

Public Health Presentations Oral Student Paper Presentations and Poster Presentations Abstracts

PRESENTATIONS

Increasing Access to Colorectal Cancer (CRC) Screening in Rural East Texas where there is a High rate of Adenomatous Polyps Detected Carlton Allen, MS; Sarah Malone, BS; Martha Ross, BSN, RN; Bola Olusola, MD; William Sorensen, PhD.; Paul McGaha, DO, MPH

Colorectal cancer (CRC) screening saves lives, yet rates among underserved populations are low. CRC mortality rates are higher in Northeast Texas than in Texas and the U.S. In 2012, the colorectal cancer incidence rate was 13% higher and the mortality rate was 15% higher in Northeast Texas than in Texas overall. In Northeast Texas, rates were 42% higher among blacks than whites. Screening for CRC in asymptomatic patients can reduce the incidence and mortality of CRC. We provided a coordinated screening program to increase access to and delivery of CRC services (Fecal Immunochemical Test (FIT) and Colonoscopy) in a 7 county area of East Texas. Multiple partnerships were established with existing community programs and clinical colleagues in primary care were engaged to assist with recruitment. Participants with a negative FIT or whose colonoscopy revealed no/benign polyps were scheduled for follow-up. Participants with a positive FIT were scheduled for a colonoscopy. Participants with a colonoscopic biopsy demonstrating a precancerous polyp or cancer were scheduled for clinical follow-up and intervention. For Year 1, 1,337 screenings were performed as part of our CPRIT grant. Of those who screened through our program 8.2% were screened through FIT (n=110), and 91.8% were screened through colonoscopy (n=1227). For the 2nd funding year 2,409 screenings were performed. Of those who screened through

our program 26.9% were screened through FIT (n=648), and 72.6% were screened through colonoscopy (n=1748). Overall over 95,000 individuals were reached and over 7,000 individuals educated. We believe that our approach to patient recruitment, which includes population outreach and clinician participation, combined with strategies to overcome barriers to participation such as provision of transportation to participate in CRC screening and/or treatment could be implemented by other health care systems in Texas and will lend to the future sustainability of promoting CRC screening in East Texas.

Building a collaboration through a school-based asthma management program Leslie Allsopp, MSN MPH; David A Sterling, PhD, CIH; Pam McFadden, FACEHP; Andrew Crim, FACEHP; Kelly Zarwell

Asthma is among the most common chronic childhood conditions. North Central Texas has an elevated rate of asthma with an estimated 25% of children being diagnosed with the condition by age nine. The Asthma 411 program was piloted in one elementary and one middle school from 2013-2015, to enhance in-school asthma services for high risk students. The program elements implemented were: standing orders for nebulized albuterol administration to students with symptoms of respiratory distress; identification of students with self-reported asthma and tracking of those with signs and symptoms of poor asthma management; nursing continuing education; education and awareness for students, parents, staff and administration; and support for improved communication between schools and health care providers. Each occurrence of nebulized albuterol treatments, asthma education, and communication with health care providers and parents were logged. This data was analyzed with ISD

demographic, academic testing and attendance data. Among children enrolled in both years, the mean days absent among children with self-reported asthma decreased 1.3 days ($p < .05$) between the first and second year. The corresponding value among those without asthma was 0.29 days. The schools made 25, 9-1-1 calls due to asthma in the year prior to the pilot; no 9-1-1 calls during school hours were made during the pilot. Expansion of the program to additional schools is currently underway, including development of linkages with area health care providers and school data analysis support to enhance school health services. Overcoming initial concern regarding the use of standing orders, the program was well received by school nurses and parents, successfully enhanced school-based asthma services for students, and demonstrated reduction of absences and 9-1-1 calls due to asthma. The pilot is serving as a foundation for a developing collaboration to support health of students throughout the district.

Workplace Violence Against Nurses in Texas Catherine Campbell, MPH; Francisco Gonzalez, MA; Pamela Lauer, MPH

Violence against nurses in the workplace is a growing issue in the US. The Bureau of Labor Statistics found that there were 11,100 incidents of intentional injury by other person in 2014 in the health care and social assistance fields, but little is known about the extent of this issue in Texas. This study was conducted to illustrate the prevalence of workplace violence against nurses in Texas and identify practices that prevent or reduce verbal and physical violence against nurses. The project consisted of two phases: a facility survey and an individual nurse survey. In the spring of 2016, administrators at approximately 2,800 hospitals, freestanding emergency

medical care facilities, long term care nursing facilities, and home health agencies in Texas were surveyed to assess practices and strategies used by employers to prevent workplace violence against nurses. In the summer of 2016, a sample of approximately 7,800 RNs and LVNs in Texas were surveyed regarding their experiences with workplace violence as it relates to both verbal and physical violence over the course of their career. This analysis will identify the current strategies used by healthcare facilities in Texas to address and report incidents of violence against nurses, as well as trainings and strategies used to prevent or reduce workplace violence. It will also describe the prevalence of workplace violence against nurses, the types of workplace violence committed, and the people and groups who committed the violence. In order to address the issue of workplace violence against nurses, the current prevalence and types of violence occurring and the education and reporting strategies already in place must be identified. Results of this study can be used to design effective policy solutions to prevent workplace violence against nurses.

Foodborne Illness Outbreak Investigations in the Era of Whole Genome Sequencing Venessa Cantu, MPH; Greg Leos, MPH, CPH; Irina Cody, MPH

Pulsed-field gel electrophoresis (PFGE), a molecular subtyping method, has played a key role in foodborne illness outbreak detection and investigation over the last two decades. Whole genome sequencing (WGS), which looks at the complete genome, provides far greater phylogenetic relationships than PFGE. The Centers for Disease Control and Prevention (CDC) began sequencing *Listeria* isolates in 2013 and have expanded to other enteric organisms. The Texas Department of State

Health Services (TX DSHS) began sequencing *Listeria* and select enteric isolates in 2014. Foodborne Illness Outbreak Investigations conducted by TX DSHS during 2014-2016 were reviewed and clusters where WGS was performed on Texas isolates were selected for analysis. Descriptive epidemiologic statistics were used to summarize clusters with sequenced isolates, and include whether the investigation led to an implicated food item or product recall. Of the 214 Foodborne Illness Outbreak Investigations reviewed, 3 listeriosis, 1 shiga toxin-producing *E. coli*, and 3 salmonellosis clusters were selected. Notable findings include a 2014 listeriosis outbreak, with 4 Texas cases, that was associated with caramel apples, a novel food vehicle for listeriosis; a 2015 listeriosis outbreak where WGS allowed public health to associate 3 historical Texas cases to the implicated ice cream product; and a 2015 *Salmonella* Oranienberg outbreak that initially included 5 Texas cases, indistinguishable to the outbreak PFGE pattern, but only 1 case was closely related by WGS to the outbreak. Whole genome sequencing has improved outbreak investigations by refining PFGE cluster case definitions by excluding cases or showing that isolates with different PFGE patterns are related. WGS can increase confidence in the association between clinical and product isolates and assist with identifying unrecognized sources of foodborne illness. As WGS is incorporated more into foodborne illness outbreak investigations, it is important to note that epidemiology and exposure data is still vital to investigations.

Elimination of Tuberculosis Using Targeted Testing for Latent Tuberculosis Infection
Yolanda Cantu, MPH; Lillian Ringsdorf, MD, MPH

Tuberculosis (TB) disease continues to be a major public health issue globally and in

Texas with TB cases increasing in 2015 for the first time in 23 years. There is consensus that to eliminate TB the focus must shift to the identification and treatment of latent TB infection (LTBI). Breathe Easy South Texas (BEST) is a project funded by the Texas 1115 Medicaid Waiver and focused on identification of LTBI in high risk populations in 20 south Texas counties. Instead of the traditional skin test, the project uses interferon-gamma release assays (IGRA) - a technology superior to the skin test "to test for TB infection. The project is a partnership between the Texas Department of State Health Services, the San Antonio Metropolitan Health District, University Health System and a growing network of clinics in urban and rural communities across the project's 20 county area. Clinics agreeing to participate in the project are trained on TB and LTBI treatment and management and supported with implementation of IGRA testing at their local site/s. The project also targets testing activities at one of the largest homeless campus in the state. Through August, 2016 the project accomplished the following: 20 new sites across the 20 county project area implemented IGRA testing to identify LTBI; 4,470 persons have been screened using IGRA; 435 of 9.73% have had a positive IGRA and required follow-up; 181 cases (41.61%) have had LTBI confirmed; 99 (54.70%) have started treatment; and, 49 (49.49%) have completed treatment. ¶ Significant challenges associated with implementing screening for LTBI in diverse clinical and non-clinical settings. ¶ Significant numbers of persons with positive tests for TB infection opt out of treatment. ¶ Strategies to engage persons with confirmed LTBI into treatment need to be developed and implemented.

Group Lifestyle Balance: Adapted for Impaired Mobility (GLB AIM): Translating the GLB to Promote Healthy Weight in People with Mobility

Disability (Impairment)

Danielle Carlton, MPH; Andrea Betts, MPH; Katherine Froehlich-Grobe, PhD; Simon Driver, PhD; Mary Kaye Kramer, DrPH, MPH, BSN, CCRAC

Researchers adapted the Diabetes Prevention Program Group Lifestyle Balance (DPP GLB) for individuals with impaired mobility (IM) based on feedback and working with a national advisory board. Program adaptations included (1) developing new content and making targeted revisions to the original sessions, (2) offering conference calls and in-person meetings for core sessions, (3) offering make-up conference calls and audio recordings for missed in-person sessions, (4) using smartphone apps to self-monitor, and (5) providing adaptive equipment for physical activity and meal preparation. The effectiveness of the 12-month adapted weight loss program, Group Lifestyle Balance: Adapted for Impaired Mobility (GLB AIM), is currently being tested with 67 participants randomized to experimental and wait list control groups. The initial experimental group completed the program in August 2016. Staff developed a 53 item survey to obtain quantitative and qualitative data on participant experiences with GLB AIM. Participants rated program components on helpfulness and satisfaction, the extent barriers prevented participation, support from others, and potential help of additional program components. Qualitative data assessed reasons for low participation, content they would have liked to receive, recommended changes, and favored aspects. Preliminary analyses show that group one positively rated the overall program with a 4.6/5 on helpfulness and satisfaction, and program staff received the highest rating of all components with 4.9/5 on helpfulness and satisfaction. Nearly all (96%) would recommend GLB AIM to others and participants rated disability-related health issues (2.8/5) and difficulties preparing healthy foods (2.7/5) as the greatest barriers to participation.

The GLB AIM was highly rated by initial program participants, yet barriers to participation were noted and ideas offered to further improve this adapted weight loss program for people with IM. Given higher obesity prevalence in this population, exploring interventions that adequately address their needs is important to improving health and quality of life.

Age Differences in the Association between Body Image Dissatisfaction and Diet Behaviors in a Multi-Ethnic State Representative Population
Eun Me Cha, MPH; Nalini Ranjit, PhD; Natalie Archer; Debra Saxton; Deanna Hoelscher, PhD

With media promoting the ideals of a thin physique for females and muscular body for males, adolescents develop a distorted view of body image, often with adverse psychosocial consequences. While there is substantial research examining the psychosocial correlates of body image dissatisfaction (BID) among adolescents, few studies have examined the behavioral consequences. Specifically, there is a lack of research evaluating how BID is associated with dietary behavior among adolescents by age. Demographic, BID and dietary data from the Texas School Physical Activity and Nutrition (SPAN) survey, 2009 to 2011, were collected using validated instruments from a school-based population representative sample. Multivariate logistic regression models were used to examine the association between BID and dietary behavior, controlling for race/ethnicity, parental and friends' influence on healthy eating, and BMI, further stratified by grade and sex. SPAN included 3,855 8th and 2,727 11th grade students. Among 8th graders, 45% showed BID, with 17% wanting a larger body, and 28% a leaner body. Among 11th graders, 20% and 29% wanted a larger and a leaner body, respectively. The adjusted odds of consuming unhealthy diet among middle school

students who desired a larger body was 2.98 (95% CI 1.14-7.83) relative to those with no BID. Similar patterns were observed in 11th graders as well, but these results did not achieve statistical significance. In sex-stratified models, we found that these effects were most pronounced among girls, from both 8th and 11th grade. While the data cannot be used to determine causality, these results point to a need for further research and interventions that focus on helping adolescents to develop healthy body image and appropriate dietary behavior, especially during the early adolescent years.

Getting on the same page for breast health knowledge and prevention Shlesma Chhetri, BA; Katherine Cantu, MPH, CPH, CHES; Emily Spence-almaguer, PhD, MSW; Marcy Paul, PhD; Anjali Desai, MPH; Misty Wilder

Objective: The absolute benefits, associated harm, and appropriate screening guidelines for breast cancer have been subject to debate due to frequent over-diagnosis. Inconsistent messaging from various sources on breast health differ in terms of perceived screening benefits and the recommended interval and age for screening. It is important to evaluate the current

level of breast health awareness among women in order to recognize where efforts should be focused. This study aimed to assess the level of breast health knowledge among women of Tarrant County, Texas. Lay breast health educator training were conducted within low-income neighborhoods in Tarrant County. The data from pre- and post-surveys at the training were utilized to evaluate the effectiveness of a brief train-the-trainer curriculum. Participants at the training were further asked to encourage their peers to attend a screening day event, held at nine locations throughout Tarrant County. Participants who attended the screening event also completed a survey. Screening responses were later combined with the pre-training

survey to assess participants' knowledge on breast health. Variations in currently available screening guidelines were evaluated through literature reviews. 43 women participated in the education event and 91 women completed an assessment at screening. Many were aware of lump related symptoms; however, most lacked understanding of other recognized breast cancer indicators. Literature reviews reiterated the inconsistency in current guidelines and symptomology, particularly non-lump related symptoms. This study reflected a lack of knowledge regarding breast cancer risk and symptoms, echoing the need to recognize non-lump related symptoms. The brief breast health curriculum improved knowledge among participants following the training session, suggesting that consistent training is beneficial in order to recognize breast cancer symptoms. This information should be disseminated at reading levels appropriate for known high-risk populations.

The Community Health Worker Core Consensus (C3) Project Maria Cole, MPH, MSW; Caitlin Allen, MPH, CHES; J. Nell Brownstein, PhD; E. Lee Rosenthal, PhD, MS, MPH; Carl H. Rush, MRP

Community Health Worker (CHW) employers are often challenged to create tools appropriate to assessing the relationship-centered skills vital to the CHW practice. Currently, each state follows different standards and procedures to train and assess CHWs. Many states rely on exams, which are typically not the best method to assess interpersonal skills. The CHW Core Consensus (C3) Project aims to determine best practice assessment techniques and create additional tools. These products will be vital to Texas as the second largest employer of CHWs in the United States. The C3 Project is working to (1) identify the roles, skills, and qualities required for CHW practice in community vs. clinical settings, (2) develop

recommended tools to assess proficiency in core skills, and (3) to develop and promote an understanding about roles and skills. The team is developing recommendations for a division of roles and skills between "true core"(recommended for all CHWs) and a more specified "health care core"(CHWs employed by health care institutions) and a "community core"(CHWs working exclusively in community-based organizations). We will use qualitative, semi-structured interviews to be transcribed verbatim and organized using inductive thematic analysis. We will describe the process of reviewing, refining, and developing assessment tools for CHWs' proficiency across varied settings. We discuss the process of building consensus among stakeholders to adequately and consistently assess CHW performance and impact. We will discuss emerging elements that look to be important for CHW assessment. The Project's methods include multiple levels of review, outreach and engagement with the CHW community. These activities will help to establish a common core or standard of practice similar to those established by social work and nursing. The C3 Project will help to raise awareness and understanding among stakeholders, partner with professional organizations and to promote and unify CHWs.

Reducing Infant Mortality in Tarrant County through Reproductive Healthcare Anjali Desai, MPH; Patricia Alridge, BSN, RNC-OB, MHA; Leslie Hallgren, LMSW

Infant mortality, the death of a baby before his or her first birthday, is a tragedy faced by parents and communities worldwide. Tarrant County currently has the highest infant mortality rate in the State of Texas among Texas counties with 10,000 or more annual live births. Two JPS projects, Preconception/ Interconception and Journey to Life, have the ultimate goal of lowering the

preterm birth rate and reducing infant mortality in Tarrant County. The Preconception/ Interconception project works with teens, women, and men ages 15-44 who may be at risk for unintended pregnancies. Patients work with social workers and Community Health Workers to complete reproductive life plans and receive education about health during preconception and interconception. JPS also reaches patients during pregnancy through the Journey to Life project. This project involves conducting Centering Pregnancy sessions and providing maternity medical home services such as car seat classes, dietician consultations, diabetes education, health coaching, assistance with transportation, and patient navigation. Since October 2013, over 3,000 patients have been served through Preconception/ Interconception and over 7,000 patients have received education and services through Journey to Life. Measurable metrics for these projects include the preterm birth rate, timeliness of prenatal care defined by a prenatal visit during the first trimester, and timeliness of postpartum care defined by a postpartum visit between 21 and 56 days after delivery. Because the baseline periods for the projects are different, there are two preterm birth rate periods being measured. The preterm birth rate has improved for both projects. The timeliness of prenatal care has increased and the timeliness of postpartum care has also increased. There is still a need for continued interventions. By providing evidence-based services to patients before, during, and in between pregnancies, JPS is promoting maternal and child health, ultimately aiming to reduce infant mortality.

Improving Access to Perinatal Oral Health Care: Houston Health Department Strategies Johanna DeYoung, BSN, DDS, MPH; Janet A. Aikins, PhD, MPH; Teresita E. Ladrillo, DMD, MPH

Oral health is key to overall health during all phases of life. Pregnancy is no exception. Historically, dental professionals have failed to provide oral health care during pregnancy. Likewise, prenatal patients do not seek dental services during pregnancy. On October 18, 2011, the American Dental Association (ADA) and the American College of Obstetricians and Gynecologists (ACOG) collaborated to publish guidelines for the provision of safe dental care during pregnancy, "Oral Health Care During Pregnancy: A National Consensus Statement". The Consensus Statement debunked the idea that dental care must be postponed during pregnancy. Additionally, the final rule implementing Section 1557 of the Affordable Care Act prohibits discrimination based on race, color, national origin, sex, age or disability by healthcare providers who receive funds through the Department of Health and Human Services. A recent amendment to this ruling will prohibit "discrimination based on pregnancy, gender identity and sex stereotyping". With known caries causing bacterial transmission between mother and baby, it's imperative to reduce the oral bacterial count to improve Perinatal Oral Health (POH) particularly in at-risk populations. Since 2013, the Houston Health Department's Bureau of Oral Health (BOH) has provided comprehensive dental services, with the exception of posterior endodontics and orthodontics, for at-risk perinatal patients. The services are provided by dental residents, dental students, dental hygiene students, and dental assisting students under the supervision of BOH dentists. Results from 10/1/13 - 8/31/16: Perinatal Patients Seen: 2,691 Perinatal Encounters: 6,397 # Students Trained: 153 Hours of Training: 5,054 With the BOH training and experience, the dental residents and students can safely provide dental care during pregnancy when they enter the workforce. The BOH will continue to train

the next dental work force. In so doing, perinatal patients need no longer postpone dental care and live with pain.

Partner While We Work: Developing partnerships and conducting research in the Better Me Within Program

Leilani Dodgen, MPH; Alene King, BA; George King Jr. B.A. ; M.Div; Donna Slater; Jimmie Lee Slater, Â BS; Heather Kitzman-Ulrich, PhD

Community-engaged research leads to more equitable research with outcomes that are sustainable for the community. Although partnerships are encouraged, funding often does not allow time to cultivate this relationship. Partners are often simultaneously building trust and implementing health research. The experience of the Community Advisory Board (CAB) for the Better Me Program provides an example of implementing a prevention study while building a successful relationship demonstrating recruitment and retention of study participants. In 2012 funding was received to focus on preventing chronic disease and reducing obesity among African American women through a faith-enhanced lifestyle program. A core group of pastors and first ladies convened a CAB to complete the aims of the study. accomplish this work with university staff. The CAB and researchers have participated in co-learning on a monthly basis for the last 4 years of the grant. Co-learning has occurred over time through monthly meetings to guide the work of the grant. Sessions have involved the CAB providing expertise in working with faith organizations, and assisting with cultural relevance and understanding of African Americans' experiences in Dallas. Additionally, university partners led sessions on grant development, budget procedures, and human subjects research. This partnership has resulted in the design and implementation of 7 focus groups with 6 churches and 11 ministers (64 people), development of faith curriculum

to enhance an evidenced based lifestyle program (22 mini-sermons and faith handouts), and joint training of 6 ministers and 11 health coaches in the faith component. In years 2-5, of 34 churches contacted for recruitment 12 committed to receive the program, 300 participants were screened and 263 enrolled at baseline with a retention rate of 81% at the 10-month follow-up assessment. Partnership development is possible in the midst of research implementation and can lead to effective recruitment and retention in hard to reach communities. Commitment of time, communication and co-learning are needed to sustain the partnership and project in the midst of change.

Spotlight on the Role of the Public Health Nurse Through an Academic Partnership

Donna Ernst; Grace White, MSN, APHN-BC; Danielle Walker, PhD, RN, CNE

In 2011, the Institute of Medicine report, the Future of Nursing, suggests nurses at all levels acquire a new style of leadership and focus, to deliver patient-centered care across many types of healthcare settings and to contribute as a member of the interdisciplinary team. Nurses must exercise competency to work in a variety of settings, including community and public health. One way to accomplish this is through academic and community partnerships which provide opportunities to leverage clinical, intellectual, and financial resources to generate new knowledge and provide insight into public health nursing and its value to populations. The Community-Based Public Health Externship is an innovative educational model with placement of Baccalaureate Nursing Students into diverse community health agencies and settings under the guidance of trained registered nurse preceptors, creating an enhanced learning experience for the students. The Externship redefines and introduces new nurses into health disparities and societal

issues within public health. An academic partnership between Texas Christian University and MHMR of Tarrant county has shown positive benefits for both the student nurses and the public health nurse. A mixed method research study was completed using surveys, assessments and interviews of both the students and the Public Health Nurses (PHN). Both the MHMRTC RNs and student nurses have benefited from the innovative educational model. The Externship is an exceptional learning opportunity for the student nurse and the PHN and both feel it is an important move in the right direction to enhance collaboration and break down barriers to enter public health nursing. With healthcare movement and focus on cost-effective, evidence based care at the lowest cost settings, the nursing profession needs to look at new innovative methods for new graduate nurses to enter and choose public and community health as a career choice.

