Conference Poster Abstracts
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TPHA Virtual AEC
**Poster 1: Geospatial Visualization of Neighborhood Factors and School-Based Asthma Initiatives in Tarrant County**  
**Presenting Author:** Arianne Felicitas, UNT Health Science Center, Texas College of Osteopathic Medicine

**Background:** Known disparities exist in pediatric asthma prevalence and outcomes. While there are uncertainties about the complex interactions that drive disparities, there is consensus that children from minority and low-income families are at the highest risk of adverse outcomes, including school absences, hospitalization, and mortality. School-based asthma initiatives, such as Asthma 411, have the potential to improve asthma outcomes by assuring access to medication at school, supporting education and awareness, and providing links to community resources. Geographic Information Systems (GIS) have been recommended to inform public health initiatives and policy decision-makers on community resources to improve chronic disease management. However, there has been limited use of these tools to inform the dissemination and implementation of school asthma programming.

**Methods:** ArcGIS Living Atlas was used as a platform for mapping publicly available and Asthma 411 program data within the Texas Education Agency (TEA) Region 11. The American Community Survey census tract centroids (2014-2018) were used to map the percent of the population with household income < 100% of federal poverty limit and housing occupancy by race. TEA spatial data was used to map school district boundaries. Program data provided information regarding school district adoption and implementation of the Asthma 411 model.

**Results:** Maps have been constructed to depict the distribution of low-income and minority families across area school districts. The results visually suggest that Asthma 411 school districts encompass most areas of concentrated risk for poor asthma outcomes, but pockets of risk exist outside of the current service area. Additional spatial analysis is planned to refine the understanding of these findings. **Conclusion:** GIS may provide an important tool to support data-informed efforts to improve asthma outcomes. Spatial mapping of recognized risk factors and program data can help decision-makers prioritize the dissemination of programs, inform the allocation of resources, and support research to reduce health disparities.

**Poster 2: Determinants of Child Migrant Health**  
**Presenting Author:** Hani Serag, The University of Texas Medical Branch

**Background:** The study aims to assess policies, agency practices, and social determinants impacting the health of child migrants from Central America and Mexico and their access to healthcare in the U.S. Specific objectives include: (1) describing factors shaping their health risks; (2) describing barriers to health services; and (3) identifying strategies to reduce these risks and barriers.

**Presenting Author:** Robert Levine

**Background.** Firearm-related mortality among school age children (ages five to 18 years) has been increasing in the United States. The present report describes firearm related deaths among school age children in Texas (1999-2018). Methods: Public Multiple Cause of Death Files from the National Center for Health Statistics
(NCHS) provided age- race- sex- and ethnicity-specific mortality rates, 95% confidence intervals (CI) and standard errors. International Classification of Diseases (ICD) Codes (10th Edition) Accident (W32-W34); Suicide (X72-X74); Assault (X93-X95); Undetermined Intent (Y22-Y24), and U01.4 (Terrorism) were used to identify firearm related mortality as the underlying or contributory cause of death. We started with 1999, because NCHS identifies this as the earliest year for which valid Hispanic rates are available. Epidemic was defined as any increase in occurrence from that which is usually expected, verified by statistically significant increases in Annual Percent Change (APC) according to jointpoint regression analysis.

Results: There were 3471 firearm-related deaths among Texas school-age children from 1999 to 2018. Boys accounted for 83.3%. Highest rates were found for 15 to 18-year-olds: non-Hispanic Black (Black) (16.9 per 100,000 (95% CI 15.6, 18.2); non-Hispanic White (White) (8.8 (8.2, 9.3); Hispanic 8.4 (7.9, 8.9). Blacks accounted for 21.9% of all school age deaths versus 12.8% of the population at risk. Intent was specified as 55.4% assault; 37.9% suicide; and 5.1% accident. Firearm-related mortality was epidemic among Hispanic, Black, and White children: Hispanic APC = 21.5% (95% CI 9.2, 35.2) p<0.05 since 2014; Black, APC = 8.0% (3.5, 12.7, p<0.05 since 2009; and White, APC = 2.7% (0.5, 4.9, p<0.05) since 2002. Conclusions: Firearm-related mortality is increasing at alarming rates among Texas school-age children. Analytic epidemiologic studies designed a priori to do so are necessary to test hypotheses generated by these descriptive data.

