Mentorship Program for the Starting out Right (SOR) Scholars Program. Introduction: The non-profit organization, Arizona Youth Partnership, aims to build solid foundations for youth through addressing substance abuse, youth homelessness, lack of educational opportunities, teen pregnancy, and challenging family dynamics. Specifically, the SOR Scholars Program helps pregnant and parenting youth enrolled in SOR services reach their educational and career goals through unrestricted financial scholarships. Methods: Literature reviews were conducted to understand the health status of pregnant and parenting youth, and to assess previous evidence-based programs that had goals aligned with AZYP and SOR programs. Furthermore, an internal needs assessment was conducted to address the specific needs of the SOR clients and the current state of the SOR Scholars Program. Results: The product of this internship was the addition of a mentorship program to the Starting Out Right Scholars program. Each deliverable connected to designing a health promotion program through the needs of the target population. Routine external feedback was received to allow for the continuation of the program after completion of the internship. Conclusion: As demonstrated in the Whole School, Whole Community, Whole Child model, addressing all components of physical, mental, social, and emotional health are crucial to child development and wellness, especially in the scope of teen populations. Providing a trusted peer-to-peer interaction can not only develop one's self-efficacy in reaching professional and personal goals, but addresses the importance of community support and involvement, as well as the social and emotional climate in each child's life.

DRINKING WATER QUALITY – DEVELOPING A POLYFLUORINATED SUBSTANCES (PFAS) AND ETHYLENE OXIDE (ETO) ASSESSMENT. Italia C. Trejo. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: The Southwest Environmental Health Sciences Center (SWEHSC) – Benjamin Richmond, MPH.

Title: Drinking Water Quality – Developing a Polyfluorinated Substances (PFAS) and Ethylene Oxide (ETO) Assessment Introduction: The Southwest Environmental Health Sciences Center (SWEHSC) at the University of Arizona serves as a non-biased source for scientific information and aims to promote environmental health literacy among underserved populations in Arizona through environmental health education. SWEHSC plays a key role in stimulating collaborative interactions between researchers and the community. Methods: A report summarizing existing peer reviewed literature on Polyfluorinated Substances (PFAS) and Ethylene Oxide (ETO) health concerns was updated and disseminated to the Pima County Health Department. Information of PFAS and ETO groundwater contamination and the potential impact on drinking water was included. Data were collected from publicly available trusted sources including PubMed, NIOSH, CDC etc., Environmental health education materials were created for the public and delivered lay messaging on the nature, source, and risk of PFAS contamination. The risk communication model served as the framework for the development of the materials. Results: Two deliverables were created including completing a literature review on PFAS and ETO exposure and the development of environmental health education materials regarding water safety and PFAS toxicity. Conclusion: The report supports the development of a PFAS and ETO assessment in Pima County and provides information to key-decision makers about the risk of exposure. Improvements in mitigating risk factors and exposure is up to the discretion of the Pima County Health Department. The health education materials improve environmental health literacy among the public and bring awareness to potential health risks associated with PFAS exposure.

COMPARATIVE ANALYSIS OF ACCULTURATION SCALES AMONG EL BANCO LATINO/HISPANIC PARTICIPANTS AND ASSOCIATION WITH TYPE 2 DIABETES AND ASSOCIATED RISK FACTORS. Oscar D Parra. Online. MPH Internship Advisor: Christine Girard, ND, MPH . Site and Preceptor: Research Study MEZCOPH and UA CDDOM – Lindsay Kohler, PhD.

**Introduction** The goal of the El Banco Acculturation study is to assess which of the three most common acculturation scales used among Hispanic populations best captures acculturation for this specific El Banco population and if there is an association between changes in acculturation levels and glycemic control. **Methodology** Student Principal Investigator developed the study design, protocol, and source documentation consisting of survey tools and study training materials. A redcap database with an online data collection tool interface for the study acculturation scales was created to capture and manage the data. Finally, a human subject's study application was submitted to the university internal review board for review and was approved. **Results** As of 3/27/2022, the study has been launched. The deliverables that have been completed are 1) development of a redcap data reporting/collection system designed to track all aspects of the study, recruitment, data collection, consent, compensation, etc, 2) design of the survey questionnaire, and 3) training materials and trained research staff on the study. **Conclusion** The data from this study should help the agency is determining which of the three scales or current biobank questionnaire sufficiently measures acculturation and if there is an association between glycemic control and level of acculturation.