Improving Health Outcomes for Pregnant Women through Community Based Prenatal Education Program Archibald Ferguson

The health disparities in birth outcomes for rural counties in Texas brought forth implementation of prenatal education programs in 7 rural counties. The objective is to measure and evaluate the effectiveness of prenatal education in reducing negative health outcomes for pregnant women and newborn children while increasing knowledge about prenatal care. A prenatal education program designed by the March of Dimes was implemented in 7 rural counties and provided by staff at the Texas Department of State Health Services. The program comprised a series of short classes delivered to pregnant women over 3 years. The women were given a pre-assessment (N=382) and post-assessment (N=326) of health knowledge and a follow-up assessment (N=149) to document the outcomes

of their birth and health practices. The program served predominantly younger women aged 16-25 (n=207, 54%). Among all participants (N=382) half were Hispanic (n=192, 50%) with the other half of participants closely split among Caucasian (n=84, 22%) and African American women (n=92, 24%). Participants demonstrated an increased knowledge concerning their pregnancy and relevant topics such as pre-term labor symptoms (29% vs. 60%, $p < .001$), safe sleep (65% vs. 91%, $p < .001$) and post-partum symptoms (8% vs. 14%, $p < .05$) as well as conveying an increased likelihood of breastfeeding (80% vs. 89%, $p = .001$). Assessments given as a follow up after birth determined participants had lower rates of premature birth though these results were not significant (9.4% vs. 12.4%, $p = .2668$). This study concludes that participation in the program resulted in better health practices and knowledge. This is significant considering that nearly 3 out of 4 participants were Hispanic or African American, participants were twice as likely to have been deemed a high risk pregnancy (when compared to the general population) and nearly 1 in 3 did not have a high school education - populations typically at higher risk for poorer health outcomes and complications arising from pregnancy.

Houston Home-Based Integrated Intervention Targeting Better Asthma Control (HIIT-BAC) in African Americans Ellen Fiesinger, MA, MSN; Winifred J. Hamilton, PhD, SM; William Brett Perkison, MD, MPH; Rebecca J. Bruhl, DrPH, MPH, MEM

Considerable evidence has accrued demonstrating the effectiveness of residential interventions on improving asthma care in children. Researchers have demonstrated that benefits of these interventions for can match or exceed their program cost. However, many adults spend more time in problematic environments

than do children, and often have co-morbid chronic conditions that are exacerbated by indoor and outdoor air pollution. Nevertheless, adults, especially those from high-risk minority populations, have not traditionally been the target of "Healthy Homes" interventions. African Americans are disproportionately affected by their asthma, with significantly worse outcomes than Whites or Hispanics, even after adjusting for socioeconomic factors. This population, here and elsewhere, utilizes higher cost medical services than other populations, but suffers from poorer health and quality of life. In 2014, the Baylor College of Medicine Environmental Health Service received support from the Patient-Centered Research Outcomes Institute for a randomized clinical trial, the "Houston Home-Based Integrated Intervention Targeting Better Asthma Control (HIIT-BAC) in African Americans" study. The study sample consists of 235 primarily low-income African-Americans adults with poorly controlled asthma in the Houston area. Enhanced clinical care is given to all participants; half are randomized to a home-based environmental intervention, while the others have a phone intervention. Exclusion criteria are limited to adults on oxygen therapy, unstable housing, or health conditions that may limit their ability to fully participate in the study. Enrollment is from January 2015 through September 2016. We will present preliminary data about the study, including demographics, findings from the baseline clinic visits and home environmental assessments. We will contrast our preliminary findings with similar studies and present lessons learned. The intervention is intended as a model for comprehensive health care that can be easily applied to other chronic disease states.

An analysis of barriers to care for patients requiring rabies post-exposure prophylaxis in Texas Department of State Health Services Region 6/5

South Bob Garrison, DVM, MS; Julie Graves, MD, MPH, PhD

Rabies post-exposure prophylaxis (PEP) is an expensive but necessary part of protecting patients from developing a disease which has been the scourge of humans since ancient times. The logistics of obtaining PEP often are problematic, even in large urban areas that might be expected to have adequate supplies of PEP components. Providers' knowledge of rabies is often scant, resulting in patients being sent on frustrating searches for a location where they can obtain PEP and receiving unnecessary PEP when an animal is available for quarantine or testing. We reviewed Texas Department of State Health Services (DSHS) policies and procedures regarding rabies PEP and 20 cases handled by DSHS Region 6/5 South staff during fiscal year 2016 to evaluate barriers to implementation of DSHS policies and procedures. We then calculated costs associated with staff time spent resolving barriers to implementation of DSHS policies and procedures and identified policy gaps. In each case reviewed, barriers to care occurred, most frequently refusal of the primary care physician to administer PEP. An average of six hours of DSHS staff time was spent on each case at a cost of \$300-500 per case over the \$5000 cost of PEP, an 8-10% increase per case. DSHS policies and procedures should be evaluated and amended to address reluctance of private sector providers to administer PEP. In Region 6/5S, with its rich academic medical environment, a "centers of excellence" approach, in which several residency programs are identified as "go-to" sites for patients needing PEP, could overcome some barriers to care. In addition to providing much-needed streamlined access to PEP, medical providers in training, with ready access to Department of State Health Services Zoonosis Control personnel, will develop skill and confidence in assessing patients' need for PEP, and DSHS costs

could be reduced.

Not Safe Yet: Why Identification of Domestic Minor Sex Trafficking Victims in North Texas is Only the First Step Kwynn Gonzalez-Pons, MPH; Emily Spence-Almaguer, PhD, MSW; Sara Aldridge, MPH; Shelby Graves, MPH

In 2008, Shared Hope International spearheaded a rapid assessment on the identification of domestic minor sex trafficking victims in Tarrant County and suggested areas for improvement. A recent service provider survey highlights improvements made since the initial 2008 survey and indicates areas in which progress still needs to be made. A survey was tailored and distributed to diverse service providers in Fort Worth, Texas and surrounding areas. The objectives of the survey were to gauge providers' perceptions of domestic minor sex trafficking, to identify the number of victims encountered on an annual basis, and to compare the services requested by victims to the services provided. A total of 69 service providers from 29 organizations responded to the survey. Despite few misconceptions of domestic minor sex trafficking among service providers, only a slight majority (53.6%) believed their organizations were able to accurately identify victims of domestic minor sex trafficking. Moreover, a large majority (85.5%) believed their organizations could benefit from additional training to identify victims. The most frequently provided services (emotional support, referrals and clothing/food) did not reflect the most requested services (mental health, protection, and shelter). The few misconceptions among service providers is a sharp contrast to the findings in Shared Hope International's assessment in 2008. Providers were able to distinguish myth from fact regarding domestic minor sex trafficking, but were largely unable to report how many victims are seen in their organizations. Furthermore,

macro level issues, such as inadequate access to shelter options, still persist, which can ultimately inhibit treatment and positive outcomes. Resources should be allocated towards creating safe shelter options, increasing training for service providers, and developing an identification method that will elicit accurate responses to promote tracking of, and treatment efforts for, victims of domestic minor sex trafficking.

Association of Tobacco advertisement, promotion and sponsorship (TAPS) exposure and cigarette use among Nigerian adolescents: implications for current practices, products and policies Onyema Greg Chido-Amajuoyi, MBBS; Dale Mantey, MPA; Stephanie Clennenden, MPH; Adriana Perez, PHD

This study investigates the association between exposure to tobacco advertising, promotion and sponsorship (TAPS) and cigarette use behaviors among adolescents in five Nigerian regions. This is imperative given a 2015 World Health Organization (WHO) report revealing Nigeria has not met any of the MPOWER TAPS ban indicators instituted since 2008. Secondary data analysis of the 2008 Global Youth Tobacco Survey for Nigeria. Participants were 1,399 adolescents, representative of 5 Nigerian regions. Weighted multivariable logistic regression models were used to assess the relationship between TAPS exposure and i) past 30-day (current) cigarette use ii) ever cigarette use and iii) susceptibility to use cigarettes among never cigarette users. Sensitivity analysis via complete case analysis and multiple imputation were conducted. Ninety-five percent of Nigerian adolescents reported exposure to TAPS. Among adolescents who had never smoked, 15% were susceptible to use cigarettes. Cumulative TAPS exposure was significantly associated with both an increased odds of current cigarette use (AOR: 1.73; 95% CI: 1.09-2.99) and ever cigarette

use (AOR: 1.29; 95% CI: 1.15-1.45); as well as increased susceptibility to cigarette smoking (AOR: 1.18; 95% CI: 1.03-1.34), among non-smokers. SGiven the emergence of new tobacco products and novel platforms for TAPS globally, implementation of policies to completely ban TAPS in Nigeria are needed to reduce TAPS exposure and prevalence of tobacco use.

Health Equity & PQI: How A Local Health Department is Transforming Health Inequities from Within Jennifer Hadayia, MPA; Umair A. Shah, MD, MPH; Rocaille Roberts, MPH; Les Becker, MBA;

Harris County, Texas is one of the largest, fastest growing, and diverse areas, facing multiple upstream challenges: 19% poverty, 78% HS graduation, and 11 zip codes on a pollution watch list. All are correlated with poor health, and some are avoidable and reversible (health inequities). As the county health department, Harris County Public Health (HCPH) included health equity in its most recent Strategic Plan and subsequently developed (and is implementing) a four-part model for health equity agency transformation with tangible impacts. The question was then raised: how can HCPH monitor and measure the impact of this transformation on community health and internal performance? Therefore, HCPH undertook a process to integrate health equity into its performance management and quality improvement (PQI) efforts. A library of secondary data sources was vetted (e.g., CT HEI, THRIVE, MAPP, Rockefeller Intercity Hardship Index, Casey Child Opportunity Index, King County Preliminary Measures of Equity, etc.) to create a pool of potential standards and measures of equity. NACCHO's Resources for Social Determinants of Health Indicators was the vetting framework. Five performance standards were developed for measuring HCPH's health equity footprint. Each are linked to our Strategic Plan and have specific

performance measures (# of measures per standard noted below). 1. Create a prepared, ready, and resilient community (6) 2. Improve living and working conditions (2) 3. Aim for staff and leadership to reflect the people served (2) 4. Engage with partners in the community to address public health concerns (1) 5. Increase collection of and stratification by REAL data (Race, Ethnicity, primary Language) (3) The outcome of this secondary research (document review, evaluation against a model framework) is a local dashboard for measuring and monitoring the impact of a new health equity initiative at both the (external) community- and (internal) agency-levels. This session will present HCPH's methods and outcomes for dashboard development and lessons learned for practical application.

Underreporting of Hepatitis B Infections: A Threat to the Elimination of Perinatal Hepatitis B Transmission Essi Havor, MSN, RN

Annually, 25,000 infants are born in United States to Hepatitis B surface Antigen (HBsAg) positive women. However, less than half of these births are identified by the Perinatal Hepatitis B Prevention Program (PHBPP). The Houston Health Department manages HBsAg-positive women and their infants/ household contacts within Houston/Harris County. The program's objective is to identify at least 90% of infants born to HBsAg-positive mothers each year. An evaluation project was conducted with aims to (1) determine if the program was meeting its objective, (2) to quantify the under reporting of HBsAg-positive women by the Labor and Delivery (L&D) hospitals in Harris County, TX. From January 2016 through July 2016, the program staff conducted a retrospective mother-baby pair medical chart review of HBsAg-positive women who delivered between January 1, 2014 and December 31, 2015 in 24 L&D hospitals geographically located in

Houston/Harris County. The identified births were then compared to infants-managed by the program. The analysis of the data collected, revealed that of 184 infants born to HBsAg-positive women in 2014, and of 194 infants in 2015, 71 (38.80%) and 82 (42.23%) infants were not respectively reported to the program. The average under reporting rate of Hepatitis B infections among L&D hospitals in Houston/ Harris County was 40%. Four in 10 births to HBsAg-positive mothers were not reported in 2014 and 2015. Timely reporting of HBsAg-positive testing results of pregnant women is critical in eliminating perinatal hepatitis B transmission to the next generation and initiating appropriate follow up of their infants to ensure completion of the hepatitis B vaccine doses and a post-vaccination serology testing. The findings of this project highlighted the need to educate prenatal care providers, the laboratories and the L&D hospitals. Implementing monthly HBsAg-positive report among L&D hospitals has the potential to reduce under reporting and increase identification of these infants at risk.

Neighborhood Engagement: Evaluating Zika Virus Health Communication and Mosquito Prevention Behaviors in Travis County, Texas, June 2016 Flor Hernandez; Benika Dixon, MPH; Jeff Taylor, MPH; Tracy Haywood; Janet Pichette, MS; David Zane, MS

Zika has rapidly spread in the Americas since early 2015. On February, 2016 two residents from Travis/County tested positive for Zika after traveling to a country with local transmission. A Community Assessment for Public Health Emergency Response (CASPER) was conducted to provide increased situational awareness to local officials to strengthen the readiness to the Zika virus, and assess mosquito prevention behaviors. A two-page questionnaire was developed. The sampling frame was defined as households

within Travis County. A two-stage cluster sampling design was used to select thirty census-blocks and then seven households from each block for interviews. Interviews were conducted in June, 2016. Teams conducted 177 interviews, an 84.3% cooperation rate. Eighty percent identified radio/television as the most used information source on Zika, followed by internet/social media (54.2%). The most reliable source is also radio/television (51.4%). Over half (53.7%) know that Zika virus can be sexually transmitted and 71.3% acknowledged that microcephaly as the biggest risk during the pregnancy. To protect household from Zika, 60.6% has started personal measures (mosquito repellent and long sleeve shirts/pants), 47.9% mosquito related measures (sprayed or mosquito control products) and 38.2% household related measures (installed/ repaired screens, cleaned/ scrubbed containers). The most common action they would like from the ATCHHSD is the spraying/fogging 36.2% followed by information/education about mosquito diseases, 30.5%. More than two thirds (70.1%) were concerned about the diseases that mosquitos may carry and 73.5% has used mosquito repellent in the last 30 days. Community data regarding how residents are reacting to Zika provided objective and quantifiable information that will be used to improve our Zika preparedness plan. Efforts will continue to improve community communication through multiple channels (especially social media). The high proportion of households which are not taking measures to protect it from Zika suggests the need for enhanced community education on preventative measures.

The Benchmark of Rural Health in West Texas: Top 10 leading causes of death in rural Texas in 2010 Coleman Johnson, J.D.; Gordon Gong, MD, MS; Debra Curti, MEd, RHIA; Billy U. Philips, Jr., PhD, MPH;

Background. In 1970s, overall

mortality rate started to be higher in rural vs. urban areas, reversing the previous trend of higher mortality rate in cities known as “the urban mortality penalty” in the United States. In recent decades, the rural-urban difference in mortality rates appeared to widen. This project was to determine the rates of top ten causes of death in rural vs. urban areas in different regions (East, West and South) of Texas, which have not been studied previously. Methods. Data for mortality in 2010 was obtained from the Texas Department of State Health Services’ website. The top ten causes of death in 2010 were based on data from Centers for Disease Control and Prevention. Results. The highest age-adjusted rates of the top ten causes of death were all in rural areas of Texas: East, West or South. In rural areas, the causes of death with the highest rates were heart disease, cancer, stroke, accidents, suicide, and all-causes in East Texas, chronic lower respiratory disease (CLRD), Alzheimer’s disease, and pneumonia-influenza in West Texas, and diabetes and kidney diseases in South Texas. In urban areas, the causes of death with the highest rates were heart diseases, CLRD, accidents, Alzheimer’s disease, diabetes, and all-causes in West Texas, cancer, stroke, and suicide in East Texas, and kidney diseases and influenza-pneumonia in South Texas. With data from rural and urban areas combined, the causes of death with the highest rates were cancer and stroke in East Texas, diabetes and kidney diseases in South Texas, and heart diseases, CLRD, accidents, influenza and/or pneumonia, and all-causes in West Texas. The mortality rates were also related to race/ethnicity. Rural areas had the highest age-adjusted rates in each one of the top ten causes of death compared with urban areas in East, West or South Texas.

Birth Defects Related to Prenatal Zika Virus Infection: Texas Update Peter Langlois, PhD; Mark Canfield; Adrienne Hoyt; Lisa Marengo; Mary Ethen

Prenatal infection with Zika virus is associated with microcephaly and other birth defects. However, this is a rapidly-evolving area of research and public health concern. The Birth Defects Epidemiology and Surveillance Branch at the Texas Department of State Health Services is in the process of improving the completeness and timeliness of its surveillance of Zika-related birth defects (ZRBD), for example by abstracting additional focused data from medical records (such as parental travel), fast-tracking records of cases with ZRBD. As well, the Branch is collaborating with a variety of partners to gather and distribute information, connect children and families to health and social services, analyze data related to these birth defects, and study health and developmental outcomes of affected children. A summary and update of the Branch’s response, particularly its surveillance enhancement, will be presented. However, most of the talk will be devoted to results from various data analyses. For example, in a recent 5-year time period (2008-2012), 30% of the cases of microcephaly in Texas were explained by co-occurring birth defects or documented causes such as prenatal infections, 21% of the cases were unexplained and had severe microcephaly (< 3rd percentile of head circumference), and 49% were unexplained and had more normal head size. However, the birth prevalence of microcephaly increased almost 3-fold from 1999 through 2012 (briefly presented at the 2016 TPHA meeting). Results of updated analyses trying to understand that time trend will be presented. The list of other ZRBD continues to grow, and now includes other brain and skull abnormalities, neural tube defects, eye abnormalities, and certain joint problems. An overview of the descriptive epidemiology of those other conditions and their time trends will be presented. Knowledge about Zika-related birth defects continues to grow rapidly.

Smoke-free Public Housing: Then, Now, and Everything in Between Ashley LeMaistre, MPH

According to a 2015 CDC report, more than 1 in 3 nonsmokers living in rental housing are exposed to secondhand smoke, and more than 2 in 5 nonsmokers living below the poverty line are exposed to secondhand smoke. People living in public housing are vulnerable, and include the elderly, disabled, and those with low socioeconomic status. Their housing options are many times very limited. A baseline survey was conducted of Housing Authority of the City of Austin (HACA) residents in 2013-2014 to gauge opinions on a smoke-free policy. This study reviews results of a follow-up survey conducted nearly a year after the policy implementation to assess behavior change, changes in opinions regarding the policy, and implementation communication. Austin/Travis County Health & Human Services assisted HACA with a baseline survey beginning in Fall of 2013. The results solidified HACA’s decision to adopt a smoke-free policy. A workgroup was formed to organize the logistics of implementation. The process included 30-day comment periods, series of resident council meetings, which included education, cessation opportunities, explanation of the proposed policy, opportunity for resident input, and ultimately, laying out the new policy. The workgroup presented several times to the HACA Board of Commissioners, and implemented the policy on September 1, 2015 for their 18 public housing properties. In the Summer of 2016, a follow-up survey was conducted to assess attitudes amongst residents after the policy was in place. Residents have shown a significant increase in support of the smoke-free policy from the baseline to the follow-up survey, significant at an alpha of 95%. However, there was no significant change in prevalence over baseline of residents who have quit or are planning to quit.

It is too soon to tell the health benefits, but residents seem to be increasingly receptive to the policy.

Response to Positive Rabid Animal Exposure at an Event Venue, Texas, 2016 Daphne Lynch, MPH; Jawaid Asghar, MBBS, MHA, CIC; Misty Brown, RS; Muriel Marshall, DO, DrPH

On May 23, 2016, Collin County Health Care Services received a call from an owner of a litter of kittens to report a possible exposure to rabies. The owner reported that 5 kittens were attacked by a skunk. Collin County Animal Services proceeded to collect two symptomatic kittens for rabies testing. Guidance was provided on obtaining rabies postexposure prophylaxis (PEP) to the owner and their family. On May 25, 2016, Collin County Animal Services received the test results for the two kittens. They both came back positive for rabies. A public health investigation was initiated to identify potentially exposed individuals. A line list was created using information obtained from various sources. Potentially exposed individuals were contacted via phone. An electronic call down system was used to reach individuals quickly. Exposed individuals were assessed to determine risk. Rabies PEP was recommended to individuals who had contact with the kittens. The investigation found that the property also served as an event venue. On May 21, 2016 an event took place at the location. It was reported that a number of the event attendees had contact with the kittens. A final list of potentially exposed individuals totaled 256 individuals. By June 8, 2016 all 256 potentially exposed individuals had been contacted. Those who were identified as needing PEP were instructed to visit their nearest hospital to start the series. After working with several hospitals a need for education on rabies PEP was identified. Local public health should ensure their healthcare providers are educated in the evaluation of an exposed individual and on the

administration and schedule of rabies PEP. A need for education for healthcare providers was identified during this investigation and that gap is now being addressed. The outcomes of this investigation demonstrate successful public health and animal services response.

The Importance of Conducting Community Needs Assessments in Rural Communities Paul McGaha, D.O. MPH; Gaberiela Orsak, PhD; Christina Tuell, BS; Agatha Borne, DVM, PhD

Successful interventions must be tailored to the priorities of a community; it is critical to conduct a population health needs assessment to correctly identify primary community health concerns. The goal of this project was to identify the top 5 health concerns of rural communities in 28 East Texas counties. Recent reports indicate infant mortality, tobacco use, motor vehicle accidents, cancer, and dental health are priority health issues in East Texas. We hypothesized that these same health problems would be identified as priority health concerns for rural community stakeholders in the 28-county assessment area, with African Americans prioritizing infant mortality. To identify the top 5 health issues in 28 East Texas counties, 16 forums were conducted. A health needs questionnaire was disseminated to those community stakeholders who attended. The top 5 health concerns were identified by selection frequency, corrected for unequal group sizes. A total of 298 community stakeholders responded (M=51.9 years; 74.5%=female; 67.8%=White, 21.8%=African American, 6.7%=Hispanic, 3.7%=Other). Contrary to expectations, diabetes, substance abuse, mental health, adult obesity and heart disease/stroke were identified as the top 5 health concerns across the counties. Contrary to expectations, mental health was a priority in health care workers ($p=.019$), while heart disease/stroke was a priority in African Americans

($p=.011$). Tobacco use was not among the top 5 health concerns of rural communities. The top 5 health concerns reported to contribute to poorer health outcomes in East Texas were not identified as the priority health concerns among rural East Texas community stakeholders. However, there was consensus among stakeholders on the top 5 health issues that their communities are facing. These findings stress the importance of completing a community needs assessments to ensure health programs and interventions are aligned with the perceived needs of the target community, especially in rural underserved areas.