Poster 6: Measuring Organizational Performance of Community Health Worker Organizations
Presenting Author: Denise Hernandez, UT Arlington, DFW-CHW Association

Background: Community Health Workers (CHWs) continues to grow as an emerging profession that needs support in Texas. Currently, there are over 3,000 certified CHWs and CHW Instructors serving in Texas' several in areas without local support. Methods: A number of local coalitions and professional organizations support CHWs in different capacities; however, in 2014, a survey of CHWs across Texas identified the need for a state-organized presence representing and supporting CHWs. In 2019, CHW participants of another statewide survey identified the need for state-level support and advocacy addressing reimbursement, compensation, and supervision of CHWs. The results of these surveys served as the foundation for the development of the state CHW association. Local CHW networks, and CHW leaders and allies worked together to identify the goals, structure, and function of the organization. The efforts and processes identified by the founding members of the Texas Association of Promotores/Community Health Workers have proven successful for the implementation process, which can also be replicated. Conclusion: While there were challenges in the process to establish a statewide association, collaboration with local CHW coalitions and CHW leaders was key to developing successful strategies to overcome these challenges and continues to be essential in moving the association forward. Relying on collaborative partnerships, working with experienced CHWs, recruiting members through existing mechanisms, and advocating for this profession provides the necessary support identified by certified CHWs and CHW Instructors across Texas.

Poster 7: Ingestion of Cycas revoluta by dogs
Presenting Author: Cristina Holloway, North Texas Poison Center

Background: Cycas revoluta (sago palm) is not a true palm but a cycad. C. revoluta contains various toxins, including cycasin, macrozamin, neocycasin, and beta-methylamino-l-alanine. Ingestion by dogs may result in vomiting, diarrhea, weakness, ataxia, depression, coma, seizures, tachycardia, dyspnea, miosis, renal failure, coagulopathy, and liver problems. Ingestions by dogs may provide insight into the characteristics of similar ingestions by people. The objective of this study was to characterize C. revoluta ingestions by dogs reported to poison centers that primarily manage human exposures. Methods: Cases were C. revoluta exposures reported to a large, statewide poison center network during 2000-2018 where the exposure route was ingestion, the patient species was animal, and the animal type was dog. The distribution of cases was determined for various factors. Results: A total of 114 C. revoluta ingestions by dogs were identified. The part of the plant involved in these
ingestions was the seed (n=19, 17%), leaf (n=9, 8%), root (n=7, 6%), bulb (n=4, 4%), flower (n=1, 1%), stem (n=1, 1%), and unknown (n=73, 64%). Forty-five (39%) of these ingestions occurred from March through May. Eighty-nine (78%) of the ingestions occurred at the home of the dog’s owner or caregiver. Fifty-eight (51%) of the dogs were managed outside of a healthcare facility, 54 (47%) were managed at a healthcare facility or other location, and two (2%) were managed at an unknown location. The most commonly reported initial sign was vomiting (n=40, 35%). Other clinical signs reported in association with < four ingestions were gastrointestinal (e.g., diarrhea, nausea, abdominal pain, anorexia), neurological (e.g., drowsiness or lethargy, agitated/irritable, confusion), and hematologic or hepatic (e.g., low aspartate transaminase/alanine transaminase, increased bilirubin, or other liver function test abnormality).

Conclusions: These cases suggest that ingestion of C. revoluta by dogs might result in gastrointestinal, neurological, and hematologic or hepatic signs.

**Poster 8: Length of maternity leave impact on maternal and child mental and physical health, a systematic review and meta-analysis**

**Presenting Author: Madeline Dixon, UTHealth School of Public Health**

Background: Recent legislative decisions regarding parental leave in the United States have encouraged discussion about national parental leave programs. Currently, over 47% of the United States workforce is female. However, the United States is the only nation of the 37 member countries in the Organization for Economic Co-Operation and Development to have no national requirement for maternity leave. The first few months of a child's life are vital to their physical and mental development. Likewise, a gradual return to pre-partum functioning is important for a newly postpartum woman. While it has been shown that maternity leave positively impacts various measures of maternal and infant mental and physical health, we lack consensus of the optimal length of paid or unpaid maternity leave. Accordingly, we conducted a systematic review and meta-analysis to evaluate the optimal length of paid or unpaid maternity leave to encourage maternal and infant mental and physical health in the United States.