# **MPH Health Services Administration**

## **ABSTRACTS**

A PLAN, DO, STUDY, ACT OF THE HEALTHY FAMILIES PIMA COUNTY DATA SOFTWARE & SUBMISSION TRAINING GUIDE. Jordyn M. Bommarito. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Child & Family Resources: Healthy Families Pima County – Samantha McDonough & Lupe Ricardez.

Introduction: Healthy Families Pima County is a preventative program centered on continuous quality improvement, with state-wide requirements and best practice standards to meet for continued accreditation. One critical aspect of this is the programs ability to submit accurate data within designated deadlines. Methods: A Plan, Do, Study, Act (PDSA) on the program's data software system and site-specific data submissions process was developed to combat decreases in current staff submission rates. No set procedures in this area of the program existed previously, which led the Plan phase to create a training guide. The guide featured key elements from state-wide requirements, standards, and input from the program's data team. The Do phase included a formal presentation of the guide to staff, and collection of qualitative and quantitative data reflecting staff perception and attitude on these new policies. Results: The Study phase involved analyzing survey results based on staff confidence, both before and after attending the training. Responses before the training yielded 70% (n=14) of staff agreed or strongly agreed in their software/data submissions, but 98.5% (n=14) answered the same after the training. Additionally, more positive changes in staff perception occurred versus negative, and few staff had no changes in their perception. Conclusion: This PDSA provided some evidence that a set training guide can support staff in successfully utilizing program software and making data submissions. The Act phase requires that further research be conducted to see if submission numbers improve to meet program requirements/standards. Guide modifications based on this feedback, as well as additional PDSA cycles are necessary.

CATALYZING COMMUNITIES A CHILD OBESITY 180 INITIATIVE. Eduardo Estrada. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Tucson, AZ – Annemarie Medina, MBA.

Introduction: The Tucson Child Health Working Group is a partnership within the nationwide Catalyzing Communities initiative. The TCHWG has identified stress as one of the leading contributors to childhood obesity. The group aims to pilot stress reduction strategies in elementary school-aged children of Tucson, AZ. Methods: A literature review was used to assess different stress intervention types. They were then categorized into short or long-term, depending on how implementation could affect the subject. Multimedia Presentations to agency/stakeholders, including several presentations on zoom and materials presented in PowerPoint. A poster was created to engage the leadership visually and to quickly let them know the benefits of partnership with the stress intervention program. Results: Group coordination and management skills were a vital part of this internship. Meetings and activities that helped extract ideas to propel the project forward, had to be carefully planned. Progress and Productivity were tracked using project management tools to keep focus. Once the SUSD leadership agreed to allow us into their school district to pilot a stress strategy, a consensus-building activity was conducted with the SUSD leadership to extract their ideas around stress interventions. We concluded several areas they wanted to focus on: nutrition, feasibility, accessibility, activity, and access to resources for parents. This all set the foundation for an upcoming pilot. Conclusion: Non-profit work aims to tackle the biggest problems within communities, may not always adhere to perceived project timelines. There are many factors at play in getting an initiative accepted, started, and to the point where it is self-sustaining. Patience and a good foundation will be key in implementing a pilot for the stress interventions project.

COMMUNITY BEHIND A KEYBOARD: IMPROVING A DEFINED SENSE OF COMMUNITY, COMMUNICATION AND CONNECTION AMONG GRADUATE MPH STUDENTS. Tiffani Horn. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: University of Arizona, Mel and Enid Zuckerman College of Public Health – Shipherd Reed, MA.