Clinical Characteristics and Quality of HIV Care for Women in Houston/Harris County, Texas: Medical Monitoring Project, 2009-2013 Osaro Mgbere, PhD, MS, MPH; Sumaiya Thakor, MD, MPH; Nadia Barahmani MD, PhD, MS; Kirstin Short, MPH; Raouf Arafat, MD, MPH

Approximately one in four people living with HIV infection in the Houston/Harris County are women with a vast majority of new diagnosis being attributed to heterosexual sex. There currently exist no local representative estimates of the clinical characteristics and quality of care received by women in the Houston/Harris County, Texas. Establishing these estimates will provide a local benchmark to characterize patterns of HIV care and monitor changes in care over time among HIV infected women. Data used for this study were obtained from the Medical Monitoring Project (MMP), a representative cross-sectional survey of HIV-infected adults ≥ 18 years of age receiving outpatient medical care in Houston/Harris County, Texas between 2009 and 2013. We assessed the clinical characteristics and quality of care of women using complex survey analysis procedures of SAS 9.4. The majority of participants were African American (66.2%). Approximately, 64.4% of the

women were at or below poverty level while homelessness and incarceration rates were 9.5% and 5.3%. Among women diagnosed in the past 5 years, 90% entered into care within 3 months. In all, 86.5% of women reported taking antiretroviral therapy (ART) with adherent rate of 82.8% and only 26.4% had a recent viral load test result that was undetectable or <200 copies/ml. However, too few sexually active HIV-infected women received recommended screening for syphilis (11%), gonorrhea (10.6%), or Chlamydia (10.7%). The top three ancillary services received and needed but not received in the last 12 months included public benefits (88.1% vs. 11.9%), vision service (73.6% vs. 26.4%) and dental services (67.8% vs. 32.2%). Despite the fact that the majority of women reported taking ART, only a quarter of them were virally suppressed. Although most HIV-infected women in care received adequate CD4 monitoring, majority of the women did not receive guideline-recommended STI screening and counseling.

Epidemiologic and Economic Perspectives for Zoonotic Disease Control in Public Health Policy Thaddeus Miller, DrPH; Thomas Graham, PhD; Kellie Curtis, MS; Alexandra Baker, BS

Bovine TB, brucellosis, and other conditions are an important but potentially modifiable burden to human welfare. Impacts are greatest among resource poor agrarian populations in developing economies whose health, money, social stability, resilience, and economic growth can all be affected. It is likely these burdens extend far beyond their regional origins. An example is bovine TB (bTB), which impacts human health directly and indirectly-through infected and acutely ill individuals, the promotion of drug resistance, unrealized animal protein production that contributes to malnutrition and its sequelae of stunting and increased susceptibility to HIV and other disease. We used

a team approach and a “one health” perspective to identify and map the burdens of 3 zoonotic diseases in rural Africa as a first step toward addressing these burdens. An interdisciplinary team of veterinarians, students, nutritionists, public health professionals, laboratorians, and others conducted disease surveillance and evaluated nutrition in 700 families and their livestock across 5 districts in rural Uganda. Preliminary findings identified widespread nutritional deficiencies and their impacts, with 30% of households not consuming fish, meat, eggs or milk in their diets at any time and 30% of children < 2 years were 2 SD under WHO standard for both height and weight. We found markers for Brucella, TB, and T gambiense infections across all subjects (positive test prevalence of > 1%, >= 50%, and 30%). Among livestock we found endemic bTB, Brucella, and Trypanosome infection (positive test prevalence of 1%, 7%, from 0 to 20%). We found compelling links between human health and that of their livestock. Inadequately controlled endemic zoonosis has potentially large impacts even far from the most immediately affected populations.

Using health needs assessments and health insurance claim data to plan workplace wellness activities for Texas Department of State Health Services Region 8 employees. Ankita Misra, BDS; Katherine S. Velasquez, PhD, RN

Community needs assessments and health insurance claim data can be used to determine the health care needs of a population. Workplace wellness activities can be tailored to the needs and claims results to ensure that the activities provide salient information and support to the target population. Texas Department of State Health Services Region 8 conducted an employee needs assessment in 2015; the results were analyzed to determine the various health needs of the regional staff. Items measured health status

and goals as well as activity preferences. Additionally, aggregate and de-identified health insurance claim data were examined to determine for which health conditions the staff actually seeks treatment. The 2015 needs assessment indicated that staff generally perceived themselves as healthy; however, 78.9% were overweight or obese, 36.8% get insufficient physical activity, and nearly 40% reported low energy, high stress, poor concentration, and daily sleep average less than 7 hours. The top three health insurance claims were hypertension, lipid metabolism disorders, and diabetes, and the top four expenses were hypertension, asthma, cancer, and back or joint pain. Health goals most often selected included weight loss, increasing activity and energy, and eating more healthily. Staff preferred information on exercise, stress and time management, sleep, and healthy eating. These findings will be used to inform future wellness plans and initiatives. Community health needs assessments and health insurance claims provide an insight to the conditions that affect a population and can be used to target workplace interventions to improve quality of life and reduce disease burden in the workforce.

Assessment of Zika Awareness in Houston Area Before The Local Transmission Vishnu Nepal, MSc, MPH; Deborah Banerjee, PhD; Eric Bakota, MS; Kirstin Short, MPH; William F Bryant, MA; Raouf R Arafat, MD, MPH

In 2016, Zika virus emerged as a major public health threat in the U.S. Since Houston was identified as a high-risk area for local transmission of Zika, the Houston Health Department assessed the Zika awareness level of Houston area residents using a brief survey. The five-item survey was designed to inform planning and response for prevention education. The survey captured the main sources of information about Zika and examined the behavior

of residents in their use of mosquito repellent. Dichotomous questions tested the knowledge of residents related to Zika prevention and the mode of transmission of the virus. The survey was administered via a list serve maintained by the City of Houston and through Houston health department clients (N=2017). The survey indicated that almost all (>98%) of respondents had heard of Zika. Television, newspapers, social media, and radio were identified as main sources of information. Knowledge about Zika had uneven penetration into this group of respondents. 95% of respondents knew that pregnant women must be protected from mosquitoes due to the risk of severe birth defects from Zika virus infections; however only 81% of respondents were informed that everyone should protect themselves from mosquito bites to protect pregnant women. 94% knew that the Zika virus was transmitted by mosquito bites, but only 70% knew that the Zika virus is transmitted through sexual contact with a Zika infected partner. 88% knew that draining water around the home will reduce mosquito breeding and half (51%) indicated that they and their family members used mosquito repellent in the past week. These results indicated that there is a gap in respondents' knowledge of prevention and transmission. Providing education to general public about the need to protect themselves to curb the spread of Zika in the community appears to be a priority.

Increasing Capacity for Perinatal Oral Health Education through Nurse Home Visitors Rhea P. Olegario, MPH, CHES; Lucy Romero, RN, BSN; Janet A. Aikins, PhD, MPH; Sherdeana Owens, DDS, MPA

Studies show associations between poor oral health and poor birth outcomes. Yet, only 23- 35% of pregnant women report receiving dental care. Reasons for not seeking care include lack of a routine

referral system for dental care by primary providers and uncertainty about the safety of dental treatment during pregnancy. Interprofessional collaborations between dental and primary care professionals are important for improving Perinatal Oral Health [POH], especially in vulnerable populations. Initiated by a Texas Oral Health Coalition grant, the Houston Health Department Bureau of Oral Health [BOH] and Nurse-Family Partnership [NFP] partnered to provide POH education to low-income, perinatal women from Houston. Utilizing a train-the-trainer approach, the BOH trained 7 NFP Nurse Home Visitors [NHV] on POH. These NHV in turn provided POH education to 45 first-time pregnant and newly post-partum clients. The program targeted three specific oral health behaviors and provided clients with infant clothing imprinted with specific oral health messages. An 11-question multiple-choice and open-ended survey was developed and administered to 7 NHV. Question topics focused on their experience with implementation of the project and the partnership. All NHV completed the survey and reported that they would like to continue with the project. Almost half of the NHV were surprised to learn during training that cavity-causing bacteria can be transferred from mother to baby when utensils, food, or drinks are shared. Noted areas of improvement were primarily on better communication between partners. However, no obstacles or barriers were reported during preparation and implementation. HRSA's National Consensus Statement on Oral Healthcare during Pregnancy calls for a collaboration with oral health professionals to develop a referral process and share essential information about pregnant women. The BOH and NFP partnership accomplishes this goal and highlights the importance of POH in Houston.

Texas Perinatal Oral Health Program - Baby Smiles Sherdeana Owens, DDS, MPA;

Christina Murphey, RN, PhD; Kila Johnson, DDS; Josephine Wolfe, PhD, MSPH, RDH; Monna Carpenter, RDH; Mary Leyendecker, BSHS,;

The goal of this program is to provide perinatal oral health education for parents and caregivers and enforce specific oral health behaviors following oral health education. Studies have shown that education and motivation are important, but alone are not enough to achieve long-term change. Researchers state that although knowledge can be improved by education and attitudes can be changed as a result, behavior is more complex, therefore, more challenging to modify. This project seeks to use oral health messages printed on baby clothing to repeatedly reinforce three specific oral health behaviors: a healthy oral health diet, dental attendance, and oral hygiene. Participants were selected from WIC, Community Health Centers, and other non-profit agencies. Participants were queried immediately prior to and following POH education to gauge understanding of the information. Participants are being followed over an 18 month period via short text or email questionnaires. The questionnaire is designed to measure the oral health behavior and its determinants in the parents of young children with regard to the three specific oral health behaviors. Perinatal oral health education was provided to 200 low-income women in Houston, Corpus Christi, and San Marcos, Texas. The pre-post testing uncovered general lack of information on infant/child oral care. Initial data from the text questionnaires is being collected with an approximately 25% return rate; however, the majority of respondents show compliance with oral health instructions. The perinatal pilot project found a key element to program success is follow-up and maintaining contact with the participants for the duration of the program. Our recommendations include training and utilizing nurses and community health workers as

presenters, the development of a downloadable infographic poster, and the continuation of reaching low-income families that utilize WIC, Community Health Centers, and other non-profit agencies for health services

Zika CASPER: An assessment of Zika Virus health communication, mosquito prevention behaviors, and emergency preparedness levels in Williamson County, Texas, 2016 Leslie Platz, MPH, CHES; Elise Huebner, MS, CPH, CIC

On February 1, 2016, the World Health Organization (WHO) declared Zika virus an emerging global public health threat. Later, in April 2016, the Centers for Disease Control and Prevention (CDC) hosted a Zika Action Plan Summit, calling attention to federal, state, and local health officials to improve Zika preparedness within respective states and jurisdictions. In response, on June 17 and 18, 2016, the Williamson County and Cities Health District (WCCHD) conducted a Community Assessment for Public Health Emergency Response (CASPER) to evaluate Zika virus health communication, mosquito prevention behaviors, and emergency preparedness levels among households in Williamson County, Texas. To the best of WCCHD's knowledge, this was one of the first CASPERs in the nation to assess Zika knowledge and mosquito prevention in a county. WCCHD utilized the standard CASPER two-stage cluster sampling methodology to select a representative sample of Williamson County households to be interviewed. Teams of pre-trained volunteers interviewed households using a two-page questionnaire, with the goal of completing 210 surveys. WCCHD conducted a weighted cluster analysis to identify the estimated percent and projected number of household responses for each question. The CASPER field teams completed 188 of 210 household interviews. Households in the sampling frame reported high trust in the local health department,

but differing sources of health information, not including WCCHD. Households reported mosquito-borne illnesses, including Zika, are of high concern and additional information on clinical features and prevention methods is needed and desired. In addition, households reported moderate to high levels of emergency preparedness readiness. Primary prevention methods at the personal and environmental levels remain a significant way to reduce exposure to mosquito-borne diseases, including Zika virus. WCCHD must identify strategies to become visible and to communicate effectively with Williamson County households to prevent and control mosquito-borne diseases.

“Whole Person” Project Promoting Routine Delivery of Preventive Health Services Across Program and Funding Lines Debra Seamans, MSN; Christine R. Riley, MSN RN

DSHS Health Service Region (HSR) 7 nursing provides screening, assessment, testing, and treatment for tuberculosis and sexually transmitted diseases (STDs), and immunizations for children, adolescents, and adults. Traditionally, clients receive the public health service(s) they requested; services tend to stay within program lines. The Region sought to implement a “Whole Person” concept to promote routine delivery by nursing staff of expanded preventive health services (education, screening, referral, and/or direct delivery) during episodic visits. In 2016, current practices were evaluated to determine the level of screening, referral and/or provision of tobacco cessation, immunizations and other preventive services provided to clients seen for tuberculosis, STDs, and immunizations. Healthcare records from regional public health clinics were audited using a standardized tool developed by a graduate nursing student. Staff input was obtained on integrating preventive services beyond those tied to the reason for the clinic visit.

The Concept was presented to the DSHS Nursing Forms Committee to seek incorporation of preventive service prompts into standardized care forms, and to key physicians to include prevention in standing delegation orders for tuberculosis and STD services. Audits found tobacco use screening occurred for many clients seen for but with rare referrals for cessation; current immunization status was sometimes assessed but subsequent vaccination was infrequent. Nursing staff indicated standard forms and medical orders do not support offering routine prevention services outside of those for the requested service. Current nursing forms lack sufficient preventive prompts; standing orders are silent on preventive care not specific to the disease. Screening and referral for adolescent and adult tobacco cessation has recently been incorporated into regional standing delegation orders for tuberculosis and STDs. Routine assessment and vaccination of eligible adult clients is now included in the statewide tuberculosis orders. Inclusion of prompts for expanded prevention services are under consideration for STD nursing forms.

Characterization of Type 2 Diabetes Burden by Race and Ethnic Groups Hani Serag, MD; Wei-Chen Lee; Hanaa Sallam; Michael Goodman; Kenneth D. Smith; Nicola Abate

Type 2 diabetes is the global public health burden. In order to achieve the goal of Healthy People 2020,³ eliminating disparities in diabetes health outcomes, it is important to assess diabetes disparities and identify effective improvement plans to address disparities. The purpose of this report is to characterize Type 2 Diabetes burden on patients with respect to race and ethnicity. This is a secondary data analysis using one medical center's patient data from 01/01/2012 to 03/31/2016. The key outcomes include the prevalence of complications, associated comorbidities, and use of insulin. Racial group

comparisons were performed using chi-square analysis with 0.05 level of significance and all analyses were performed by Stata 14.0. There were 22,087 patients older than 18 years old making 602,855 visits. Of them, 10,238 are non-Hispanic whites, 4,909 non-Hispanic blacks, and 6,401 Hispanic patients. Our analysis indicated that non-Hispanic black patients are more likely to have hypertension, ischemic disease, and stroke compared to non-Hispanic white and Hispanic patients ($p < 0.001$). Likewise, black patients are at higher risk of having kidney, ophthalmic, and neurological complications than another two groups ($p < 0.001$). Finally, 53.6% of black patients are on the use of insulin higher than white (48.3%) and Hispanic (44.5%) patients. Discussion and Our report suggest three major differences in prevalence of complications and treatments for African American patients with Type 2 Diabetes compared to Caucasian and Hispanic patients. It is likely that three differences found in our report are linked to disadvantages in social economic status (SES) that subsequently increase risk of diabetes among African American patients. More prevention strategies are recommended to help racial minorities better manage their health.

PrEP in a Public Health Department Courtney Sherman, DNP, RN, WHNP-BC; Mark Wilson, M.S.; Anita Kurian, MBBS, DrPH

HIV pre-exposure prophylaxis (PrEP) is a targeted risk reduction strategy for individuals at high risk for contracting HIV. In addition to traditional risk reduction interventions, providers prescribe daily oral emtricitabine/tenofovir to prevent infection in the event of exposure. Prescribing this drug requires medical eligibility and management to maintain efficacy, reduce side effects, and continue screening for sexually transmitted infections. A single brand name drug is available for PrEP, and is seemingly cost-

prohibitive to provide as part of a public health HIV prevention program. Tarrant County Public Health (TCPH) has implemented a PrEP program available to those who are medically eligible to take the medication and available for follow up visits on a quarterly basis. After having several patients express interest in PrEP, a review of the CDC's guidelines was conducted and current capacities identified. Hepatitis panels, metabolic panels, patient education, staff education, insurance reimbursement, and support for the unfunded were identified as barriers to the program. Partnering with Gilead resulted in staff education and prescription assistance for unfunded patients. Partnering with DSHS resulted in hepatitis panels for the unfunded and advanced HIV testing. TCPH purchased lab equipment that enabled the collection of metabolic panels on site. Patient education pamphlets were developed and posted in every exam room, counseling room, and waiting room to promote awareness. Educating clerical staff to explore insurance benefits was completed. To date, 65 patients are currently in the program. Three were disqualified prior to entry based on positive HIV tests. None have discontinued the medication secondary to side effects or nephrotoxicity, and none have become infected with HIV. Adherence to follow up appointments is a challenge, but self-reported medication adherence appears to be excellent. Leveraging relationships with outside organizations has been employed to provide PrEP through TCPH minimizing cost and improving access to high risk groups.

Policies and Practices to Improve Access to Care and Reduce the Health Risks of Child Refugees Fleeing Violence from Central America and Mexico Kenneth Smith, PhD; Shannon Guillot-Wright, MA; Hani Serag, MD; Christine Kovic, PhD; Christopher Spencer Greeley, MD, MS, FAAP; Jean

Raphael, MD, MPH

The Texas Medical Center's Health Policy Institute funded an interdisciplinary, multi-institution research team to identify the health risks and care access needs of child refugees fleeing violence from Central America and Mexico. The research team convened a cross-sector Advisory Board on Child Refugee Health to support the research and provide insight into new policies and practices to reduce health risks and improve care access needs for child refugees. Methodology: The research included a systematic literature review, executive interviews, life story interviews, and site visits at immigration detention facilities. Qualitative analysis of interview and other data using ATLAS.ti software identified different themes around health and care access needs. Policy dialogues with the Advisory Board offered additional insight into potential policy change strategies to address the needs of child refugees. Preliminary results indicate the importance of post traumatic stress disorder (PTSD), the need for mental health services at multiple stages in children's journey within the US, and the lack of adequate services in Spanish. Inhuman treatment and processing practices at Border Patrol prevent the identification of children who are victims of trafficking or violence. Health risks documented in "family detention" suggest the need to terminate this form of detainment in favor of humane community settings. Children placed in the community with family or guardians lack adequate mental health services in Spanish and often are unable to attend school owing to unnecessary documentation requirements. Health service providers lack medical information from encounters with providers during earlier stages in a child's journey from apprehension to community. Parents and guardians of children placed in the community, after experiencing a long journey including transfers across a

range of facilities, lack adequate guidance and support to ensure the child gets adequate mental health care. A number of changes in policies and practices are needed to address the needs of child refugees. The presentation will end with a discussion of the different decision-makers at local, state and national levels that need to be educated and engaged to bring about more humane treatment of child refugees.

Surfing the silver tsunami: A quality improvement effort to meet the demands of geriatric population health management Stephanie Spohr, MA; Monique Barber, MBA, MPH

As the baby boomer generation reaches the age of retirement, nearly 10,000 people a day will age over 65. Today's healthcare system does not have the capacity to manage such a large group of aging individuals. There is an anticipated nation-wide shortage of geriatric healthcare providers, as well as a lack of coordinated effort to support geriatric patients in accessing health and community-based services. A Texas safety-net hospital is working towards improved geriatric care to meet the needs of the county residents through a multi-disciplinary approach. Population-level data were gathered from the U.S. Census Bureau, State of Texas, Tarrant County, and city of Fort Worth to assess geriatric population projections and future health needs from 2015-2030. Data from the hospitals geriatric patient population and program data were gathered and analyzed within the electronic medical record system. Population projections indicate the geriatric population in Tarrant County will more than double in 15 years. In response, multi-disciplinary programs were developed to provide better quality and coordinated care for geriatric patients in the county. For example, within one year: 1) A Provider Home Visit program significantly reduced emergency department and inpatient hospital stays at 3- and 6-month follow-ups for enrolled patients;

2) Care transitions collaboration with community partners reduced hospital readmissions from partner facilities by 4%; and 3) Implementation of a delirium protocol has increased delirium screening during inpatient stays from 25% to 86%. The silver tsunami is a tidal wave of aging patients that will require specialized healthcare and social service needs to improve quality of life, access services, and maintain residence and independent living in the community. Innovative and progressive efforts from hospitals, community agencies, and accountable care organizations will help coordinate geriatric care to drive down healthcare costs and improve quality.

Update on the status of Chagas disease in Texas: a closer look at barriers to screening, treatment and surveillance. Paula Stigler Granados, PhD; Jose Betancort, PhD; Gerardo Pacheco, MPH

Chagas disease is a potentially fatal disease that is endemic throughout much of the Americas where an estimated 8 million people are infected, including in Texas. However, diagnosis and access to treatment are limited in the United States due to the lack of knowledge about the disease and its vectors. Chagas is caused by the parasite *T. cruzi* carried in the feces of triatomines or kissing bugs. Unrecognized and untreated *T. cruzi* infections can lead to severe cardiac disease and/or gastrointestinal complications. Other transmission routes include congenital, blood and transplant associated infections. Chagas disease regularly goes undiagnosed as a person can be asymptomatic for up to 30 years before they enter the symptomatic phase, when it is too late for treatment. Research and disease reports show Chagas disease and its vectors are present in Texas. Currently, it is believed that the disease is severely under reported. Prevention awareness and ensuring our health care

providers are aware of the disease and are screening patients that may be at highest risk is critical. In 2015, we formed the Texas Chagas Taskforce with leaders across Texas in research on Chagas disease. Our goal is to provide outreach and education to all health care providers in Texas in hopes to increase screening and treatment capacity of physicians in the State. Our most recent efforts have shown that there is a strong hesitation to diagnose and treat positive Chagas patients due to a lack of understanding in the protocol for treatment of the non-FDA approved drugs (only available through the CDC) as well as the fear of a high number of uninsured patients needing treatment. This presentation will update public health professionals on the current status of Chagas in Texas, including the most recent number of cases and barriers encountered with screening, treatment and surveillance.