Methods: A systematic review and meta-analysis were conducted to synthesize and critically evaluate the current research investigating the association between maternity leave and maternal and infant mental and physical health using the Preferred Reporting in Systematic Reviews and Meta-Analyses guidelines. Databases EMBASE, PsycInfo, PubMed, and Scopus were searched using specific inclusion and exclusion criteria. Methodological Index for Non-Randomized Studies scale assessed the methodological quality of the included eligible studies. The magnitude of heterogeneity between-study was tested using The Cochrane \( \chi^2 \) test and the Moranâ’s I² statistic. Possible publication bias was assessed through the funnel plot and the Egger regression test. A p-value of < 0.10 will be considered as an indication for the existence of potential publication bias. All statistical analyses were carried out with Stata software version 15.

Results: In Progress Conclusion: In Progress

**Poster 9: Motor Vehicle Fatalities, Crashes and Risky Behavior for Young People in Texas**

**Presenting Author: Ursula Solorzano, Texas Department of State Health Services, HSR 7**

Background Adolescent health has been showing a need in programs designed to address the high rates of mortality among this age group. Top Causes of Death After Natural Causes in Adolescents Aged 10-17 Years, 2017 was Suicide and Motor Vehicle accidents. I created a dashboard that looks to provide more information on Motor Vehicle deaths among young people in Texas.

Methods Data research, data request, data analysis, and final data dashboard development using Tableau.

Results Motor Vehicle (MV) Fatalities for Age Group 15-24 2017: Accidents [Injuries] were the leading cause of death, Transport Accidents were the leading types of accidents, and Car occupant injured in transport accidents was the leading type of motor vehicle accident. 2104-2018: males accounted for more MV fatalities than females. Continued: Motor Vehicle Crashes 2017-2019: Data shows the number of crashes starting to decrease at age 20, age the prefrontal cortex shows signs of brain more fully matured. 2017-2019: Ages 15-17 showed to have the highest number due to being unrestrained. Ages 21-24 showed to have the
highest number due to driving under the influence then decreasing after age 25, the age the prefrontal cortex is considered fully developed. Driving Habits (Students) 2013 and 2017, Texas students more likely to ride in a car with a driver who had been drinking than the U.S. 2019: White and Hispanic more likely than Black and Other to drive a car after drinking. Black more likely than White and Hispanic to never or rarely wear a seatbelt. Continued: Map 2016-2017: Deaths for Texas residents aged 15-24 years-old by public health region (PHR) showed PHR 6/5S to have the highest number of accident deaths. Conclusion: This information is important for public health professionals to use in order to come up with interventions that are tailored to address these needs. DSHS is able to also use this data to come up with programs or implementations to better the health of the Texas population.

**Poster 10: Prevalence of Class I, II, and III Obesity in Early Childhood in Greater Dallas, Texas**

**Presenting Author:** Sitara Weerakoon, UTHealth School of Public Health

Background: Rates of severe obesity are rapidly increasing in children aged 2-5 years, the period known as early childhood. Few studies to date have explored the prevalence of, and the demographics associated with classes II and III obesity during these critical years of development.

Methods: The study population (N=1,174) included caregivers of a 2-to-5-year-old who responded to a 2015 survey administered by a healthcare system in the greater Dallas metroplex, which largely serves children from low resource backgrounds. Body mass index was calculated using self-reported information on child age, sex, height, and weight. Key demographics (age, sex, income, education) were assessed with caregivers with only a high school education (OR: 2.27, 95% CI: 1.03-5.00; OR: 8.03, 95% CI: 1.68-38.43). GIS analysis displayed higher rates of class II and III obesity in low income and majority non-White zip codes, specifically in Lancaster, Carrollton, and Palmer, TX.

Conclusions: This study is among the first exploring demographics associated with classes I, II, and III obesity in early childhood. Significant racial and socioeconomic disparities were identified, suggesting further studies be conducted to understand how class II and III obesity impacts health and development during this sensitive period of development.

**Poster 11: Separating myth from fact: Lung cancer (LC) and hepatocellular cancer (HCC) on the United States (US)-Mexico border -- 1999-2017**