Introduction: The University of Arizona, College of Public Health has increased the enrollment of virtual students due to schedule flexibility, lower costs, and an opportunity for professional advancement. The virtual learning setting has made it difficult to foster community among students leading to a disconnected graduate college experience. This internship focuses on understanding the key reasons behind the lack of community. Methods: A literature review was conducted to explore the opportunities and obstacles of virtual learning, college connectedness, and student perceptions of online programs. A voluntary, anonymous student experience survey was created based on the literature review in collaboration with the online MPH administrative and communication teams. The survey was sent via an email link to 222 online MPH graduate students through Qualtrics over three weeks. Results: A total of 45 students participated in the anonymous survey. Of those 45 students, 53.49% described the sense of community in the program as fair, while 25.58% deemed it poor. Survey results were analyzed for top areas of opportunity and utilized to develop an intervention for the program. Improvements included effective program and concentration communications, professional development opportunities, supplemental virtual meeting sessions, and tailored social media groups/posts. Findings were presented to members of the Dean's Council alongside the online MPH administrative and communication teams. Conclusion: Developing community among public health professionals is critical in understanding how to develop interprofessional relationships. The support and connection with faculty, staff, and students within the college of public health translates to creating the overarching community of public health professionals in postgraduate school.

GENDER AND LOW AND MIDDLE-INCOME COUNTRY (LMIC) AUTHORS AMONGST COVID-19 PUBLICATIONS. DANIEL R. PENNINGTON. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Online – Purnima Madhivanan, MBBS, MPH, PhD.

Introduction: There is an expected disparity amongst genders and high vs LMICs in publications. UA MEZCOPH strives to understand these disparities with the hope of bringing to light inequities. Methods: A review of six journals publishing COVID-19-related articles from January to December of 2020 was completed and obtained from WHO database. Data were collected from each article, including first or senior author gender and country affiliation. First or senior author's country affiliation (using World Bank 2021 classification) was used to determine LMIC status vs High-income country status. Articles without identified authors and duplicate articles were excluded. Data collection tools included an excel spreadsheet and STATA analysis. Results: 3619 articles were reviewed in total. 1718 articles met all criteria to be included in the analysis. One of the six journals had to be excluded due to multiple discrepancies limited timeline. Articles were removed due to inability to identify author gender (62 first, 61 last). At least one first or senior female author compared to at least one first or senior male author publications was statistically significance in all categories ( $p < 0.001$ ). Of the 1718 articles in analysis, single-authored studies 82 (4.8%) had at least one author from an LMIC, and 38 (2.2%) had at least one author from an LMIC whereas 173 (10.1%) of articles had a discussion of LMIC in the article. Conclusion: Firstly, there is a significant gender disparity amongst COVID-19 publication authors. Women are under-represented, and a foundational change needs to occur to support women in the academic setting. Secondly, there is an underrepresentation of the LMIC countries in COVID-19 publications. There was increased discussion of LMIC's in the articles yet did not provide authorship credit.



MARINE CORPS BASE CAMP PENDLETON PUBLIC HEALTH EVALUATION & QUALITY IMPROVEMENT TO THE SARS-COV2 OUTBREAK. Tony Reinosa. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Camp Pendleton – Ray Martinez, MPH.

Abstract Title: Marine Corps Base Camp Pendleton Public Health Evaluation & Quality Improvement to the Sars-CoV2 Outbreak Introduction During the Covid-19 global pandemic, Marine Corps Base Camp Pendleton faced unique challenges and unavoidable close quarters in field environments, military vehicles, aircraft and vessels, barracks and dining facilities. To preserve force readiness and mitigate infections, numerous policies had to be implemented base wide to ensure total force protection and mission success were met. Methods During policy meetings the common risk factors faced by Camp Pendleton military personnel were worked into policy and analyzed for practicality and mission impact. Adjustments were made accordingly by the base commander under advisement from the base public health department, Defense Health Agency and local authorities. Respective unit commanders adopted the base policy and enforced additional measures as needed. Development of an operational risk management matrix was necessary to mitigate exposure. Regular Covid meetings and unannounced visits by preventive medicine teams occurred to ensure policy compliance and distributed our public health program pocket guide. Results Policing troops to follow policy and force health protection measures and distributing the base public health department pocket guide helped lower infection rates across Camp Pendleton to 3.57 cases per day. As new variants of the Sars-CoV2 virus developed and spread, base public health officials quickly adjusted policies to ensure total force safety. Conclusion Fluid adjustments to Camp Pendleton Covid-19 policies indicated that the spread of infection could be mitigated even with unavoidable close contact of large groups and upgrade ventilation systems to the aging buildings of Camp Pendleton.