Perinatal transmission of Hepatitis B virus: when late intervention fails Kahler Stone, MPH; Rachel Banks RN, BSN

Hepatitis B Virus (HBV) is a major cause of acute and chronic hepatitis, leading to cirrhosis and hepatocellular carcinoma in the United States and worldwide. HBV is spread through blood, semen, or other body fluids leaving unborn children at risk during the birthing process if the mother is infected. The Texas Department of State Health Services (DSHS) with Local Health Departments (LHD)s monitor and track all known pregnant women who test positive for HBV to initiate control measures during birth in an attempt to protect newborns. Ninety percent (90%) of infants born to HBsAg-positive mothers will not be infected with hepatitis B virus (HBV) if they receive hepatitis B vaccine and Hepatitis B immune globulin (HBIG) within 12 hours of delivery. Waco-McLennan County Public Health District (WMCPhD) followed and documented a case of perinatal HBV in a McLennan

County resident. Actions taken, timelines, and laboratory results were compiled for the full history of this case. In 2014, a 23-year old female of unknown Hepatitis B status presented at a McLennan County hospital. Prior to confirmation of her status, she gave birth to a 4.93 pound baby girl. The infant was mistakenly treated as a premature birth, and the first dose of Hepatitis B vaccine was withheld. The mother was found to be Hepatitis B positive, but the results were not taken into consideration when caring for the infant. The family left the hospital without Hepatitis B immune globulin and the birth dose of Hepatitis B vaccine being administered. Despite public health intervention after initial failure to vaccinate, the child contracted HBV. Perinatal HBV transmission can be prevented with timely intervention and coordination with public health. Unfortunately, lack of education, reporting, and provider intervention can lead to preventable adverse health events, such as HBV infection in infants.

Health Literacy during the Training Years: Changing the Culture of Medicine One Course at a Time Melanie Stone, MPH, MEd; Caroline Bergeron, DrPH, MSc, CHES; Jason Morrow, MD, PhD; Oralia Bazaldua, PharmD

Low health literacy, defined as a difficulty processing and understanding health information, can result in adverse health outcomes. National guidelines call for health professionals to be trained to effectively communicate with all patients, especially with those of low health literacy. However, little concrete guidance has been given on how to achieve this call. Medical schools, for example, do not follow any standard format in their health literacy training and adding content to the already packed curriculum is a challenge. The purpose of this presentation is to describe initial efforts to integrate health literacy principles into the undergraduate medical curriculum. In 2015, we delivered

the first ever mandatory 2-hour health literacy training to our first and second year medical students. In the future, we plan to include a pre- and post-test knowledge and self-efficacy survey to assess impact of the curriculum. In partnership with a community organization, we are also conducting focus groups with students and faculty to assess knowledge of health literacy and determine the health literacy skills they perceive are most needed, the best ways to integrate relevant content into the curriculum, and the effectiveness of the 2015 health literacy training. Feedback from last year's course evaluation was positive. Preliminary focus group findings revealed that students who participated in the 2-hour health literacy training gained important knowledge on health literacy. Participants also mentioned needing a course that would provide real opportunities to practice their health literacy skills with actual patients with the goal of helping them to better understand health information and medical instructions. Findings can be used in future curriculum development to improve students' health literacy knowledge, retention, and skills. Initial efforts and evaluations will also be shared with colleagues at sister institutions who are similarly examining how to integrate health literacy into their curricula.

Unusual TB Clusters in Northeast Texas Jeannette Stratton, B.S; Suzanne Fisher, BSN, RN, MPA-HCA; William Sorensen, PhD; Cheryl Cooper, PhD, MSN, RN;

The 2015 tuberculosis (TB) incidence rate in the U.S. was 3.0 cases per 100,000 persons. The Texas incident rate in 2015 was 4.9 cases (per 100,000). In Gregg County, Texas, the 2015 incident rate was 9.7 cases (per 100,000). The aims of this study were to (1) identify clusters of TB cases in Gregg County by mapping the cases, and (2) to examine potential contributing factors of TB in Gregg County by exploring connections through statistical and genotype analysis,

in-depth index case evaluation, and interviews with local TB investigators. TB Data from 2008-2015 were collected from the DSHS office in Longview, Texas. A total of 119 cases were registered during this time period. Nineteen out of 119 cases (16%) were identified to be part of the two unusual clusters. Variables were analyzed using SPSS, and cases were mapped using Epi Info. There was a 58.3% increase in cases from 2008 to 2015. One cluster yielded 10 cases and was ethnically African-American with 133 transmission contacts (cluster #1); the other 9 cases were from a Hispanic cluster with 75 contacts (cluster #2). The average age in cluster #1 was 37.1 years at diagnosis and in cluster #2, 21.3 years. Nearly a third (31.4%) of the contacts of the index cases, were infected and treated for TB. Forty-four percent of the cases in cluster #2 were foreign born, but no foreign born in cluster #1. Even though rates in the U.S. and Texas have decreased over recent years, Gregg County cases have increased. Contrary to many studies done in the U.S., Gregg County showed that African Americans and Hispanics are more at risk for TB than Asian Americans. However, the Hispanic cluster demonstrates a foreign born foundation. We discuss further why these clusters are unusual.

Correlates of Health Problems at Senior Centers James Swan, PhD; Jennifer J. Severance, PhD; Keith W. Turner, PhD

Senior centers are not designed to care for chronic illnesses and major health problems of older people; but since they serve elders, they have many clients with such health problems. Drawing on 2014 data from an evaluation survey at 28 senior centers (SCs) in an urban Texas county, we focus major health problems and their relationships to demographic factors and measures of elder-senior center interactions, weighting for the size of the SC. A high level of

health problems were reported, from as low as 15 percent for memory loss and cancer to 70 percent for hypertension. Close to half reported high cholesterol and nearly as many diabetes, while over one-fourth reported heart disease, depression, vision problems, or dental problems. Such reports varied widely by age, gender, ethnicity, marital status, and living situation. Disease prevalence was not related to frequency of meals at the SC. Unsurprisingly, those with diabetes, especially those taking insulin, were more likely to have attended chronic-disease self-management classes; but those with dental problems were more likely to have attended medical management classes. Overall, findings highlight the high prevalence of health problems of SC attendees, their variability by attendee characteristics, and their association with SC offerings. These findings demonstrate the need to include SCs in community-based health promotion interventions and for collaborative efforts among clinical and community-based services for older adults.

Characteristics associated with Mycobacterium tuberculosis culture-confirmed tuberculosis patients with negative interferon gamma release assay results Larry Teeter, PhD; Neeti Karmacharya, MPH; Jennifer Singh, RN; Paul E. Grunenwald, DVM, MS; Julie Graves, MD, MPH, PhD

Interferon gamma release assays (IGRAs) have become the preferred diagnostic test for tuberculosis (TB) infection in most at risk populations. However, patients with newly diagnosed active TB frequently have negative IGRA test results. The objective of this study was to determine what characteristics were associated with TB patients that had a negative IGRA test result. Routinely collected TB surveillance data associated with all Texas TB patients reported with active disease between 2013 and 2015 was exported from the Texas NEDSS

database. Characteristics of Mycobacterium tuberculosis (Mtb) culture-confirmed patients were compared between patients with positive and negative IGRA test results by logistic regression using Stata. A total of 3,825 persons with active TB were reported in Texas between 2013 and 2015 including 2,032 (53%) with a documented positive or negative IGRA result. Among 1,487 (73%) Mtb culture-confirmed patients with an IGRA result, 1,304 (88%) were IGRA positive and 183 (12%) were negative. Compared to IGRA positive patients, those with IGRA negative results were more likely to be >60 years old (Odds ratio [OR]: 2.01; 95% confidence interval [CI]: 1.45-2.78), HIV-infected (OR 2.23; CI 1.32-3.78), non-Hispanic whites (OR 2.50; CI 1.66-3.77), and to be tested with T-SPOT@TB test (versus QuantiFERON@) (OR 1.41; CI 1.03-1.94). These covariates remained significantly associated (P<0.01) with IGRA negativity after multivariate analysis. Notably, all 14 Mtb culture positive children younger than 5 years old had positive IGRA results (P-value not significant). IGRA tests have become important tools for TB diagnostics. Although IRGAs are not recommended as rule-out tests for active TB disease, in the absence of other positive rapid diagnostic test results, a negative IGRA result may inappropriately lower clinical suspicion for TB, especially among the immunosuppressed (older and HIV-infected). The observed associations of IGRA negativity and non-Hispanic white race/ethnicity and the T-SPOT test warrant further investigation.

Health Care and Social Services Providers Serving Sexual and Gender Minorities in El Paso, TX David Torres, BA; Oralia Loza, PhD; Carlos Alvarez, MPH

Sexual and gender minority (SGM) individuals generally experience increased barriers to accessing health care and reduced quality of care due to factors that include stigma,

discrimination, and poor cultural proficiency by healthcare and social services providers (HCSSP) when compared to the general population. The aims of this project are to identify HCSSP who are culturally proficient in SGM health issues by using community partners, and an instrument developed with input from the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community in El Paso, TX. HCSSP information identified through this project will be published in a referral list that will be made publicly available and widely available to SGM and by other HCSSP in El Paso, TX. A survey was developed based on concerns voiced in a predominantly Hispanic LGBTQ community then administered to HCSSP. The survey is 43-items divided into eight sections that include the consent form and description of the survey as well as questions regarding the provider's services, patients, staff, venue, outreach strategies, and own demographic information. **RESULTS:** In this initial version of the referral list, 24 HCSSP completed the survey and agreed to be listed on "the Purple Pages of El Paso" which will be initially hosted on the City of El Paso Department of Public Health's website. The data collection system will allow this project to expand over time. This model can be adapted in areas where LGBTQ communities face similar barriers to care and services. To be effective in reducing barriers to care, "the Purple Pages of El Paso" must be updatable and sustainable. This project must be sustainable and updatable to maintain a relevant and up-to-date referral list. To date, the project has the commitment from the office of Texas State Senator Jose Rodriguez and other community stakeholders.

Moving Forward Post-Accreditation: Panel Engagement with Accreditation Coordinators from Houston, Tarrant County, and Austin Veena Viswanathan, MPH, CQIA; Donald Fisher, MS; Robert A. Hines, Jr., MSPH, CQIA

Texas accredited public health departments include Houston Health Department, accredited in Dec 2014; Tarrant County Public Health, accredited in Nov 2015; and Austin/Travis County Health and Human Services, accredited in May 2016. While all three departments achieved public health accreditation, they each have unique accomplishments, insights, and developments since achieving accreditation. This presentation captures salient information from these departments with respect to benefits, improvement opportunities, engagement activities, and questions from the audience. Accreditation Coordinators Robert Hines from Houston, Donald Fisher from Tarrant County, and Veena Viswanathan from Austin will engage with the audience in a panel format. Questions include pre-scripted items based on the objectives above and questions collected from TPHA members ahead of the presentation. Each panel member will provide responses while a TPHA moderator facilitates. This presentation may include additional questions from the audience if time permits. Result: Participants will be informed of successes, benefits, improvement opportunities, and developments since the three health departments were awarded accreditation. Participants will learn of related accomplishments and endeavors of these health departments. The audience can apply potential benefits of receiving accreditation to their own departments and communities. The objectives of the presentation will be met and audience members may engage in additional discussion with the Accreditation Coordinators. The information shared and knowledge gained may be applied on a broader level to departments in various accreditation phases including preparation, application, and site-visit. Participants will leave the session with a broader understanding of real and applied results of accreditation for several public health

accredited departments in Texas.

POSTERS

The incidence trends of primary brain and central nervous system tumors among Hispanics in Texas State (1995-2013); the geographic variation and demographic differences. Solomon Ambe; E Fonkem, DO

Epidemiological report of primary brain and CNS tumors nationwide can be found in the Central Brain Tumor Registry of the United States (CBTRUS) statistical report. Statewide studies of this nature are rare and so researchers have to look into the national report to extract state information. It is true that a statewide report would give more information and a breakdown of results found in national report. A two decade trend of incidence and geographic variation among Hispanics is a tweak of the mainstream of research on brain tumors. This sub-population analysis is imperative because it gives one peculiar information about the disparity within such a group and also demographic differences with this group which might obscure in general population analysis or even nationwide sub-population analysis. Categorizing the trends in incidence by geographic region gives one more information about the peculiarities of different geographic regions within the same sub-population. Data was got from the Texas cancer registry and the National Cancer Institute SEER program. The seer*Stat 8.3.2 software was used for data analysis to calculate counts, incidence rates and frequencies. Age-adjusted incidence rates for all primary brain and CNS tumors, malignant and non-malignant for race, gender, age and geographic region of Texas was standardized to the 2000 U S standard population. The Annual trend of primary brain and CNS tumors in Texas showed a stable trend from 1995 up to the year 2002. Then a sudden upsurge in incidence in 2003 which almost triples the annual

incidence. Among Hispanics, the Panhandle, North and West Texas had higher incidence trends while East Texas had the lowest trend. In the Hispanic community, West Texas has the highest average annual increase in incidence rate (10.6%) followed by North Texas(9.29%) and then the Panhandle region (8.34%). East Texas has the lowest annual percent change of 4.36%. The average annual incidence rate among Hispanics in Texas was 13.44 per 100,000 population and 14.99 among non-Hispanics (1995-2013). The Hispanic population showed a significant regional variation in the incidence trends over the last two decades. Females consistently had higher rates across regions and race. The upsurge in incidence seen in the last decade calls for attention. Hispanics were likely to have benign brain tumors compared to non-Hispanics.

Exploring the Healthcare Needs among Women Affected by Violence in Tarrant County Alita Andrews, MA; Emily Spence-Almaguer, PhD, MSW; Erin Carlson, DrPH; Jessica Grace, LMSW; Shlesma Chhetri, BA

Interpersonal violence (IPV) is a public health problem that may include physical, sexual, psychological, and/or stalking aggression. Consequences of IPV include long-term physical and health consequences as well as decreased personal safety. The Technology Enhanced Screening and Supportive Assistance (TESSA) project funded by the Office of Women's Health (OWH) aims to bi-directionally connect IPV organizations and health care clinics in Tarrant County. To inform the development of TESSA, a needs assessment was conducted with women seeking assistance from IPV organizations. The needs assessment questionnaire examined 7 domains: demographics, health conditions, health status, health history, health information, healthcare utilization, and victimization history. The healthcare

utilization portion, included items from the National Health Information Survey (NHIS) that were adjusted for reading level. Eligibility criteria were those 18 years and older and receiving services from the IPV organizations. Referral materials were used within each organization in order to inform those of the participation of the survey. The survey was self-administered using an online questionnaire on a tablet device. Ninety-nine participants completed the survey. Lacking medical homes, 30% of participants reported not having a consistent person whom they see as a health care provider. Additionally, 41% of the participants shared they have not had health insurance, and 33% reported there was a time in the last 6 months that they were uninsured. Furthermore, 23% of the participants shared it has been a year or more since they saw a health professional. Overall, these results showed that participants had a high utilization of emergency department and have experienced problems when this study shows the high need of healthcare resources IPV victims to be connected to health care resources and supports the need for TESSA in Tarrant County.

HPV Vaccine and Adolescent Health Education Across Demographically Diverse Parent Population Saman Aziz, MD, MHPE

Human papillomaviruses (HPV) cause nearly 27,000 new cancers in the United States each year. These include cancers of the cervix, oropharynx, anus, vulva, vagina, and penis. Despite excellent safety profiles and strong evidence of efficacy, uptake of HPV vaccines in the US is considerably lower than that of other adolescent vaccines. HPV vaccines are the first cancer control intervention targeted specifically to adolescents, a population in which cancer is rare. A study was done to examine levels and correlates of interest (parental decision making and acceptance of HPV vaccine)

in a demographically diverse (Frisco: high SES; Garland: low SES) sample of 100 parents/caregivers of adolescents (9-17 years). A Parental Human Papillomavirus Vaccine Survey (PHPVS) framed on theoretical constructs of the health belief model (HBM) was used for this study. Data was analyzed in Microsoft access. Inverse relationship was observed between the level of education and acceptance of HPV vaccine across two diverse parent populations: Frisco: Education Level (67.3%) = Resistance to HPV Vaccine [slightly higher scores on perceived severity (53.3%) and lower scores on perceived vulnerability(46.3%), benefits(48.6%) and barriers (48.1%) subscale]. Garland: Education Level (7.8%) = Acceptance to HPV Vaccine [lower scores on perceived severity(46.7%) and slightly higher scores on perceived vulnerability(53.7%), benefits(51.4%) and barriers(51.9%) subscale]. There is a universal need for education (HPV prevalence, prevention, and protection) at appropriate levels with messages that are culturally tailored to address specific population. Lack of education across race/ethnicity, gender, and cultural, social, political and religious beliefs is a bridle to HPV vaccine awareness and acceptance. Strategic recommendations to support implementation of HPV vaccination catch-up programs should be reinforced. Physician-patient communication should be strengthened. Policy-makers need to have a targeted approach as they strive to enhance the overall quality and delivery of HPV-related cancer prevention services.

Food Insecurity and Health in Older Adults Diane Berry, PhD; Jennifer Mays, MPH

Links between food insecurity and health are reported in numerous studies. We examined whether the psychological stress associated with food insecurity mediates the relation between food insecurity and health in a sample of economically

disadvantaged older adults. We collected data from 226 people enrolled in the People and Nutrition food distribution program administered through the North Texas Food Bank. This program is open to individuals 60 or older with an income below 130% of the federal poverty guideline. Participants provided demographic data, completed the USDA Food Security Module, the Perceived Stress Scale, and the Health Status Questionnaire. We conducted tests of mediation to examine the relations among food insecurity, stress, and health. Analyses were conducted separately for men and women. Food insecurity and stress were, as expected, negatively correlated with the physical and mental health subscales of the Health Status Questionnaire, p 's < .01; and food insecurity was positively correlated with stress, p < .01. We computed regression equations in which food insecurity and stress were simultaneously entered as predictors of each health measure. All equations were significant, p 's < .001; adjusted R^2 's ranged from .25 to .59. In each equation, stress emerged as an independent predictor of the outcome measures, p 's < .001, whereas the relations between food insecurity and health measures were no longer significant, p 's > .05. Food insecurity and stress are negatively related to health. Moreover, food insecurity is positively correlated with stress. Mediation analyses revealed that stress can explain the relations observed between food insecurity and health. In particular, our results are consistent with the hypothesis that food insecurity influences health indirectly via its association with psychological stress; i.e., poor health in food insecure people may be a consequence of the heightened levels of stress experienced by this population.

Effects of Participation in a Supplemental Nutrition Program on Evaluations of Food Insecure Children Diane Berry, PhD; Richard Amory, BS; Terry Clark; Taylor Hanna, BA

Government estimates suggest that nearly 20% of households with children are "food insecure". Moreover, the adverse consequences of chronic hunger for those children are serious and multi-faceted. We assessed the effects of the "Food for Kids" program on food insecure children. Participating schools distribute backpacks of food to enrolled students every Friday afternoon during the school year. This program specifically targets the nutritional challenges that these children face during weekends, when the support provided by school meal programs is unavailable. 789 children took part in a longitudinal evaluation of the program. Mean age was 7.7 years, and boys made up 58% of the sample. Teachers evaluated students' academic performance and emotional distress, as well as the prevalence of behaviors indicative of food insecurity and chronic hunger. These assessments were made at the beginning and again at the end of the school year. ANOVAs revealed that program enrollment was associated with: 1.) a significant decrease in the prevalence of behaviors related to food insecurity and chronic hunger; 2.) a significant decrease in children's levels of emotional distress, and 3.) a significant increase in academic performance. The relations revealed between exposure to the program and the outcome measures did not vary as a function of sex, and were independent of age. Within-group regression analyses revealed that among program participants, especially girls, initial prevalence of hunger-related behaviors continued to predict absolute level of emotional distress and academic performance at the end of the school year, despite significant improvements in both outcome measures. The data suggest that the Food for Kids program may provide food insecure children with some relief from this pervasive problem. Moreover, participation in the program may yield benefits that extend beyond hunger reduction. Additional

research is warranted to further explore the scope of these benefits.

An Analysis of EPA-Registered Mosquito Repellants, Their Attributes and Efficacy Andrew Cassidy, MPH candidate; Bhumika Maddineni, MPH candidate; Joon-hak Lee, PhD

Recent emergence of Zika virus has added to the list of mosquito-transmitted diseases of public concern. Despite mosquito control efforts, the risk of mosquito-borne diseases remains and personal protection from mosquito bites is the most reliable intervention method to reduce the risk of infection. Local, state, and federal public health authorities commonly advise the public to use EPA-registered insect repellants to help protect against mosquito borne disease. However, specific information that helps the public better choose and use repellents may increase personal protection. By the end of this presentation, participants will be able to identify factors that contribute to a repellent's efficacy, and know how to better advise the public on effective repellent use. A database was created using information on EPA-registered repellents from an online EPA resource. Additional data was collected from the label information of each registered product. Statistical analysis was conducted using SAS 9.4 software. There are 629 EPA registered repellents that are listed under 186 different labels. Labels of DEET repellents are most prevalent ($n=119$), followed by Picaridin ($n=29$) and IR3535 ($n=22$). 51 labels have no information on protection time. Of labels with protection time information, DEET repellents have higher median protection times than IR3535 repellents across all concentrations. Picaridin repellents have a higher median protection time (8.47 hours) than DEET repellents (6 hours) at concentrations less than 20%. Of DEET repellents, spray formulations of 21-40% DEET

are most prevalent (n=27) and have a mean protection time of 7.57 hours. Protection times of DEET products at comparable concentrations vary between spray, lotion, and wipe formulations. Work on this project is still in process. EPA-registered repellents vary in their composition and efficacy. Authorities should encourage the public to consider these differences when using repellents, to better protect the public from disease-carrying mosquitos.