**Presenting Author:** Robert Levine

Background: The United States (US)-Mexico border area is notable for poor housing and sanitation and high levels of poverty and unemployment. Compared to the US as a whole. Border Counties (BC) have significantly lower mortality from primary malignant lung cancer (LC) and significantly higher mortality from primary malignant hepatocellular cancer (HC) than the US as a whole. Objectives: Compare mortality from primary malignant LC and HCC in US-Mexico border counties (BC), non-US-Mexico border counties in border states (BNB), and non-border US areas (USNB). Methods: Public US Center for Disease Control WONDER Multiple Cause of Death files provided mortality data. Joinpoint regression was used for trends. Results: Lowest LC mortality occurred among Hispanics, but Hispanic rates were comparable in B and BNB counties. Non-Hispanic white rates, however, were significantly lower in B versus BNB and USNB counties and non-Hispanic black rates trended sharply lower (p<0.05) to approximate Hispanic rates. Aside from non-viral, non-alcoholic chronic liver disease, components of the metabolic syndrome, and alcohol-specific diseases solely among people 55+ years of age -- rates of risk-factor-ascribed HCC mortality, while higher than USNB rates, were similar in B and BNB areas. Conclusions: Proximity to the US-Mexico border did not explain LC or HCC mortality among the dominant Hispanic population but did account for relatively low non-Hispanic LC rates in the B area. Future analytic epidemiologic research should focus on why the socio-
economically and environmentally vulnerable BC area have low rates of LC among non-Hispanic residents and rates of HCC which are comparable to BNB areas.

**Poster 12: Etizolam Exposures Reported to Poison Centers**  
**Presenting Author:** Cristina Holloway, North Texas Poison Center

Background: Etizolam is a benzodiazepine analog that possesses sedative, hypnotic, anticonvulsant, and anxiolytic properties. Etizolam is not authorized by the United States Food and Drug Administration (FDA) for medical use and is a controlled substance in some states. The objective of this study was to describe etizolam exposures reported to a statewide poison center network.

Methods: Cases were etizolam exposures reported to the Texas Poison Center Network during 2000-2018. The distribution of the cases was determined for various factors.

Results: A total of 25 etizolam exposures were identified. The mean patient age was 25 years (range 5-75 years); 20 (80%) of the patients were male and five (20%) female. Twenty-three (92%) of the exposures occurred by ingestion alone, one (4%) by ingestion and inhalation, and one (4%) by unknown route. Twenty-one (84%) of the exposures were intentional, one (4%) unintentional, and three (12%) unknown reason. Nineteen (76%) of the exposures occurred at the patient’s own residence, one (4%) at another residence, and five (20%) at an unknown location. The management site was 20 (80%) already at or en route to a healthcare facility and five (20%) referred to a healthcare facility. The medical outcome was three (12%) no effect, three (12%) minor effect, 11 (44%) moderate effect, two (8%) major effect, three (12%) not followed-minimal clinical effects possible, and three (12%) unable to follow-potentially toxic; no deaths were reported. The most common clinical effects were drowsiness/lethargy (n=10, 40%) and tachycardia (n=6, 24%).

Conclusions: Most etizolam exposures involved patients who were male and adults. Most exposures were intentional. Most of the exposures were managed at a healthcare facility and resulted in serious outcomes.

**Poster 13: Exploratory Analysis of Drug Use & Behavioral Health using Syndromic Surveillance in Harris County, TX**  
**Presenting Author:** Puja Shah, Harris County Public Health

Background: Drug overdose is the leading cause of accidental death in Harris County, and opioids are involved in approximately half of all substance use/misuse deaths. Houston and Harris County data also show that polysubstance use is a major issue locally. The utilization of ESSENCE, a tool to collect and analyze syndromic surveillance data, to identify on-going community trends for drug use and behavioral health is critical to get insight in real-time, compared to mortality data.

Methods: Data was obtained and accessed through the Syndromic Surveillance Consortium of Southeast Texas (SSCSeT); this platform has been utilized to query data from January 1, 2019 to November of 2020. Pre-populated syndromes, CDC queries, and ad-hoc queries were applied to the data to generate line graphs of counts and percentage queries and to identify differences before and after the identified change point of the Stay Home, Work Safe order in the county.

Results: From preliminary analyses, trends for both drug use and behavioral health appear to increase in a worrisome trajectory when comparing the time before and after the Stay Home, Work Safe order.

Conclusions: While the analysis is on-going, there are already early hints that the opioid epidemic continues to impact the Houston/Harris County community in the undercurrent of the COVID-19 pandemic. This has significant implications: the public health workforce is already taxed and strained from the pandemic. Once vaccines are widely available and utilized, it may be difficult to muster the resources and political will for public health agencies to pivot from a deadly pandemic to a deadly epidemic that was made worse.