INNOVATIVE WAYS TO EXPAND AND CONNECT THE NEW CITRUS PEST AND DISEASE PREVENTION DIVISION (CPDPD) DURING THE PANDEMIC. Aleece Richter. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: California Department of Agriculture – Keith Okasaki.

Introduction: The California Department of Food and Agriculture’s Citrus Pest Disease Prevention Division (CPDPD) is a new division within the department. It was formed in the middle of the COVID-19 Pandemic. The purpose was to bring collaboration among staff, build better communication between the public and the division, and assess the success and failure rate of the trapping program. Methods: A literature review of different leadership styles was performed through scholarly articles and TEDx videos. A collaborative informational wall was created by conducting research on how citrus is used around the world. The cold contact outreach card was designed via Canva, and the expertise of staff was used to accurately convey the correct information to the public. The trapping program was analyzed using raw data entered into spreadsheets via excel to determine the success and failure rate of the traps used to detect the Asian citrus psyllid (ACP). Results: The leadership literature review was delivered in an interactive self-guided PowerPoint format with links to information via video. The collaborative informational wall was displayed in the main office for all staff to see. The cold contact outreach card will be utilized in the Northern and Central districts. The findings from the data analysis illustrate a positive trend of success for the trapping program. Conclusion: The organization would benefit from the further engagement of the informational wall to engage further awareness and importance of daily tasks. Further data analysis should be conducted to determine the differences in success and failure rates based on geographic locations and weather patterns. Continued engagement with the minority population would be beneficial in the regulatory program.

DEVELOPMENT OF A FRAMEWORK FOR IMPLEMENTATION OF AN INFECTIOUS DISEASES DIAGNOSTIC STEWARDSHIP (IDDS) PROGRAM AT BANNER UNIVERSITY MEDICAL CENTER–TUCSON (BUMCT). Justin F. Hayes, M.D. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Banner University Medical Center–Tucson – Kathryn Matthias, PharmD.

Introduction: IDDS has been proposed as a quality initiative to decrease unnecessary testing, while promoting appropriate use of tests to improve patient safety and outcomes. The current state of IDDS programs and resources required to operate a successful program are unclear. To further understand the state of IDSS, an internship was conducted at BUMCT. Methods: First, a systematic PubMed search was performed to identify studies that focused on IDDS. Review of position statements from relevant organizations was also conducted as part of the review. Second, assessment of current IDDS was conducted with the microbiology department at BUMCT. Finally, educational materials were created after the assessment for targeted education at the hospital focused on areas of need in IDSS. Results: 18 studies met inclusion criteria for analysis from the systematic literature review. Procalcitonin was shown to be an effective option for sepsis care and patient safety, while utilization of the electronic health record (EHR) for optimization of laboratory testing was shown to be helpful but lacking robust literature. Assessment of current hospital practices revealed that while procalcitonin is available for laboratory ordering, no guidance is in place. In terms of EHR interventions, minimal efforts are currently in place at BUMCT. Based on the assessment, educational materials were created to teach IDDS to hospital staff. Conclusion: BUMCT would benefit from implementation of more clinical decision support embedded in the EHR targeted to respiratory, urine, and diarrhea testing. Procalcitonin guidance is a specific example that is recommended based on the results of the internship. In addition, further targeted efforts with the educational materials created during the internship would benefit the hospital.

ADDRESSING HEALTH INEQUITIES FOR UNDERSERVED YOUTH IN CENTRAL PHOENIX. Natalie Munoz. Online. MPH Internship Advisor: Christine Girard, ND, MPH. Site and Preceptor: Arizona State University Downtown-TRIO Student Support Services – Rafael Guzman, MEd.