Public perception of the flu vaccine among members of the Kickapoo Traditional Tribe of Texas Miguel Cervantes, MPH; Antonio Garza, PhD; Elvia Ledezma, MPH; Rosy De Los Santos; Adriana Massone, MPH, BSN; Elise Rush

The Kickapoo Traditional Tribe of Texas (KTTT) in Eagle Pass, TX is a binational tribe with cultural and historical ties to other Kickapoo in Coahuila (Mexico), Oklahoma and Kansas. Public perceptions among KTTT tribal members regarding flu vaccination have not been studied. A non-disaster Community Assessment for Public Health Emergency Response (CASPER) was conducted as a collaborative effort between the KTTT and the Texas Department of State Health Services Health Service Region 8. CASPER data collection and education on flu vaccination was provided to KTTT tribal members. A package with educational materials and other supplies was also provided. All 262 households in the KTTT reservation were approached. A survey was conducted on an available household representative >18 years of age. Data collected was compiled and analyzed using Epi Info™ version 7.2 software. A total of 151 surveys were completed. Approximately 74% of those surveyed claimed that household members had received a flu vaccination in the past. Of those households, 64% had received the flu vaccine in the last year. Almost 66% of households

received the flu vaccine from the Kickapoo Clinic. The top reasons for not getting the flu vaccine included: a belief that the flu vaccine causes flu (27%), respondents felt that their immune system was strong and did not need the flu vaccine (14%), concern about side effects (11%), and claims of allergic reactions to the vaccine (11%). The assessment provided information that could be used to help tribal officials determine the amount of flu vaccine needed at the Kickapoo Clinic, focus educational efforts, and improve flu vaccination rates.

Defining Societal Violence in Terms of Health Impact and Health Disparity Elizabeth Cuevas, MS; Melissa Oden, DHEd; Kwynn Gonzalez-Pons, MPH, CPH; Maryam Tabrizi, DMD; Bobby D. Schmidt, MEd; Witold Migala, PhD

Societal violence encompasses several forms of violence that act as threats to health and security, heavily impacting women, children, and marginalized populations. The use of spectrum terminology to address these forms of societal violence defines the situation in terms of outcome and impact rather than the use of force or threat to security. In this session, definitions of societal violence will be discussed as they related to public health, security, mental health, and disparities in health. A review of three societal violence case studies will be presented with considerations on how this violence in society impacts health. Domestic violence rates are variable across the state, as are reporting and prosecution rates. Human trafficking and drug trafficking-related violence represent a highly organized example of societal violence that affects numerous victims across societal demographics and geographic locations. Public terror events and mass shootings are isolated events but share the pervasive fear of future violence due to the egregious nature. This session will review the definitions and spectrum of societal violence and share the health impact

and health disparity perspective resulting from three examples of societal violence.

The influence of co-morbidity with attention-deficit hyperactivity disorder or anxiety in children with autism spectrum disorder on social functioning Ann Davis, MPH; Sumihiro Suzuki, PhD; Kimberly G. Fulda, DrPH

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects 1 in 68 children in the United States. Children with autism often are diagnosed with psychiatric comorbid conditions; including anxiety and attention deficit hyperactivity disorder (ADHD). To our knowledge, no previous studies have examined the combined effect of anxiety and ADHD on social functioning in children with ASD. Data were obtained from the Interactive Autism Network (IAN). Our study sample consisted of 9,707 children (age 0-18 years) with ASD. Of these children 754 have anxiety, 1685 have ADHD, 1226 with both ADHD and anxiety and 6,042 have ASD alone. Outcomes assessed were social responsiveness scale (SRS) and social communication questionnaire (SCQ). The exposure assessed was comorbid diagnosis of anxiety, ADHD or both. Unadjusted and adjusted logistic regression was performed to determine the association between SRS and SCQ and having a comorbid condition. SRS was dichotomized into severe (≥ 76) or moderate/ mild (≤ 75). SCQ was dichotomized into a score of 23 or greater and less than 23. The majority of the study sample was white, non-Hispanic (82.6%) and male (80.3%). The mean age was 7.8 years ($\bar{A} \pm 3.99$). Those with ADHD (OR=1.41 95%CI 1.26-1.57), anxiety (OR=1.41 95%CI 1.21-1.65) or both (OR=1.60 95%CI 1.40-1.83) had significantly increased odds of having a SRS score above 76 as compared to those with no comorbidity while controlling for gender, race/ethnicity, and other psychological conditions. Anxiety (OR=1.57 95%CI

1.34-1.84) and both, ADHD and anxiety, (OR=1.30 95%CI 1.14-1.49) were significantly associated with SCQ, but not significantly associated with comorbidity with ADHD. We found that co-morbidity with anxiety and/ or ADHD was positively associated with SRS and SCQ. These results suggest that future studies that examine effectiveness of therapy in children with ASD consider comorbidity as a factor that will influence outcomes.

CATCH My Breath Youth E-Cigarette Prevention Program Cassie Davis, MPH/MPA Aff Candidate

Currently, there is a growing use of E-cigarettes among students in middle school. According to the CDC, E-cigarette use within the last 30 days has risen from 3.9% in 2014 to 5.3% in 2015 for middle school students. The rapid growth in E-cigarette use among middle school students prompted the development of CATCH My Breath, a best-practice-based program consists of six 30-minute classroom sessions. The key objectives include: social desirability of E-cigarette use, media literacy, social refusal skills, norms around E-cigarettes, attitudes, knowledge, and beliefs. The program aims to educate middle school students, parents, and teachers about nicotine addiction and other health hazards that are associated with E-cigarettes through a web-based platform, Digital CATCH. The CATCH My Breath program is grounded in the social cognitive theory and was based on the Minnesota Smoking Prevention Program, empirical evidence from cigarette smoking prevention trials, and assistance from experienced curriculum writers and middle school teachers. The program was piloted in Spring 2016 for 6th-8th grade students (age 10-13), in 26 schools across 5 states by 28 teachers. In the pilot, students (n=1,371) reported they are 86% less likely to use E-cigarettes, while more likely to know more about E-cigarette use. For E-cigarette ads, 82% of students will view E-cigarette

ads differently. 70% of students discussed what they learned with their family or friends. 91% of the teachers who administered the curriculum reported they felt confident in their ability to teach the course and 68% said their students liked the lessons. CATCH My Breath is a theory based, best-practice youth E-cigarette prevention program for use among middle school students. The results from the pilot study reveals this program is feasible, well received by teachers and students, and produced no adverse consequences.

Position of Health Literacy in Texas Health Educator Training Lenna Dawkins-Moulton, MS; Andrea McDonald, PhD; Lisako McKyer, PhD

Limited health literacy is linked to poor health outcomes and health disparities. The Department of Health and Human Services has recommended health educators and other health professionals use research-based health literacy techniques to improve services they provide the public. Yet, no study has examined the extent to which health literacy is part of health education curricula. The purpose of this study was to determine the inclusion of health literacy training in the curricula of health education/promotion programs in Texas public universities. Health Syllabi for three Texas universities with the largest enrollment of health education majors were accessed through university websites. The syllabi were reviewed to identify learning objectives related to health literacy. Health literacy objectives were coded based on their cognitive demand or strength and the number of health literacy competences to which they contributed. Fifty syllabi representing 45 health courses and 412 objectives were analyzed. Most objectives (96%) shared no link with suggested health literacy competences. No objective had a link at strength one or two (low or intermediate cognitive demand), but two objectives were linked to the competences at strength 3

(high cognitive demand). Both objectives that shared a link with the competences were in the same syllabus. The phrase "health literacy" did not appear in any of the objectives analyzed. The results of this study suggest health literacy may be a missing or buried component in health education programs in Texas public universities. It would be useful for future research to investigate the impact of this omission and explore best practices for integrating health literacy into health education curricula.

Zika Virus: Border Response Initiative (Implementation) Rosy De Los Santos, BA and BS; Elvia Ledezma, MPH

Given the increase of Zika cases in Texas and the severity of congenital effects of Zika on fetuses, the Texas Department of State Health Services (DSHS) Office of Border Services (OBS) has initiated a campaign to assess border communities on Zika awareness and provide education to residents on how to implement strategies to reduce the risk of mosquito borne diseases. The Texas Department of State Health Services Office of Border Services recruited and trained Community Health Workers (CHWs) to conduct home questionnaires and outdoor home assessments in 250 households along the Health Service Region 8 Texas-Mexico border. In addition to the assessments, CHWs educate participating families on Zika and mosquito prevention strategies. Participants also received educational material and supplies to be used in mosquito control. The Texas Department of State Health Services Office of Border Services will be presenting on the findings of the neighborhood pre-screenings, the training of Community Health Workers on Zika awareness and prevention and how to conduct community assessments, and project acceptability by community residents. Community Health Workers are important and valuable assets when evaluating communities and educating

residents on how to implement preventative strategies in low resource communities.

Breast is Best: Increasing Breastfeeding through Innovative Interventions Anjali Desai, MPH; Susie Juliano, RN, BSN; Patricia Alridge

The JPS Breastfeeding project aims to increase breastfeeding amongst mothers who deliver at JPS and at other facilities by providing resources and education. The objective is to significantly impact maternal and child health with physical and psychological support and encouragement to meet defined breastfeeding goals. The benefits of breastfeeding include protection for newborns against allergies, asthma, diabetes, obesity, and sudden infant death syndrome; it has been shown that breastfeeding also reduces the mother's risk of type 2 diabetes, certain types of breast cancer, and ovarian cancer. The convenience, ease, and financial benefits of breastfeeding are explained by Certified Lactation Consultants and breastfeeding educators. Innovative interventions to increase breastfeeding include: hospital and home visits; staff education at four-hour breastfeeding boot camp sessions that emphasize consistency in staff approach and messaging; prenatal breastfeeding education classes; offering lactation support with extended hours on Saturdays; and the provision of breast pumps to mothers who exclusively breastfeed during their hospital stay, together with offering donor milk to mothers who desire to exclusively breastfeed but are having difficulty achieving their goal during their hospital stay. Since October 2013, over 5,000 new mothers who delivered at JPS have received home and/or outpatient visits that are conducted by Certified Lactation Consultants and Community Health Workers. We have seen improvements in the rate of exclusive breastfeeding during hospital stay and any breastfeeding at 6 months. However, we have seen

decreased rates of exclusive breastfeeding at 3 months and exclusive breastfeeding during hospital stay when the mothers' initial choice was to breastfeed. There is still room for improvement of breastfeeding rates, and JPS will continue to provide breastfeeding education and resources to our patients and employees. Through these interventions, JPS aims to improve the health of both mothers and babies from infancy and beyond.

Partnering for Sustainable Programs: Development of the SHE Tribe Model Leilani Dodgen, MPH; Katie Cantu Anguiano, MPH, CPH; Sonia White; Emily Spence-Almaguer, PhD

Sustainability is a key issue for initiatives designed to improve community health. Community based participatory research (CBPR) is an approach that aims to form equitable partnerships to improve health and make sustainable social change. In an urban area of Texas, community members and health professionals began meeting to develop an alternative to short-lived health programs. Through an iterative planning process, they designed a program that builds on the capacity of women to make changes in their lives and the lives of those around them. Using a CBPR approach, the team conducted a SWOT analysis of previous programs, found and reviewed new evidence-based resources, explored Robert Wood Johnson Foundation's Culture of Health, and synthesized key elements for use in a new model. This process was often challenging as partners built trust, negotiated leadership roles, aligned key program elements, and honored community priorities. Multiple discussions to define our purpose and creation of a logic model were keys to navigating these challenges. The result of this process was the development of the SHE (She's Healthy and Empowered) Tribe model. With the goal of maximizing women's social networks to pursue a lifestyle

of health, the model features 5 short gatherings with themes including assessment and goal-setting, self-care, physical activity, nutrition, and social support. During each gathering participants will set individual goals, do the actions to achieve those goals and reflect on the things that contribute and hinder individual wellbeing. The plan for sustainability is for participants who enjoy the program to be inspired to lead their own SHE Tribe with women from their social networks; thereby promoting a culture of health. The curriculum will be piloted in 2017. Partnerships are necessary for developing sustainable health programs. They take time and intentional planning to develop trust and achieve outcomes and promote sustainable change.

Stress and Sleep among undergraduate university students, across two different cultures Jesse Doolin, BS; Jose Enrique Vilches, PhD; Cheryl Cooper, PhD; Christine Gipson, PhD; William Sorensen, PhD

Recent research indicates that stress is positively correlated to poor sleep and poor health outcomes. This study investigated self-reported stress, sleep quality, and other health indicators among American and Bolivian students, and additional variables such as age, gender and culture differences. We used a 10-item stress scale developed and tested by Cohen and Janicki-Deverts (2012). We added questions concerning sleep habits, health, and demographics. Psychology classes from two public universities (Texas USA, and Bolivia) were convenience sampled and undergraduate students were recruited to take this survey (n=140; 80 American; 60 Bolivian). Bolivian students reported significantly more stress ($p=.035$) than American students, but experienced significantly fewer problems falling asleep ($p=.001$). This trend runs contrary to the literature which cites a negative relationship between stress and sleep quality. In the

American group only, gender was a marginally significant predictor of stress, consistent with other research ($p=.060$; female students more stressed). Previous research on stress has shown as age increases, stress decreases. Our data confirm these findings: Age had a strong negative relationship with stress, but only among the American students ($p=.007$). In order to identify possible confounding variables, we used a more complex model with all three demographic variables as predictors. This model found that perceived stress between the cultures was significantly different ($p=.026$; Bolivian students more stressed) when controlling for age and gender. In addition, when controlling for gender and culture, age predicted stress ($p=.049$; younger students experienced significantly more stress). The results of our study indicate that the factors related to stress and sleep quality are culturally dependent, that is, variables such as age and gender, while predictive, may be irrelevant as predictors in other cultures. These findings point toward the need for further research on predictive variables of stress and sleep quality across cultures.

Opening Doors to Your Future Veronica Edwards, MPH, CHES, CHWI; Uriel Acuna, BS

El Paso County also has a younger population than the Texas average but have a lower educational attainment. Approximately 29% of El Paso County residents have not graduated from high school, which is nearly double the U.S. average of 15%. Approximately 10,000 people, both individuals and families are homeless at some point during the year. El Paso is characterized by a large immigrant population, high levels of poverty, high unemployment rates and a growing number of homeless. We collaborated with EPISD and their homeless student coordinator; to bring 37 students from that district that are considered homeless to come and visit Paul L. Foster School of Medicine as well

as Gayle Greve Hunt School of Nursing. Participants had presentations from health professionals as well had tours of the schools and the labs. An evaluation survey was conducted. All 37 participating students said that this event motivated them to finish high school 27 students were most likely to pursue a career in the health care field. 31 are likely to recommend this event to friends. Based on the positive feedback, AHEC is hoping to collaborate with other school districts in order to continue this event at a greater scale and encourage more students to pursue careers in the health care field.

Texas Self-Measured Blood Pressure Monitoring Tied with Clinical Support Pilot Project: An Evidence-Based Strategy to Achieve Blood Pressure Control Nancy Eichner, MUP; Alisa Spieckerman, MPH, CHW; Brandy Lee, BS, CHES; Sabine Monice, MPH

Hypertension is a significant risk factor for heart disease and stroke, which affects approximately 30 percent of Texans. The Heart Disease and Stroke Program at Texas Department of State Health Services (DSHS) implemented the Self-Measured Blood Pressure Project with local health departments in Texas. The project, partially funded through grants from the Centers for Disease Control and Prevention and the Association of State and Territorial Health Officials, is designed to encourage primary care practices to identify patients with uncontrolled blood pressure, provide blood pressure monitors and education on their use, and link them to community resources. DSHS piloted this project for 12-16 weeks with four sites in public health regions with high hypertension prevalence. Sites adopted a self-measured blood pressure policy, including patient eligibility criteria (patient over 18 years with at least two evaluated blood pressure readings at 140/mm Hg or greater during the last calendar year) and procedures

for reporting data. Selected patients received an intake assessment, blood pressure monitors, and education on its use and maintenance from staff or a community health worker. Patients submitted weekly blood pressure readings and were referred to lifestyle modification classes. 228 patients were enrolled in the project. Data is currently being analyzed. Preliminary results from one site show a decrease in the systolic or diastolic, or both for every patient and 40 percent had achieved normal blood pressure readings. Participants indicated tracking their blood pressure increased awareness of their condition and prompted discussion with their physician. Preliminary results suggest the project successfully raised participant awareness of the importance of blood pressure control and an overall decrease in systolic and diastolic blood pressure. Analysis from qualitative data found that this project has increased patient knowledge and awareness of hypertension, and resulted in patients making lifestyle modifications.

Association Between Education Level and Spiritual Health Locus of Control Ike Eke, BA; Surrendra Mandapati, BDS.; Leilani A. Dodgen, MPH; Abdullah M. Mamun, MS; Kisa D. Gant, BS; Heather Kitzman-Ulrich, PhD

Spirituality is a core pillar within the African American (AA) community. It has permeated many facets of black culture over time, and has shaped the black experience. Previous studies have found that individuals with more spirituality were more likely to pursue higher education. However, little is known on how education attainment influences spiritual health locus of control (e.g., how God plays a role in your health). Cross-sectional data was collected from a baseline survey administered to participants in Cohort 1 and 2 of the Better Me Within Program. Participants were stratified as high education (college degree or above) or low education (high

school degree or below) based on self-report. Spiritual health locus of control was evaluated with the spiritual health locus of control survey, and responses were calculated to create an active (God empowers individuals to be proactive about their health) and passive (God has control over an individual's health) spiritual health locus of control score for each participant. Data was evaluated with the non-parametric Wilcoxin test. 145 AA women with a BMI > 25 participated (mean age=49.6, SD=11.65). The Wilcoxin test demonstrated a higher mean passive spirituality score in the lower education group as compared to the higher education group ($u=3.05$ low education, $u=1.27$ high education; $p<.00002$). There were no significant differences between the mean scores for active spirituality between those in the high and low education group ($u=26.42$ low education, 26.41 high education; $p=.8$). Passive health locus of control has been associated with poorer health behaviors. Individuals with lower educational attainment are at a higher risk for health issues and may lack access to healthcare. The additional belief that God controls one's health, e.g., a passive spiritual health locus of control, may contribute to these health disparities.

Exploring the Role of Protective Factors on Depressive Symptoms among Mexican American Adolescents. Anna Espinoza, MD; Alex Espinoza, MPH; Etienne Jaime Hinojosa, MPH; Alejandra Aguilar, MPH; Kimberly Fulda, DrPH; Susan Franks, PhD

National Health and Nutrition Examination Survey (NHANES) 2009-2012 dataset revealed that 7.6% of Americans aged 12 and over had depression. Youth, ages 12-17, had a depression rate of 5.7%. Research shows that ethnic disparities in mild, moderate, and severe depressive symptoms exist in Hispanics, compared to Non-Hispanic whites. The objective of this project is to explore the

association between protective factors at the individual, relationship, and community level with depressive symptoms among Mexican American children. Materials and Variables were selected based on the social ecological model. A cross-sectional sample of 144 children, ages 10-14, and their legal guardian were used to examine exposure to seven protective factors: 1) acculturation 2) self-worth 3) positive physical development 4) family meals together 5) parent attendance of child events 6) neighborhood safety and 7) presence of recreation centers. The total number of protective factor exposures was categorized into four levels: 1, 2, 3, ≥ 4 exposures and run in a logistic regression model as the exposure of interest with depressive symptoms as the outcome. Depressive symptoms were evaluated using the Total Score yielded from the CDI 2: Self-Report (Short) version (CDI 2: SR[S]). Depressive symptoms were dichotomized as not having depressive symptoms (Average/Lower Level) and having depressive symptoms (High Average, Elevated, and Very Elevated Levels). Of the boys (51% of sample), 10 (7%) had depressive symptoms, compared to 20 (14%) girls. Logistic regression adjusting for gender shows a relationship between protective factor exposures and depressive symptoms. Poverty, parent income, and BMI were not significantly associated with depressive symptoms and were not included as confounders. The model shows that for each increasing level of protective factor exposure there is a 0.168 (CI: 0.058, 0.490) odds for depressive symptoms. As the number of exposures to protective factors increase in a Mexican American child, the child has reduced odds of having depressive symptoms. Future studies should investigate not only the total number of protective factor exposures, but which type (e.g. individual, relationship, or community level) most impact the etiology of depressive symptoms in Mexican American children.

Demographic Characteristics of Child Fatality in Rural Southeast Texas

Archibald Ferguson

There continues to be glaring disparities in child and infant mortality. Understanding the demography, particularly where race, geography, and age are concerned can contribute significantly to reducing child deaths through prioritizing strategies for high-risk populations. In Texas, as in many other states, there exist local groups of community members and subject matter professionals (Child Fatality Review Teams) that convene to review child fatalities (fatalities of those under 18 years of age) at a county level. These groups review the cause and circumstances of the fatalities and provide recommendations and strategies to prevent fatalities among children. All reviewed fatalities are recorded in a database and collected by the Center for Fatality Review and Prevention. These records were collected from a five year period in a five county area of Southeast Texas from three different Child Fatality Review Teams. 118 child fatalities were reviewed from Colorado, Wharton, Austin, Waller and Matagorda Counties ranging from 2011-2015. These composed all the child fatalities that occurred in the time frame and which had been reviewed. There was a disproportionate number of fatalities occurring to African American (N=31, 26.27%) and Hispanic (N=46, 38.98%) children, particularly considering the minority of the population they comprise in these five counties. There were a large minority of fatalities due to accidents (N=32, 27.12%) as well as suicide and homicide (N=9, 7.62%). African American children disproportionately accounted for fatalities resulting from prematurity (N=11, 37.93%). Caucasian children, while more likely to die from natural causes, were also the most likely to die from an accident (N=14, 45.16%) and particularly from a motor vehicle accident (N=9, 69.23%). With a large minority of child fatalities from unnatural and

preventable causes, a better understanding of how child fatalities occur and who is at greatest risk could contribute to a considerable reduction in deaths among minors. Targeted strategies in these counties on reducing co-sleeping and motor vehicle accidents while promoting prenatal care could result in a considerable reduction of child fatalities.