**Poster 14: Development and evaluation of prognostic models to predictive survival of glioblastoma patients**  
**Presenting Author:** John Lin, Brown University

Background: Glioblastoma multiforme (GBM), the most common form of glioma, is a malignant tumor with a high mortality risk. By providing accurate survival estimates,
prognostic models have been identified as promising tools in clinical decision support. In this study, we produced and validated machine learning models to predict survival time for GBM patients. Methods: Open-source clinical and genomic data from The Cancer Genome Atlas (TCGA) and Broad Institute GDAC Firehouse were obtained through cBioPortal. Random forest (RF) and multivariate linear (MVL) regression models were implemented to predict survival. Predictive accuracy was assessed and compared through the Brier score and root mean square error (RMSE) calculations. Results: The dataset included 619 GBM patients. There were 381 (62.9%) cases of recurrence/progression and 53 (8.7%) cases of disease-free survival. Brier score and RMSE values were 0.553 and 0.887 years respectively for RF, and they were 1.756 and 2.451 years respectively for MVL. Conclusions: Both models accurately predicted overall survival. Comparison of models through Brier score, RMSE, and survival curve analysis produced higher accuracy values for RF than MVL. Model optimization techniques may further improve predictive power. These findings suggest that machine learning in GBM prognostic modeling will improve current clinical practice.

**Poster 15:** Contribution of pupillary light reflex assessment to Glasgow Coma scale for predicting prognosis in patients with traumatic brain injury

**Presenting Author:** Aardhra Venkatachalam, The University of Texas Southwestern Medical Center

Background: Traumatic brain injury (TBI) is the leading cause of death and disability in the U.S accounting for approximately 3 million emergency department visits and hospitalizations, making it a substantial public health issue. The Glasgow Coma Score (GCS) and pupil responses are important prognostic tools for predicting the severity of TBI, but there is inadequate literature comparing these tools as predictors of outcome. Methods: Data from 121 TBI patients enrolled in Establishing Normative Data for Pupillometer Assessments in Neuroscience Intensive Care (END PANIC) registry were included in this analysis. A Non-linear mixed model (NLmixed) approach was used to determine which of the following predictors; GCS, GCS-P, GCS-NPi, and average NPi was a better predictor of mRS outcome by fitting four predictive models for comparison.

Results: The GCS had a maximum likelihood estimate (MLE) of -0.23 (p<0.001), GCS-P had an MLE of -0.22(p<0.0001), GCS-NPi had an MLE of -0.22(p<0.0001), and average NPi had an MLE of -0.49 (p=0.0001). The NLmixed model determined that GCS, GCS-P, GCS-NPi, and average NPi did not differ significantly in predicting mRS outcome at discharge and all of these predictor variables significantly predicted the discharge mRS outcome (p<0.001). There was a strong significant correlation between the four predictor variables (p<0.05). Age was a significant independent predictor of mRS outcome at discharge (p<0.001). Conclusion: All the four predictor variables were equally effective at predicting mRS outcome at discharge among the study population. This warrants future investigation in a prospective cohort to explore the combination of pupillary reactivity scores and NPi with GCS for the prediction of outcomes and prognosis in patients with TBI. Pupillometry is a viable prognostic tool comparable to GCS in TBI patients and can aid in rapid assessments in areas such as violence prevention, motor vehicle safety, and general brain injury treatment.

**Poster 16:** COVID-19 Growth in Rural versus Urban Counties with Major Universities at the Start of the 2020 Academic Year

**Presenting Author:** Michael Penuliar, TTUHSC Rural and Community Health

Universities play a central role in a rural or small town’s economy. They are often the main forms of enrichment to the lives of the longtime residents, the students, and the employees. Unfortunately, during a global pandemic, the migration and movement of young people in and to these communities can likely cause a rapid infection spike and drive spread easily, especially relative to larger urban areas. The current study investigates the relationship between COVID-19 case growth, levels of university-county rurality, and time (8 weeks) at the beginning of the Fall 2020 academic semester. A repeated measures analysis resulted in a significant interaction. Importantly, the results showed that small metro and non-metro counties with universities had a dramatic infection spike near the beginning of the semester and infection growth remained significantly
higher than their large and medium metro counterparts for the duration of the study. It appears that the rapid migration of students to these locales had a more dramatic effect on COVID-19 growth rates in rural university counties compared to non-rural university counties.