Introduction: The Arizona State University (ASU), Trio Student Support Services (SSS) provides academic and career support to disadvantaged students pursuing their first baccalaureate degree at ASU. Trio SSS assists first-generation, low-income, and students with disabilities receive academic support, mentoring, and financial guidance throughout the entirety of their baccalaureate degree, given that they complete the required number of workshops each semester. Methods: A review of the TRIO SSS program was conducted to determine the health inequities amongst youth in downtown Phoenix and to identify what kind of resources and education were lacking in the community. By utilizing publicly available search engines resources were identified from non-profit, state, federal, religious, and private organization to support students. PowerPoint presentations were created to be presented in the upcoming semesters during topic-based workshops. In the future semesters brochures and issue briefs will be provided to the youth during these required workshops. Results: Through the programs database staff will have access to multiple outlined PowerPoint workshops and an excel sheet that contains the resources identified for future semesters. Having these resources available to staff will shorten the gap of health inequities experienced by students. Conclusion: The deliverables provided will be accessible to students moving forward. The program should continuously update the excel sheet containing the resources and the continue to find new topics for the students' health and wellness. Staff will be able to measure success at the end of each workshop by providing a survey to students and reviewing their responses.

# **MPH Public Health Policy and Management**

## **ABSTRACTS**

STRATEGIES FOR INTEGRATING PUBLIC HEALTH INTO STATEWIDE LONG RANGE TRANSPORTATION PLANNING IN ARIZONA. Donna C. Lewandowski. Tucson. MPH Internship Committee Chair: Stephanie Russo Carroll DrPH, MPH. Site and Preceptor: Pinnacle Prevention – Kenneth Steel, MPH.

Statewide Long Range Transportation Plans (SLRTPs) describe the major policies and goals of state transportation agencies and guide financial expenditures. Incorporating public health outcomes into SLRTPs could result in more transportation spending decisions which improve the health of the public. Arizona's current SLRTP does not explicitly recognize a connection between the transportation system and the health of Arizona residents. Using a key-word search, 51 SLRTPs were reviewed for explicit statements that a) recognize a direct link between the transportation system and human health, b) recognize that transportation systems are how people physically access health care, and c) include either a policy or an objective, goal, strategy or measure (OGSM). The SLRTPs of five Arizona transportation peer states were further analyzed to determine their approach to public health and relevance to Arizona. Of the 51 SLRTPs evaluated, 29 (56.9%) acknowledge a link between the transportation system and human health and 22 (43.1%) acknowledge the link to health care access, but only 18 (35.3%) acknowledge both. 12 (25.5%) include these linkages in policy statements and in an OGSM. Of the five peer states, only one (CO) acknowledges both linkages, two (OR, UT) acknowledge only the link to human health, and two (NV, ID) do not acknowledge either link. While three of Arizona's transportation peer states acknowledge a link between the transportation system and human health or to access to health care in their SLRTPs only one (OR) includes the link in a policy statement or in an OGSM. For Arizona to incorporate these linkages into its SLRTP in a meaningful way, it will have to go beyond what peer states have done. This report outlines potential avenues for the inclusion of these two linkages in Arizona's SLRTP.

## **The MPH Internship Experience**

From the inception of the Master of Public Health Program in 1993, the internship experience has been one of the most impactful and practical part of the program's curriculum. In the fall of 1999, MPH faculty determined that students needed a formal setting for making their oral presentations. A committee comprised of faculty, students, and student services professionals was formed to develop an appropriate presentation venue. In November 1999, the MPH Program debuted its first MPH Internship Conference.

Since its establishment, the MPH Internship Conference has grown in stature and significance to the Mel and Enid Zuckerman College of Public Health (MEZCOPH). The College uses this event as a public health networking tool by inviting public health practitioners, partners, and alumni throughout the state. The key to its success lies in the student participation.

Through contributions they have made and the benefits they have gained, the Internship Conference reflects the indelible handprint of MEZCOPH students on public health projects and agencies throughout the world.



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