Pancreatic Cancer Incidence, Mortality, and Survival in the SEER 17 Southern and Total United States (2000-2008)

Subi Gandhi, PhD

There is a paucity of data explaining the rates and time trends of pancreatic cancer in the southern and the total United States (US) as the risk factors for this cancer are disproportionately distributed in these two regions. The aim of this study was to quantify the burden of this fatal cancer in these large geographic regions. Age-adjusted incidence and mortality rates for patients (>40 years) diagnosed with pancreatic cancer between 2000 and 2008 were calculated using the SEER 17 (southern and total US) data. Jointpoint regression was utilized to test the relationships between time and pancreatic cancer estimates. Relative, cause-specific, and conditional survival rates were also calculated for those diagnosed between 2000 and 2007. For both the regions, an increase in incidence and mortality rates was observed in the older age groups (>60 years), males, and blacks. The overall mortality rate in the southern states was slightly higher (26%) compared to the total US states (25%), with similar incidence rates in the two regions (27%). The annual percent increase (APC) in the incidence rates was significant for all races and females in the southern states, but for all races and both the sexes in the total US states. Although the 3-year relative survival rates were similar between the regions (7.0%), the 3-year cause-specific survival rate was slightly lower (7.3%) for the southern states compared to the total US

states (7.7%). Region specific similarities and differences in incidence, mortality, and survival were observed for the two regions. Particularly for the southern states, white females were at higher risk for developing this aggressive cancer compared to their male counterparts, and the incidence rate dramatically decreased for Asian/Pacific Islanders compared to other race/ethnic groups. Clinicians should combine their efforts to increase awareness in region-specific high risk groups.

Healthcare Cost Savings and Patient-Centered Outcomes in Self-Administered Outpatient Parenteral Antimicrobial Therapy

Therapy Anisha Ganguly, BS, BA; Larry Brown, MS; Deepak Agrawal, MD; Kavita Bhavan, MD, MHS

Outpatient Parenteral Antimicrobial Therapy (OPAT) is a standard treatment option for patients requiring extended-course antimicrobial treatment. However, OPAT generally requires insurance coverage, so uninsured patients requiring extended courses of antibiotics are forced to receive treatment in the hospital for a prolonged period of time. To better care for our uninsured patient population at Parkland Memorial Hospital, we created a self-administered OPAT (s-OPAT) clinic, where selected patients were trained to administer their own IV antibiotics by gravity in at home. We sought to evaluate the safety and efficacy of s-OPAT in terms of 30-day readmission rates and 1-year mortality rates, assess the inpatient days saved by the program, and collect patient satisfaction data regarding the impact of s-OPAT. We conducted a retrospective cohort study comparing the s-OPAT patients to a cohort of patients receiving healthcare-administered OPAT (h-OPAT). Additionally, we conducted a retrospective patient satisfaction survey over the phone among patients within the original s-OPAT cohort to assess patient-reported outcomes. In comparison to patients receiving h-OPAT, s-OPAT patients demonstrated a

47% lower 30-day readmission rate ($p = 0.003$). Between the two groups, the 1-year all-cause mortality rate did not differ significantly ($p = 0.73$). Over the course of the study, s-OPAT patients administered at home for a median of 26 days, totaling 27,666 inpatient days saved of hospital resources, an average 26 hospital beds a day. With regards to patient-reported outcomes, approximately 85% of respondents reported that they were satisfied with the program and would use it again if needed. In summary, s-OPAT patients demonstrated significant healthcare cost savings with high levels of patient satisfaction while maintaining the same standard of care of h-OPAT. Our clinical outcomes were similar or better than h-OPAT patients, while saving significant healthcare resources and achieving meaningful patient-centered outcomes.

Assessment of Texas Hospitals' Ebola Readiness

Bobbiejean Garcia, MPH, CIC; Jessica Ross, BS, CIC; Thi Dang, MPH, CIC; Sandi Henley, RN, CIC; Melba Zambrano, MSN, RN, CIC; Anna Nutt, MPH, CIC

In October 2014, when Texas treated its first Ebola patients, resources had not been allocated to Texas Department of State Health Services (DSHS) programs to support hospitals. DSHS applied for and received the CDC's Epidemiology and Laboratory Capacity Domestic Ebola Supplement Grant. Part of the funding was used to conduct technical site visits using the CDC Assessment Tool for Ebola Treatment Centers and Assessment Hospitals. All Texas hospitals (N=612) were sent an e-survey the summer of 2014 to self-designate as an Ebola treatment, assessment or frontline hospital. Facilities that showed an interest were contacted by phone to discuss expectations, format of the visit and the assessment tool. A technical site visit was open to any Texas hospital that requested one. Winter 2015-summer 2016,

a multidisciplinary DSHS-led team conducted visits at each assessment hospital. Team members included epidemiologists with infection prevention expertise, hospital and public health preparedness staff, and laboratory biosafety officers. Ebola treatment hospitals were assessed by a different group. The assessment tool includes 11 domains. Operations Coordination was the only domain where all hospitals met the minimum capabilities (N=9, 100%). The least achieved domains were within Laboratory Readiness (N=2, 22 %) and Staff Training (N=3; 33%). Top 2 gaps within these domains were laboratory sample transport and storage (N=4, 44%) and personal protective equipment training (N=4, 44%). It is unknown how many Texas hospitals are prepared for a highly contagious infectious disease (HCID), such as Ebola, since not all hospitals were assessed. All hospitals should focus on training and preparing staff for HCIDs, by working with their local resources such as health departments, EMS, and mortuary services.

Analyzing Health of Americans in Texas Living with Cardiovascular Disease (CVD)

Apeksha Gupta, MPH; Fangwei Han, MPH; Balaji Kolasani, MPH; Dr. Rajesh Nandy

Cardiovascular disease (CVD) is a serious problem worldwide and is one of the leading causes of deaths in Texas. Smoking is one of the factors associated with increased risk of CVD. To reduce the prevalence of chronic diseases, it is very important to focus on factors that are leading to these diseases. Behavioral Risk Factor Surveillance System (BRFSS 2014) data for the state Texas was used to study the association between smoking and CVD. Outcome variable CVD was categorized as having any kind of heart problems or not. Unadjusted analysis (Chi-square) and stepwise procedure were used for variable selection. Moreover, multiple comparisons were done

using Bonferroni method and survey-logistic was used. All the analysis was done using weight, strata and cluster variables calculated in the BRFSS data set for generalization of results. Adjusted analysis suggests that former smokers were found to be 1.357 times more likely to suffer from CVD with 95% confidence interval (1.055, 1.747) and current smokers were found to be 1.456 times more likely to suffer from CVD with 95% confidence interval (1.035, 2.050) in comparison to non-smokers. Other co-variables such as income, age, gender, race and asthma were significantly associated with CVD. In addition, it was found that moderate alcohol consumption had a protective effect on CVD. Former and current smokers were at higher risk of suffering from CVD. When compared to non-smokers the interaction between age and sex was found to be significant at all levels.

State-wide initiatives that recognize worksite lactation support programs: A qualitative analysis on perceived benefits and barriers to including a written policy as a requirement for workplace lactation support recognition

Kelsey Herron, BS; Krystin Matthews, MPH; Alma Carver, MS; Amanda Reat, MS, RD; Courtney Byrd-Williams, PhD

Research suggests breastfeeding provides substantial health benefits to both infant and mother. Return to work is reported as a main reason women discontinue breastfeeding, indicating the need for workplace lactation support so women can meet their breastfeeding goals. The purpose of this study was to identify state-wide initiatives that recognize employers with a lactation support program and the characteristics of these initiatives. Key informants in 50 U.S. States including Washington, D.C. were identified and semi-structured interviews were conducted to determine which states have initiatives to recognize employers with

worksite lactation support programs. Semi-structured interviews also explored perceived barriers and benefits related to the initiative requiring employers to provide a written policy about the lactation support accommodations (e.g., a place to pump, flexible schedule to allow for pumping). Preliminary results indicate 19 states have initiatives to recognize employers with lactation support programs, and 11 states require an employer to have a written policy about the lactation support accommodations provided in order to be recognized. Ten programs have different levels of recognition, 3 of which do not require a written policy at any level, but rather an informal agreement between employee and direct supervisor. The application process could be based on an honor system or confirmed by site visits and/or pictures. Some key informants perceived requiring a policy about the accommodations as a barrier for employers that already provide all of the necessary accommodations. Other informants perceive that requiring employers to submit a policy ensures that the lactation support program will be held accountable for accommodations and protect mothers' rights in the workplace. Qualitative results from key state-level informants indicated differing perspectives about state-wide initiatives requiring employers to have written policies regarding lactation support accommodations. Future research should examine whether employer's written policies increase the rates of breastfeeding in the workplace.

Tasting Health Foods Nutrition Series LaQuisha Hervey, MPH, BSN, RN, CDE; Edith Anadu, PHD, CHES, CDE; Catherine Shephard, MBA

The DAWN center offers health-related services that are based in health promotion and behavior change. The Healthy Eating component of the DAWN program is comprised of activities that focus on increasing the awareness and

knowledge of the impact of nutrition on effective diabetes self-management. These activities are specifically designed to address barriers to the availability of fresh produce, introducing participants to a variety of healthy foods, providing nutrition education, improving skills in food selection, and improving skills in the preparation of recipes adapted for diabetic health. At each session, participants were involved in the following activities: -Completed a pre-test -Completed a blind food tasting exercise with 4-5 different food samples from a particular food group. They were also asked to indicate which samples they preferred and the reasons for their preference. -Nutrition information was then provided and discussed. -Complete a post-test -Participants were then asked to indicate how confident they felt about switching to a different option. Week 1: Whole milk vs reduced fat milk (1%, 2%, Skim, and Whole Milk) 100% reported learning something new and were likely to switch to an option with lower fat content. Week 2: Cornflakes vs whole grain cereals (Cherrios, Raisin Bran, Total, Special K). 89% reported learning something new; 44% indicated they would switch to whole grain cereals. Week 3: Long grain rice vs parboiled rice, brown rice, couscous, quinoa. 86% reported learning something new and that they would be willing to switch from eating white rice to a higher fiber grain. Week 4: Melons vs tropical fruits. 100% reported learning something new; 67% indicated that they would switch to fruits that have lower carbohydrate content and more fiber. Week 5: Pork sausage vs veggie, turkey, or beef sausage. 100% reported that they gained knowledge, 62% indicated they would switch to a lower fat sausage like beef or turkey. No one wanted to switch to veggie sausage. Week 6: Iceberg vs butter head, red leaf, green leaf, and romaine. 89% of participants reported learning something new and 44% indicated they would switch from Iceberg to

romaine lettuce. Overall, majority of the series participants (94%) reported learning something new with over half of participants (67%) stating they would likely switch or add one of the healthier food options into their normal diet.

Detecting Salmonella Clusters of Foodborne Illness from Restaurant Complaint Data in Austin, Texas 2015 Danielle Hoyer, MPH

An analysis of foodborne illness data from two different sources in 2015 was conducted at the Austin/Travis County Health and Human Services Department (A/TCHHSD). Foodborne illness reports are routinely collected through restaurant complaint calls from the public and passive surveillance via laboratory testing and reporting of Salmonellosis cases. In each instance, an epidemiologist follows up with each case to conduct an interview and collect a three day food history. The objective of this project was to determine if there were any overlapping clusters of foodborne illness, specifically Salmonellosis, within one incubation period at restaurants in Austin/Travis County. Data from 2015 Salmonellosis investigation forms was entered into an EpiInfo v7 database based on the symptom onset date or laboratory collection date. Restaurants were entered into the database if they had a complete address and meal date. Restaurant complaint calls were logged previously in an EpiInfo v7 database. All suspected restaurants in the three-day food histories from the Salmonellosis cases and restaurant complaints were geocoded and analyzed in ArcGIS v10.3.1 using the intersect tool. A total of eight restaurants were identified as intersecting between Salmonellosis cases and the suspect restaurant from restaurant complaints. Three of these restaurants were identified as duplicate cases that had completed both interviews. The remaining cases did not have dates that fell within an incubation period.

There was one additional restaurant from the restaurant complaint three day food histories that intersected with the Salmonellosis data, however it was identified as a duplicate case. The data show that there were no missed clusters of Salmonellosis in 2015 associated with a restaurant. Our data was limited to 2015 reports for this project and thus additional years of reports should be considered for future projects utilizing this method of geographic analysis.

Determining Public Health Prevention Needs for Domestic Minor Sex Trafficking in Rural Southeast Texas Counties Remeka Jones, MPH; Dina Abrego, BS; Rita Deeba, BA, BS; Christine Varghese, BA; Colleen LaBar

The purpose of this project was to determine the processes in place for domestic minor sex trafficking (DMST) prevention in seven rural Southeast Texas counties. Literature suggests that rural communities lack general awareness; lack screening protocols and interagency collaboration; perceive sex trafficking, as difficult to conceal in a rural community and an urban issue. The Department of State Health Services Community Health Program (CHP) in partnership with University of Texas School of Public Health (UTSPH), conducted key informant interviews; criteria for interviewees was based on first responders (law enforcement, school personnel, and medical professional) that may have contact with potential DMST. CHP field staff submitted a list of potential contacts in their respective counties, contact was made for approval to be interviewed by interns. A total of 15 20-30 minute phone interviews completed in 6 of the 7 counties serviced by CHP. The overall findings from the interviews were that DMST is not an issue within their respective counties. Each sector believed that the school system is the first line of prevention. The majority of interviewees were unaware

of any internal policies or procedures within their agency. All interviewees identified the need for community based education to raise awareness, as well as occupation specific training. The preliminary findings of this project conclude that there is a need to develop a prevention framework for DMST in rural Southeast Texas. This framework should include community awareness and education, occupation specific training, a county specific interagency and regional collaborative process, and the development of screening protocols and reporting procedures for first responders of potential DMST victims.

Investigating the Complex Relationship between Adverse Childhood Experiences and Oral Health-Related Quality of Life Faizan Kabani, MPH; Kristine Lykens, PhD

Dental caries is the most common chronic disease in children and a contemporary pandemic. Evidence suggests that chronic diseases, negative exposures in childhood, have destructive impacts on QoL, health outcomes, and health expenditures. The ACE investigation identified cumulative dose-response relationships between pediatric exposures to ACEs and the development of chronic health consequences. Research is scarce on causal pathways that facilitate public health interventions in optimizing resources to address this threat. We utilized data from the 2011-2012 National Survey of Children's Health. The dependent variable, OHRQoL, identified untreated dental needs. The key independent variables, ACEs, included parental death, parental divorce, parental incarceration, mental health illnesses, domestic violence, neighborhood violence, and racial discrimination. Family structure served as the mediating variable. Exogenous variables included age, sex, race/ethnicity, number of children in household, socioeconomic status, health insurance, and

special health care needs. Path analysis, special subcomponent of structural equation modeling, was utilized to explore significant direct, indirect, and mediating causal pathways. The data, when adjusted for complex survey design, represents US children. In our adjusted logistic regression, dental caries demonstrated varying magnitudes of significance across races/ethnicities. Parental divorce, death, incarceration, and domestic and neighborhood violence demonstrated significance in the adjusted path analysis model. Parental death exhibited the highest magnitude of influence among the ACEs to impact OHRQoL. The findings from our research indicates that alternative family structures have a particularly significant role in influencing the risk for suboptimal oral health. Parental divorce, as the leading risk factor, potentially has a domino effect on chronic stressors accumulating on children raised in homes with alternative family structures. Therefore, recommendations for efficient public health interventions are prioritized towards family counseling services and improving the home enabling environment to potentially minimize the impact of ACEs on OHRQoL.

Needed: An Urgent Response to Health Disparities in East Texas Wei-Chen Lee, PhD; Cissy Yoes; Ben G. Raimer

This is a secondary data analysis using County Health Rankings & Roadmap Data (2011-2016) to describe county-level health outcomes in Texas. The county-level map images were downloaded from United States Census Bureau and linked with County Health Rankings & Roadmap Data through 5-digit Federal Information Processing Standard (FIPS) code. Blue color gradients were employed to illustrate areas of increasing rankings. All analyses were conducted by using Stata 14.0. Thirteen of 254 counties (5.1%) in Texas do not have sufficient data for the 2016 report. The study

has analyzed all 37 measures but mainly demonstrate the rankings of major composites. Health Outcomes and Health Factor rankings for the East Texas region are persistently in the lowest quartile over six years. The rankings of health behaviors, social and economic environment, and physical environment factors are particularly low (≥ 181 , last quartile) consistently exist in the most counties at East side across four composites. This area faces social, economic and environmental challenges that are impacting health. To improve the health equity of the population of East Texas requires an evidence-based, collaborative and systematic approach. Collaborations formed to address the challenges of this region need to include public, private and philanthropic resources from all sectors. This study highly recommends the implementation of education and prevention programs that integrate new investments with innovative use of existing resources.

Hepatitis A in Texas, 2015

Laura Lockwood, MPH; Kayla Boykins

Hepatitis A is caused by hepatitis A virus which is transmitted from person to person through the fecal-oral route. Unlike other viral hepatitis infections, hepatitis A virus does not cause chronic infection. The first hepatitis A vaccine was approved in the United States in 1995, and current recommendations include vaccination for all children beginning at 1 year of age. Since licensure of the vaccine, a significant decline in hepatitis A cases has been seen nationally and in Texas. Although hepatitis A can infect anyone, certain factors can increase risk such as international travel to endemic areas, sexual contact with someone who has hepatitis A, and illegal drug use. Hepatitis A is a nationally notifiable condition. Health departments receive reports of patients from healthcare practitioners and laboratories. All reports are investigated locally and

reported to the state and CDC. A standard investigation form is used that collects demographic and clinical information, as well as vaccination and travel history. In 2015, 147 cases of hepatitis A were reported in Texas, which was the highest morbidity since 2009 (184 cases). The median age was 44 years and 56% of cases were female. Hospitalization was reported for 35% of the cases. 23% of hepatitis A cases reported recent travel outside the US. Of the cases with known vaccination status, 81% reported receiving zero doses of hepatitis A vaccine. Although the number of cases reported in 2015 was slightly higher than previous years, the number of cases has remained relatively stable with an annual average of 139 cases reported from 2009-2015. Prior to 2009, declines in the number of cases were seen following the licensure of the hepatitis A vaccine. Vaccination recommendations including routine vaccination of children and those traveling to endemic areas are key to further reducing the occurrence of hepatitis A.

Population Intervention: Targeted Testing for Tuberculosis in Calhoun County, Texas

Karly Lucero, BSN, MSN/eD; Lillian Ringsdorf, MD, MPH

Data collection, analysis, and synthesis from a community needs assessment identified increased rates of TB and a risk for contracting TB among residents in Calhoun County. The CDC (2013) recommends targeted TB testing as essential to TB prevention and control by identifying, evaluating, and treating those at high risk for latent TB infection as this can prevent infected persons from developing and spreading active disease. Participants included two primary care clinics in Port Lavaca, TX. Providers were educated on TB and the incorporation of targeted testing into primary care practice. Knowledge of TB and willingness to incorporate screening into primary care practice was measured with

pre and post presentation surveys. A screening tool, treatment guidelines and flow-chart, operating procedures, and referral guidelines were established and standardized. Process and outcome objectives were devised in order to measure the success of the pilot program. The pilot program is scheduled for implementation in November 2016. 100% of primary providers attended the educational presentation on TB and there was a 41% mean increase in provider TB knowledge and 100% willingness to incorporate targeted testing into primary care. All project tools and materials are finalized and upon implementation, process and outcome objectives have been established to evaluate success of implementation that will be evaluated weekly and upon completion of the 30 day pilot. Education of the primary care providers in Port Lavaca, Texas increased their knowledge of TB and willingness to incorporate targeted testing into primary care practice. Evaluation of the 30 day pilot will provide further conclusions to include the number of positive cases identified through targeted testing, and the number of cases who accept and complete treatment. Any treatment declinations may offer insight into respective patient barriers and how to potentially address these barriers in the future.

HIV+ mothers and continuity of care Rena Manning, PhD; Kacey Russell, MPH; Margaret Vaaler, PhD; Jenny McFarlane

In response to a query by the CDC, analysts at DSHS examined several years of unmet need project data to see whether HIV+ women who qualified for Medicaid based on pregnancy continued in care after delivery. The type of Medicaid available for pregnant women is only extended two months after delivery, therefore it was not known if women transitioned to other types of care or if there was a gap in care. It was also not known what percentage of women learned of their HIV+

status as a result of pregnancy, and what percentage of women were already in HIV care prior to the pregnancy. A group of HIV+ women who received Medicaid for pregnancy and who delivered between 2010 and 2013 were identified. Their surveillance identifiers were provided, and matched to existing unmet need project files to determine if care was in effect both prior to pregnancy and after pregnancy. The project files identified whether care for HIV was met via Ryan White providers, the Texas HIV Medication Program, Medicaid or private insurance. The project files also included measures of retention in care and viral suppression. About two-thirds of women in the cohort had been in care prior to pregnancy. Women were more likely to have met need for HIV during the year of delivery than in other years from additional payers. In 2015, 75% of the women had met need, 66% were retained in care, and 50% of the cohort were virally suppressed. The finding that women are more likely to access other payers for HIV care while pregnant suggests that further efforts are needed to identify why some women discontinue care after delivery. While half the cohort was virally suppressed as of 2015, this result was lower than that of all Texans (59%) and all women (58%).

Political Affiliation and Related Influences on Health Insurance Status Andrew Mask, MHA Candidate; Lola E. Adepoju PhD, MPH; Alex McLeod PhD, M.B.A.; Emily Brunson, PhD

While the relationship between political affiliation and perceptions of the Affordable Care Act (ACA) is well known, little is known about the relationship between political affiliation and health insurance status. Data was obtained from a 2015 community survey of 200 Hays county residents. The survey included questions on perceptions of the ACA, current insurance status, political affiliation and sociodemographic information.

Initial bivariate analysis was used to examine associations between political affiliation and health insurance status. A logistic regression model, adjusting for sociodemographic characteristics was later used to examine the relationship between political affiliation and health insurance status. 34% of respondents were Republicans, 41% were Democrats and 25% were Independents. Overall, 85% reported having health insurance, and 43.5% had positive perceptions of the ACA. As expected, initial bivariate analysis showed that Republicans, were more likely to hold a negative view of the ACA while Democrats were likely to support the law. Independents were also less likely to support the law. In the adjusted model, political affiliation and income status were the strongest indicators of a respondents' health insurance status. Republicans were more likely to have health insurance compared to independents ($p=0.03$) while Democrats were just as likely as Independents to have health insurance ($p=0.69$). As household income increased, respondents were more likely to report having health insurance ($p=0.004$). Perceptions of the ACA were not significantly related to the health insurance status. Republicans are more likely to have health insurance, however, perceptions of the ACA are unlikely to influence one's health insurance status. Higher income may also enable easier access to desired insurance, thus increasing the likelihood of having health insurance. Future efforts to meet coverage gaps must have a bipartisan base to negate any political overtones because the benefits of healthcare legislation can become quickly ignored in support of party adherence.