**Poster 17: Chronic Depression and Prescription likelihood as a function of Race and Sex in a Low-Income Clinic Sample**  
*Presenting Author: Michael Penuliar, TTUHSC Rural and Community Health*

There is a need to further understand the intricacies of poverty and demographic factors and their effect on physical and mental health. The current study investigates the likelihood of chronic depression in a low-income clinic sample in the West Texas region. Medical records data from a low-income clinic were transcribed and analyzed. Logistic regression models were performed on a sample of 460 patients. The first model showed that race and gender both contributed to a higher likelihood of chronic depression history. Specifically, Hispanic and Black patients were less likely than White patients to indicate a history of chronic depression. Additionally, males were less likely than females in indicating a history of chronic depression. A second logistic regression was performed on those without chronic depression to better understand antidepressant prescription likelihood. Results showed that Hispanics without a history of chronic depression were less likely than White patients to receive antidepressants during their visit. There were no significant differences between Black and White patients. Female patients without a history of chronic depression were also more likely to be prescribed antidepressants. These results show that there may be demographic and related factors that contribute to chronic depression or the prescription of antidepressants. Protective and risk factors are discussed.

**Poster 18: The Keys to Transitioning In-Person Education to Virtual during a Pandemic**

*Presenting Author: Crescencia Alvarado, City of Austin - Austin Public Health*

Background: How do you transition your in-person health education to a virtual platform when a pandemic hits? Austin Public Health had to do just that by pivoting quickly and developing a creative, easy-to-use virtual diabetes program. This was critical to continue the commitment to provide diabetes education to a population that not only was at a higher risk for complications from type 2 diabetes, but COVID 19 as well.

Methods: Traditionally, diabetes education was offered at in-person classes in English and Spanish at churches and activity centers. With the pandemic, the program was moved to a virtual format. Steps that were taken include the following: Research was completed to choose the best video conferencing platform to ensure access barriers would be reduced. Participants would be using smartphones and have limited experience with computers. Staff collaborated with IT staff, Purchasing and the experts in virtual community engagement. Zoom was selected and a contract was developed that included a HIPAA and a non-disclosure agreement. A pilot was conducted to gather information and survey participants. The classes were promoted using social media, radio ads and a flyer. The registration and consent form were automated. Participants were contacted to provide training on Zoom and to collect pre-test data. Drive-by events were conducted following COVID protocol, to distribute incentives and complete the post-survey and evaluation. Results: 35 participants registered with 22 completing the program. Results collected include satisfaction, participation and behavior change data. Results are being reviewed at the time of this application. Conclusion: The virtual diabetes classes were a success. The curriculum was well received, attendance was good, and participants were open and willing to share their experiences, a component critical for class success.

**Poster 19: Perceptions of Health Risks Associated with Little Cigar and Cigarillo Use**

*Presenting Author: Diane Berry, School of Public Health, University of Texas Health Science Center*

Background: Little cigar and cigarillo (LCC) use has recently increased in popularity, and some work suggests
that users underestimate the health risks posed by smoking LCCs. We asked adult LCC users (n=652) and non-users (n=403) to evaluate the risks associated with smoking LCCs. Method: Participants (M age = 26.7 years; 50% female; 18% African-American, 11% Asian, 21% Hispanic, 42% Caucasian, 8% other) evaluated the likelihood of developing heart disease or lung cancer as a function of four possible patterns of LCC use. The patterns described to participants varied in use frequency (daily versus a few days per month) and amount of product consumed per use (a portion of an LCC versus an entire LCC). Risk perceptions were assessed on 5-point scales, and analyzed via analyses of variance.

Results. Men and LCC users judged LCC use to be significantly less likely to result in either heart disease or lung cancer than did women or non-users, respectively. LCC use was also perceived to pose significantly less risk for either condition if it occurred a few days a month as opposed to daily, or if it involved smoking only a part of as opposed to an entire LCC. African-American participants perceived the likelihood of developing heart disease as a result of LCC use to be significantly lower than did other groups, although no race/ethnicity differences were observed in the perceived risk of developing lung cancer.

Conclusions. Men, LCC users, and African-Americans judged LCC use to be somewhat less risky than did other respondents. Less frequent use and smaller amounts of LCC consumption per use also decreased perceived risk. Given the increasing popularity of LCCs, a better understanding of factors associated with risk perceptions may help guide decisions about the content and target audiences of health communications.