Adolescent's Parent Rural Adolescents Parents Food Preparation Learning and Training Practices: A Qualitative Inquiry Andrea McDonald, PhD; Syed Hussain Abbas Naqvi; Lenna Dawkins-Moulton

There has been increasing attention on healthy eating among families and the general population. Healthy People 2020 has recommended possible approaches to promoting healthy home prepared meals. Only few nutrition interventions have addressed some aspects of food preparation such as cooking and meal planning. Therefore, the extent to which parents are teaching and engaging their children in food preparation literacy is not well established. The purpose of this qualitative study was to gain knowledge on how the parents of adolescents transfer food preparation literacy to their children. Between April 2015 and August 2015, parents were recruited through flyers to participate in a semi-structured interview. Each parent was asked to explain their formal and informal food preparation training. The discussions were audio recorded and transcribed verbatim. A total of four parents participated in the interview. They self-identified as African-American (N=3) and Caucasian (N=1). The data analysis revealed three broad categories: first, food preparation skills were transmitted through direct encouragement and engagement; second, parents' primary method of learning food preparation came from parents and grandparents; and third, different types of food (corn, baked chicken, and beef) were being prepared at home. This study provides a foundation to understand food preparation practices in the home. Future research will be needed to explore other cultural practices related to food preparation literacy. In addition, this qualitative study only provides descriptive information about these parents; quantitative research may add more information about the causal link to chronic diseases.

Prevalence of Breastfeeding Practices - Nurse Family Partnership Program Kristin McElroy, MPH; Anita K. Kurian, MBBS, DrPH

The Tarrant County Nurse-Family Partnership pairs

Bachelor's prepared, registered nurses with low-income, first-time mothers to improve prenatal care and provide one-on-one child development education and counseling. The Tarrant County Nurse Family Partnership program selected improving the prevalence estimates of initiating breastfeeding and duration of breastfeeding as one focus area for their Quality Improvement Plan. Data was collected on breastfeeding practices at the individual level to provide a foundation for education on breastfeeding to program participants. The objectives of phase I were to identify attitudes and beliefs regarding breastfeeding and breastfeeding practices among pregnant Nurse Family Partnership program participants and to identify barrier(s) to initiating breastfeeding and increasing the duration of breastfeeding to six months or longer among Nurse Family Partnership program participants with infants six months and older. The objectives of phase II were to determine the impact of a targeted educational intervention on attitudes and beliefs regarding breastfeeding and breastfeeding practices among pregnant Nurse Family Partnership program participants and to determine the impact of a targeted educational intervention on the duration of breast feeding among Nurse Family Partnership program participants with infants six months and older. Surveys were distributed by Home Nurse Visitors during visits with eligible Nurse Family Partnership participants. of phase II showed increases in the percent of participants that planned to breastfeed for at least 6 months, the percent of participants that actually breastfed for at least 6 months, and the knowledge of participants regarding breastfeeding benefits. These findings indicate that the targeted educational materials had a positive impact on breastfeeding practices among Nurse Family Partnership participants. These educational materials continue to be used by the Tarrant County Nurse Family Partnership.

Depression is associated with lower American National Adult Reading Test scores among rural dwellers aged between 50 and 64 years in Texas:

A Project FRONTIER Study
Brady Miller, MPH; Gordon Gong, MD; Cathy Hudson

Previous studies have shown that depression is associated with cognitive impairment and a lower IQ score. However, others have shown that there is no significant difference in the scores of the National Adult Reading Test (NART), a test for IQ, between those with vs. without depression. The current study is to examine whether depression is associated with the American version of NART (AMNART) in a rural cohort of West Texas. Participants with IQ and AMNART tests were selected from Project FRONTIER, an ongoing epidemiology study of rural residents in three West Texas counties: Bailey, Cochran, and Parmer. All residents 40 years of age or older were eligible for participation. Recruitment for the Project FRONTIER study was based on a community-based participatory research (CBPR) approach, and included flyer distribution, mail-outs, door-to-door solicitation, community presentations, and community recruiters. Of the 1210 participants from Project FRONTIER, 488 had taken AMNART tests. Those with dementia and/or stroke (n=41) were excluded and the remaining 447 subjects were studied. Student t-test and Wilcoxon Rank Sum test were performed. AMNART scores were significantly lower in those with depression (23.3±9.2) vs. those without depression (25.9±9.9) (p<0.01). Analysis by age group showed that AMNART scores were significantly lower in those with depression (22.0±10.1) compared with those without depression (26.2±10.2) in the group aged between 50 and 64 years (P=0.0322). Although AMNART scores were lower in those with depression than those without depression in the age group between 40 and 49 years (25.0±8.6 vs.

26.2±10.2) and in the age group of 65 years or older (23.6±8.2 vs. 25.6±9.5), they were not statistically significantly different (p>0.05). IQ and AMNART scores were highly correlated with R²=0.9697. Depression is associated with lower AMNART scores in rural residents aged between 50 and 64 years in West Texas.

Comparing Community-Based Breast Cancer Education and Navigation Programs: Disparate Outcomes Among African American and Hispanic Targeted Populations in North Texas
Lori Millner, PhD; Carolyn Bradley-Guidry, MPAS, PA-C. BSN; Thomasine Beck

Funded by the Susan G Komen Foundation, two community-based breast cancer education and navigation programs were implemented in successive years. Based at the Consulate General of Mexico in Dallas, the Ventanilla de Salud Breast Health Pilot Project was conducted in North Texas with the goals to provide breast health education to 12,000 Spanish-speaking Hispanic women and breast health navigation services to between 150-300 women. Based at various churches, the Screening Our Sisters program was implemented in Dallas County with the goals to provide breast health education for at least 3,000 African American women, provide breast health education forums to 400 women, and provide client navigation to 250 women. A comparison of the program implementation methods and outcomes of the programs were examined. Education was provided to 13,328 individuals in the Hispanic-targeted program and 2,745 individuals in the African American-targeted program. The African American-targeted program also provided educational forums to 482 women. Client navigation was provided for 407 clients (average age 41.7) in the Hispanic-targeted program and 457 clients (average age 48.9) in the African American-targeted program. We

documented that 48.9% in the Hispanic-targeted program as compared to 75.5% of the clients in the African American targeted program "took the next step." 8.4% of clients in the Hispanic-targeted program reported a family history of breast cancer as compared to 26.9% in the African American-targeted program. African American clients were more likely to "take the next step in the breast health continuum than Spanish-speaking Hispanic clients. African American clients were older and much more likely to report a family history of breast cancer. The programs took place in different community-based settings in different languages with different populations. Possible factors that resulted in disparate outcomes will be discussed.

Community Health Workers Impact Diabetes and More
Estephania Olivares, MPH; Sarah Seidel, PhD PH, MFA

The Community Diabetes Initiative was created to address significant racial and ethnic disparities in the prevalence of type 2 diabetes among African-American and Hispanic Travis County residents by increasing access to culturally appropriate diabetes self-management education through group support-based classes led by certified community health workers. This initiative was funded through the Medicaid 1115 Waiver. Classes utilize the Diabetes Empowerment Education Program Curriculum (DEEP), an evidence-based curriculum delivered as a series of six 90-minute classes in either English or Spanish. Weekly lessons in diabetes management include monitoring, medication, exercise and nutrition, preventing complications and managing stress and depression. Lessons provide take-home tools for engagement and retention of learned knowledge. Classes are offered in community-based locations, such as neighborhood centers, schools, faith-based organizations and clinics and are open and free of cost to the public. Program data were

collected and analyzed for years 2014-2015. A total of 287 community members were served, 154 of whom have diabetes. Data demonstrated improvement in three important health behaviors: a 52% increase in number of days per week participants engaged in physical activity, a 20% decrease in the number of sugar sweetened beverages consumed per day, and more than doubling of the number of days per week that food portions were measured. Participants in the program also reported improved diabetes-related quality of life as evidenced by a 47% decrease of Problem Areas in Diabetes Scale (PAID) scores. The community health worker model is an effective model for improving diabetes self-management behaviors and diabetes-related quality of life among these two populations. Due to current successes within the diabetes program, an expansion of the community health worker model has been piloted in a Supplemental Nutrition Assistance Program (SNAP) application assistance project with a local elementary school.

Characteristics of Health Care Providers with Low HPV Vaccine Utilization Lucille Palenapa, MS

Highly effective HPV vaccines offer protection to both young men and women to safeguard against HPV infections and related cancers. The Advisory Committee on Immunization Practices (ACIP) recommends that 11-12 year olds receive 1 dose of tetanus diphtheria pertussis (Tdap), 1 dose of meningococcal (MCV4) and 3 doses of HPV vaccine. For every 1 dose of Tdap given to adolescents, 3 doses of HPV vaccine should be administered for an ideal ratio of 1 Tdap:3 HPV (1:3). The 2014 Teen National Immunization Survey found that while Texas teens exhibited high vaccination coverage levels for Tdap and MCV4; only 33.9% of females and 17.7% of males completed 3 doses of HPV vaccine. Texas has

approximately 3,400 providers enrolled in the Texas Vaccines for Children (TVFC) program which administers free vaccine to eligible children in Texas; the state with highest uninsured rates in the country according to the Kaiser Family Foundation. The objective of the study was to identify characteristics of providers with low HPV vaccine utilization to assist in targeted interventions. Vaccine ordering data for TVFC providers was examined to determine the Tdap:HPV vaccine ratio in 2014. Low HPV vaccine utilization was defined as having a ratio of less than 1 Tdap:2.5 HPV (<1:2.5). TVFC provider characteristics and the CDC's PEAR database were examined for characteristics predictive of low HPV vaccine utilization. Logistic regression statistical analysis methods were applied using SAS 9.4. In 2014, TVFC providers had an average Tdap:HPV vaccine ratio of 1:1.4, less than half the ideal ratio 1:3. Additionally, three provider characteristic variables were identified as significant predictors of a low HPV vaccine utilization; patient population (0-18 years) less than 500, non-Texas Mexico border county provider and rural provider. A recent CDC survey found that a strong health care provider recommendation is the single best predictor of HPV vaccination. By identifying provider characteristics predictive of low HPV vaccine utilization, DSHS can target interventions aimed at improving HPV vaccine ordering and administration among TVFC providers in rural locations and those with small client populations.

Inpatient Breastfeeding Study: What are the barriers to inpatient breastfeeding initiation and/or exclusivity?

Riddhi Patel, MBBS, MPH; Thelma A. Sugrañes, MD; Monaliza S. Evangelista, MD; Amalia Guardiola, MD; Ebony Beaudoin, MD; Jenil Patel, MBBS, MPH; Emma A. Omoruyi, MD

Breastfeeding is widely accepted as best nutritional

source for infants. Determining why mothers are unable to achieve exclusivity in the first 24-72 hours of an infant's life is important for targeted interventions. 510 women at an urban hospital were surveyed during their immediate post-partum period before discharge. Multivariable logistic regression was used to find association of breastfeeding (exclusive vs. mixed) with maternal factors including breastfeeding other child, feeding problems in past, gravida, parity; hospital factors including skin-to-skin contact, breastfeeding in first-hour of life, hospital support, knowledge about whom to ask about breastfeeding in hospital and after discharge, issues encountered in hospital; and external factors including family support, work outside home and Women, Infants and Children support(WIC) controlling for maternal age, ethnicity, primary language, education, post-delivery complications. A sub-analysis of specific hospital issues including low milk supply, infant latching issues, breast pain/tenderness and others was conducted. For maternal factors, women who breastfed for the first time were 3.33 times more likely to exclusively breastfeed their babies in hospital. For hospital factors, women providing skin-to-skin contact to their babies were 2.67 times more likely to exclusively breastfeed their babies. Women with knowledge about whom to ask about breastfeeding in the hospital had 4.75 times higher odds for exclusive breastfeeding. Women encountering issues with breastfeeding were 0.59 times less likely to provide exclusive breastfeeding to their infants. For sub-analysis, women encountering issues with low milk supply were 0.48 times less likely to provide exclusive breastfeeding to their infants. While the experience of breastfeeding other children was a determining factor, hospital factors like skin-to-skin contact and awareness of whom to ask for help were encouraging for exclusivity. Moreover, encountering issues especially

low milk supply from breast in the hospital environment was a barrier to maintain the exclusivity in the hospital.

Assessment of Dallas County Food Pantries as Novel Partners for Health Promotion Interventions Lisa Quirk, MS/MPH; Tammy Leonard, PhD; John McDonald; Sandi Pruitt, PhD

Food insecurity is associated with suboptimal health behaviors and outcomes. The potential to partner with food pantries in health promotion interventions is an emerging area of interest to explore their capacity to introduce health interventions to the populations that they serve. We assessed feasibility of health promotion interventions at multiple member food pantries within the Crossroads Community Services charitable food distribution network located across Dallas County. With support from Robert Wood Johnson Foundation and our robust community academic partnership, we conducted participant observation at multiple pantries during food distribution days. We observed and documented organization logistics, staff operations, and client relationships. Onsite focus groups in English or Spanish explored pantry and client relationships and client receptivity to health promotion activities. Overall, pantries served an average of 158 individual clients (range: 52-494). No two pantries were identical among the 16 locations we visited. Pantries were located at churches, community centers, housing communities or senior centers and distributed food either once a month or once a week. Food was provided on varying days and resources and facility size varied widely. Pantry leadership, staff, and volunteers had established trusting relationships with clients and community safety-net health and social service agencies. Pantry clients reported looking to their food pantries as a source of help and guidance, particularly regarding their diet. However, given resource

and time constraints, there was limited engagement in ongoing formal health promotion interventions. Nearly all pantry clients reported being desirous of opportunities to participate in both research and future health promotion activities. Given strong connections between food insecurity, food assistance, and health, food pantries are well suited to be partners for health promotion interventions, however variations in capacity indicate programs should be tailored based on pantry resources, number of clients, and hours of operation.

Measuring Marijuana Use in a Vulnerable Population: A Look at Self-report and Oral Fluid Testing Alexis Rendon, MPH; Melvin Livingston, PhD; Scott Walters, PhD

Marijuana is the most commonly used illicit drug. To determine an accurate prevalence, researchers need valid estimation methods. Self-report is commonly used as an outcome measure in drug treatment research. In vulnerable populations, self-report can be an unreliable measure of true drug use. We compared self-reported marijuana use and oral fluid drug tests to determine the best method to capture marijuana use in a sample of supportive housing residents. We used data from 410 clients who completed a baseline assessment prior to participating in a health coaching intervention. While self-report alone did not adequately predict use (56.0%), the oral fluid test failed to detect an additional 22 users (36.1%). Marijuana use is best captured by a combination of both self-report and oral fluid testing.

Addressing Pre-exposure Prophylaxis (PrEP) as a Health Literacy Issue Hernan Reyes, MD

The importance of Pre-exposure Prophylaxis (PrEP) in the control of the ongoing HIV/AIDS epidemic has been highlighted in the Update to the National HIV/AIDS Strategy for 2020, based on the approval of its use by the Food and Drug Administration

and documented effectiveness. Although the approval of the two-drug combination formulated as Truvada (emtricitabine/tenofovir disoproxil fumarate) was announced in 2012, the use PrEP remains low at approximately 5% of those who may benefit from its use. Although there are multiple factors contributing to the underuse of PrEP, such as cost and limited availability of medical follow up, the lack of awareness among both potential beneficiaries and prescribers is a significant contributor. Overall health literacy has been shown to be most limited among those who are currently in the highest risk groups for HIV/AIDS. An approach to increasing PrEP awareness and use is needed urgently to harness the potential benefits of this preventive approach. Evidence-based strategies such as simplifying and improving written materials, using video and improving patient-provider communications can yield positive results. Efforts by community-based organizations, peer support, social media and technology-based solutions can yield improved results. The effectiveness of PrEP in men who have sex with men is estimated to be as high as 92% when taken adherence is documented by laboratory detected presence of the drug. In heterosexual men and women, the effectiveness is projected at 90%. In persons who inject drugs, the effectiveness is 70%. Focusing on those at high risk will increase cost-effectiveness of the use of PrEP in decreasing the number of new HIV infections, currently estimated at 50 thousand per year. Health literacy strategies need to include appropriate discussions around risk factors for HIV/AIDS and preventive strategies, to include the use of PrEP among those who are highest risk.

The Utilization of Quality Improvement in Epidemiologic Investigation: Lessons Learned from Measuring, Monitoring and Recalibrating Ashley Rodriguez, MPH; Diana Cervantes, PhD

Although epidemiological investigation protocols and resources are abundant and seemingly utilized, the application of quality assurance and improvement practices in assessing the consistent use of these protocols and resources in public health investigation and control measures in practice are deficient. In order to document the gaps between procedure and practice, The Texas Department of State Health Services, HSR 2/3 Epidemiology Branch created, implemented, and utilized an epidemiology program specific quality improvement process. Three main quality domains (Documentation, Notification and Timeliness) were defined and measured based on peer review of randomly selected notifiable disease investigations conducted routinely by Epidemiology Branch staff. From January 2014 to July 2016 the DSHS HSR 2/3 Epidemiology Branch received an average of 94 notifiable disease conditions each month requiring investigation or follow-up (range: 68-212 cases/month). An average of 12 investigation were randomly selected monthly for review. Of the three quality domains, Documentation standards were consistently completed at 95% or greater during the 30 month period while Notification and Timeliness varied on reporting month of the case with completion ranging from 89%-100%. Our quality improvement process allowed for the documentation of practices and subsequent revision of those practices based upon regular peer review of notifiable disease investigations. Our findings illustrate an essential need to adopt quality standards to continually enhance investigation and improve performance based on quantitative data. The incorporation of such standard quality assurance measures can also be utilized to support public health accreditation efforts.

Strategies to enhance notifiable disease reporting within McLennan County Vaidehi Shah, MPH; Kahler Stone, MPH; Allison Sierocki, MPH; Rachel Banks, RN

Notifiable disease reporting is essential for infectious disease control and prevention. But, these conditions are often under reported due to time constraints, confidentiality concerns, lack of awareness, lack of laboratory confirmations, and assumptions that the laboratory or other personnel will report. The Waco McLennan County Public Health District (WMCPhD) has initiated an intervention to overcome these barriers in order to improve notifiable disease reporting. Meetings were scheduled with hospitals, urgent cares, private physicians, and school nurses within the county to explain the benefits of notifiable condition reporting. Real-life examples of correct and incorrect reporting were provided along with binders containing a list of notifiable conditions, disease reporting forms, other services provided by WMCPhD, and a 24/7 phone line information. The Control of Communicable Disease Manual, Infection Preventionist's Guide to the lab were also distributed along with other marketing collateral like bookmarks, pens, and notepads with the 24/7 phone line imprinted on them. The meetings marked the beginning of strengthened partnerships between reporting facilities and WMCPhD. Facility specific disease reporting procedures were documented, revealing areas for improvement. Reporting facility staff found the binders that were provided useful. A 50% increase in number of calls received on the 24/7 line and the number of diseases reported was observed. Clinicians and reporting facilities are critical to the detection of emerging infectious diseases. In person meetings help build partnerships with reporting facilities. Although these meetings take significant time, effort, and resources, they instigate collaboration among health entities for the health and well-being of the community.

Outbreak of Burkholderia cepacia complex due to contaminated liquid docusate sodium product Imran Shaikh, MD, MPH, CIC; Bobbiejean Garcia, MPH, CIC; Yufang

Zhang, MD, MPH; Biru Yang, PhD, MPH; Raouf Arafat, MD, MPH

Burkholderia cepacia complex (*B. cepacia*) is a group of bacteria that can be found in soil and water and are often resistant to common antibiotics. It can be transmitted person-to-person in both healthcare and non-healthcare settings, and via both direct and indirect contact with bodily fluids. Transmission of *B. cepacia* from contaminated medications and devices has been reported in the past. In May 2016, Houston Health Department and Texas Department of State Health Services were alerted to a cluster of *B. cepacia* cases at a local hospital in Houston, which later became part of a multistate outbreak. Data were collected via a customized reporting template provided by the CDC. Cases were defined as reported cases of *B. cepacia* occurring in patients on or after January 1, 2016. A total of 33 cases were reported by six acute care hospitals within the city of Houston through the end of July 2016. This study will examine the age distribution and potential exposures of 33 *B. cepacia* cases. Out of a total of 33 cases, 32 received liquid docusate sodium. The majority of cases (52%, n=17) were two years or younger (age range: 2 months to 87 years). Most common specimen sources of *B. cepacia* were tracheal aspirate (39%, n=13), followed by mini-bronchoalveolar lavage (18%, n=6). Critical indwelling devices were as follows: Medical ventilator (79%, n=26); central venous catheter (70%, n=23); urinary catheter (39%, n=13) and tracheostomy tube (30%, n=10). According to the recent investigational findings, we believe this cluster was due to contaminated liquid docusate sodium product. Additional common sources may have been present, but are unknown at this time.

Characteristics of Patients with Suicidal Ideation and/or self-injury in North Texas and Dallas County 2010-2012

Sushma Sharma, PhD; Erica Ogboenyiya; Dr. Joann Schulte; Dr. Kurt Kleinschmidt

Suicide was one of the leading causes of death in the United States in 2012 and the number two cause among adolescents and young adults. Behaviors related to suicidal ideation and actions that lead to suicide merit increased attention at the national level. To our knowledge, no attempts have been made to investigate the characteristics associated with suicidal ideation in North Texas region. The inpatient and outpatient data from DFWHC Foundation's data warehouse for 2010-2012 were extracted to characterize suicidal ideation and attempted suicide in North Texas using suicidal ideation (V62.84) and/or self-injury (suicide) E-Codes (E950-959). For CY 2010, 2011, and 2012, data showed a total of 85,519 hospital visits for all North Texas counties and 41,159 visits for Dallas County only. Within Dallas County, case counts of Whites accounted for 61% of all suicidal ideation and/or self-injury related visits and Blacks 26%. Residential Zip codes with the highest number of suicidal ideation and/or self-injury visits in Dallas County were 75251, 75216, 75217, 75228 and 75243. This study also identified the "residential block" within these zip codes with high numbers of suicidal ideation and/or self-injury visits in these zip codes. This is the first study in North Texas which identifies suicidal ideation and/or self-injury related hospital visits. Findings from this study have major significance in the realm of health care and public health. With the identification of the characteristics of patients who were seen for suicidal ideation and/or self-injury, mental and behavioral health care efforts can be more efficiently targeted towards reducing the risk of suicide.