Poster 20: Tracking COVID-19 Pandemic Messages at Restaurants in Three Texas Areas
Presenting Author: Andrea McDonald, Prairie View A&M University

Introduction: The recent outbreak of Coronavirus pandemic (COVID-19) has resulted in a wide range of catastrophic effects on our normal ways of living. The pandemic has disrupted the global food supply chain and affects how individuals consumed meals daily. Prior to the COVID-19 pandemic, about 14% of the USA population was reported to be food insecure. The literature has shown that the average American consumes their meals away from home at least three times per week. Purpose: This study explores COVID-19 messages and operating hours at restaurants in the three Texas areas. Methods: This study used a qualitative design to understand food consumption during COVID-19. Researchers searched the internet for restaurants' locations and addresses in Waller, Montgomery, and a section of Harris County. A list was compiled with the types of foods served, restaurants opening hours, service options (pickup, dining only, or delivery), and COVID-19 messages to the customer. Results and Discussions: Sixty-two (N=62) restaurants were identified in total (Waller n=18; Montgomery n=18, and Sunnyside Harris county n=26). Some food items served in the establishments were pizza, Taco, burgers, and French fries. Seventeen restaurants had COVID-19 messages on their website. All the observed messages were located on large chain restaurants such as McDonald's and Taco Bell. Family-owned restaurants had no message related to COVID-19. Most of the restaurants indicated operating on a reduced schedule, and three stated closed due to COVID-19. Although messages about the COVID-19 pandemic was not a mandate for restaurants, informing customers about health and safety is very crucial to help with social distancing. Conclusion: More research is needed to understand the underlying factors preventing family-owned restaurants from sending COVID-19 messages during this pandemic.

Poster 21: Promotora-Centered Mental Health Intervention
Presenting Author: Tauane Araujo Cruz, Texas Health Resources

Background Research links unfavorable health outcomes to socio-economic disadvantages. Texas Health believes that improving health outcomes and preventing or delaying disease in communities requires identifying, addressing, and eliminating negative influences, and strategically providing education, resources, and access to care where needed. Through Well Together, an upstream community-based approach, partners like AVANCE North Texas and University of North Texas at Dallas (UNTD) are delivering innovative programs aimed at reducing stigma and improving mental health. Methods Designed around AVANCE’s parent
engagement program, the Well Together promotor model provides innovative training and equips community change agents to deliver mental health education in the home setting. Promotoras receive training to respond to signs of mental illness and substance use based on Mental Health First Aid. In consultation with UNTD, AVANCE re-designed the intensive curriculum for short one-on-one sessions taught by promotoras during regular home visits (Spanish and English) to families at-risk because of limited access to resources, language barrier and immigrant status. Promotoras incorporate the patient health questionnaire-9 a depression measurement tool into their visit plan. Two case managers address social determinants of health by connecting families to needed resources through Well Together and other community services.

Results Six promotoras underwent training on MHFA within the first six months and contributed to curriculum design. Within 12 months, over 100 families received education on mental health and over 50 families benefited from case management. 63% of those assessed showed a decrease in depression associated with the health education intervention. Conclusion Texas Health believes fostering strong community relationships is key to effective long-term change. Equipping lay community members with skills and resources to support individuals facing a mental health crisis is a viable model for communities at-risk. Our partnership with AVANCE and UNTD resulted in a promising peer-to-peer mental health education model.

Poster 23: Impact of Lifestyle Intervention Using Family Central
Presenting Author: Aimee Lopez, Student at UNTHSC/TCOM

Background Chronic diseases due to preventative causes are becoming increasingly prevalent among Americans. The Pediatric Mobile Clinic provides free medical care and vaccines to uninsured children in underserved areas of Fort Worth. These underserved populations have health concerns that demonstrate the need for lifestyle medicine interventions that can promote healthful eating, physical activity, sleep, and other healthy behaviors in order to help prevent chronic disease while also improving the well-being of the family.

Methods Participants were placed into three groups that initially met once a month to discuss a Family Central topic (i.e. Nutrition, Physical Activity, Tobacco Avoidance, Sleep, Stress Management, and Social Connection). Sessions were converted to a virtual platform due to the COVID-19 pandemic, and participants instead met once every three weeks. Participants engaged in discussion on the topic of the week and created SMART goals. Data was collected through self-reported pre and post session surveys on the health topics.

Results A general linear mixed-effects model will be used to examine the impact of lifestyle intervention including health lifestyle education classes on participants’ knowledge, attitude, and behaviors, and clinical outcomes. Due to the small sample size and the incomplete survey responses, the results were non-parametric. However, the survey responses showed that the Family Central sessions were highly effective in all participants in increasing awareness of good health behaviors and improving health status. Conclusion: The Family Central program is both important and necessary for improving the health behaviors of the community. With proper education and improved health behaviors, we will see reduced likelihood of chronic disease. We hope to see a positive impact not only in the short-term but in the long-term as well, as caregivers model the health behaviors for their children.

Poster 24: Treatment is Good, Prevention is Better, but Early Prevention is Best: Super Smile Savers Program
Presenting Author: Sohini Dhar, Harris County Public Health

Objective: The aim of the Super Smile Savers Program is to reduce the prevalence of dental diseases among children in Harris County, Texas.

Methods: Since its inception in 2014, the Super Smile Savers Program has provided services to 27,187 elementary school aged children in Harris County. The major components of the program are providing oral health education, oral assessments, fluoride varnish applications, and referrals as needed. The prevalence of oral health care needs among the children participating in the program are periodically monitored to provide baseline data for development of future oral health
interventions.
Results: The oral disease burden among children participating in the Super Smile Savers Program is greater than national and state average. Data shows that 13.8% of children in United States and 17.7% of children in Texas have one or more oral health problems. Among the children assessed in Harris County, 10.7% had dental problems requiring immediate attention and 32.1% needed dental care at the earliest convenience. One of the unique aspects of the Super Smile Savers Program is the referral system, 24.3% of children who did not have any obvious dental care needs were provided with referrals because they did not have an established Dental Home or dental coverage, while 42.8% of the total number of participating children were provided with referrals because they needed early or immediate dental treatment. Conclusion: The dental disease burden among children in Harris County is substantial. Services provided through the Super Smile Savers Program is important for the assessment, prevention, and elimination of dental diseases among children in Harris County.

Poster 25: Nursing Students and See to Succeed: A Service-Learning Strategic Partnership
Presenting Author: Suzanne Scheller, Texas Woman's University

Background Nursing education strives to prepare nurses to meet the health care demands of a diverse population. To meet this goal, the Child Health Competencies (CHC) course at Texas Woman's University (TWU) College of Nursing Institute of Health Science Houston Center sought learning opportunities outside the classroom. In an effort to meet course objectives and reach the community, the (CHC) course partnered with The Houston Health Foundation's initiative See to Succeed. Using a service-learning model, the collaboration met the needs of the community as well as the clinical requirements.
Methods Every semester TWU faculty train and certify senior nursing students in vision and hearing screening. See to Succeed optometrists further train the students to perform specific vision assessments (distance visual acuity, color vision, stereo acuity, and near point accommodation). Students then actively assist screening school aged children in assigned vision stations during See to Succeeds scheduled community outreach clinic events.
Results Approximately 200 nursing students assist with screening thousands of school children every year. By applying what they learn, students meet course objectives while also helping See to Succeed meet an identified public health need. Concurrently, the students increase their exposure to under-served populations and learn firsthand the value of inter-professional collaboration.
Conclusions Nursing partnerships with community-based programs come in many different forms. The strategic partnership between TWU and See to Succeed is the perfect example of service learning that is a win-win collaboration: nursing students benefit by experiential learning of taught material and the community benefits by having their health care needs met. With over 12,000 school-aged children screened annually, TWU nursing students and See to Succeed make a significant impact on Houston area population health.

Poster 26: COVID-19 and Search Interest in Ophthalmic Services and Conditions: An Infodemiology Study
Presenting Author: John Lin, Brown University

Background: Trends in patient care have been impacted by Coronavirus Disease 2019 (COVID-19), with many public health authorities issuing guidelines to avoid or defer elective surgeries and in-person care. Purpose: To analyze the impact of the COVID-19 pandemic and lockdowns on public interest in ophthalmic services and conditions.
Methods: Weekly search interest data for ophthalmic services and conditions were obtained from Google Trends from January 1, 2019 to June 21, 2020. Temporal statistical analysis was used to identify significant trends.
Results: Ophthalmic services searches declined following the first COVID-19 case in the country; searches for ophthalmic services and conditions also decreased following the first COVID-19 case and lockdown orders in each state. Search interest in ophthalmic services fell more than for ophthalmic conditions after the first COVID-19 case in each state. Lockdown and COVID-19 had similar effects on search interest in ophthalmic services, but interest in ophthalmic conditions decreased
more after lockdown than after the first COVID-19 case in each state.

Conclusions: The decrease in search interest in ophthalmic services was associated mostly with COVID-19 rather than with lockdown orders, suggesting that public interest in ophthalmic care may be more sensitive to changes in the COVID-19 pandemic than lockdown orders.

THANK YOU

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