Complications of changing primary data collection vendors. Allison Sierocki, MPH; Kahler Stone, MPH; Vaidehi Shah

Local health departments rely

on Community Health Needs Assessments (CHNA)s to identify key needs and issues in their population, often times with needing primary data collection. Waco-McLennan County Public Health District (WMCPHD) utilized the same CHNA vendor for several years; however, this vendor was no longer operating when the 2016 CHNA was to be conducted. Community stakeholders opted for a by the community, for the community approach in selecting a new vendor rather than selecting based on price or other measures. WMCPHD staff compared and contrasted the data collection methods, analysis, and final reports of both vendors. Sample size, variance, survey questions, geographical boundaries, and ability to trend data were measured between both vendors. Staff also assessed both data sets for trending analysis. WMCPHD re-weighted the 2013 CHNA data in accordance with the new method used to weight the 2016 CHNA data. Due to the re-weighting, data points which had been previously published changed. In the 2013 CHNA report, 31.8% of adults were considered to be obese; however, using the 2016 method of weighting, the percentage of those categorized as obese increased to 38.8%. Some questions were unable to be trended due to inconsistent questionnaire design when changing vendors. WMCPHD staff generated new maps to display trended health information and with more accurate boundaries. Inconsistencies were uncovered through the WMCPHD analysis. As a result, a trended report was produced as an addendum to the 2016 CHNA with the objective that local entities could use it to further accurately identify the health status of the county. When choosing a CHNA vendor, it is essential local health departments focus on ensuring the continuity of questionnaire design, data collection, and the ability to trend health outcomes.

The Feasibility of Using CASPER to Assess Risk Factors for Neglected Tropical

Diseases Seth Smitherman, MPH; Jennifer Horney, PhD; Tracy Hammond, PhD; Dan Goldberg, PhD

Over one billion people live at risk of neglected tropical diseases (NTDs) in Asia, sub-Saharan Africa, and Latin America. Although NTDs are not yet endemic to the United States, the possibility of their emergence is noteworthy, especially in states like Texas, which has high poverty, a large immigrant population, and a climate amenable to the vectors for these diseases. Despite the threat that NTDs may pose, little is known about the potential dynamics of their transmission in the United States. Texas H.B. 2055, enacted on September 1, 2015, mandated the establishment of a surveillance program for emerging and neglected tropical diseases (NTD) within Texas. As part of surveillance for NTDs in Texas, the Community Assessment for Public Health Emergency Response, or CASPER method of population-based community surveys, could be an effective method to assess the prevalence of risk factors for NTDs. A review of past CASPERs was completed to assess CASPER efficiency for collecting this type of data and a survey was developed that could be implemented by health departments to assess their community's risk for NTD transmission. The survey that was developed includes 44 questions on travel, housing quality, and food handling, covering the risk factors for Chagas, leishmaniasis, dengue, ascariasis, hookworm, trichuriasis, taeniasis/cysticercosis, echinococcosis, paragonimiasis, and fascioliasis. The review of 40 past CASPERs found that this method produces on average a completion rate of 88 percent, a contact rate of 53 percent, and a cooperation rate of 76 percent. Based on a review of prior CASPERs, the method should be able to produce high quality data for local, regional, and state health departments. The data generated by CASPERs can be immediately

useful in guiding public health priorities to areas with high concentrations of risk factors.

Evaluation of the Austin/Travis County Community Health Improvement Plan Cycle I: Exploring lessons learned and recommendations for enhancing community health planning Andrew Springer, DrPH, MPH; Stephanie Hayden, MSSW; Alexandra E. Evans, PhD; Hailey Hale, MPH; Cassie DeLeon, BS; Kelli Lovelace, MPH

In 2011, Austin/Travis County Health & Human Services and local community partner organizations launched a community health assessment (CHA) and community health improvement plan (CHIP) aimed at identifying and prioritizing key health needs of the Austin/Travis County community and developing and implementing a community-wide health improvement plan. The five year initiative, entitled Together We Thrive, is guided by the Mobilizing for Action for Planning and Partnerships (MAPP) planning process and places intentional emphasis on fostering community leadership, voice and participation. Together We Thrive is in its final year of implementation of its first CHIP, which encompasses four priority work areas: Chronic Disease Focus on Obesity; Built Environment Focus on Access to Healthy Foods; Built Environment Focus on Transportation; and Access to Primary Care and Mental/Behavioral Health. In identifying accomplishments, lessons learned and recommendations for enhancement, a partnership with researchers from a local university was established to conduct an evaluation of the process and outcomes of this first cycle of the Austin/Travis County CHA/CHIP. This presentation will aim to: 1.) provide an overview of the Austin/Travis County CHA/CHIP initiative and evaluation; and 2.) present key evaluation findings on the process and outcomes of this first cycle, including lessons learned and recommendations

identified by stakeholders for CHA/CHIP enhancement. Guided by principles of participatory learning as well as the CDC Framework for Program Evaluation, the evaluation is based on a mixed methods approach that includes: semi-structured interviews, online survey, and participatory inquiry activities with CHA/CHIP stakeholders, and review of existing data and literature to document trends in outcomes. We are currently in our last month of a 7-month evaluation timeline; findings will be ready for presentation in October 2016. The emergence of CHA/CHIPS across Texas and U.S. presents an incredible opportunity to grow the practice of community health planning and action.

The Impact of a Case of Ebola Virus on Emergency Department Visits in Metropolitan Dallas Fort Worth, 7/2013 to 7/2015: an Interrupted Time Series Analysis William Stephens, MS

The first Ebola virus case on American soil was confirmed on September 30, 2014 in a man 45 years. The man entered the country from Liberia on September 20, and feeling ill visited a Dallas, Texas hospital 5 days later where he was released but subsequently returned September 28 gravely ill. These events created unprecedented media attention and exacerbated fears of a widespread Ebola outbreak in the United States. This study examines whether emergency department (ED) visits changed among metropolitan Dallas Fort Worth (DFW), Texas residents after the case was reported. This study used the Texas Health Service Region 2/3 syndromic surveillance data and associated ESSENCE analytics through the North Texas Syndromic Surveillance System from July 21, 2013 to July 22, 2015. Focusing on the metropolitan DFW area, interrupted time series analyses were conducted. The analyses used segmented regression models with autoregressive errors of daily ED visits, overall and for several

chief complaints, including fever and fever with gastrointestinal distress (GI Fever), and date of the fatal case confirmation as the "event. Visits and visit rates by chief complaint before and after the event were analyzed and absolute and relative effects of the event were estimated. In the study period before the event, the mean number of ED visits was 8,875, compared with 9,440 after the event. The mean number of visits remained higher on average compared to pre-event levels, even during seasonal surge periods related to the cold and flu season. Interrupted Time Series results suggest the event was highly significant for ED visits overall ($p=0.0147$) and for the rate of GI Fever visits ($p<0.0001$); an immediate increase in total ED visits of 1,023 visits per day (95% CI: 797, 1,253) was observed. This translates to an increase of 11.77% (95% CI: 9.22%, 14.36%) in ED visits overall. The present study found that hospital ED visits in the DFW metropolitan area increased significantly immediately after the confirmation of the Ebola virus case. ED visits remained elevated for some time even after adjusting for seasonality both within symptom specific chief complaints as well as overall.

Using Community Assessment for Public Health Emergency Response (CASPER) for health indicators in distinctly different neighborhoods.

Kahler Stone, MPH; Kelly Ylitalo, PhD, MPH; Allison Sierocki, MPH; Vaidehi Shah, MPH; Eva Doyle, PhD, MCHES

Public health practitioners use Community Health Assessments (CHAs) to plan and implement public health interventions for local populations. Some subpopulations within larger populations may need to address health indicators and priorities that differ from that of the overall community. The Waco-McLennan County Public Health District and Baylor University Public Health Program formed an academic-

practice partnership and implemented the Community Assessment for Public Health Emergency Response (CASPER) methodology to evaluate health indicators in two demographically distinct ZIP Codes in McLennan County to develop area-specific interventions. In the spring of 2015 and 2016, two ZIP Codes were surveyed, 76704 in 2015 and 76706 in 2016. A two-stage cluster design was used to conduct household surveys of adults 18 years or older. The target sample size for each survey was seven completed interviews from 30 clusters, or 210 surveys in total. Survey questions focused on behaviors of and barriers to healthy living and general health characteristics. We completed 100 surveys in Zip Code 76704 and 184 surveys in Zip Code 76706. The proportion of residents reporting high blood pressure (55%), diabetes (29%), overweight or obese (42%), high blood cholesterol (34%), and heart disease (14%) in Zip Code 76704 was markedly different from Zip Code 76706 being 44%, 21%, 35%, 26%, and 11% respectively. More respondents from the 76704 Zip Code reported no vigorous (42%) or moderate (34%) physical activity in the last week compared to 34% and 25% in the 76706 Zip Code, respectively. Two demographically different but adjacent ZIP Codes in McLennan County were found to have varying health indicators and behaviors. Using CASPER methodology to target specific geographical areas provides in depth public health knowledge to public health practitioners, enabling them to plan for more effective interventions. Public health practitioners should consider CASPER methodology for future CHAs.

Increasing HPV vaccination rates using a community stakeholder approach

Katy Stone, BS; Jennifer McConaughy; Jennifer Horney, PhD, MPH, CPH

Despite the availability of a safe and effective vaccine for

preventing human papillomavirus (HPV), nationwide vaccination rates have failed to meet the Healthy People 2020 goal of 80% coverage in 13-15 year olds. The Waco-McLennan County Public Health District (WMCPhD) received funding from the National Association of City and County Health Officials (NACCHO) to host a meeting of community stakeholders and develop an Action Plan for increasing HPV vaccination rates in McLennan County. In March, 2016, WMCPhD hosted a meeting of twenty-two community stakeholders to discuss strategies for increasing HPV vaccination rates. Various state and local organizations were represented. Prior to the meeting, WMCPhD conducted an environmental scan of McLennan County. NACCHO representatives facilitated the meeting, the outcomes of which included establishing a vision statement, a SWOT analysis of McLennan County, and a draft Action Plan. The environmental scan revealed that rates of teen pregnancy, chlamydia, gonorrhea, cervical cancer, and anal cancers in McLennan County were higher than both state and national rates. Specifically, cervical cancer incidence rates are 11 (McLennan County), 9.4 (Texas), and 7.8 (US) per 100,000. The other indicators followed this trend. The vision of establishing best practices for increasing vaccination rates county-wide was to be accomplished by healthcare providers presenting a unified message regarding the importance of HPV vaccination and making intentional efforts to reach the community with this message. Stakeholders established three focus areas to accomplish this: utilize media to distribute HPV information, educate healthcare professionals, and educate the community. Stakeholders will be working to implement various initiatives within their organizations over the next several years. This community-wide approach was well-received and supported by local and state stakeholders and

is recommended as a tool for improving vaccination rates in other counties.

The Big Shortage: Analyzing Texas' Need for Health Care Professionals Matthew Turner, PhD, MPH; Catherine Campbell, MPH

Relative to population, Texas' health care workforce has been consistently smaller than that of the nation at-large. Currently, much of the state is federally-designated as primary care, mental health, or dental health professional shortage areas, with greater shortages in rural and border areas. Yet Texas has not, until recently, had state-specific workforce supply and demand models that could quantify and contextualize shortages. Recently, the Department of State Health Services implemented two projects aimed at addressing this need, one covering Texas' nursing workforce and the other hospital-based physicians. Data from a range of sources, including professional licensure files, national health surveys, and the U.S. Census Bureau, were used to produce projections through 2030 using two different analytical approaches: microsimulation for nurses and stock-and-flow modelling for physicians. Logistic regression was used to establish likelihoods for patient and nurse behaviors and then microsimulation produced estimates of patient need and workforce supply. By comparison, the stock-and-flow model utilizes linear regression to project patient demand for services and the number of physicians entering and leaving the Texas workforce. From the nursing model shows that in 2015 Texas already had a shortage of nurses equal to 7.9% of demand and that, with demand increasing much faster than supply, the shortage will reach 19.7% of demand by 2030. Discrepancies in supply and demand vary by nurse practice setting and geographic region. Analyses are not yet completed for physicians, but similar types of results will be presented. Texas has long suffered from a

shortage of health professionals, but only recently have these shortages been meaningfully quantified. These improved shortage metrics can inform policymakers' decisions regarding both education funding and provider-targeted incentives. Current policies will be considered in light of these new analyses.

Comparison of Atmospheric Volatile Organic Compounds (VOCs) in Unconventional Shale Gas Extraction and Production Areas and the 2008/09 and 2010 U.S EPA Urban Air Monitoring Program (UATMP) Uloma Uche, MPH; Grace Ngedu; Dr. Alisa Rich PhD, MPH

Energy extraction and processing (E&P) involves various processes (well development, production, transmission, storage and distribution). Continuous or intermittent emissions can occur during every process and are composed of a complex mixture of air pollutants capable of transportation locally and regionally. This study analyzed if VOC levels in the atmosphere were elevated in areas of energy E&P. were compared to ambient air sampling data from U.S. EPA Urban Air Toxic Monitoring Program (UATMP) using 2008/2009 and 2010 data. The UATMP is the most comprehensive air monitoring program in the U.S. Ambient air sampling occurred in 6 counties in the Dallas/Fort Worth (DFW) Metroplex from 2008-2010 using certified sterilized evacuated stainless steel 6 liter summa canisters. Air samples were analyzed by GC/MS (Gas Chromatography Mass Spectrometry) following U.S. EPA Compendium Method Toxic Organics (TO-14A). Ambient air sampling confirmed the presence of 106 VOCs however, 37 chemicals were comparable between the Barnett Shale study and UATMP. For 2008/09, 25 out of 37 compounds were elevated in the Barnett Shale over UATMP. Significantly elevated compounds include hexachlorobutadiene

(+1429.41%), 1,2,4-trichlorobenzene (+2268.42%), m&p xylene (3284.38%), benzene (+5432.71%), 3-methylhexane (+6000.80%), ethylbenzene (+6707.23%), 1,1,2,2-tetrachloroethane (+20,500%). For 2010, 30 out of 37 compounds were elevated in the Barnett Shale over UATMP. Significantly elevated compounds included dichlorotetrafluoroethane/F114 (+1036.36), toluene/methylbenzene (+1115.86%), tetrachloroethene/PCE (+1121.11%), ethylbenzene (+1458.62%), 1,2-dichloroethane/EDC (+1539.34%), trichloroethylene/TCE (+3302.23%), 1,3,5-trimethylbenzene (+5520.86%) hexachlorobutadiene (+7778.79%), m&P-xylene (+8085.19%), 1,2,4-trimethylbenzene (+10,647.33%), 1,1,2,2-tetrachloroethane (+17,066.67%), 1,2,4-trichlorobenzene (+20,049.25%), benzene (+21,745%). This study confirms energy extraction and production contributes to elevated levels of VOCs in the atmosphere impacting ozone levels. VOCs found in this study are considered to be hazardous air pollutants (HAPs), primarily for their impact to human health. Exposure to HAPs have been associated with elevated incidence in birth defects, cancers, immune and nervous system disorders.

Is Maternal Depression a major Predictor of Language Development in low income families? Uloma Uche, MPH; Dr. Alisa Rich PhD, MPH; Dr. Sumihiro Suzuki, PhD

Depression affects one in five women and is the second greatest cause of disability. Maternal postnatal depression has been associated with an increased risk for cognitive, emotional and behavioral problems in children. Low socioeconomic status (SES) has also been strongly associated with depression. The purpose

of the study is to analyze what impact maternal depression has on language development in children in low income families. Current studies on the impact of maternal depression on children living in poverty are limited. Data from the national Early Head Start Research and Evaluation (EHSRE)¹⁴ was used. The study excluded non-biological mothers of the focus child. Maternal depression was measured at time of recruitment (baseline) and 14 months (post recruitment). Child language development was measured at age 14 and 24 months. A logistic regression was initially conducted analyzing the relationship between maternal depression and child language development. SES and other confounding factors (maternal education, birth weight, early birth, maternal occupation child gender and child age) were then controlled for. 621 of the eligible 1472 women completed the Center for Epidemiological Studies Depression (CES-D) questionnaire at baseline. 52% of the respondents had CES-D scale scores positive for depressive symptoms (>16). At 14 months post recruitment, 1,123 participants participated with 36% having CES-D positive scores for depression. Depression was reported greater in African Americans with <12 yrs. of school, neither employed nor in school/training, and household incomes < 99% poverty level. Using logistic regression, maternal depression at baseline and 14 months were not statistically associated with latent child language development at 14 and 24 months. After controlling for confounding variables, no significant association was found. Maternal depression in low SES was not associated with latent child language development. This may be attributable to the confounding effect of other biological and environmental factors.

Travel Risks of Malaria, Chikungunya, Dengue and Zika Varsha Vakil, MPH; Stephen Long, MD, MPH; Iriane Warren; Salma Khuwaja, MD,

MPH, DrPH; Kirstin Short, MPH; Raouf Arafat, MD, MPH

Mosquitoes are referred to as the world's deadliest insect. Mosquitos are known to transmit a variety of diseases including Malaria, Dengue, Chikungunya and Zika. While the majority of reported cases of these diseases are imported or travel associated, localized limited outbreaks have occurred in the United States most recently with local Zika transmission in South Florida. Mosquito-borne diseases reported to the Houston Health Department (HHD), Bureau of Epidemiology (BOE) are routinely investigated to obtain travel history and are documented on the Houston Electronic Disease Surveillance System (HEDSS). Data is analyzed for 2013 through 2015 to identify country, region or continent of origin of the disease and to evaluate the travel risks. Houston's 2013-2015 travel related mosquito-borne diseases were from: Africa, South Asia, South America, El Salvador, Malaysia, Dominican Republic, Turks and Caicos Islands, Puerto Rico, Mexico and Columbia. From 2013-2015 Malaria cases were primarily reported with travel history from Africa. Dengue was primarily reported with travel history from El Salvador. From 2014-2015 Chikungunya was primarily reported with travel history from El Salvador and Mexico. In 2015, Zika was primarily reported with travel history from Honduras and Columbia. With the threat of local transmission looming on the horizon, travel history is an important variable to capture when investigating mosquito-borne diseases. Epidemiologists must maintain awareness of travel based risk and work with the medical community to discuss travel history during medical encounters.

Pertussis Deaths in Texas, 2005-2014 Rachel Wiseman, MPH; Brandy Tidwell

Pertussis is a vaccine-preventable illness that has been increasing in Texas. The increasing incidence is concerning as it can cause

severe illness and occasionally death, especially in infants. Texas frequently has a higher than expected number of deaths from pertussis, especially compared to the number of deaths reported nationally. We reviewed ten years of data to identify trends in deaths from pertussis in Texas. Pertussis cases in Texas were classified according to the 1997 national case definition until 2014 when Texas adopted the 2014 national case definition. However, pertussis patients that do not meet the cough duration requirement of the case definition due to death or medical intervention (e.g. intubation) are counted as cases of pertussis in Texas if they are PCR-positive or the death certificate lists pertussis as a cause of death. Reported cases or their proxies are interviewed using a standard investigation form. Data analysis was performed using Excel. Age at date of cough onset was calculated. From 2005-2014, 32 deaths from pertussis were reported in Texas, with 0-10 deaths reported per year. Children under three months old accounted for 87.5% of deaths. The overall case fatality rate was 1.4 per 1,000 cases. Deceased pertussis cases were predominantly Hispanic (61%), however 35.7% of pertussis cases over this timeframe were Hispanic. Of the four patients old enough for vaccine, one was vaccinated, one was never offered vaccine, one had a contraindication, and one refused. Ten (31.3%) of the cases had a suspected source case identified. A parent was identified 60.0% of the time, siblings 20.0%, and other relative 20.0%. None of the patients that died, however, were epi-linked to a laboratory-confirmed case of pertussis. The disparity between disease incidence and mortality in the Hispanic population indicates an opportunity for prevention messages in Hispanic communities, especially messaging promoting maternal vaccination.

Validity of Patient-Collected Vaginal Swabs for Trichomonad Testing by

Saline Microscopy at a Public Health Clinic Junda Woo, MD; Jason Morris, MD; Vincent Nathan, PhD

Patient-collected vaginal swabs are used to obtain nucleic acid amplification specimens for sexually transmitted infections (STIs) including trichomoniasis. Scant literature exists on patient-collected specimens for saline microscopy (wet mount) to detect trichomonads. Saline microscopy is half as sensitive as nucleic acid amplification but remains in widespread use, particularly in public health, due to its significantly lower cost. A convenience sample of 77 women presenting to a public health STI clinic with symptomatic vaginal discharge were enrolled. They self-collected a specimen by blindly swabbing the vagina and placing the swab in a collection tube containing 1 mL liquid Amies preservation medium. Enrollees then underwent vaginal specimen collection by a clinician, who sampled the vaginal fornix and placed the swab in about 0.5 normal saline. Both self-collected and clinician-collected specimens were evaluated for trichomonads by saline microscopy within 15 minutes at an on-site lab. Patient identifiers were masked on self-collected specimens. Using the clinician-collected sample as the gold standard, we calculated sensitivity and specificity of the self-collected sample; 17 women withdrew, and an additional 8 were missing one specimen (7 lacked a clinician-collected specimen and 1 lacked a self-collected specimen), leaving 52 paired samples for analysis. Eight women (15%) tested positive for trichomonads on both self-collected and clinician-collected specimens. No women tested positive in only one type of specimen (specificity 100%, sensitivity 100%). In a small sample, patient-collected vaginal swabs were highly sensitive and specific for trichomonads within a public health clinic setting. Replication with a larger sample size is recommended.